# **PyTan Documentation**

Release 2.1.5

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# CONTENTS

1	rabi	e of Contents	1				
	1.1	PyTan Introduction					
	1.2	PyTan Package	3				
	1.3	PyTan Tests	87				
	1.4	TaniumPy Package	96				
	1.5	Other Packages	109				
	1.6	PyTan API Validation Tests	112				
	1.7	PyTan Command Line Help	115				
	1.8	PyTan API Examples	115				
	1.9	SOAP API Examples	343				
2	Indic	Indices and tables					
Рy	Python Module Index						
In	index						

**CHAPTER** 

ONE

# TABLE OF CONTENTS

# 1.1 PyTan Introduction

# 1.1.1 Description

This is a set of packages and scripts that provides a simple way for programmatically interfacing with Tanium's SOAP API. It is comprised of four parts:

- *Tanium Server SOAP API*: The SOAP server embedded into the Tanium server itself. For Tanium version 6.2: The SOAP servers listens on port 444 but is also available via port 443. For Tanium version 6.5: The SOAP servers listens on port 443, and is not available on port 444
- *TaniumPy Python Package*: (taniumpy) A python package comprised of a set of python objects automatically generated from the WSDL file that describes the Tanium SOAP API. These python objects handle the serialization and describes and from the Tanium Server SOAP API. Located in lib/taniumpy
- *PyTan Python Package*: (*pytan*) A python package that provides a set of methods to make interfacing with TaniumPy more human friendly. Located in lib/pytan
- *PyTan Command Line Scripts*: A set of command line scripts that utilize the PyTan Package (*pytan*) to make it easy for non-programmers to create/get/delete/ask/deploy objects via the Tanium Server SOAP API.

# 1.1.2 Why it was created

This was created to solve for the following needs:

- Create a python package (pytan) to provide a set of methods for making it easier to programmatically interface
  with Tanium via the SOAP API.
- Create a set of command line scripts utilizing the *pytan* package that handle the argument parsing, thereby providing non-programmers with command line access to the functionality therein.
- Provide a way to ask questions and get results via Python and/or the command line.
- Provide a way to deploy actions and get results via Python and/or the command line.
- Provide a way to export/import objects in JSON via Python and/or the command line.

# 1.1.3 Python Versions Supported

Python v3.x is not supported. PyTan has been fully tested against the following Python versions on OS X, Linux, and Windows:

• 2.7.6

- 2.7.9
- 2.7.10

Refer to PyTan API Validation Tests to see the validation tests for a number of different configurations.

# 1.1.4 Tanium Platform Versions Supported

PyTan has been fully tested against the following versions of the Tanium Platform:

- 6.2.314.3315
- 6.2.314.3321
- 6.5.314.4254
- 6.5.314.4268
- 6.5.314.4275
- 6.5.314.4301

Refer to PyTan API Validation Tests to see the validation tests for a number of different configurations.

# 1.1.5 Installation

## Windows Installation

- Download a supported Python version from https://www.python.org/downloads/windows/
- Install Python if you accept the default paths it will install to C:\Python27
- Copy PyTan from github to your local machine somewhere
- If you did not accept the default install path for Python 2.7, edit pytan\winbin\CONFIG.bat to change the PYTHON variable to point to the full path of *python.exe*

## **OS X Installation**

- OS X 10.8 and higher come with Python 2.7.6 out of the box
- Copy PyTan from github to your local machine somewhere

#### **Linux Installation**

- Ensure Python 2.7.x is installed (most distributions ship with some variant of Python)
- Ensure the first python binary in your path points to your Python 2.7.x installation
- Copy PyTan from github to your local machine somewhere

# 1.1.6 **Usage**

- For command line usage, refer to Command Line Help Index
- For PyTan API Examples, refer to the PyTan API Examples
- For in depth API Documentation, refer to the PyTan Package documentation, especially the pytan.handler

# 1.1.7 Directory Layout

- *EXAMPLES/ directory*: contains a set of example python files that show how to use the various methods exposed by (pytan)
- BUILD/ directory: contains the scripts that build the HTML and PDF documentation in doc/, generate the (taniumpy), generate the python examples in EXAMPLES/, generate some of the command line scripts in bin/, and generate all of the documentation for the command line scripts in doc/\_static/bin\_doc
- bin/directory: contains all of the command line scripts that utilize the (pytan)
- doc/ directory: contains the HTML and PDF documentation
- lib/directory: contains the python libraries (pytan) and (taniumpy), as well as other python libraries
- *test/ directory*: contains the unit and functional tests for (pytan)
- winbin/ directory: contains the Windows batch scripts which wrap around the python command line scripts in bin/
- ZIP\_DIST/ directory: contains standalone windows executables for certain tools, created by batch files in BUILD/STATICWINBUILD/

## 1.1.8 Other References

- Tanium Platform Website
- Tanium Knowledge Base
- Tanium SOAP Knowledge Base Article
- The console.wsdl used to build the taniumpy library for this version, also useful as a reference tool.

# 1.2 PyTan Package

```
A python package that makes using the Tanium Server SOAP API easy.
```

```
pytan.__version__ = '2.1.5'
    Version of PyTan

pytan.__copyright__ = 'Copyright 2015 Tanium'
    Copyright for PyTan

pytan.__license__ = 'MIT'
    License for PyTan

pytan.__author__ = 'Jim Olsen < jim.olsen@tanium.com>'
    Author of Pytan
```

# 1.2.1 pytan.handler

The main pytan module that provides first level entities for programmatic use.

Creates a connection to a Tanium SOAP Server on host:port

```
Parametersusername: str
       •default: None
       •username to connect to host with
    password: str
       •default: None
       •password to connect to host with
    host: str
       •default: None
       •hostname or ip of Tanium SOAP Server
    port: int, optional
       •default: 443
       •port of Tanium SOAP Server on host
    loglevel: int, optional
       •default: 0
       •0 do not print anything except warnings/errors
       •1 and higher will print more
    debugformat: bool, optional
       •default: False
       •False: use one line logformat
       •True: use two lines
    gmt_log : bool, optional
       •default: True
       •True: use GMT timezone for log output
       •False: use local time for log output
    session_id: str, optional
       •default: None
       •session_id to use while authenticating instead of username/password
    pytan_user_config : str, optional
       •default: pytan.constants.PYTAN_USER_CONFIG
       •JSON file containing key/value pairs to override class variables
Other Parametershttp_debug: bool, optional
       •default: False
       •False: do not print requests package debug
       •True: do print requests package debug
       •This is passed through to pytan.sessions.Session
    http_auth_retry: bool, optional
```

```
•default: True
   •True: retry HTTP GET/POST's
   •False: do not retry HTTP GET/POST's
   •This is passed through to pytan.sessions.Session
http retry count: int, optional
   •default: 5
   •number of times to retry HTTP GET/POST's if the connection times out/fails
   •This is passed through to pytan.sessions.Session
soap_request_headers : dict, optional
   •default: {'Content-Type': 'text/xml; charset=utf-8', 'Accept-Encoding': 'gzip'}

    dictionary of headers to add to every HTTP GET/POST

   •This is passed through to pytan.sessions.Session
auth_connect_timeout_sec : int, optional
   •default: 5
   •number of seconds before timing out for a connection while authenticating
   •This is passed through to pytan.sessions.Session
auth_response_timeout_sec : int, optional
   •default: 15
   •number of seconds before timing out for a response while authenticating
   •This is passed through to pytan.sessions.Session
info_connect_timeout_sec : int, optional
   •default: 5
   •number of seconds before timing out for a connection while getting /info.json
   •This is passed through to pytan.sessions.Session
info response timeout sec: int, optional
   •default: 15
   •number of seconds before timing out for a response while getting /info.json
   •This is passed through to pytan.sessions.Session
soap_connect_timeout_sec : int, optional
   •default: 15
   •number of seconds before timing out for a connection for a SOAP request
   •This is passed through to pytan.sessions.Session
soap_response_timeout_sec : int, optional
   •default: 540
   •number of seconds before timing out for a response for a SOAP request
   •This is passed through to pytan.sessions.Session
```

```
stats_loop_enabled : bool, optional
            •default: False
            •False: do not enable the statistics loop thread
            •True: enable the statistics loop thread
            •This is passed through to pytan.sessions.Session
         stats_loop_sleep_sec: int, optional
            •default: 5
            •number of seconds to sleep in between printing the statistics when stats_loop_enabled is
             True
            •This is passed through to pytan.sessions.Session
         record_all_requests: bool, optional
            •default: False
            • False: do not add each requests response object to session. ALL REQUESTS RESPONSES

    True: add each requests response object to session.ALL_REQUESTS_RESPONSES

            •This is passed through to pytan.sessions.Session
         stats_loop_targets: list of dict, optional
            •default: [{ 'Version':
                                     'Settings/Version'}, {'Active Questions':
                                                                                'Active Question
             Cache/Active Question Estimate'}, {'Clients': 'Active Question Cache/Active Client Es-
             timate'}, {'Strings': 'String Cache/Total String Count'}, {'Handles': 'System Performance
             Info/HandleCount'}, {'Processes': 'System Performance Info/ProcessCount'}, {'Memory
             Available': 'percentage(System Performance Info/PhysicalAvailable,System Performance
             Info/PhysicalTotal)'}]
            •list of dictionaries with the key being the section of info.json to print info from, and the
             value being the item with in that section to print the value
            •This is passed through to pytan.sessions.Session
         persistent: bool, optional
            •default: False
            •False: do not request a persistent session
            •True: do request a persistent
            •This is passed through to pytan.sessions.Session.authenticate()
See also:
pytan.constants.LOG_LEVEL_MAPS maps a given loglevel to respective logger names and their logger
     levels
pytan.constants.INFO_FORMATdebugformat=False
pytan.constants.DEBUG_FORMATdebugformat=True
taniumpy.session.SessionSession object used by Handler
```

#### **Notes**

- •for 6.2: port 444 is the default SOAP port, port 443 forwards /soap/ URLs to the SOAP port, Use port 444 if you have direct access to it. However, port 444 is the only port that exposes the /info page in 6.2
- •for 6.5: port 443 is the default SOAP port, there is no port 444

#### **Examples**

Setup a Handler() object:

Ask a manual question using definitions and get the results back

This method requires in-depth knowledge of how filters and options are created in the API, and as such is not meant for human consumption. Use <code>ask\_manual()</code> instead.

```
Parameterssensor_defs: str, dict, list of str or dict
      •default: []
      ·sensor definitions
    question_filter_defs: dict, list of dict, optional
      •default: □
      •question filter definitions
    question_option_defs: dict, list of dict, optional
      •default: []

    question option definitions

    get_results : bool, optional
      •default: True
      •True: wait for result completion after asking question
      •False: just ask the question and return it in ret
    sse: bool, optional
      •default: False
      •True: perform a server side export when getting result data
```

```
•False: perform a normal get result data (default for 6.2)
     •Keeping False by default for now until the columnset's are properly identified in the server
      export
    sse_format : str, optional
     •default: 'xml obj'
     •format to have server side export report in, one of: {'csv', 'xml', 'xml_obj', 'cef', 0, 1, 2}
   leading: str, optional
     •default: "
     •used for sse_format 'cef' only, the string to prepend to each row
    trailing: str, optional
     •default: "
     •used for sse_format 'cef' only, the string to append to each row
   polling secs: int, optional
     •default: 5
     •Number of seconds to wait in between GetResultInfo loops
     •This is passed through to pytan.pollers.QuestionPoller
    complete_pct : int/float, optional
     •default: 99
     •Percentage of mr_tested out of estimated_total to consider the question "done"
     •This is passed through to pytan.pollers.QuestionPoller
    override_timeout_secs: int, optional
     •default: 0
     •If supplied and not 0, timeout in seconds instead of when object expires
     •This is passed through to pytan.pollers.QuestionPoller
    callbacks: dict, optional
     •default: {}
     •can be a dict of functions to be run with the key names being the various state changes:
      'ProgressChanged', 'AnswersChanged', 'AnswersComplete'
     •This is passed through to pytan.pollers.QuestionPoller.run()
    override_estimated_total : int, optional
     instead of getting number of systems that should see this question from re-
      sult_info.estimated_total, use this number
     •This is passed through to pytan.pollers.QuestionPoller()
Returnsret: dict, containing:
     •question_object : taniumpy.object_types.question.Question, the actual
      question created and added by PyTan
     •question_results: taniumpy.object_types.result_set.ResultSet, the Re-
      sult Set for question object if get results == True
```

```
•poller_object: pytan.pollers.QuestionPoller, poller object used to wait until all results are in before getting question_results
```

•poller\_success : None if get\_results == True, elsewise True or False

#### See also:

```
pytan.constants.FILTER_MAPSvalid filter dictionaries for filters
pytan.constants.OPTION_MAPSvalid option dictionaries for options
```

#### **Examples**

```
>>> # example of str for sensor_defs
>>> sensor_defs = 'Sensor1'
```

## \_check\_sse\_crash\_prevention(obj, \*\*kwargs)

Runs a number of methods used to prevent crashing the platform server when performing server side exports

```
Parametersobj: taniumpy.object_types.base.BaseType
```

object to pass to self.\_check\_sse\_empty\_rs

```
_check_sse_empty_rs(obj, ok_version, **kwargs)
```

Checks if the server version is less than any versions in pytan.constants.SSE\_CRASH\_MAP, if so verifies that the result set is not empty

```
Parametersobj: taniumpy.object_types.base.BaseType
```

•object to get result info for to ensure non-empty answers

ok version: bool

•if the version currently running is an "ok" version

```
_check_sse_format_support (sse_format, sse_format_int, **kwargs)
```

Determines if the export format integer is supported in the server version

Parameterssse\_format : str or int

•user supplied export format

```
sse format int: int
               •sse_format parsed into an int
_check_sse_timing(ok_version, **kwargs)
     Checks that the last server side export was at least 1 second ago if server version is less than any versions
     in pytan.constants.SSE CRASH MAP
         Parametersok_version: bool
               •if the version currently running is an "ok" version
_check_sse_version(**kwargs)
     Validates that the server version supports server side export
_debug_locals(fname, flocals)
     Method to print out locals for a function if self.debug_method_locals is True
_deploy_action(run=False, get_results=True, **kwargs)
     Deploy an action and get the results back
     This method requires in-depth knowledge of how filters and options are created in the API, and as such is
     not meant for human consumption. Use deploy_action() instead.
         Parameterspackage_def: dict
               •definition that describes a package
             action filter defs: str, dict, list of str or dict, optional
               •default: []
               •action filter definitions
              action_option_defs: dict, list of dict, optional
               •default: □
               •action filter option definitions
              start_seconds_from_now: int, optional
               •default: 0
               •start action N seconds from now
              distribute seconds: int, optional
               •default: 0
               •distribute action evenly over clients over N seconds
              issue_seconds: int, optional
               •default: 0
               •have the server re-ask the action status question if performing a GetResultData over N
                seconds ago
             expire_seconds: int, optional
               default: package.expire_seconds
               •expire action N seconds from now, will be derived from package if not supplied
              run: bool, optional
               •default: False
```

```
•False: just ask the question that pertains to verify action, export the results to CSV, and
      raise pytan.exceptions.RunFalse - does not deploy the action
     •True: actually deploy the action
    get_results: bool, optional
     •default: True
     •True: wait for result completion after deploying action
     •False: just deploy the action and return the object in ret
    action_name: str, optional
     •default: prepend package name with "API Deploy"
     •custom name for action
   action_comment: str, optional
     •default:

    custom comment for action

    polling secs: int, optional
     •default: 5
     •Number of seconds to wait in between GetResultInfo loops
     •This is passed through to pytan.pollers.ActionPoller
   complete_pct : int/float, optional
     •default: 100

    Percentage of passed_count out of successfully run actions to consider the action "done"

     •This is passed through to pytan.pollers.ActionPoller
    override_timeout_secs: int, optional
     •default: 0
     •If supplied and not 0, timeout in seconds instead of when object expires
     •This is passed through to pytan.pollers.ActionPoller
    override_passed_count: int, optional
     •instead of getting number of systems that should run this action by asking a question, use
      this number
     •This is passed through to pytan.pollers.ActionPoller
Returnsret: dict, containing:
     •saved_action_object: taniumpy.object_types.saved_action.SavedAction,
      the saved_action added for this action (None if 6.2)
     •action_object: taniumpy.object_types.action.Action, the action object
      that tanium created for saved action
     •package_object : taniumpy.object_types.package_spec.PackageSPec,
      the package object used in saved_action
     •action info: taniumpy.object types.result info.ResultInfo, the ini-
      tial GetResultInfo call done before getting results
```

- •poller\_object: pytan.pollers.ActionPoller, poller object used to wait until all results are in before getting action\_results
- •poller\_success : None if get\_results == False, elsewise True or False
- •action\_results : None if get\_results == False, elsewise taniumpy.object\_types.result\_set.ResultSet, the results for action object
- •action\_result\_map: None if get\_results == False, elsewise progress map for action\_object in dictionary form

#### See also:

```
pytan.constants.FILTER_MAPS
valid filter dictionaries for filters
pytan.constants.OPTION MAPS
valid option dictionaries for options
```

#### **Notes**

#### •For 6.2:

- -We need to add an Action object
- -The Action object should not be in an ActionList
- -Action.start\_time must be specified, if it is not specified the action shows up as expired immediately. We default to 1 second from current time if start\_seconds\_from\_now is not passed in

#### •For 6.5 / 6.6:

- -We need to add a SavedAction object, the server creates the Action object for us
- -To emulate what the console does, the SavedAction should be in a SavedActionList
- -Action.start\_time does not need to be specified

#### **Examples**

```
>>> # example of dict for `package_def
>>> package_def = { 'name': 'PackageName1', 'params': { 'param1': 'value1'} }
>>> # example of str for `action_filter_defs`
>>> action_filter_defs = 'Sensor1'
>>> # example of dict for `action_filter_defs
>>> action_filter_defs = {
    'name': 'Sensor1',
        'filter': {
. . .
            'operator': 'RegexMatch',
. . .
            'not_flag': 0,
. . .
            'value': '.*'
        },
        'options': {'and_flag': 1}
```

#### \_export\_class\_BaseType (obj, export\_format, \*\*kwargs)

Handles exporting taniumpy.object\_types.base.BaseType

```
Parametersobj: taniumpy.object_types.base.BaseType

    taniumpy object to export

            export_format : str
             •str of format to perform export in
        Returnsresult: str
             •results of exporting obj into format export format
_export_class_ResultSet(obj, export_format, **kwargs)
    Handles exporting taniumpy.object_types.result_set.ResultSet
        Parametersobj: taniumpy.object_types.result_set.ResultSet
             •taniumpy object to export
            export_format : str
             •str of format to perform export in
        Returnsresult: str
             •results of exporting obj into format export format
_export_format_csv(obj, **kwargs)
    Handles exporting format: CSV
        Parametersobi
                               taniumpy.object_types.result_set.ResultSet
            taniumpy.object_types.base.BaseType
             •taniumpy object to export
        Returnsresult: str
             •results of exporting obj into csv format
_export_format_json(obj, **kwargs)
    Handles exporting format: JSON
                               taniumpy.object_types.result_set.ResultSet
            taniumpy.object_types.base.BaseType
             •taniumpy object to export
        Returnsresult: str
             •results of exporting obj into json format
export format xml(obj, **kwargs)
    Handles exporting format: XML
                              taniumpy.object_types.result_set.ResultSet
        Parametersobj
            taniumpy.object_types.base.BaseType
             •taniumpy object to export
        Returnsresult: str
             •results of exporting obj into XML format
_find(obj, **kwargs)
    Wrapper for interfacing with taniumpy.session.Session.find()
        Parametersobj: taniumpy.object types.base.BaseType

    object to find
```

```
Returnsfound: taniumpy.object_types.base.BaseType
              •full object that was found
_get_multi(obj_map, **kwargs)
     Find multiple item wrapper using _find()
         Parametersobj map: dict
               •dict containing the map for a given object type
         Returnsfound: taniumpy.object_types.base.BaseType
              •full object that was found
_get_package_def (d, **kwargs)
     Uses get () to update a definition with a package object
         Parametersd: dict
              •dict containing package definition
         Returnsd: dict
              dict containing package definitions with package object in 'package_obj'
_get_sensor_defs (defs, **kwargs)
     Uses get () to update a definition with a sensor object
         Parametersdefs: list of dict
              •list of dicts containing sensor definitions
         Returnsdefs: list of dict
              •list of dicts containing sensor definitions with sensor object in 'sensor_obj'
_get_single(obj_map, **kwargs)
     Find single item wrapper using _find()
         Parametersobj_map: dict
               •dict containing the map for a given object type
         Returnsfound: taniumpy.object_types.base.BaseType
              •full object that was found
_resolve_sse_format (sse_format, **kwargs)
     Resolves the server side export format the user supplied to an integer for the API
         Parameterssse format: str or int
              •user supplied export format
         Returnssse_format_int : int
              •sse_format parsed into an int
_single_find(obj_map, k, v, **kwargs)
     Wrapper for single item searches interfacing with taniumpy.session.Session.find()
         Parametersobj_map : dict
              •dict containing the map for a given object type
             k: str
              •attribute name to set to v
```

```
v: str
                               •attribute value to set on k
                    Returnsfound: taniumpy.object_types.base.BaseType
                               •full object that was found
version support check(v maps, **kwargs)
           Checks that each of the version maps in v_maps is greater than or equal to the current servers version
                    Parametersv_maps: list of str
                               •each str should be a platform version
                               each str will be checked against self.session.server_version
                               •if self.session.server_version is not greater than or equal to any str in v_maps, return will
                                 be False
                               •if self.session.server_version is greater than all strs in v_maps, return will be True
                               •if self.server version is invalid/can't be determined, return will be False
                    Returnsbool
                               •True if all values in all v_maps are greater than or equal to self.session.server_version
                               •False otherwise
approve saved action (id, **kwargs)
           Approve a saved action
                    Parametersid: int
                               •id of saved action to approve
                    Returnssaved_action_approve_obj: taniumpy.object_types.saved_action_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_approval.SavedAction_ap
                                •The object containing the return from SavedActionApproval
ask (**kwargs)
           Ask a type of question and get the results back
                    Parametersqtype: str, optional
                               ·default: 'manual'
                               •type of question to ask: {'saved', 'manual', '_manual'}
                    Returnsresult: dict, containing:
                                •question object
                                                                                                                 of
                                                                                                                                the
                                                                                                                                                following
                                                                                                                                                                              depending
                                                                                                                                                                                                             on
                                                                           taniumpy.object_types.question.Question
                                                                                                                                                                                                              or
                                 taniumpy.object_types.saved_question.SavedQuestion
                                •question_results: taniumpy.object_types.result_set.ResultSet
           See also:
           pytan.constants.Q_OBJ_MAP maps qtype to a method in Handler()
           pytan.handler.Handler.ask_saved() method used when qtype == 'saved'
           pytan.handler.Handler.ask_manual() method used when qtype == 'manual'
```

pytan.handler. Handler. ask manual () method used when qtype == ' manual'

ask manual(\*\*kwargs)

Ask a manual question using human strings and get the results back

```
This method takes a string or list of strings and parses them into their corresponding definitions needed by
_ask_manual()
    Parameterssensors: str, list of str
          •default: []
          •sensors (columns) to include in question
         question_filters : str, list of str, optional
          •default: []
          •filters that apply to the whole question
         question_options : str, list of str, optional
          •default: []
          •options that apply to the whole question
        get_results : bool, optional
          •default: True
          •True: wait for result completion after asking question
          •False: just ask the question and return it in result
        sensors help: bool, optional
          •default: False
          •False: do not print the help string for sensors
          •True: print the help string for sensors and exit
        filters_help: bool, optional
          •default: False
          •False: do not print the help string for filters
          •True: print the help string for filters and exit
        options help: bool, optional
          •default: False
          •False: do not print the help string for options
          •True: print the help string for options and exit
        polling_secs : int, optional
          •default: 5
          •Number of seconds to wait in between GetResultInfo loops
          •This is passed through to pytan.pollers.QuestionPoller
        complete_pct: int/float, optional
          •default: 99
          •Percentage of mr tested out of estimated total to consider the question "done"
          •This is passed through to pytan.pollers.QuestionPoller
```

```
override_timeout_secs: int, optional
     •default: 0
     •If supplied and not 0, timeout in seconds instead of when object expires
     •This is passed through to pytan.pollers.QuestionPoller
   callbacks: dict, optional
     default: {}
     •can be a dict of functions to be run with the key names being the various state changes:
      'ProgressChanged', 'AnswersChanged', 'AnswersComplete'
     •This is passed through to pytan.pollers.QuestionPoller.run()
   override_estimated_total: int, optional
     instead of getting number of systems that should see this question from re-
     sult_info.estimated_total, use this number
     •This is passed through to pytan.pollers.QuestionPoller()
Returnsresult: dict, containing:
     •question_object : taniumpy.object_types.question.Question, the actual
     question created and added by PyTan
     *question results: taniumpy.object types.result set.ResultSet, the Re-
     sult Set for question_object if get_results == True
     •poller_object: pytan.pollers.QuestionPoller, poller object used to wait until
      all results are in before getting question_results
     •poller_success : None if get_results == True, elsewise True or False
```

#### See also:

```
pytan.constants.FILTER_MAPS valid filter dictionaries for filters

pytan.constants.OPTION_MAPS valid option dictionaries for options

pytan.handler.Handler._ask_manual() private method with the actual workflow used to create and add the question object
```

## Notes

When asking a question from the Tanium console, you construct a question like:

Get Computer Name and IP Route Details from all machines with Is Windows containing "True" Asking the same question in PyTan has some similarities:

```
Asking the same question in 1 y ran has some similarities.
```

>>> r = handler.ask\_manual(sensors=['Computer Name',

```
There are two sensors in this question, after the "Get" and before the "from all machines": "Computer Name" and "IP Route Details". The sensors after the "Get" and before the "from all machines" can be
```

- •sensors
- •left hand side
- •column selects

referred to as any number of things:

'IP Route Details'], question\_filters=|

The sensors that are defined after the "Get" and before the "from all machines" are best described as a column selection, and control what columns you want to show up in your results. These sensor names are the same ones that would need to be passed into ask\_question() for the sensors arguments.

You can filter your column selections by using a filter in the console like so:

Get Computer Name starting with "finance" and IP Route Details from all machines with Is Windows containing "True"

And in PyTan:

```
>>> r = handler.ask_manual(sensors=['Computer Name, that starts with:finance', 'IP Route Det
```

This will cause the results to have the same number of columns, but for any machine that returns results that do not match the filter specified for a given sensor, the row for that column will contain "[no results]".

There is also a sensor specified after the "from all machines with": "Is Windows". This sensor can be referred to as any number of things:

- question filters
- •sensors (also)
- •right hand side
- •row selects

Any system that does not match the conditions in the question filters will return no results at all. These question filters are really just sensors all over again, but instead of controlling what columns are output in the results, they control what rows are output in the results.

#### **Examples**

```
>>> # example of str for `sensors`
>>> sensors = 'Sensor1'

>>> # example of str for `sensors` with params
>>> sensors = 'Sensor1{key:value}'

>>> # example of str for `sensors` with params and filter
>>> sensors = 'Sensor1{key:value}, that contains:example text'

>>> # example of str for `sensors` with params and filter and options
>>> sensors = (
... 'Sensor1{key:value}, that contains:example text,'
... 'opt:ignore_case, opt:max_data_age:60'
... )

>>> # example of str for question_filters
>>> question_filters = 'Sensor2, that contains:example test'

>>> # example of list of str for question_options
>>> question_options = ['max_data_age:3600', 'and']
```

ask\_parsed (question\_text, picker=None, get\_results=True, \*\*kwargs)

Ask a parsed question as *question\_text* and use the index of the parsed results from *picker* 

# Parametersquestion\_text: str

•The question text you want the server to parse into a list of parsed results

```
picker: int
 •default: None
 •The index number of the parsed results that correlates to the actual question you wish to
get results: bool, optional
 •default: True
 •True: wait for result completion after asking question
 •False: just ask the question and return it in ret
sse: bool, optional
 •default: False
 •True: perform a server side export when getting result data
 •False: perform a normal get result data (default for 6.2)
 •Keeping False by default for now until the columnset's are properly identified in the server
  export
sse_format : str, optional
 default: 'xml_obj'
 •format to have server side export report in, one of: {'csv', 'xml', 'xml obj', 'cef', 0, 1, 2}
leading: str, optional
 •default: "
 •used for sse_format 'cef' only, the string to prepend to each row
trailing: str, optional
 •default: "
 •used for sse_format 'cef' only, the string to append to each row
polling_secs : int, optional
 •default: 5
 •Number of seconds to wait in between GetResultInfo loops
 •This is passed through to pytan.pollers.QuestionPoller
complete pct: int/float, optional
 •default: 99
 •Percentage of mr_tested out of estimated_total to consider the question "done"
 •This is passed through to pytan.pollers.QuestionPoller
override_timeout_secs: int, optional
 •default: 0
 •If supplied and not 0, timeout in seconds instead of when object expires
 •This is passed through to pytan.pollers.QuestionPoller
callbacks: dict, optional
 •default: {}
```

```
•can be a dict of functions to be run with the key names being the various state changes: 'ProgressChanged', 'AnswersChanged', 'AnswersComplete'
```

•This is passed through to pytan.pollers.QuestionPoller.run()

## override\_estimated\_total : int, optional

- •instead of getting number of systems that should see this question from result\_info.estimated\_total, use this number
- •This is passed through to pytan.pollers.QuestionPoller()

#### **Returnsret**: dict, containing:

- •question\_object: taniumpy.object\_types.question.Question, the actual question added by PyTan
- •question\_results: taniumpy.object\_types.result\_set.ResultSet, the Result Set for question\_object if get\_results == True
- •poller\_object: pytan.pollers.QuestionPoller, poller object used to wait until all results are in before getting question\_results
- •poller\_success : None if get\_results == True, elsewise True or False
- •parse\_results: taniumpy.object\_types.parse\_result\_group\_list.ParseResultGroupList the parse result group returned from Tanium after parsing question\_text

#### **Examples**

Ask the server to parse 'computer name', but don't pick a choice (will print out a list of choices at critical logging lev

```
>>> v = handler.ask_parsed('computer name')
```

Ask the server to parse 'computer name' and pick index 1 as the question you want to run:

```
>>> v = handler.ask_parsed('computer name', picker=1)
```

# ask\_saved(refresh\_data=False, \*\*kwargs)

Ask a saved question and get the results back

Parametersid: int, list of int, optional

•id of saved question to ask

name: str, list of str

name of saved question

#### refresh data: bool, optional

- •default False
- •False: do not perform a getResultInfo before issuing a getResultData
- •True: perform a getResultInfo before issuing a getResultData

sse: bool, optional

•default: False

•True: perform a server side export when getting result data

```
•False: perform a normal get result data (default for 6.2)
     •Keeping False by default for now until the columnset's are properly identified in the server
      export
    sse_format : str, optional
     •default: 'xml obj'
     •format to have server side export report in, one of: {'csv', 'xml', 'xml_obj', 'cef', 0, 1, 2}
   leading: str, optional
     •default: "
     •used for sse_format 'cef' only, the string to prepend to each row
   trailing: str, optional
     •default: "
     •used for sse_format 'cef' only, the string to append to each row
   polling secs: int, optional
     •default: 5
     •Number of seconds to wait in between GetResultInfo loops
     •This is passed through to pytan.pollers.QuestionPoller
    complete pct: int/float, optional
     •default: 99
     •Percentage of mr_tested out of estimated_total to consider the question "done"
     •This is passed through to pytan.pollers.QuestionPoller
    override_timeout_secs: int, optional
     •default: 0
     •If supplied and not 0, timeout in seconds instead of when object expires
     •This is passed through to pytan.pollers.QuestionPoller
    callbacks: dict, optional
     •default: {}
     •can be a dict of functions to be run with the key names being the various state changes:
      'ProgressChanged', 'AnswersChanged', 'AnswersComplete'
     •This is passed through to pytan.pollers.QuestionPoller.run()
   override_estimated_total : int, optional
     instead of getting number of systems that should see this question from re-
      sult_info.estimated_total, use this number
     •This is passed through to pytan.pollers.QuestionPoller()
Returnsret: dict, containing
     •question_object: taniumpy.object_types.saved_question.SavedQuestion,
      the saved question object
     •question_object: taniumpy.object_types.question.Question, the question
      asked by saved question object
```

```
sults for question_object
               •poller_object
                                         None
                                                   if
                                                         refresh_data
                                                                                False.
                                                                                           elsewise
               pytan.pollers.QuestionPoller, poller object used to wait until all results
               are in before getting question_results,
               •poller success: None if refresh data == False, elsewise True or False
     Notes
     id or name must be supplied
create_dashboard(name, text='', group='', public_flag=True, **kwargs)
     Calls pytan.handler.Handler.run_plugin() to run the CreateDashboard plugin and parse the
     response
         Parametersname: str
               •name of dashboard to create
             text: str, optional
              •default: "
               •text for this dashboard
             group: str, optional
               •default: "
              •group name for this dashboard
             public_flag: bool, optional
               •default: True
               •True: make this dashboard public
              •False: do not make this dashboard public
         Returnsplugin_result, sql_zipped: tuple
               •plugin_result will be the taniumpy object representation of the SOAP response from
               Tanium server
               •sql_zipped will be a dict with the SQL results embedded in the SOAP response
create_from_json(objtype, json_file, **kwargs)
     Creates a new object using the SOAP api from a json file
         Parametersobjtype: str
               •Type of object described in json_file
             json_file : str
              •path to JSON file that describes an API object
         Returnsret: taniumpy.object_types.base.BaseType
               •TaniumPy object added to Tanium SOAP Server
     See also:
     pytan.constants.GET_OBJ_MAP maps objtype to supported 'create_json' types
```

\*question\_results: taniumpy.object\_types.result\_set.ResultSet, the re-

```
create_group (groupname, filters=[], filter_options=[], **kwargs)
     Create a group object
         Parametersgroupname: str
               •name of group to create
             filters: str or list of str, optional
               •default: []
               •each string must describe a filter
             filter_options : str or list of str, optional
               •default: □
               •each string must describe an option for filters
             filters_help: bool, optional
               •default: False
               •False: do not print the help string for filters
               •True: print the help string for filters and exit
             options_help: bool, optional
               •default: False
               •False: do not print the help string for options
               •True: print the help string for options and exit
         Returnsgroup_obj: taniumpy.object_types.group.Group
               •TaniumPy object added to Tanium SOAP Server
     See also:
     pytan.constants.FILTER_MAPS valid filters for filters
     pytan.constants.OPTION_MAPS valid options for filter_options
create_package (name, command, display_name="', file_urls=[], command_timeout_seconds=600,
                     expire seconds=600,
                                               parameters json file="',
                                                                            verify filters=[],
                                                                                                  ver-
                     ify_filter_options=[], verify_expire_seconds=600, **kwargs)
     Create a package object
         Parametersname: str
               •name of package to create
             command: str
               •command to execute
             display_name: str, optional

    display name of package

             file_urls: list of strings, optional
               •default: []
               •URL of file to add to package
               •can optionally define download_seconds by using SECONDS::URL
```

```
•can optionally define file name by using FILENAME||URL
     •can combine optionals by using SECONDS::FILENAME||URL
     •FILENAME will be extracted from basename of URL if not provided
    command_timeout_seconds : int, optional
      default: 600

    timeout for command execution in seconds

    parameters_json_file: str, optional
     •default: "
     •path to json file describing parameters for package
    expire_seconds: int, optional
     •default: 600
     •timeout for action expiry in seconds
    verify_filters: str or list of str, optional
     •default: []
     •each string must describe a filter to be used to verify the package
    verify filter options: str or list of str, optional
     •default: []
     •each string must describe an option for verify_filters
    verify_expire_seconds: int, optional
     •default: 600

    timeout for verify action expiry in seconds

    filters_help: bool, optional
     •default: False
     •False: do not print the help string for filters
     •True: print the help string for filters and exit
    options_help: bool, optional
     •default: False
     •False: do not print the help string for options
     •True: print the help string for options and exit
    metadata: list of list of strs, optional
     •default: []
     •each list must be a 2 item list:
     •list item 1 property name
     •list item 2 property value
Returnspackage_obj: taniumpy.object_types.package_spec.PackageSpec
     •TaniumPy object added to Tanium SOAP Server
```

```
See also:
     pytan.constants.FILTER_MAPS valid filters for verify_filters
     pytan.constants.OPTION_MAPS valid options for verify_filter_options
create report file (contents, report file=None, **kwargs)
     Exports a python API object to a file
         Parameterscontents: str
               •contents to write to report_file
             report_file : str, optional
               •filename to save report as
             report_dir: str, optional
               •default: None
               •directory to save report in, will use current working directory if not supplied
             prefix: str, optional
               •default: "
               •prefix to add to report_file
             postfix: str, optional
               •default: "
               •postfix to add to report_file
         Returnsreport_path: str
               •the full path to the file created with contents
create_sensor(**kwargs)
     Create a sensor object
         Raisespytan.exceptions.HandlerError: pytan.utils.pytan.exceptions.HandlerError
      Warning: Not currently supported, too complicated to add. Use create from ison () instead
      for this object type!
create_user (name, rolename=[], roleid=[], properties=[], group='', **kwargs)
     Create a user object
         Parametersname: str
               •name of user to create
             rolename: str or list of str, optional
               •default: []
               •name(s) of roles to add to user
             roleid: int or list of int, optional
               •default: []
               •id(s) of roles to add to user
```

properties: list of list of strs, optional

```
•default: []
               •each list must be a 2 item list:
               •list item 1 property name
               •list item 2 property value
             group: str
               •default: "
               •name of group to assign to user
         Returnsuser_obj: taniumpy.object_types.user.User
               •TaniumPy object added to Tanium SOAP Server
create_whitelisted_url(url,
                                        regex=False,
                                                        download_seconds=86400,
                                                                                       properties=[],
                                 **kwargs)
     Create a whitelisted url object
         Parametersurl: str
               •text of new url
             regex: bool, optional
               •default: False
               •False: url is not a regex pattern
               •True: url is a regex pattern
             download seconds: int, optional
               •default: 86400
               •how often to re-download url
             properties: list of list of strs, optional
               •default: []
               •each list must be a 2 item list:
               •list item 1 property name
               •list item 2 property value
         Returnsurl_obj: taniumpy.object_types.white_listed_url.WhiteListedUrl
               •TaniumPy object added to Tanium SOAP Server
delete (objtype, **kwargs)
     Delete an object type
         Parametersobjtype: string
               •type of object to delete
             id/name/hash: int or string, list of int or string
               •search attributes of object to delete, must supply at least one valid search attr
         Returnsret: dict
               •dict containing deploy action object and results from deploy action
     See also:
```

```
pytan.constants.GET_OBJ_MAP maps objtype to supported 'search' keys
delete dashboard(name, **kwargs)
     Calls pytan.handler.Handler.run_plugin() to run the DeleteDashboards plugin and parse the
     response
         Parametersname: str
               •name of dashboard to delete
         Returnsplugin_result, sql_zipped: tuple
               •plugin_result will be the taniumpy object representation of the SOAP response from
                Tanium server
               •sql_zipped will be a dict with the SQL results embedded in the SOAP response
deploy_action(**kwargs)
     Deploy an action and get the results back
     This method takes a string or list of strings and parses them into their corresponding definitions needed by
     _deploy_action()
         Parameterspackage: str
               •package to deploy with this action
             action_filters: str, list of str, optional
               •default: []
               •each string must describe a sensor and a filter which limits which computers the action
                will deploy package to
             action_options: str, list of str, optional
               •default: []
               options to apply to action_filters
             start_seconds_from_now : int, optional
               •default: 0
               •start action N seconds from now
             distribute seconds: int, optional
               •default: 0
               •distribute action evenly over clients over N seconds
             issue_seconds: int, optional
               •default: 0
               •have the server re-ask the action status question if performing a GetResultData over N
                seconds ago
             expire_seconds: int, optional
               •default: package.expire_seconds
               •expire action N seconds from now, will be derived from package if not supplied
             run: bool, optional
               •default: False
```

```
•False: just ask the question that pertains to verify action, export the results to CSV, and
      raise pytan.exceptions.RunFalse - does not deploy the action
     •True: actually deploy the action
    get_results: bool, optional
     •default: True
     •True: wait for result completion after deploying action
     •False: just deploy the action and return the object in ret
    action_name: str, optional
     •default: prepend package name with "API Deploy "
     •custom name for action
   action_comment: str, optional
     •default:

    custom comment for action

    polling secs: int, optional
     •default: 5
     •Number of seconds to wait in between GetResultInfo loops
     •This is passed through to pytan.pollers.ActionPoller
    complete_pct : int/float, optional
     default: 100

    Percentage of passed_count out of successfully run actions to consider the action "done"

     •This is passed through to pytan.pollers.ActionPoller
    override_timeout_secs : int, optional
     •default: 0
     •If supplied and not 0, timeout in seconds instead of when object expires
     •This is passed through to pytan.pollers.ActionPoller
    override_passed_count: int, optional
     •instead of getting number of systems that should run this action by asking a question, use
      this number
     •This is passed through to pytan.pollers.ActionPoller
Returnsret: dict, containing:
     •saved_action_object: taniumpy.object_types.saved_action.SavedAction,
      the saved_action added for this action (None if 6.2)
     •action_object: taniumpy.object_types.action.Action, the action object
      that tanium created for saved action
     •package_object : taniumpy.object_types.package_spec.PackageSPec,
      the package object used in saved_action
     •action info: taniumpy.object types.result info.ResultInfo, the ini-
      tial GetResultInfo call done before getting results
```

```
•poller_object: pytan.pollers.ActionPoller, poller object used to wait until all results are in before getting action_results
```

•poller\_success : None if get\_results == False, elsewise True or False

```
•action_results : None if get_results == False, elsewise taniumpy.object_types.result_set.ResultSet, the results for action_object
```

•action\_result\_map: None if get\_results == False, elsewise progress map for action\_object in dictionary form

#### See also:

```
pytan.constants.FILTER_MAPS valid filter dictionaries for filters
```

pytan.constants.OPTION\_MAPS valid option dictionaries for options

pytan.handler.Handler.\_deploy\_action() private method with the actual workflow used to create and add the action object

#### **Examples**

```
>>> # example of str for `package`
>>> package = 'Package1'

>>> # example of str for `package` with params
>>> package = 'Package1{key:value}'

>>> # example of str for `action_filters` with params and filter for sensors
>>> action_filters = 'Sensor1{key:value}, that contains:example text'

>>> # example of list of str for `action_options`
>>> action_options = ['max_data_age:3600', 'and']
```

## export\_obj (obj, export\_format='csv', \*\*kwargs)

Exports a python API object to a given export format

```
Parametersobj : taniumpy.object_types.base.BaseType or taniumpy.object_types.result_set.ResultSet
```

TaniumPy object to export

```
export_format : str, optional
```

·default: 'csv'

•the format to export *obj* to, one of: {'csv', 'xml', 'json'}

**header\_sort**: list of str, bool, optional

•default: True

•for export\_format csv and obj types taniumpy.object\_types.base.BaseType or taniumpy.object\_types.result\_set.ResultSet

•True: sort the headers automatically

•False: do not sort the headers at all

•list of str: sort the headers returned by priority based on provided list

header add sensor: bool, optional

```
default: False
     •for export_format csv and obj type taniumpy.object_types.result_set.ResultSet
     •False: do not prefix the headers with the associated sensor name for each column
     •True: prefix the headers with the associated sensor name for each column
    header add type: bool, optional

    default: False

     •for export_format csv and obj type taniumpy.object_types.result_set.ResultSet
     •False: do not postfix the headers with the result type for each column
     •True: postfix the headers with the result type for each column
    expand_grouped_columns: bool, optional
     •default: False
     •for export_format csv and obj type taniumpy.object_types.result_set.ResultSet
     •False: do not expand multiline row entries into their own rows
     •True: expand multiline row entries into their own rows
    explode_json_string_values: bool, optional
     •default: False
     •for export_format json or csv and obj type taniumpy.object_types.base.BaseType
     •False: do not explode JSON strings in object attributes into their own object attributes
     •True: explode JSON strings in object attributes into their own object attributes
    minimal: bool, optional
     •default: False
     •for export_format xml and obj type taniumpy.object_types.base.BaseType
     •False: include empty attributes in XML output
     •True: do not include empty attributes in XML output
Returnsresult: str
     •the contents of exporting export_format
```

#### See also:

pytan.constants.EXPORT\_MAPS maps the type obj to export\_format and the optional args supported for each

# **Notes**

When performing a CSV export and importing that CSV into excel, keep in mind that Excel has a per cell character limit of 32,000. Any cell larger than that will be broken up into a whole new row, which can wreak havoc with data in Excel.

```
export_to_report_file (obj, export_format='csv', **kwargs)
     Exports a python API object to a file
```

```
Parametersobi
                                taniumpy.object_types.base.BaseType
                                                                                      or
    taniumpy.object_types.result_set.ResultSet
     •TaniumPy object to export
   export_format : str, optional
     ·default: 'csv'
     •the format to export obj to, one of: {'csv', 'xml', 'json'}
   header_sort : list of str, bool, optional
     •default: True
     •for export_format csv and obj types taniumpy.object_types.base.BaseType
      or taniumpy.object_types.result_set.ResultSet
     •True: sort the headers automatically
     •False: do not sort the headers at all
     •list of str: sort the headers returned by priority based on provided list
   header_add_sensor: bool, optional
     •default: False
     •for export_format csv and obj type taniumpy.object_types.result_set.ResultSet
     •False: do not prefix the headers with the associated sensor name for each column
     •True: prefix the headers with the associated sensor name for each column
   header_add_type: bool, optional
     •default: False
     •for export_format csv and obj type taniumpy.object_types.result_set.ResultSet
     •False: do not postfix the headers with the result type for each column
     •True: postfix the headers with the result type for each column
   expand_grouped_columns: bool, optional
     •default: False
     •for export_format csv and obj type taniumpy.object_types.result_set.ResultSet
     •False: do not expand multiline row entries into their own rows
     •True: expand multiline row entries into their own rows
   explode_json_string_values: bool, optional
     default: False
     •for export_format json or csv and obj type taniumpy.object_types.base.BaseType
     • False: do not explode JSON strings in object attributes into their own object attributes
     •True: explode JSON strings in object attributes into their own object attributes
   minimal: bool, optional
     •default: False
     •for export_format xml and obj type taniumpy.object_types.base.BaseType
     • False: include empty attributes in XML output
```

```
•True: do not include empty attributes in XML output
             report file: str, optional
               default: None
               •filename to save report as, will be automatically generated if not supplied
             report dir: str, optional
               default: None
               •directory to save report in, will use current working directory if not supplied
             prefix: str, optional
               •default: "
               •prefix to add to report_file
             postfix: str, optional
               •default: "
               •postfix to add to report_file
         Returnsreport_path, result : tuple
               •report_path : str, the full path to the file created with contents of result
               •result: str, the contents written to report path
     See also:
     pytan.handler.Handler.export_obj () method that performs the actual work to do the export-
         ing
     pytan.handler.Handler.create_report_file() method that performs the actual work to
         write the report file
     Notes
     When performing a CSV export and importing that CSV into excel, keep in mind that Excel has a per cell
     character limit of 32,000. Any cell larger than that will be broken up into a whole new row, which can
     wreak havoc with data in Excel.
get (objtype, **kwargs)
     Get an object type
         Parametersobjtype: string
               •type of object to get
             id/name/hash: int or string, list of int or string
               •search attributes of object to get, must supply at least one valid search attr
         Returnsobj_list: taniumpy.object_types.base.BaseType
               •The object list of items found for objtype
     See also:
     pytan.constants.GET_OBJ_MAP maps objtype to supported 'search' keys
     pytan.handler.Handler._get_multi() private method used to get multiple items
```

```
pytan.handler._get_single() private method used to get singular items
get all(objtype, **kwargs)
     Get all objects of a type
         Parametersobjtype: string
              •type of object to get
         Returnsobj_list: taniumpy.object_types.base.BaseType
              •The object list of items found for objtype
     See also:
     pytan.constants.GET_OBJ_MAP maps objtype to supported 'search' keys
    pytan.handler.Handler._find() private method used to find items
get_dashboards (name='', **kwargs)
     Calls pytan.handler.Handler.run_plugin() to run the GetDashboards plugin and parse the
     response
         Parametersname: str, optional
              •default: "
              •name of dashboard to get, if empty will return all dashboards
         Returnsplugin_result, sql_zipped: tuple
              •plugin_result will be the taniumpy object representation of the SOAP response from
               Tanium server
              •sql_zipped will be a dict with the SQL results embedded in the SOAP response
get_result_data (obj, aggregate=False, shrink=True, **kwargs)
     Get the result data for a python API object
     This method issues a GetResultData command to the SOAP api for obj. GetResultData returns the columns
     and rows that are currently available for obj.
         Parametersobj: taniumpy.object_types.base.BaseType

    object to get result data for

             aggregate: bool, optional
              •default: False
              •False: get all the data
              •True: get just the aggregate data (row counts of matches)
             shrink: bool, optional
              •default: True
              •True: Shrink the object down to just id/name/hash attributes (for smaller request)
              •False: Use the full object as is
         Returnsrd: taniumpy.object_types.result_set.ResultSet
               The return of GetResultData for obj
```

```
get_result_data_sse(obj, **kwargs)
     Get the result data for a python API object using a server side export (sse)
     This method issues a GetResultData command to the SOAP api for obj with the option export_flag set to 1.
     This will cause the server to process all of the data for a given result set and save it as export_format. Then
     the user can use an authenticated GET request to get the status of the file via "/export/${export_id}.status".
     Once the status returns "Completed.", the actual report file can be retrieved by an authenticated GET
     request to "/export/${export_id}.gz". This workflow saves a lot of processing time and removes the need
     to paginate large result sets necessary in normal GetResultData calls.
     Version support
             •6.5.314.4231: initial sse support (csv only)
             •6.5.314.4300: export_format support (adds xml and cef)
             •6.5.314.4300: fix core dump if multiple sse done on empty resultset
             •6.5.314.4300: fix no status file if sse done on empty resultset
             •6.5.314.4300: fix response if more than two sse done in same second
         Parametersobj: taniumpy.object_types.base.BaseType
               •object to get result data for
             sse_format : str, optional
               •default: 'csv'
               •format to have server create report in, one of: {'csv', 'xml', 'xml obj', 'cef', 0, 1, 2}
             leading: str, optional
               •default: "
               •used for sse_format 'cef' only, the string to prepend to each row
             trailing: str, optional
               •default: "
               •used for sse_format 'cef' only, the string to append to each row
         Returnsexport_data: either str or taniumpy.object_types.result_set.ResultSet
               •If sse_format is one of csv, xml, or cef, export_data will be a str containing the contents
                of the ResultSet in said format
               •If
                                                                                  will
                        sse format
                                                xml_obj,
                                                                 export_data
                                                                                            be
                                                                                                     а
                taniumpy.object types.result set.ResultSet
     See also:
     pytan.constants.SSE_FORMAT_MAP maps sse_format to an integer for use by the SOAP API
     pytan.constants.SSE_RESTRICT_MAPmaps sse_format integers to supported platform versions
```

pytan.constants.SSE\_CRASH\_MAP maps platform versions that can cause issues in various scenar-

ios

get\_result\_info (obj, shrink=True, \*\*kwargs)
Get the result info for a python API object

This method issues a GetResultInfo command to the SOAP api for *obj*. GetResultInfo returns information about how many servers have passed the *obj*, total number of servers, and so on.

```
Parametersobj: taniumpy.object_types.base.BaseType
              •object to get result data for
             shrink: bool, optional
              •default: True
              •True: Shrink the object down to just id/name/hash attributes (for smaller request)
              •False: Use the full object as is
         Returnsri: taniumpy.object_types.result_info.ResultInfo
              •The return of GetResultInfo for obj
get_server_version(**kwargs)
     Uses taniumpy.session.Session.get_server_version() to get the version of the Tanium
     Server
         Returnsserver version: str

    Version of Tanium Server in string format

parse_query (question_text, **kwargs)
     Ask a parsed question as question_text and get a list of parsed results back
         Parametersquestion_text : str
              •The question text you want the server to parse into a list of parsed results
         \textbf{Returnsparse\_job\_results}: \textit{taniumpy.object\_types.parse\_result\_group.ParseResultGroup}
read_pytan_user_config(kwargs)
     Read a PyTan User Config and update the current class variables
         Returnskwargs: dict
              •kwargs with updated variables from PyTan User Config (if any)
run_plugin (obj, **kwargs)
     Wrapper around pytan.session.Session.run plugin() to run the plugin and zip up the SQL
     results into a python dictionary
         Parametersobj: taniumpy.object_types.plugin.Plugin
              •Plugin object to run
         Returnsplugin result, sql zipped: tuple
              •plugin result will be the taniumpy object representation of the SOAP response from
               Tanium server
              •sql_zipped will be a dict with the SQL results embedded in the SOAP response
stop_action (id, **kwargs)
     Stop an action
         Parametersid: int
              •id of action to stop
         Returnsaction_stop_obj: taniumpy.object_types.action_stop.ActionStop
               The object containing the ID of the action stop job
```

```
write_pytan_user_config(**kwargs)
```

Write a PyTan User Config with the current class variables for use with pytan\_user\_config in instantiating Handler()

Parameterspytan\_user\_config: str, optional

•default: self.puc

•JSON file to wite with current class variables

Returnspuc: str

•filename of PyTan User Config that was written to

```
xml_to_result_set_obj(x, **kwargs)
```

Wraps a Result Set XML from a server side export in the appropriate tags and returns a ResultSet object

Parametersx: str

•str of XML to convert to a ResultSet object

**Returnsrs**: taniumpy.object\_types.result\_set.ResultSet

•x converted into a ResultSet object

# 1.2.2 pytan.sessions

Session classes for the pytan module.

```
class pytan.sessions.Session (host, port=443, **kwargs)
    Bases: object
```

This session object uses the requests package instead of the built in httplib library.

This provides support for keep alive, gzip, cookies, forwarding, and a host of other features automatically.

#### **Examples**

Setup a Session() object:

```
>>> import sys
>>> sys.path.append('/path/to/pytan/')
>>> import pytan
>>> session = pytan.sessions.Session('host')
```

Authenticate with the Session() object:

```
>>> session.authenticate('username', 'password')
```

#### ALL REQUESTS RESPONSES = []

This list will be updated with each requests response object that was received

```
AUTH_CONNECT_TIMEOUT_SEC = 5
```

number of seconds before timing out for a connection while authenticating

```
AUTH\_FAIL\_CODES = [401, 403]
```

List of HTTP response codes that equate to authorization failures

```
AUTH RES = 'auth'
```

The URL to use for authentication requests

#### AUTH RESPONSE TIMEOUT SEC = 15

number of seconds before timing out for a response while authenticating

# BAD\_RESPONSE\_CMD\_PRUNES = ['\n', 'XML Parse Error: ', 'SOAPProcessing Exception: class ', 'ERROR: 400 Bad Relation of Strings to remove from commands in responses that do not match the response in the request

# BAD\_SERVER\_VERSIONS = [None, '', 'Unable to determine', 'Not yet determined']

List of server versions that are not valid

## ELEMENT RE $TXT = (\{0\} > (.*?) < (\{0\} > )$

regex string to search for an element in XML bodies

#### HTTP\_AUTH\_RETRY = True

retry HTTP GET/POST's with username/password if session\_id fails or not

#### HTTP DEBUG = False

print requests package debug or not

# $HTTP_RETRY_COUNT = 5$

number of times to retry HTTP GET/POST's if the connection times out/fails

#### INFO CONNECT TIMEOUT SEC = 5

number of seconds before timing out for a connection while getting server info

# INFO\_RES = 'info.json'

The URL to use for server info requests

#### INFO\_RESPONSE\_TIMEOUT\_SEC = 15

number of seconds before timing out for a response while getting server info

#### LAST REQUESTS RESPONSE = None

This variable will be updated with the last requests response object that was received

# LAST\_RESPONSE\_INFO = {}

This variable will be updated with the information from the most recent call to \_get\_response()

#### RECORD ALL REQUESTS = False

Controls whether each requests response object is appended to the self.ALL\_REQUESTS\_RESPONSES list

#### REQUESTS\_SESSION = None

The Requests session allows you to persist certain parameters across requests. It also persists cookies across all requests made from the Session instance. Any requests that you make within a session will automatically reuse the appropriate connection

# REQUEST\_BODY\_BASE = '<SOAP-ENV:Envelope xmlns:SOAP-ENV='http://schemas.xmlsoap.org/soap/envelope/' xmln The XML template used for all SOAP Requests in string form

# SOAP\_CONNECT\_TIMEOUT\_SEC = 15

number of seconds before timing out for a connection while sending a SOAP Request

# SOAP\_REQUEST\_HEADERS = {'Content-Type': 'text/xml; charset=utf-8', 'Accept-Encoding': 'gzip'} dictionary of headers to add to every HTTP GET/POST

# SOAP\_RES = 'soap'

The URL to use for SOAP requests

#### SOAP\_RESPONSE\_TIMEOUT\_SEC = 540

number of seconds before timing out for a response while sending a SOAP request

# STATS\_LOOP\_ENABLED = False

enable the statistics loop thread or not

# STATS\_LOOP\_SLEEP\_SEC = 5 number of seconds to sleep in between printing the statistics when stats\_loop\_enabled is True STATS\_LOOP\_TARGETS = [{'Version': 'Settings/Version'}, {'Active Questions': 'Active Question Cache/Active Question list of dictionaries with the key being the section of info.json to print info from, and the value being the item with in that section to print the value XMLNS = {'xsi': 'xmlns:xsi='http://www.w3.org/2001/XMLSchema-instance''', 'typens': 'xmlns:typens="urn:TaniumSOAThe namespace mappings for use in XML Request bodies \_build\_body (command, object\_list, log\_options=False, \*\*kwargs) Utility method for building an XML Request Body

Parameterscommand: str

•text to use in command node when building template

object\_list: str

•XML string to use in object list node when building template

kwargs: dict, optional

•any number of attributes that can be set via taniumpy.object\_types.options.Options that control the servers response.

log\_options: bool, optional

•default: False

•False: Do not print messages setting attributes in Options from keys in kwargs

•True: Print messages setting attributes in Options from keys in kwargs

Returnsbody: str

•The XML request body created from the string.template self.REQUEST\_BODY\_TEMPLATE

\_check\_auth()

Utility method to check if authentication has been done yet, and throw an exception if not

\_clean\_headers(headers=None)

Utility method for getting the headers for the current request, combining them with the session headers used for every request, and obfuscating the value of any 'password' header.

Parametersheaders: dict

•dict of key/value pairs for a set of headers for a given request

Returnsheaders: dict

•dict of key/value pairs for a set of cleaned headers for a given request

\_create\_add\_object\_body (obj, \*\*kwargs)

Utility method for building an XML Request Body to add an object

Parametersobj : taniumpy.object\_types.base.BaseType

object to convert into XML

kwargs: dict, optional

•any number of attributes that can be set via taniumpy.object\_types.options.Options that control the servers response.

Returnsobj\_body: str

```
•The XML request body created from pytan.sessions.Session._build_body()
create delete object body (obj. **kwargs)
    Utility method for building an XML Request Body to delete an object
        Parametersobj: taniumpy.object_types.base.BaseType

    object to convert into XML

            kwargs: dict, optional
              •any number of attributes that can be set via taniumpy.object_types.options.Options
              that control the servers response.
        Returnsobj_body: str
             •The XML request body created from pytan.sessions.Session._build_body()
_create_get_object_body (obj, **kwargs)
    Utility method for building an XML Request Body to get an object
        Parametersobj: taniumpy.object_types.base.BaseType
             •object to convert into XML
            kwargs: dict, optional
              •any number of attributes that can be set via taniumpy.object_types.options.Options
              that control the servers response.
        Returnsobj_body: str
             •The XML request body created from pytan.sessions.Session._build_body()
_create_get_result_data_body(obj, **kwargs)
    Utility method for building an XML Request Body to get result data for an object
        Parametersobj: taniumpy.object_types.base.BaseType

    object to convert into XML

            kwargs: dict, optional
              •any number of attributes that can be set via taniumpy.object_types.options.Options
              that control the servers response.
        Returnsobj body: str
             •The XML request body created from pytan.sessions.Session._build_body()
_create_get_result_info_body (obj, **kwargs)
    Utility method for building an XML Request Body to get result info for an object
        Parametersobj: taniumpy.object_types.base.BaseType
             •object to convert into XML
            kwargs: dict, optional
              •any number of attributes that can be set via taniumpy.object_types.options.Options
              that control the servers response.
        Returnsobj_body: str
             •The XML request body created from pytan.sessions.Session._build_body()
create run plugin object body (obj. **kwargs)
    Utility method for building an XML Request Body to run a plugin
```

```
Parametersobj: taniumpy.object_types.base.BaseType

    object to convert into XML

            kwargs: dict, optional
              •any number of attributes that can be set via taniumpy.object_types.options.Options
               that control the servers response.
         Returnsobj_body: str
              •The XML request body created from pytan.sessions.Session._build_body()
_create_update_object_body(obj, **kwargs)
     Utility method for building an XML Request Body to update an object
         Parametersobj: taniumpy.object_types.base.BaseType

    object to convert into XML

             kwargs: dict, optional
              •any number of attributes that can be set via taniumpy.object_types.options.Options
               that control the servers response.
         Returnsobj_body: str
              •The XML request body created from pytan.sessions.Session._build_body()
debug locals (fname, flocals)
     Method to print out locals for a function if self.DEBUG METHOD LOCALS is True
_extract_resultxml(response_body)
     Utility method to get the 'ResultXML' element from an XML body
         Parametersresponse_body : str
              •XML body to search for the 'ResultXML' element in
         Returnsret: str of ResultXML element
              •str if 'export_id' element found in XML
_find_stat_target (target, diags)
     Utility method for finding a target in info.json and returning the value, optionally performing a percentage
     calculation on two values if the target[0] starts with percentage(
         Parameterstarget: list
              •index0: label: human friendly name to refer to search_path
              •index1: search path: / seperated search path to find a given value from info.json
             diags: dict
              •flattened dictionary of info.json diagnostics
         Returnsdict
              •label: same as provided in target index0 (label)
              •result: value resolved from pytan.sessions.Session._resolve_stat_target()
               for target index1 (search_path)
_flatten_server_info(structure)
     Utility method for flattening the JSON structure for info.json into a more python usable format
         Parametersstructure
```

# •dict/tuple/list to flatten

#### Returnsflattened

•the dict/tuple/list flattened out

# \_full\_url(url, \*\*kwargs)

Utility method for constructing a full url

#### Parametersurl: str

•url to use in string

host : str, optional
•default: self.host

•hostname/IP address to use in string

port : str, optionaldefault: self.portport to use in string

# Returnsfull\_url: str

•full url in the form of https://\$host:\$port/\$url

# \_get\_percentage (part, whole)

Utility method for getting percentage of part out of whole

Parameterspart: int, float

whole: int, float

Returnsstr: the percentage of part out of whole in 2 decimal places

# \_get\_response(request\_body, \*\*kwargs)

This is a wrapper around  $pytan.sessions.Session.http\_post()$  for SOAP XML requests and responses.

This method will update self.session\_id if the response contains a different session\_id than what is currently in this object.

# Parametersrequest\_body : str

•the XML request body to send to the server

# connect\_timeout: int, optional

•default: self.SOAP CONNECT TIMEOUT SEC

•timeout in seconds for connection to host

# response\_timeout: int, optional

•default: self.SOAP\_RESPONSE\_TIMEOUT\_SEC

•timeout in seconds for response from host

#### retry\_auth: bool, optional

•default: True

•True: retry authentication with username/password if session\_id fails

•False: throw exception if session\_id fails

# retry\_count: int, optional

```
•number of times to retry the request if the server fails to respond properly or in time
             pytan_help: str, optional
               •default: "
               •help string to add to self.LAST_REQUESTS_RESPONSE.pytan_help
         Returnsbody: str

    str containing body of response from server

     See also:
     pytan.sessions.Session.http_post() wrapper method used to perform the HTTP POST
_http_get (host, port, url, headers=None, connect_timeout=15, response_timeout=180, debug=False,
              pytan_help='', **kwargs)
     This is an HTTP GET method that utilizes the requests package.
         Parametershost: str
               •host to connect to
             port : int
               •port to connect to
             url: str
               •url to fetch on the server
             headers: dict, optional
               •default: None
               •headers to supply as part of POST request
             connect_timeout : int, optional
               •default: 15
               •timeout in seconds for connection to host
             response_timeout : int, optional
               •default: 180
               •timeout in seconds for response from host
             debug: bool, optional
               •default: False
               •False: do not print requests debug messages
               •True: print requests debug messages
             pytan_help: str, optional
               •default: "
               •help string to add to self.LAST_REQUESTS_RESPONSE.pytan_help
             perform_xml_clean: bool, optional
               •default: False
               •False: Do not run the response_body through an XML cleaner
```

```
•True: Run the response_body through an XML cleaner before returning it
clean_restricted: bool, optional
 •default: True
 •True: When XML cleaning the response_body, remove restricted characters as well as
  invalid characters
 •False: When XML cleaning the response_body, remove only invalid characters
log_clean_messages: bool, optional
 •default: True
 •True: When XML cleaning the response_body, enable logging messages about in-
  valid/restricted matches
 •False: When XML cleaning the response_body, disable logging messages about in-
  valid/restricted matches
log_bad_characters : bool, optional
 •default: False
 •False: When XML cleaning the response_body, disable logging messages about the actual
  characters that were invalid/restricted
 •True: When XML cleaning the response_body, enable logging messages about the actual
  characters that were invalid/restricted
 •str containing body of response from server
```

#### Returnsbody: str

\_http\_post (host, port, url, body=None, headers=None, connect\_timeout=15, response\_timeout=180, debug=False, pytan\_help='', \*\*kwargs)

This is an HTTP POST method that utilizes the requests package.

```
Parametershost: str
     •host to connect to
```

port: int

•port to connect to

url: str

•url to fetch on the server

body: str, optional •default: None

•body to send as part of the POST request

headers: dict, optional

•default: None

•headers to supply as part of POST request

connect\_timeout : int, optional

•default: 15

•timeout in seconds for connection to host

response\_timeout : int, optional

```
default: 180
         •timeout in seconds for response from host
        debug: bool, optional
         •default: False
         •False: do not print requests debug messages
         •True: print requests debug messages
        pytan_help: str, optional
         •default: "
         •help string to add to self.LAST_REQUESTS_RESPONSE.pytan_help
        perform_xml_clean: bool, optional
          •default: True
         •True: Run the response_body through an XML cleaner before returning it
         •False: Do not run the response_body through an XML cleaner
        clean_restricted: bool, optional
          •default: True
         •True: When XML cleaning the response body, remove restricted characters as well as
          invalid characters
         •False: When XML cleaning the response_body, remove only invalid characters
        log_clean_messages : bool, optional
         •default: True
         •True: When XML cleaning the response_body, enable logging messages about in-
          valid/restricted matches
         •False: When XML cleaning the response_body, disable logging messages about in-
          valid/restricted matches
        log bad characters: bool, optional
         default: False
         •False: When XML cleaning the response_body, disable logging messages about the actual
          characters that were invalid/restricted
          •True: When XML cleaning the response body, enable logging messages about the actual
          characters that were invalid/restricted
    Returnsbody: str
         •str containing body of response from server
See also:
pytan.xml_clean.xml_cleaner() function to remove invalid/bad characters from XML re-
    sponses
```

\_invalid\_server\_version()

Utility method to find out if self.server version is valid or not

## \_regex\_body\_for\_element (body, element, fail=True)

Utility method to use a regex to get an element from an XML body

# Parametersbody: str

•XML to search

element : str

•element name to search for in body

fail: bool, optional

•default: True

•True: throw exception if unable to find any matches for regex in body

• False do not throw exception if unable to find any matches for regex in body

# Returnsret: str

•The first value that matches the regex ELEMENT\_RE\_TXT with element

#### **Notes**

•Using regex is WAY faster than ElementTree chewing the body in and out, this matters a LOT on LARGE return bodies

# \_replace\_auth(headers)

Utility method for removing username, password, and/or session from supplied headers and replacing them with the current objects session or username and password

## Parametersheaders: dict

•dict of key/value pairs for a set of headers for a given request

# Returnsheaders: dict

•dict of key/value pairs for a set of headers for a given request

# \_resolve\_stat\_target (search\_path, diags)

Utility method for resolving the value of search\_path in info.json and returning the value

# Parameterssearch\_path: str

•/ seperated search path to find a given value from info.json

diags: dict

•flattened dictionary of info.json diagnostics

## Returnsstr

•value resolved from diags for search\_path

# \_start\_stats\_thread(\*\*kwargs)

Utility method starting the  $pytan.sessions.Session.\_stats\_loop()$  method in a threaded daemon

# \_stats\_loop(\*\*kwargs)

Utility method for logging server stats via pytan.sessions.Session.get\_server\_stats() every self.STATS\_LOOP\_SLEEP\_SEC

```
add (obj, **kwargs)
     Creates and sends a AddObject XML Request body from obj and parses the response into an appropriate
     taniumpy object
         Parametersobj: taniumpy.object_types.base.BaseType
               object to add
         Returnsobj: taniumpy.object_types.base.BaseType

    added object

authenticate (username=None, password=None, session_id=None, **kwargs)
     Authenticate against a Tanium Server using a username/password or a session ID
         Parametersusername: str, optional
               default: None
               •username to authenticate as
             password: str, optional
               •default: None
               •password for username
             session_id: str, optional
               •default: None
               •session_id to authenticate with, this will be used in favor of username/password if all 3 are
               supplied.
             persistent: bool, optional
               default: False
               • False: do not request a persistent session (returns a session_id that expires 5 minutes after
               last use)
               •True: do request a persistent (returns a session_id that expires 1 week after last use)
             pytan_help: str, optional
               •default: "
```

# **Notes**

Can request a persistent session that will last up to 1 week when authenticating with username and password.

•help string to add to self.LAST\_REQUESTS\_RESPONSE.pytan\_help

New persistent sessions may be handed out by the Tanium server when the session handed by this auth call is used to login with that week. The new session must be used to login, as no matter what persistent sessions will expire 1 week after issuance (or when logout is called with that session, or when logout with all\_sessions=True is called for any session for this user)

the way sessions get issued:

- •a GET request to /auth is issued
- •username/password supplied in headers as base64 encoded, or session is supplied in headers as string
- •session is returned upon successful auth

- •if there is a header "persistent=1" in the headers, a session that expires after 1 week will be issued if username/password was used to auth. persistent is ignored if session is used to auth.
- •if there is not a header "persistent=1" in the headers, a session that expires after 5 minutes will be issued
- •if session is used before it expires, it's expiry will be extended by 5 minutes or 1 week, depending on the type of persistence
- •while using the SOAP api, new session ID's may be returned as part of the response. these new session ID's should be used in lieu of the old session ID

/auth URL This url is used for validating a server user's credentials. It supports a few different ways to authenticate and returns a SOAP session ID on success. These sessions expire after 5 minutes by default if they aren't used in SOAP requests. This expiration is configured with the server setting 'session\_expiration\_seconds'.

# **Supported Authentication Methods:**

- •HTTP Basic Auth (Clear Text/BASE64)
- •Username/Password/Domain Headers (Clear Text)
- Negotiate (NTLM Only)

NTLM is enabled by default in 6.3 or greater and requires a persistent connection until a session is generated.

# delete(obj, \*\*kwargs)

Creates and sends a DeleteObject XML Request body from *obj* and parses the response into an appropriate taniumpy object

```
Parametersobj: taniumpy.object_types.base.BaseType
```

•object to delete

Returnsobj: taniumpy.object\_types.base.BaseType

•deleted object

# disable\_stats\_loop(sleep=None)

```
Disables the stats loop thread, which will print out the results of pytan.sessions.Session.get_server_stats() every pytan.sessions.Session.STATS_LOOP_SLEEP_SEC
```

# Parameterssleep: int, optional

•when disabling the stats loop, update pytan.sessions.Session.STATS\_LOOP\_SLEEP\_SEC with sleep

# See also:

```
pytan.sessions.Session._stats_loop() method started as a
  thread which checks self.STATS_LOOP_ENABLED before running
  pytan.sessions.Session.get_server_stats()
```

#### enable\_stats\_loop(sleep=None)

```
Enables
          the
                 stats
                         loop
                                 thread,
                                            which
                                                     will
                                                             print
                                                                            the
                                                                                   re-
                                                                     out
sults
            of
                      pytan.sessions.Session.get_server_stats()
                                                                                 every
pytan.sessions.Session.STATS_LOOP_SLEEP_SEC
```

Parameterssleep: int, optional

with sleep

```
See also:
    pytan.sessions.Session._stats_loop() method
                                                                   started
                                                                                   as
                                                                                              a
                                           self.STATS LOOP ENABLED
                    which
                               checks
                                                                             before
                                                                                         running
        pytan.sessions.Session.get_server_stats()
find(obj, **kwargs)
    Creates and sends a GetObject XML Request body from object_type and parses the response into an
    appropriate taniumpy object
        Parametersobj: taniumpy.object_types.base.BaseType
             object to find
        Returnsobj: taniumpy.object_types.base.BaseType
             •found objects
get_result_data(obj, **kwargs)
    Creates and sends a GetResultData XML Request body from obj and parses the response into an appropri-
    ate taniumpy object
        Parametersobj: taniumpy.object_types.base.BaseType
             •object to get result set for
        Returnsobj: taniumpy.object_types.result_set.ResultSet
             •otherwise, obj will be the ResultSet for obj
get_result_data_sse(obj, **kwargs)
    Creates and sends a GetResultData XML Request body that starts a server side export from obj and parses
    the response for an export_id.
        Parametersobj: taniumpy.object_types.base.BaseType
             •object to start server side export
        Returnsexport id: str
             value of export_id element found in response
get_result_info(obj, **kwargs)
    Creates and sends a GetResultInfo XML Request body from obj and parses the response into an appropriate
    taniumpy object
        Parametersobj: taniumpy.object_types.base.BaseType
             •object to get result info for
        Returnsobj: taniumpy.object_types.result_info.ResultInfo
             •ResultInfo for obj
get_server_info(port=None, fallback_port=444, **kwargs)
    Gets the /info.json
        Parametersport: int, optional
             •default: None
             •port to attempt getting /info.json from, if not specified will use self.port
```

•when enabling the stats loop, update pytan.sessions.Session.STATS\_LOOP\_SLEEP\_SEC

```
fallback_port : int, optional
```

•default: 444

•fallback port to attempt getting /info.json from if port fails

# Returnsinfo\_dict : dict

- •raw json response converted into python dict
- 'diags\_flat': info.json flattened out into an easier to use structure for python handling
- 'server\_info\_pass\_msgs': messages about successfully retrieving info.json
- 'server\_info\_fail\_msgs': messages about failing to retrieve info.json

#### See also:

pytan.sessions.Session.\_flatten\_server\_info() method to flatten the dictionary received from info.json into a python friendly format

#### **Notes**

- •6.2 /info.json is only available on soap port (default port: 444)
- •6.5 /info.json is only available on server port (default port: 443)

# get\_server\_stats(\*\*kwargs)

Creates a str containing a number of stats gathered from /info.json

# Returnsstr

•str containing stats from /info.json

# See also:

pytan.sessions.Session.STATS\_LOOP\_TARGETS
list of dict containing stat keys to pull from
/info.json

# get\_server\_version(\*\*kwargs)

Tries to parse the server version from /info.json

#### Returnsstr

•str containing server version from /info.json

# host = None

host to connect to

```
http_get (url, **kwargs)
```

This is an authenticated HTTP GET method. It will always forcibly use the authentication credentials that are stored in the current object when performing an HTTP GET.

# Parametersurl: str

•url to fetch on the server

host: str, optionaldefault: self.hosthost to connect toport: int, optional

```
default: self.port
               ·port to connect to
             headers: dict, optional
               •default: {}
               •headers to supply as part of GET request
             connect_timeout : int, optional
               •default: self.SOAP_CONNECT_TIMEOUT_SEC
               •timeout in seconds for connection to host
             response_timeout : int, optional
               default: self.SOAP_RESPONSE_TIMEOUT_SEC
               •timeout in seconds for response from host
             debug: bool, optional
               •default: self.HTTP_DEBUG
               •False: do not print requests debug messages
               •True: print requests debug messages
             auth retry: bool, optional
               default: self.HTTP_AUTH_RETRY
               •True: retry authentication with username/password if session_id fails
               •False: throw exception if session_id fails
             retry_count: int, optional
               default: self.HTTP_RETRY_COUNT
               •number of times to retry the GET request if the server fails to respond properly or in time
             pytan_help: str, optional
               •default: "
               •help string to add to self.LAST_REQUESTS_RESPONSE.pytan_help
         Returnsbody: str
               •str containing body of response from server
     See also:
     pytan.sessions.Session._http_get() private method used to perform the actual HTTP GET
http_post (**kwargs)
     This is an authenticated HTTP POST method. It will always forcibly use the authentication credentials
     that are stored in the current object when performing an HTTP POST.
         Parametersurl: str, optional
               default: self.SOAP_RES
               •url to fetch on the server
             host: str, optional
```

```
•default: self.host

    host to connect to

        port: int, optional
         •default: self.port
         •port to connect to
        headers: dict, optional
          •default: {}
          •headers to supply as part of POST request
        body: str, optional
          •default: "
         •body to send as part of the POST request
        connect_timeout : int, optional
          •default: self.SOAP_CONNECT_TIMEOUT_SEC
         •timeout in seconds for connection to host
        response timeout: int, optional
          •default: self.SOAP RESPONSE TIMEOUT SEC
         •timeout in seconds for response from host
        debug: bool, optional
         •default: self.HTTP_DEBUG
         •False: do not print requests debug messages
          •True: print requests debug messages
        auth_retry: bool, optional
          •default: self.HTTP_AUTH_RETRY
         •True: retry authentication with username/password if session_id fails
         •False: throw exception if session_id fails
        retry_count: int, optional
          •default: self.HTTP_RETRY_COUNT
         •number of times to retry the POST request if the server fails to respond properly or in time
        pytan_help: str, optional
          •default: "
         •help string to add to self.LAST_REQUESTS_RESPONSE.pytan_help
    Returnsbody: str
          •str containing body of response from server
See also:
pytan.sessions.Session. http post() private method used to perform the actual HTTP
```

**POST** 

is auth

```
Property to determine if there is a valid session_id or username and password stored in this object
         Returnsbool
               •True: if self._session_id or self._username and _self.password are set
              •False: if not
logout (all session ids=False, **kwargs)
     Logout a given session_id from Tanium. If not session_id currently set, it will authenticate to get one.
         Parametersall_session_ids: bool, optional
               •default: False
              •False: only log out the current session id for the current user
               •True: log out ALL session id's associated for the current user
             pytan_help: str, optional
               •default: "
              •help string to add to self.LAST_REQUESTS_RESPONSE.pytan_help
platform_is_6_5 (**kwargs)
     Check to see if self.server version is less than 6.5
         Returnsis6 5: bool
               •True if self.server_version is greater than or equal to 6.5
               •False if self.server_version is less than 6.5
port = None
     port to connect to
run_plugin (obj, **kwargs)
     Creates and sends a RunPlugin XML Request body from obj and parses the response into an appropriate
     taniumpy object
         Parametersobj: taniumpy.object_types.base.BaseType
               object to run
         Returnsobj: taniumpy.object_types.base.BaseType
               •results from running object
save (obj, **kwargs)
     Creates and sends a UpdateObject XML Request body from obj and parses the response into an appropriate
     taniumpy object
         Parametersobj: taniumpy.object_types.base.BaseType
               object to save
         Returnsobj: taniumpy.object_types.base.BaseType
               saved object
server_version = 'Not yet determined'
     version string of server, will be updated when get_server_version() is called
session id
     Property to fetch the session_id for this object
```

```
Returnsself. session id: str
     setup_logging()
1.2.3 pytan.pollers
Collection of classes and methods for polling of actions/questions in pytan
class pytan.pollers.ActionPoller (handler, obj, **kwargs)
     Bases: pytan.pollers.QuestionPoller
     A class to poll the progress of an Action.
     The primary function of this class is to poll for result info for an action, and fire off events:
              • 'SeenProgressChanged'
              'SeenAnswersComplete'
              · 'FinishedProgressChanged'
              'FinishedAnswersComplete'
           Parametershandler: pytan.handler.Handler
                  •PyTan handler to use for GetResultInfo calls
               obj: taniumpy.object_types.action.Action
                  •object to poll for progress
               polling_secs: int, optional
                  •default: 5
                  •Number of seconds to wait in between GetResultInfo loops
               complete_pct : int/float, optional
                  •default: 100
                  Percentage of passed_count out of successfully run actions to consider the action "done"
               override_timeout_secs: int, optional
                  •default: 0
                  •If supplied and not 0, timeout in seconds instead of when object expires
               override_passed_count: int, optional
                  •instead of getting number of systems that should run this action by asking a question, use
                   this number
     ACTION_DONE_KEY = 'success'
           key in action_result_map that maps to an action being done
     COMPLETE\_PCT\_DEFAULT = 100
           default value for self.complete_pct
     EXPIRATION_ATTR = 'expiration_time'
           attribute of self.obj that contains the expiration for this object
```

#### OBJECT TYPE

valid type of object that can be passed in as obj to \_\_init\_\_

alias of Action

# RUNNING\_STATUSES = ['active', 'open']

values for status attribute of action object that mean the action is running

# \_derive\_object\_info(\*\*kwargs)

Derive self.object info from self.obj

# \_derive\_package\_spec(\*\*kwargs)

Get the package\_spec attribute for self.obj, then fetch the full package\_spec object

# \_derive\_result\_map(\*\*kwargs)

Determine what self.result\_map should contain for the various statuses an action can have

A package object has to have a verify\_group defined on it in order for deploy action verification to trigger. That can be only done at package creation/update

If verify\_enable is True, then the various result states for an action change

# \_derive\_status(\*\*kwargs)

Get the status attribute for self.obj

# \_derive\_stopped\_flag(\*\*kwargs)

Get the stopped\_flag attribute for self.obj

# \_derive\_target\_group(\*\*kwargs)

Get the target\_group attribute for self.obj, then fetch the full group object

# \_derive\_verify\_enabled(\*\*kwargs)

Determine if this action has verification enabled

# \_fix\_group(g, \*\*kwargs)

Sets ID to null on a group object and all of it's sub\_groups, needed for 6.5

# \_post\_init(\*\*kwargs)

Post init class setup

# finished\_eq\_passed\_loop (callbacks={}, \*\*kwargs)

Method to poll Result Info for self.obj until the percentage of 'finished\_count' out of 'self.passed\_count' is greater than or equal to self.complete\_pct

- •finished count is calculated from a full GetResultData call that is parsed into self.action result map
- •self.passed\_count is calculated by the question asked before this method is called. that question has no selects, but has a group that is the same group as the action for this object

```
run (callbacks={}, **kwargs)
```

Poll for action data and issue callbacks.

# Parameterscallbacks: dict

- •Callbacks should be a dict with any of these members:
  - -'SeenProgressChanged'
  - -'SeenAnswersComplete'
  - -'FinishedProgressChanged'
  - -'FinishedAnswersComplete'

# •Each callback should be a function that accepts:

```
-'poller': a poller instance-'pct': a percent complete-'kwargs': a dict of other args
```

#### **Notes**

- calling Any callback can choose get data from the session by pytan.poller.QuestionPoller.get\_result\_data() or new info by calling pytan.poller.QuestionPoller.get\_result\_info()
- Any callback can choose to stop the poller by calling pytan.poller.QuestionPoller.stop()
- •Polling will be stopped only when one of the callbacks calls the pytan.poller.QuestionPoller.stop() method or the answers are complete.
- $\begin{tabular}{l} \bullet Any \ call backs \ can \ call \ \ pytan. poller. Question Poller. set Percent Complete Threshold () \\ to \ change \ what \ "done" \ means \ on \ the \ fly \\ \end{tabular}$

```
seen_eq_passed_loop(callbacks={}, **kwargs)
```

Method to poll Result Info for self.obj until the percentage of 'seen\_count' out of 'self.passed\_count' is greater than or equal to self.complete\_pct

- •seen\_count is calculated from an aggregate GetResultData
- •self.passed\_count is calculated by the question asked before this method is called. that question has no selects, but has a group that is the same group as the action for this object

```
class pytan.pollers.QuestionPoller (handler, obj, **kwargs)
    Bases: object
```

A class to poll the progress of a Question.

The primary function of this class is to poll for result info for a question, and fire off events:

- ProgressChanged
- AnswersChanged
- AnswersComplete

polling\_secs : int, optional

•default: 5

•Number of seconds to wait in between GetResultInfo loops

 $complete\_pct: \mathsf{int/float}, \mathsf{optional}$ 

•default: 99

•Percentage of mr\_tested out of estimated\_total to consider the question "done"

override\_timeout\_secs : int, optional

•default: 0

•If supplied and not 0, timeout in seconds instead of when object expires

## override\_estimated\_total: int, optional

•instead of getting number of systems that should see this question from result\_info.estimated\_total, use this number

#### COMPLETE PCT DEFAULT = 99

default value for self.complete\_pct

# **EXPIRATION\_ATTR = 'expiration'**

attribute of self.obj that contains the expiration for this object

#### EXPIRY FALLBACK SECS = 600

If the EXPIRATION\_ATTR of *obj* can't be automatically determined, then this is used as a fallback for timeout - polling will failed after this many seconds if completion not reached

#### OBJECT\_TYPE

valid type of object that can be passed in as obj to \_\_init\_\_

alias of Question

## OVERRIDE TIMEOUT SECS DEFAULT = 0

default value for self.override\_timeout\_secs

#### POLLING SECS DEFAULT = 5

default value for self.polling\_secs

# STR\_ATTRS = ['object\_info', 'polling\_secs', 'override\_timeout\_secs', 'complete\_pct', 'expiration']

Class attributes to include in str output

# \_debug\_locals (fname, flocals)

Method to print out locals for a function if self.DEBUG\_METHOD\_LOCALS is True

# \_derive\_attribute(attr, fallback='', \*\*kwargs)

Derive an attributes value from self.obj

Will re-fetch self.obj if the attribute is not set

# Parametersattr: string

string of attribute name to fetch from self.obj

# fallback: string

value to fallback to if it still can't be accessed after re-fetching the obj if fallback is None, an exception will be raised

#### **Returnsval**: perspective

The value of the attr from self.obj

# \_derive\_expiration(\*\*kwargs)

Derive the expiration datetime string from a object

Will generate a datetime string from self.EXPIRY\_FALLBACK\_SECS if unable to get the expiration from the object (self.obj) itself.

#### \_derive\_object\_info(\*\*kwargs)

Derive self.object\_info from self.obj

# \_post\_init(\*\*kwargs)

Post init class setup

```
_refetch_obj(**kwargs)
     Utility method to re-fetch a object
     This is used in the case that the obj supplied does not have all the metadata available
stop = False
     Controls whether a run() loop should stop or not
get_result_data(**kwargs)
     Simple utility wrapper around pytan.handler.Handler.get_result_data()
         Returnsresult_data: taniumpy.object_types.result_set.ResultSet
get_result_info(**kwargs)
     Simple utility wrapper around pytan.handler.Handler.get_result_info()
         Parametersgri_retry_count : int, optional
              •default: 10
              •Number of times to re-try GetResultInfo when estimated_total comes back as 0
         Returnsresult_info: taniumpy.object_types.result_info.ResultInfo
handler = None
    The Handler object for this poller
obj = None
     The object for this poller
passed_eq_est_total_loop(callbacks={}, **kwargs)
     Method to poll Result Info for self.obj until the percentage of 'passed' out of 'estimated_total' is greater
     than or equal to self.complete_pct
result_info = None
     This will be updated with the ResultInfo object during run() calls
run (callbacks={}, **kwargs)
     Poll for question data and issue callbacks.
         Parameterscallbacks: dict
              •Callbacks should be a dict with any of these members:
                  -'ProgressChanged'
                  -'AnswersChanged'
                  -'AnswersComplete'
              •Each callback should be a function that accepts:
                  -'poller': a poller instance
                  -'pct': a percent complete
                  -'kwargs': a dict of other args
             gri_retry_count: int, optional
              default: 10
              •Number of times to re-try GetResultInfo when estimated_total comes back as 0
```

#### **Notes**

- •Any callback can choose to get data from the session by calling poller.get\_result\_data() or new info by calling poller.get\_result\_info()
- •Any callback can choose to stop the poller by calling poller.stop()

run\_callback (callbacks, callback, pct, \*\*kwargs)

Utility method to find a callback in callbacks dict and run it

- •Polling will be stopped only when one of the callbacks calls the stop() method or the answers are complete.
- •Any callback can call setPercentCompleteThreshold to change what "done" means on the fly

```
set_complect_pct (val)
           Set the complete_pct to a new value
               Parametersval: int/float
                     float value representing the new percentage to consider self.obj complete
     setup_logging()
           Setup loggers for this object
     stop()
class pytan.pollers.SSEPoller (handler, export_id, **kwargs)
     Bases: pytan.pollers.QuestionPoller
     A class to poll the progress of a Server Side Export.
     The primary function of this class is to poll for status of server side exports.
           Parametershandler: pytan.handler.Handler
                   PyTan handler to use for GetResultInfo calls
               export_id : str
                  •ID of server side export
               polling_secs: int, optional
                  •default: 2
                  •Number of seconds to wait in between status check loops
               timeout_secs : int, optional
                  •default: 600
                  •timeout in seconds for waiting for status completion, 0 does not time out
     POLLING SECS DEFAULT = 2
           default value for self.polling_secs
     STR_ATTRS = ['export_id', 'polling_secs', 'timeout_secs', 'sse_status']
           Class attributes to include in __str__ output
     TIMEOUT\_SECS\_DEFAULT = 600
           default value for self.timeout_secs
      _post_init(**kwargs)
```

Post init class setup

```
export id = None
           The export_id for this poller
     get_sse_data(**kwargs)
           Function to get the data of a server side export
           Constructs a URL via: export/${export_id}.gz and performs an authenticated HTTP get
     get_sse_status(**kwargs)
           Function to get the status of a server side export
           Constructs a URL via: export/${export_id}.status and performs an authenticated HTTP get
     run (**kwargs)
           Poll for server side export status
     sse_status_has_completed_loop(**kwargs)
           Method to poll the status file for a server side export until it contains 'Completed'
1.2.4 pytan.constants
PyTan Constants
This contains a number of constants that drive PyTan.
pytan.constants.DEBUG_FORMAT = '[%(lineno)-5d - %(filename)20s:%(funcName)s()] %(asctime)s\n%(levelname)-8s %
     Logging format for debugformat=True
pytan.constants.EXPORT_MAPS = {'ResultSet': {'xml': [], 'json': [], 'csv': [{'valid_list_types': ['str', 'unicode'], 'key': 'h
     Maps a given TaniumPy object to the list of supported export formats for each object type, and the valid optional argume
              •key: the optional argument name itself
              •valid_types: the valid python types that are allowed to be passed as a value to key
              •valid_list_types: the valid python types in str format that are allowed to be passed in a list, if list is
               one of the valid_types
pytan.constants.FILTER_MAPS = [{'operator': 'Less', 'not_flag': 0, 'help': 'Filter for less than VALUE', 'human': ['<', '
     Maps a given set of human strings into the various filter attributes used by the SOAP API. Also used to verify that a manu
              •human: a list of human strings that can be used after ', that'. Ex: ', that contains value'
              •operator: the filter operator used by the SOAP API when building a filter that matches human
              •not flag: the value to set on not flag when building a filter that matches human
              •pre_value: the prefix to add to the value when building a filter
              •post_value: the postfix to add to the value when building a filter
pytan.constants.FILTER_RE = ',\\s*that'
     The regex that is used to find filters in a string. Ex: Sensor1, that contains blah
pytan.constants.GET_OBJ_MAP = {'user': {'search': ['id'], 'all': 'UserList', 'manual': True, 'multi': None, 'single': 'Use
     Maps an object type from a human friendly string into various aspects:
              •single: The TaniumPy object used to find singular instances of this object type
```

•multi: The TaniumPy object used to find multiple instances of this object type

```
•all: The TaniumPy object used to find all instances of this object type
```

- •search: The list of attributes that can be used with the Tanium SOAP API for searches
- •manual: Whether or not this object type is allowed to do a manual search, that is allow the user to specify an attribute that is not in search, which will get ALL objects of that type then search for a match based on attribute values for EVERY key/value pair supplied
- •delete: Whether or not this object type can be deleted
- •create\_json: Whether or not this object type can be created by importing from JSON
- pytan.constants.HANDLER\_ARG\_DEFAULTS = {'username': None, 'gmt\_log': False, 'host': None, 'debugformat': False, 'Map of handler arguments and their defaults

```
pytan.constants.INFO_FORMAT = '%(asctime)s %(levelname)-8s %(name)s: %(message)s' Logging format for debugformat=False
```

```
pytan.constants.LOG_LEVEL_MAPS = [(0, {'method_debug': 'DEBUG', 'stats': 'DEBUG'}, 'Sets all loggers to only output
Map for loglevel(int) -> logger -> logger level(logging.INFO|WARN|DEBUG|...). Higher loglevels will include all levels up
```

- •int, loglevel
- •dict, {{logger\_name: logger\_level}} for this loglevel
- •str, description of this loglevel

pytan.constants.OPTION\_MAPS = [{'destination': 'filter', 'help': 'Make the filter do a case insensitive match', 'attrs': {'ig

Maps a given human string into the various options for filters used by the SOAP API. Also used to verify that a manually

- •human: the human string that can be used after 'opt: '. Ex: 'opt:value\_type:value'
- •destination: the type of object this option can be applied to (filter or group)
- •attrs: the attributes and their values used by the SOAP API when building a filter with an option that matches *human*
- •attr: the attribute used by the SOAP API when building a filter with an option that matches *human*. value is pulled from after a: when only attrexists for an option map, and not attrs.
- •valid\_values: if supplied, the list of valid values for this option
- •valid\_type: performs type checking on the value supplied to verify it is correct
- •human\_type: the human string for the value type if the option requires a value

```
pytan.constants.OPTION RE = ',\\s*opt:'
```

The regex that is used to find options in a string. Ex: Sensor1, that contains blah, opt:ignore\_case, opt:max\_data\_age:3600

```
pytan.constants.PARAM_DELIM = '||'
```

The string to surround a parameter with when passing parameters to the SOAP API for a sensor in a question. Ex: | | parameter\_key | |

```
pytan.constants.PARAM_KEY_SPLIT = '='
```

The string that is used to split parameter key from parameter value. Ex: key1=value1

```
pytan.constants.PARAM_RE = '(?<!\\\)\\{(.*?)(?<!\\\)\\}'</pre>
```

The regex that is used to parse parameters from a human string. Ex: ala {key1=value1}

```
pytan.constants.PARAM SPLIT RE = '(?<!\\\),'
```

The regex that is used to split multiple parameters. Ex: key1=value1, key2=value2

```
pytan.constants.PYTAN_KEY = 'mT1er@iUa1kP9pelSW'
     Key used for obfuscation/de-obfsucation
pytan.constants.PYTAN_USER_CONFIG = '~/.pytan_config.json'
     Default path to file to use for Handler parameter overrides
pytan.constants.Q_OBJ_MAP = {'manual': {'handler': 'ask_manual'}, 'saved': {'handler': 'ask_saved'}, 'parsed': {'hand
     Maps a question type from a human friendly string into the handler method that supports each type
pytan.constants.REQ_KWARGS = ['hide_errors_flag', 'include_answer_times_flag', 'row_counts_only_flag', 'aggregate_ov
     A list of arguments that will be pulled from any respective kwargs for most calls to
     taniumpy.session.Session
pytan.constants.SELECTORS = ['id', 'name', 'hash']
     The search selectors that can be extracted from a string. Ex: name: Sensor1, or id:1, or hash:1111111
pytan.constants.SENSOR_TYPE_MAP = {0: 'Hash', 1: 'String', 2: 'Version', 3: 'NumericDecimal', 4: 'BESDate', 5: 'IPA'
     Maps a Result type from the Tanium SOAP API from an int to a string
pytan.constants.SSE_CRASH_MAP = ['6.5.314.4300']
     Mapping of versions to watch out for crashes/handle bugs for server side export
pytan.constants.SSE_FORMAT_MAP = [('csv', '0', 0), ('xml', '1', 1), ('xml_obj', '1', 1), ('cef', '2', 2)]
     Mapping of human friendly strings to API integers for server side export
pytan.constants.SSE_RESTRICT_MAP = {1: ['6.5.314.4300'], 2: ['6.5.314.4300']}
     Mapping of API integers for server side export format to version support
pytan.constants.TIME_FORMAT = '%Y-%m-%dT%H:%M:%S'
     Tanium's format for date time strings
1.2.5 pytan.utils
Collection of classes and methods used throughout pytan
class pytan.utils.SplitStreamHandler
     Bases: logging. Handler
     Custom logging. Handler class that sends all messages that are logging. INFO and below to STDOUT, and
     all messages that are logging. WARNING and above to STDERR
     emit (record)
pytan.utils.apply_options_obj(options, obj, dest)
     Updates an object with options
          Parametersoptions: dict

    dict containing options definition

              obj: taniumpy.object_types.base.BaseType
                 •TaniumPy object to apply options to
              dest: list of str
                 •list of valid destinations (i.e. filter or group)
          Returnsobj: taniumpy.object_types.base.BaseType
                 •TaniumPy object updated with attributes from options
pytan.utils.build_group_obj (q_filter_defs, q_option_defs)
     Creates a Group object from q_filter_defs and q_option_defs
```

```
Parametersq filter defs: list of dict
                 •List of dict that are question filter definitions
              q_option_defs: dict
                 •dict of question filter options
          Returnsgroup obj: taniumpy.object types.group.Group
                 •Group object with list of taniumpy.object types.filter.Filter built from
                  q_filter_defs and q_option_defs
pytan.utils.build_manual_q(selectlist_obj, group_obj)
     Creates a Question object from selectlist_obj and group_obj
          Parametersselectlist_obj: taniumpy.object_types.select_list.SelectList
                 •SelectList object to add to Question object
              group_obj: taniumpy.object_types.group.Group
                 •Group object to add to Question object
          Returnsadd_q_obj: taniumpy.object_types.question.Question
                 •Question object built from selectlist_obj and group_obj
pytan.utils.build_metadatalist_obj (properties, nameprefix='')
     Creates a MetadataList object from properties
          Parametersproperties: list of list of strs
                 •list of lists, each list having two strs - str 1: property key, str2: property value
              nameprefix: str
                 •prefix to insert in front of property key when creating MetadataItem
          Returnsmetadatalist_obj: taniumpy.object_types.metadata_list.MetadataList
                 •MetadataList object with list of taniumpy.object_types.metadata_item.MetadataItem
                  built from properties
pytan.utils.build_param_obj (key, val, delim='')
     Creates a Parameter object from key and value, surrounding key with delim
          Parameterskey: str
                 •key to use for parameter
              value: str
                 •value to use for parameter
              delim: str
                 •str to surround key with when adding to parameter object
          Returnsparam_obj: taniumpy.object_types.parameter.Parameter

    Parameter object built from key and val

pytan.utils.build_param_objlist(obj,
                                                   user_params,
                                                                    delim='',
                                                                                 derive_def=False,
                                          empty_ok=False)
     Creates a ParameterList object from user_params
          Parametersobj: taniumpy.object_types.base.BaseType
                 •TaniumPy object to verify parameters against
```

```
•dict describing key and value of user supplied params
              delim: str
                 •str to surround key with when adding to parameter object
              derive def: bool, optional
                 • False: Do not derive default values, and throw a pytan.exceptions. HandlerError
                  if user did not supply a value for a given parameter
                 •True: Try to derive a default value for each parameter if user did not supply one
              empty_ok: bool, optional
                 •False:
                          If user did not supply a value for a given parameter,
                  pytan.exceptions.HandlerError
                 •True: If user did not supply a value for a given parameter, do not add the parameter to the
                  ParameterList object
          Returnsparam_objlist: taniumpy.object_types.parameter_list.ParameterList
                  ParameterList object with list of taniumpy.object types.parameter.Parameter
                  built from user_params
pytan.utils.build_selectlist_obj(sensor_defs)
     Creates a SelectList object from sensor defs
          Parameterssensor defs: list of dict
                 •List of dict that are sensor definitions
          Returnsselect_objlist: taniumpy.object_types.select_list.SelectList
                 •SelectList object with list of taniumpy.object_types.select.Select built from
                  sensor_defs
pytan.utils.calc_percent (percent, whole)
     Utility method for getting percentage of whole
          Parameterspercent: int, float
              whole: int, float
          Returnsint: the percentage of whole
pytan.utils.calculate_question_start_time (q)
     Caclulates the start time of a question by doing q.expiration - q.expire seconds
          Parametersq: taniumpy.object_types.question.Question
                 •Question object to calculate start time for
          Returnstuple: str, datetime
                 •a tuple containing the start time first in str format for Tanium Server API, second in datetime
                  object format
pytan.utils.change_console_format (debug=False)
     Changes the logging format for console handler to pytan.constants.DEBUG_FORMAT or
     pytan.constants.INFO_FORMAT
          Parametersdebug: bool, optional
                 • False: set logging format for console handler to pytan.constants.INFO FORMAT
```

user\_params: dict

```
•True: set logging format for console handler to pytan.constants.DEBUG_FORMAT
pytan.utils.check_dictkey(d, key, valid_types, valid_list_types)
     Yet another method to check a dictionary for a key
           Parametersd: dict
                   •dictionary to check for key
               key: str
                  •key to check for in d
               valid_types: list of str
                  •list of str of valid types for key
               valid_list_types : list of str
                  •if key is a list, validate that all values of list are in valid_list_types
pytan.utils.check_for_help(kwargs)
     Utility method to check for any help arguments and raise a PytanHelp exception with the appropriate help
           Parameterskwargs: dict
                  dict of keyword args
pytan.utils.chk_def_key(def_dict, key, keytypes, keysubtypes=None, req=False)
     Checks that def dict has key
           Parametersdef dict: dict

    Definition dictionary

               key: str
                  •key to check for in def_dict
               keytypes: list of str
                  •list of str of valid types for key
               keysubtypes: list of str
                  •if key is a dict or list, validate that all values of dict or list are in keysubtypes
               req: bool
                   •False: key does not have to be in def_dict
                   •True: key must be in def_dict, throw pytan.exceptions.DefinitionParserError
                   if not
pytan.utils.clean_kwargs(kwargs, keys=None)
     Removes each key from kwargs dict if found
           Parameterskwargs: dict
                   dict of keyword args
               keys: list of str, optional
                   •default: ['obj', 'pytan_help', 'objtype']
                   ·list of strs of keys to remove from kwargs
           Returnsclean_kwargs: dict
                   •the new dict of kwargs with keys removed
```

```
pytan.utils.copy_obj(obj, skip_attrs=None)
     Returns a new class of obj with with out any attributes in skip attrs specified
           Parametersobj: taniumpy.object_types.base.BaseType

    Object to copy

               skip attrs: list of str
                  •default: None
                  •list of attribute str's to skip copying over to new object, will default to [] if None
           Returnsnew_obj: taniumpy.object_types.base.BaseType
                  •Copied object with attributes in skip_attrs skipped
pytan.utils.copy_package_obj_for_action(obj, skip_attrs=None)
     Returns a new class of package obj with with out any attributes in skip_attrs specified
           Parametersobj: taniumpy.object_types.base.BaseType

    Object to copy

               skip_attrs: list of str
                  •default: None
                  •list of attribute str's to skip copying over to new object, default if None: ['id', 'deleted_flag',
                   'available time', 'creation time', 'modification time', 'source id']
           Returnsnew_obj: taniumpy.object_types.base.BaseType
                  Copied object with attributes in skip_attrs skipped
pytan.utils.datetime_to_timestr(dt)
     Get a timestr for dt
           Parametersdt: datetime.datetime

    datetime object

           Returnstimestr: str
                  •the timestr for dt in taniums format
pytan.utils.dehumanize_package(package)
     Turns a package str into a package definition
           Parameterspackage: str
                  •A str that describes a package and optionally a selector and/or parameters
           Returnspackage_def: dict
                  •dict parsed from sensors
pytan.utils.dehumanize_question_filters (question_filters)
     Turns a question_filters str or list of str into a question filter definition
           Parametersquestion_filters : str, list of str
                  •A str or list of str that describes a sensor for a question filter(s) and optionally a selector
                   and/or filter
           Returnsquestion_filter_defs: list of dict
                  •list of dict parsed from question filters
```

```
pytan.utils.dehumanize_question_options (question_options)
     Turns a question_options str or list of str into a question option definition
           Parametersquestion_options : str, list of str
                  •A str or list of str that describes question options
           Returnsquestion option defs: list of dict
                  •list of dict parsed from question_options
pytan.utils.dehumanize_sensors (sensors, key='sensors', empty_ok=True)
     Turns a sensors str or list of str into a sensor definition
           Parameterssensors: str, list of str
                  •A str or list of str that describes a sensor(s) and optionally a selector, parameters, filter,
                   and/or options
               key: str, optional
                  •Name of key that user should have provided sensors as
               empty_ok: bool, optional
                  •False:
                                                    not
                                                            allowed
                                                                                                   throw
                                  sensors
                                                                               he
                                                                                       empty,
                   pytan.exceptions.HumanParserError if it is empty
                  •True: sensors is allowed to be empty
           Returnssensor defs: list of dict
                  •list of dict parsed from sensors
pytan.utils.derive_param_default(obj_param)
     Derive a parameter default
           Parametersobj_param : dict

    parameter dict from TaniumPy object

           Returnsdef_val: str
                  •default value derived from obj_param
pytan.utils.empty_obj (taniumpy_object)
     Validate that a given TaniumPy object is not empty
           Parameterstaniumpy_object: taniumpy.object_types.base.BaseType
                  object to check if empty
           Returnsbool
                  •True if taniumpy_object is considered empty, False otherwise
pytan.utils.eval_timing(c)
     Yet another method to time things - c will be evaluated and timing information will be printed out
pytan.utils.extract_filter(s)
     Extracts a filter from str s
           Parameterss: str
                  •A str that may or may not have a filter identified by ', that HUMAN VALUE'
           Returnss: str
                  •str s without the parsed filter included
```

```
parsed_filter: dict
                  •filter attributes mapped from filter from s if any found
pytan.utils.extract_options(s)
     Extracts options from str s
           Parameterss: str
                  •A str that may or may not have options identified by ', opt:name[:value]'
           Returnss: str
                  •str s without the parsed_options included
               parsed_options : list
                  •options extracted from s if any found
pytan.utils.extract_params(s)
     Extracts parameters from str s
           Parameterss: str
                  •A str that may or may not have parameters identified by {key=value}
           Returnss: str
                  •str s without the parsed_params included
               parsed params: list
                  •parameters extracted from s if any found
pytan.utils.extract_selector(s)
     Extracts a selector from str s
           Parameterss: str
                  •A str that may or may not have a selector in the beginning in the form of id:, name:, or :hash
                   - if no selector found, name will be assumed as the default selector
           Returnss: str
                  •str s without the parsed_selector included
               parsed selector : str
                  •selector extracted from s, or 'name' if none found
pytan.utils.func_timing(f)
     Decorator to add timing information around a function
pytan.utils.get_all_loggers()
     Gets all loggers currently known to pythons logging system'
pytan.utils.get_all_pytan_loggers()
     Gets
           all
                  loggers currently
                                           known
                                                           pythons
                                                                      logging
                                                                                           that
                                                                                                   exist
                                                                                                           in
                                                                                 system
     pytan.constants.LOG_LEVEL MAPS
     Creates loggers for any pytan loggers that do not exist yet
pytan.utils.get_dict_list_len (d, keys=[], negate=False)
     Gets the sum of each list in dict d
           Parametersd: dict of str

    dict to sums of
```

```
kevs: list of str
                  •list of keys to get sums of, if empty gets a sum of all keys
              negate: bool
                  •only used if keys supplied
                  •False : get the sums of d that do match keys
                  •True : get the sums of d that do not match keys
          Returnslist_len: int
                  •sum of lists in d that match keys
pytan.utils.get_filter_obj(sensor_def)
     Creates a Filter object from sensor_def
          Parameterssensor_def: dict

    dict containing sensor definition

          Returnsfilter_obj: taniumpy.object_types.filter.Filter
                  •Filter object created from sensor_def
pytan.utils.get_kwargs_int (key, default=None, **kwargs)
     Gets key from kwargs and validates it is an int
          Parameterskey: str
                  •key to get from kwargs
              default: int, optional
                  •default value to use if key not found in kwargs
              kwargs: dict
                  •kwargs to get key from
          Returnsval: int
                  value from key, or default if supplied
pytan.utils.get_now()
     Get current time in human friendly format
          Returnsstr:
                  str of current time return from human_time()
pytan.utils.get_obj_map(objtype)
     Gets an object map for objtype
          Parametersobjtype: str
                  •object type to get object map from in pytan.constants.GET_OBJ_MAP
          Returnsobj_map: dict
                  •matching object map for objtype from pytan.constants.GET_OBJ_MAP
pytan.utils.get_obj_params(obj)
     Get the parameters from a TaniumPy object and JSON load them
     obj[taniumpy.object_types.base.BaseType]

    TaniumPy object to get parameters from
```

```
Returnsparams: dict
                 •JSON loaded dict of parameters from obj
pytan.utils.get_percentage(part, whole)
     Utility method for getting percentage of part out of whole
          Parameterspart: int, float
               whole: int, float
          Returnsint: the percentage of part out of whole
pytan.utils.get_q_obj_map(qtype)
     Gets an object map for qtype
          Parametersqtype : str
                  •question type to get object map from in pytan.constants.Q_OBJ_MAP
          Returnsobj_map: dict
                 •matching object map for qtype from pytan.constants.Q OBJ MAP
pytan.utils.get_taniumpy_obj(obj_map)
     Gets a taniumpy object from obj_map
          Parametersobj_map : str
                 •str of taniumpy object to fetch
          Returnsobj: taniumpy.object_types.base.BaseType
                  •matching taniumpy object for obj_map
pytan.utils.human_time (t, tformat='\%Y_{m_{-}}\%d-\%H_{m_{-}}\%S-\%Z')
     Get time in human friendly format
          Parameterst: int, float, time
                 •either a unix epoch or struct_time object to convert to string
              tformat: str, optional
                  •format of string to convert time to
          Returnsstr:
                 •t converted to str
pytan.utils.is_dict(l)
     returns True if l is a dictionary, False if not
pytan.utils.is list(l)
     returns True if l is a list, False if not
pvtan.utils.is num(l)
     returns True if l is a number, False if not
pytan.utils.is_str(l)
     returns True if l is a string, False if not
pytan.utils.jsonify(v, indent=2, sort_keys=True)
     Turns python object v into a pretty printed JSON string
          Parametersv: object
```

python object to convert to JSON

```
indent: int, 2
                  •number of spaces to indent JSON string when pretty printing
               sort_keys: bool, True
                  •sort keys of JSON string when pretty printing
           Returnsstr:
                  •JSON pretty printed string
pytan.utils.load_param_json_file (parameters_json_file)
     Opens a json file and sanity checks it for use as a parameters element for a taniumpy object
           Parametersparameters_json_file : str
                  •path to JSON file that describes an API object
           Returnsobj
                  •contents of parameters_json_file de-serialized
pytan.utils.load_taniumpy_from_json(json_file)
     Opens a json file and parses it into an taniumpy object
           Parametersjson_file : str
                  •path to JSON file that describes an API object
           Returnsobj: taniumpy.object_types.base.BaseType
                  •TaniumPy object converted from json file
pytan.utils.log_session_communication(h)
     Uses xml_pretty() to pretty print the last request and response bodies from the session object in h to the
     logging system
           Parametersh: Handler object
                  •Handler object with session object containing last request and response body
pytan.utils.map_filter(filter_str)
     Maps a filter str against constants.FILTER_MAPS
           Parametersfilter str: str
                  •filter str str that should be validated
           Returnsfilter attrs: dict

    dict containing mapped filter attributes for SOAP API

pytan.utils.map_option(opt, dest)
     Maps an opt str against constants.OPTION_MAPS
           Parametersopt : str

    option str that should be validated

               dest: list of str
                  •list of valid destinations (i.e. filter or group)
           Returnsopt_attrs: dict

    dict containing mapped option attributes for SOAP API
```

```
pytan.utils.map_options(options, dest)
     Maps a list of options using map_option()
           Parametersoptions: list of str
                  •list of str that should be validated
               dest: list of str
                  •list of valid destinations (i.e. filter or group)
           Returnsmapped_options: dict
                  dict of all mapped_options
pytan.utils.parse_defs (defname, deftypes, strconv=None, empty_ok=True, defs=None, **kwargs)
     Parses and validates defs into new_defs
           Parametersdefname: str
                  •Name of definition
               deftypes: list of str
                  •list of valid types that defs can be
               strconv: str
                  •if supplied, and defs is a str, turn defs into a dict with key = strcony, value = defs
               empty ok: bool
                  •True: defs is allowed to be empty
                  •False: defs is not allowed to be empty
           Returnsnew_defs: list of dict

    parsed and validated defs

pytan.utils.parse_versioning(server_version)
     Parses server_version into a dictionary
           Parametersserver_version : str
                  •str of server version
           Returnsdict
                  •dict of parsed tanium server version containing keys: major, minor, revision, and build
pytan.utils.plugin_zip(p)
     Maps columns to values for each row in a plugins sql response and returns a list of dicts
           Parametersp: taniumpy.object_types.plugin.Plugin
                  •plugin object
           Returnsdict
                  •the columns and result_rows of the sql_response in Plugin object zipped up into a dictionary
pytan.utils.port_check (address, port, timeout=5)
     Check if address:port can be reached within timeout
           Parametersaddress: str
                  •hostname/ip address to check port on
               port: int
```

```
•port to check on address
              timeout: int, optional
                  •timeout after N seconds of not being able to connect
          Returns socket or False:
                  •if connection succeeds, the socket object is returned, else False is returned
pytan.utils.print_log_levels()
     Prints info about each loglevel from pytan.constants.LOG_LEVEL_MAPS
pytan.utils.remove_logging_handler(name='all')
     Removes a logging handler
          Parametersname: str
                 •name of logging handler to remove. if name == 'all' then all logging handlers are removed
pytan.utils.seconds_from_now(secs=0, tz='utc')
     Get time in Tanium SOAP API format secs from now
          Parameterssecs: int
                 •seconds from now to get time str
              tz: str, optional
                  •time zone to return string in, default is 'utc' - supplying anything else will supply local time
          Returnsstr:
                  •time secs from now in Tanium SOAP API format
pytan.utils.set_all_loglevels(level='DEBUG')
     Sets all loggers that the logging system knows about to a given logger level
pytan.utils.set_log_levels(loglevel=0)
     Enables loggers based on loglevel and pytan.constants.LOG_LEVEL_MAPS
          Parametersloglevel: int, optional
                  •loglevel to match against each item in pytan.constants.LOG_LEVEL_MAPS - each
                  item that is greater than or equal to loglevel will have the according loggers set to their
                  respective levels identified there-in.
pytan.utils.setup_console_logging(gmt_tz=True)
     Creates a console logging handler using logging.StreamHandler(sys.stdout)
pytan.utils.shrink obj(obj, attrs=None)
     Returns a new class of obj with only id/name/hash defined
          Parametersobj: taniumpy.object_types.base.BaseType
                  •Object to shrink
              attrs: list of str
                  •default: None
                  •list of attribute str's to copy over to new object, will default to ['name', 'id', 'hash'] if None
          Returnsnew_obj: taniumpy.object_types.base.BaseType

    Shrunken object
```

```
pytan.utils.spew(t)
     Prints a string based on DEBUG OUTPUT bool
           Parameterst : str
                  •string to debug print
pytan.utils.test app port(host, port)
      Validates that host:port can be reached using port_check()
           Parametershost : str
                  •hostname/ip address to check port on
               port : int
                  •port to check on host
           Raisespytan.exceptions.HandlerError: pytan.exceptions.HandlerError
                  •if host:port can not be reached
pvtan.utils.timestr to datetime(timestr)
     Get a datetime.datetime object for timestr
           Parameterstimestr : str
                  •date & time in taniums format
           Returnsdatetime.datetime
                  •the datetime object for the timestr
pytan.utils.val_package_def(package_def)
      Validates package definitions
     Ensures package definition has a selector, and if a package definition has a params key, that key is valid
           Parameterspackage_def: dict

    package definition

pytan.utils.val_q_filter_defs (q_filter_defs)
     Validates question filter definitions
     Ensures each question filter definition has a selector, and if a question filter definition has a filter key, that key is
     valid
           Parametersq_filter_defs: list of dict
                  •list of question filter definitions
pytan.utils.val_sensor_defs (sensor_defs)
     Validates sensor definitions
     Ensures each sensor definition has a selector, and if a sensor definition has a params, options, or filter key, that
     each key is valid
           Parameterssensor_defs: list of dict
                  •list of sensor definitions
pytan.utils.vig_decode(key, string)
     De-obfuscates a string with a key using Vigenere cipher.
     Only useful for obfuscation, not real security!!
           Parameterskey: str
```

```
•key that string is scrambled with
               string: str
                  •string to unscramble with key
           Returnsdecoded_string: str

    decoded string

     Notes
     This will only work with strings that have been encoded with vig_encode(). "normal" strings will be returned
     as-is.
pytan.utils.vig_encode(key, string)
     Obfuscates a string with a key using Vigenere cipher.
     Only useful for obfuscation, not real security!!
           Parameterskey: str
                  •key to scrambled string with
               string: str
                  •string to scramble with key
           Returnsencoded_string : str
                  •encoded string
pytan.utils.xml_pretty(x, pretty=True, indent=' ', **kwargs)
     Uses xmltodict to pretty print an XML str x
           Parametersx: str
                  •XML string to pretty print
           Returnsstr:
                  •The pretty printed string of x
pytan.utils.xml_pretty_resultobj(x)
     Uses xmltodict to pretty print an the result-object element in XML str x
           Parametersx: str
                  •XML string to pretty print
           Returnsstr:
                  •The pretty printed string of result-object in x
pytan.utils.xml_pretty_resultxml(x)
     Uses xmltodict to pretty print an the ResultXML element in XML str x
           Parametersx: str
                  •XML string to pretty print
           Returnsstr:
                  •The pretty printed string of ResultXML in x
```

# 1.2.6 pytan.binsupport

```
Collection of classes and methods used throughout pytan for command line support
```

Bases: argparse.ArgumentDefaultsHelpFormatter, argparse.RawDescriptionHelpFormatter

Multiple inheritance Formatter class for argparse. Argument Parser.

If a argparse. Argument Parser class uses this as it's Formatter class, it will show the defaults for each argument in the *help* output

class pytan.binsupport.CustomArgParse(\*args, \*\*kwargs)

Bases: argparse.ArgumentParser

Custom argparse. Argument Parser class which does a number of things:

- •Uses pytan.utils.CustomArgFormat as it's Formatter class, if none was passed in
- •Prints help if there is an error
- •Prints the help for any subparsers that exist

```
error (message)
```

```
print help(**kwargs)
```

class pytan.binsupport.HistoryConsole(locals=None,

filename='<console>',

histfile='/Users/jolsen/.console-history', \*\*kwargs)

Bases: code. InteractiveConsole

Class that provides an interactive python console with full auto complete, history, and history file support.

#### **Examples**

```
import_readline()

read_history(histfile)

setup_atexit_write_history(histfile)

setup_autocomplete()

write_history(histfile)
```

pytan.binsupport.add\_ask\_report\_argparser(parser)

Method to extend a pytan.utils.CustomArgParse class for command line scripts with arguments for scripts that need to supply export format subparsers for asking questions.

```
pytan.binsupport.add_file_log(logfile, debug=False)
```

Utility to add a log file from python's logging module

```
pytan.binsupport.add_get_object_report_argparser(parser)
```

Method to extend a pytan.utils.CustomArgParse class for command line scripts with arguments for scripts that need to supply export format subparsers for getting objects.

```
pytan.binsupport.add_report_file_options(parser)
```

Method to extend a pytan.utils.CustomArgParse class for command line scripts with arguments for scripts that need to supply export file and directory options.

```
pytan.binsupport.csvdictwriter(rows_list, **kwargs)
     returns the rows_list (list of dicts) as a CSV string
pytan.binsupport.debug_list (debuglist)
     Utility function to print the variables for a list of objects
pytan.binsupport.debug_obj(debugobj)
     Utility function to print the variables for an object
pytan.binsupport.filter_filename (filename)
     Utility to filter a string into a valid filename
pytan.binsupport.filter_sensors (sensors, filter_platforms=[], filter_categories=[])
     Utility to filter a list of sensors for specific platforms and/or categories
pytan.binsupport.filter_sourced_sensors(sensors)
     Utility to filter out all sensors that have a source_id specified (i.e. they are temp sensors created by the API)
pytan.binsupport.get_all_headers (rows_list)
     Utility to get all the keys for a list of dicts
pytan.binsupport.get_grp_opts (parser, grp_names)
     Used to get arguments in parser that match argument group names in grp_names
          Parametersparser: argparse.ArgParse

    ArgParse object

              grp names: list of str
                 •list of str of argument group names to get arguments for
          Returnsgrp_opts: list of str
                 •list of arguments gathered from argument group names in grp_names
pytan.binsupport.input_prompts(args)
     Utility function to prompt for username, password, and host if empty
pytan.binsupport.introspect(obj, depth=0)
     Utility function to dump all info about an object
pytan.binsupport.parse_sensor_platforms (sensor)
     Utility to create a list of platforms for a given sensor
pytan.binsupport.print_obj(d, indent=0)
     Pretty print a dictionary
pytan.binsupport.process_approve_saved_action_args(parser, handler, args)
     Process command line args supplied by user for approving a saved action
          Parametersparser: argparse.ArgParse
                 •ArgParse object used to parse all_args
              handler: pytan.handler.Handler
                 •Instance of Handler created from command line args
              args: args
                 •args object from parsing parser
          Returnsapprove_action
pytan.binsupport.process_ask_manual_args (parser, handler, args)
     Process command line args supplied by user for ask manual
```

```
Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all_args
              handler: pytan.handler.Handler
                 •Instance of Handler created from command line args
              args: args object
                 •args parsed from parser
          Returnsresponse
                •response from pytan.handler.Handler.ask_manual()
pytan.binsupport.process_ask_parsed_args(parser, handler, args)
     Process command line args supplied by user for ask parsed
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all_args
              handler: pytan.handler.Handler
                 •Instance of Handler created from command line args
              args: args object
                 •args parsed from parser
          Returnsresponse
                •response from pytan.handler.Handler.ask_parsed()
pytan.binsupport.process_ask_saved_args(parser, handler, args)
     Process command line args supplied by user for ask saved
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all_args
              handler: pytan.handler.Handler
                 •Instance of Handler created from command line args
              args: args object
                •args parsed from parser
          Returnsresponse
                •response from pytan.handler.Handler.ask saved()
pytan.binsupport.process_create_group_args (parser, handler, args)
     Process command line args supplied by user for create group object
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all_args
              handler: pytan.handler.Handler
                 •Instance of Handler created from command line args
              args: args object
                 •args parsed from parser
          Returnsresponse: taniumpy.object_types.base.BaseType
```

```
•response from pytan.handler.Handler.create_group()
pytan.binsupport.process_create_json_object_args (parser, handler, obj, args)
     Process command line args supplied by user for create ison object
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all args
             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             obj: str
                •Object type for create ison object
             args: args object
                •args parsed from parser
          Returnsresponse: taniumpy.object_types.base.BaseType
                •response from pytan.handler.Handler.create from json()
pytan.binsupport.process_create_package_args (parser, handler, args)
     Process command line args supplied by user for create package object
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all args
             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             args: args object
                •args parsed from parser
          Returnsresponse: taniumpy.object_types.base.BaseType
                •response from pytan.handler.Handler.create_package()
pytan.binsupport.process_create_sensor_args (parser, handler, args)
     Process command line args supplied by user for create sensor object
          Parametersparser: argparse.ArgParse

    ArgParse object used to parse all_args

             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             args: args object
                •args parsed from parser
          Returnsresponse: taniumpy.object_types.base.BaseType
                •response from pytan.handler.Handler.create_sensor()
pytan.binsupport.process_create_user_args (parser, handler, args)
     Process command line args supplied by user for create user object
          Parametersparser: argparse.ArgParse

    ArgParse object used to parse all_args
```

```
handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             args: args object
                •args parsed from parser
          Returnsresponse: taniumpy.object types.base.BaseType
                •response from pytan.handler.Handler.create user()
pytan.binsupport.process_create_whitelisted_url_args(parser, handler, args)
     Process command line args supplied by user for create group object
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all_args
             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             args: args object
                •args parsed from parser
          Returnsresponse: taniumpy.object_types.base.BaseType
                •response from pytan.handler.Handler.create_group()
pytan.binsupport.process_delete_object_args (parser, handler, obj, args)
     Process command line args supplied by user for delete object
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all_args
             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             obj: str
                •Object type for delete object
             args: args object
                •args parsed from parser
          Returnsresponse: taniumpy.object_types.base.BaseType
                •response from pytan.handler.Handler.delete()
pytan.binsupport.process_deploy_action_args (parser, handler, args)
     Process command line args supplied by user for deploy action
          Parametersparser: argparse. ArgParse
                •ArgParse object used to parse all_args
             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             args: args object
                •args parsed from parser
          Returnsresponse
```

```
•response from pytan.handler.Handler.deploy_action()
pytan.binsupport.process_get_object_args (parser, handler, obj, args, report=True)
     Process command line args supplied by user for get object
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all args
             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             obj: str
                •Object type for get object
             args: args object
                •args parsed from parser
          Returnsresponse: taniumpy.object_types.base.BaseType
                •response from pytan.handler.Handler.get()
pytan.binsupport.process_get_results_args (parser, handler, args)
     Process command line args supplied by user for getting results
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all args
             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             args: args
                •args object from parsing parser
          Returnsreport_path, report_contents: tuple
                •results from pytan.handler.Handler.export_to_report_file() on the re-
                 turn of pytan.handler.Handler.get_result_data()
pytan.binsupport.process_get_saved_question_history_args (parser, handler, args)
     Process command line args supplied by user for getting saved question history
          Parametersparser: argparse.ArgParse
                •ArgParse object used to parse all_args
             handler: pytan.handler.Handler
                •Instance of Handler created from command line args
             args: args object
                •args parsed from parser
          Returnsresponse: taniumpy.object_types.base.BaseType
                •response from pytan.handler.Handler.create_user()
pytan.binsupport.process_handler_args (parser, args)
     Process command line args supplied by user for handler
          Parametersparser: argparse.ArgParse

    ArgParse object used to parse all_args
```

```
args: args
                 •args parsed from parser
          Returnsh: pytan.handler.Handler
                 •Handler object
pytan.binsupport.process_print_sensors_args (parser, handler, args)
     Process command line args supplied by user for printing sensors
          Parametersparser: argparse.ArgParse
                 •ArgParse object used to parse all_args
              handler: pytan.handler.Handler
                 •Instance of Handler created from command line args
              args: args object
                 •args parsed from parser
pytan.binsupport.process_print_server_info_args(parser, handler, args)
     Process command line args supplied by user for printing server info
          Parametersparser: argparse.ArgParse
                 •ArgParse object used to parse all_args
              handler: pytan.handler.Handler

    Instance of Handler created from command line args

              args: args object
                 •args parsed from parser
pytan.binsupport.process_pytan_shell_args (parser, handler, args)
     Process command line args supplied by user for a python shell
          Parametersparser: argparse.ArgParse
                 •ArgParse object used to parse all_args
              handler: pytan.handler.Handler
                 •Instance of Handler created from command line args
              args: args object
                 •args parsed from parser
pytan.binsupport.process_stop_action_args (parser, handler, args)
     Process command line args supplied by user for stopping an action
          Parametersparser: argparse.ArgParse
                 •ArgParse object used to parse all_args
              handler: pytan.handler.Handler
                 •Instance of Handler created from command line args
              args: args
                 •args object from parsing parser
          Returnsstop_action
```

#### pytan.binsupport.process\_tsat\_args(parser, handler, args)

Process command line args supplied by user for tsat

Parametersparser: argparse.ArgParse

•ArgParse object used to parse *all\_args* 

handler: pytan.handler.Handler

•Instance of Handler created from command line args

args: args object

•args parsed from parser

#### pytan\_binsupport.process\_write\_pytan\_user\_config\_args(parser, handler, args)

Process command line args supplied by user for writing pytan user config

Parametersparser: argparse.ArgParse

•ArgParse object used to parse all\_args

handler: pytan.handler.Handler

•Instance of Handler created from command line args

args: args object

•args parsed from parser

#### pytan.binsupport.remove\_file\_log(logfile)

Utility to remove a log file from python's logging module

#### pytan.binsupport.setup\_approve\_saved\_action\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to approve saved actions.

# pytan.binsupport.setup\_ask\_manual\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to ask manual questions.

# pytan.binsupport.setup\_ask\_parsed\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to ask parsed questions.

#### pytan.binsupport.setup\_ask\_saved\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to ask saved questions.

# pytan.binsupport.setup\_create\_group\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to create a group.

#### pytan.binsupport.setup\_create\_json\_object\_argparser(obj, doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to create objects from json files.

## pytan.binsupport.setup\_create\_package\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to create a package.

#### pytan.binsupport.setup\_create\_sensor\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to create a sensor.

# pytan.binsupport.setup\_create\_user\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to create a user.

# pytan.binsupport.setup\_create\_whitelisted\_url\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to create a whitelisted url.

# pytan.binsupport.setup\_delete\_object\_argparser(obj, doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to delete objects.

#### pytan.binsupport.setup\_deploy\_action\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to deploy actions.

#### pytan.binsupport.setup\_get\_object\_argparser(obj, doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to get objects.

## pytan.binsupport.setup\_get\_results\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to get results for questions or actions.

#### pytan.binsupport.setup\_get\_saved\_question\_history\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to get saved question history.

# pytan.binsupport.setup\_parent\_parser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser() and return a parser object for adding arguments to

#### pytan.binsupport.setup\_parser(desc, help=False)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts that use pytan. This establishes the basic arguments that are needed by all such scripts, such as:

- •-help
- •-username
- •-password
- •-host
- •-port
- •-loglevel

#### debugformat

#### pytan.binsupport.setup\_print\_sensors\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to print server info.

#### pytan.binsupport.setup\_print\_server\_info\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to print sensor info.

#### pytan.binsupport.setup\_pytan\_shell\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to create a python shell.

#### pytan.binsupport.setup\_stop\_action\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to stop actions.

#### pytan.binsupport.setup\_tsat\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to get objects.

#### pytan\_binsupport.setup\_write\_pytan\_user\_config\_argparser(doc)

Method to setup the base pytan.utils.CustomArgParse class for command line scripts using pytan.utils.setup\_parser(), then add specific arguments for scripts that use pytan to write a pytan user config file.

#### pytan.binsupport.version\_check (reqver)

Allows scripts using pytan to validate the version of the script aginst the version of pytan

# Parametersrequer: str

•string containing version number to check against Exception

#### RaisesVersionMismatchError: Exception

•if pytan.\_\_version\_\_ is not greater or equal to requer

# 1.2.7 pytan.exceptions

Provides exceptions for the pytan module.

# exception pytan.exceptions.AuthorizationError

Bases: exceptions.Exception

Exception thrown for authorization errors in pytan.sessions

#### exception pytan.exceptions.BadResponseError

Bases: exceptions. Exception

Exception thrown for BadResponse messages from Tanium in pytan.sessions

# exception pytan.exceptions.DefinitionParserError

Bases: exceptions. Exception

Exception thrown for errors while parsing definitions from pytan.handler

# exception pytan.exceptions.HandlerError Bases: exceptions. Exception Exception thrown for errors in pytan.handler exception pytan.exceptions.HttpError Bases: exceptions. Exception Exception thrown for HTTP errors in pytan.sessions exception pytan.exceptions.HumanParserError Bases: exceptions. Exception Exception thrown for errors while parsing human strings from pytan.handler exception pytan.exceptions.NotFoundError Bases: exceptions. Exception Exception thrown for Not Found messages from Tanium in pytan.handler exception pytan.exceptions.PickerError Bases: exceptions. Exception Exception thrown for picker errors in pytan.handler exception pytan.exceptions.PollingError Bases: exceptions. Exception Exception thrown for errors in pytan.polling exception pytan.exceptions.PytanHelp Bases: exceptions. Exception Exception thrown when printing out help exception pytan.exceptions.RunFalse Bases: exceptions. Exception Exception thrown when run=False from pytan.handler.Handler.deploy\_action() exception pytan.exceptions.ServerParseError Bases: exceptions. Exception Exception thrown for server parsing errors in pytan.handler exception pytan.exceptions.ServerSideExportError Bases: exceptions. Exception Exception thrown for server side export errors in pytan.handler exception pytan.exceptions.TimeoutException Bases: exceptions. Exception Exception thrown for timeout errors in pytan.polling exception pytan.exceptions.UnsupportedVersionError Bases: exceptions. Exception Exception thrown for version checks in pytan.handler exception pytan.exceptions.VersionMismatchError Bases: exceptions. Exception

Exception thrown for version\_check in pytan.utils

```
exception pytan.exceptions.VersionParseError
Bases: exceptions.Exception
```

Exception thrown for server version parsing errors in pytan.handler

# 1.2.8 pytan.xml clean

This is a regex based XML cleaner that will replace unsupported characters

pytan.xml\_clean.**DEFAULT\_REPLACEMENT = u'\ufffd'**The default character to use when replacing characters

 $\verb|pytan.xml_clean.invalid_unicode_raw_re = u'[^\t/n\r - \ud7ff\ue000-\ufffd]'|$ 

The raw regex string to use when replacing invalid characters

pytan.xml\_clean.INVALID\_UNICODE\_RE = <\_sre.SRE\_Pattern object>
The regex object to use when replacing invalid characters

pytan.xml\_clean.RESTRICTED\_UNICODE\_RAW\_RE =  $u'[\x7f-\x84\x86-\x9f\ufdd0-\ufdef]'$ The raw regex string to use when replacing restricted characters

pytan.xml\_clean.RESTRICTED\_UNICODE\_RE = <\_sre.SRE\_Pattern object>
 The regex object to use when replacing restricted characters

pytan.xml\_clean.XML\_1\_0\_RESTRICTED\_HEX = [[127, 132], [134, 159], [64976, 65007]]

Restricted/discouraged Unicode characters for XML documents: [#x7F-#x84], [#x86-#x9F], [#xFDD0-#xFDEF], [#x1FFFE-#x1FFFF], [#x2FFFE-#x2FFFF], [#x3FFFE-#x3FFFF], [#x4FFFE-#x4FFFF], [#x5FFFE-#x5FFFF], [#x6FFFE-#x6FFFF], [#x7FFFE-#x7FFFF], [#x8FFFE-#x8FFFF], [#x9FFFE-#x0FFFF], [#x9FFFE-#xDFFFF], [#xDFFFE-#xDFFFF], [#xEFFFE-#xEFFFF], [#x10FFFE-#x10FFFF], [#x10FFFE-#x10FFFF]

Source: http://www.w3.org/TR/REC-xml/#NT-Char

```
pytan.xml_clean.XML_1_0_VALID_HEX = [[9], [10], [13], [32, 55295], [57344, 65533]]
```

**Valid Unicode characters for XML documents:**(any Unicode character, excluding the surrogate blocks, FFFE, and FFFF) #x9, #xA, #xD, [#x20-#xD7FF], [#xE000-#xFFFD], [#x10000-#x10FFFF]

Source: http://www.w3.org/TR/REC-xml/#NT-Char

pytan.xml clean.replace invalid unicode (text, replacement=None)

Replaces invalid unicode characters with replacement

Parameterstext : str
•str to clean

replacement: str, optional

•default: None

•if invalid characters found, they will be replaced with this

•if not supplied, will default to DEFAULT\_REPLACEMENT

Returnsstr, cnt, RE: tuple

•str: the cleaned version of text

•cnt: the number of replacements that took place

•RE: the regex object that was used to do the replacements

```
pytan.xml_clean.replace_restricted_unicode (text, replacement=None)
     Replaces restricted unicode characters with replacement
           Parameterstext: str
                  •str to clean
               replacement: str, optional
                  •default: None
                  •if restricted characters found, they will be replaced with this
                  •if not supplied, will default to DEFAULT_REPLACEMENT
           Returnsstr, cnt, RE: tuple
                  •str: the cleaned version of text
                  •cnt: the number of replacements that took place
                  •RE: the regex object that was used to do the replacements
pytan.xml clean.xml cleaner(s,
                                                     encoding='utf-8',
                                                                                   clean restricted=True,
                                       log_clean_messages=True, log_bad_characters=False, replace-
                                       ment=None, **kwargs)
     Removes invalid /restricted characters per XML 1.0 spec
           Parameterss: str
                  •str to clean
               encoding: str, optional
                  •default: 'utf-8'
                  •encoding of s
               clean_restricted: bool, optional
                  •default: True
                  •remove restricted characters from s or not
               log_clean_messages: bool, optional
                  •default: True
                  •log messages using python logging or not
               log_bad_characters : bool, optional
                  •default: False
                  •log bad character matches or not
           Returnsstr
                  •the cleaned version of s
```

# 1.3 PyTan Tests

# 1.3.1 Valid Server Functional Tests

This contains valid functional tests for pytan.

These functional tests require a connection to a Tanium server in order to run. The connection info is pulled from the SERVER\_INFO dictionary in test/API\_INFO.py.

These tests all use ddt, a package that provides for data driven tests via JSON files.

```
class test_pytan_valid_server_tests.ValidServerTests (methodName='runTest')
    Bases: unittest.case.TestCase
    classmethod setUpClass()
    setup_test()
    classmethod tearDownClass()
    test_invalid_create_object_1_invalid_create_sensor()
    test_invalid_create_object_from_json_1_invalid_create_saved_action_from_json()
    test_invalid_create_object_from_json_2_invalid_create_client_from_json()
    test_invalid_create_object_from_json_3_invalid_create_userrole_from_json()
    test_invalid_create_object_from_json_4_invalid_create_setting_from_json()
    test_invalid_deploy_action_1_invalid_deploy_action_run_false()
    test_invalid_deploy_action_2_invalid_deploy_action_package_help()
    test_invalid_deploy_action_3_invalid_deploy_action_package()
    test invalid deploy action 4 invalid deploy action options help()
    test_invalid_deploy_action_5_invalid_deploy_action_empty_package()
    test_invalid_deploy_action_6_invalid_deploy_action_filters_help()
    test_invalid_deploy_action_7_invalid_deploy_action_missing_parameters()
    test_invalid_export_basetype_1_invalid_export_basetype_csv_bad_explode_type()
    test invalid_export_basetype_2 invalid_export_basetype_csv_bad_sort_sub_type()
    test_invalid_export_basetype_3_invalid_export_basetype_csv_bad_sort_type()
    test_invalid_export_basetype_4_invalid_export_basetype_xml_bad_minimal_type()
    test_invalid_export_basetype_5_invalid_export_basetype_json_bad_include_type()
    test_invalid_export_basetype_6_invalid_export_basetype_json_bad_explode_type()
    test_invalid_export_basetype_7_invalid_export_basetype_bad_format()
    test invalid export resultset 1 invalid export resultset csv bad sort sub type()
    test_invalid_export_resultset_2_invalid_export_resultset_csv_bad_sort_type()
    test_invalid_export_resultset_3_invalid_export_resultset_csv_bad_expand_type()
    test_invalid_export_resultset_4_invalid_export_resultset_csv_bad_sensors_sub_type()
    test_invalid_export_resultset_5_invalid_export_resultset_bad_format()
    test_invalid_get_object_1_invalid_get_action_single_by_name()
    test_invalid_get_object_2_invalid_get_question_by_name()
    test_invalid_question_1_invalid_ask_manual_question_sensor_help()
    test_invalid_question_2_invalid_ask_manual_question_bad_filter()
    test invalid question 3 invalid ask manual question filter help()
```

```
test invalid question 4 invalid ask manual question bad option()
test_invalid_question_5_invalid_ask_manual_question_missing_parameter_split()
test_invalid_question_6_invalid_ask_manual_question_option_help()
test_invalid_question_7_invalid_ask_parsed_question_no_picker()
test invalid question 8 invalid ask manual question too many parameter blocks()
test invalid question 9 invalid ask manual question bad sensorname()
test_valid_create_object_1_create_user()
test_valid_create_object_2_create_package()
test_valid_create_object_3_create_group()
test_valid_create_object_4_create_whitelisted_url()
test_valid_create_object_from_json_1_create_package_from_json()
test_valid_create_object_from_json_2_create_user_from_json()
test_valid_create_object_from_json_3_create_saved_question_from_json()
test_valid_create_object_from_json_4_create_action_from_json()
test_valid_create_object_from_json_5_create_sensor_from_json()
test valid create object from json 6 create question from json()
test_valid_create_object_from_json_7_create_whitelisted_url_from_json()
test_valid_create_object_from_json_8_create_group_from_json()
test_valid_deploy_action_1_deploy_action_simple_against_windows_computers()
test_valid_deploy_action_2_deploy_action_simple_without_results()
test_valid_deploy_action_3_deploy_action_with_params_against_windows_computers()
test_valid_deploy_action_4_deploy_action_simple()
test_valid_export_basetype_10_export_basetype_xml_default_options()
test_valid_export_basetype_11_export_basetype_csv_with_explode_true()
test_valid_export_basetype_12_export_basetype_json_explode_false()
test_valid_export_basetype_13_export_basetype_json_type_false()
test_valid_export_basetype_14_export_basetype_json_default_options()
test_valid_export_basetype_1_export_basetype_csv_with_sort_list()
test_valid_export_basetype_2_export_basetype_csv_with_explode_false()
test_valid_export_basetype_3_export_basetype_json_type_true()
test_valid_export_basetype_4_export_basetype_xml_minimal_false()
test_valid_export_basetype_5_export_basetype_xml_minimal_true()
test_valid_export_basetype_6_export_basetype_csv_with_sort_empty_list()
test_valid_export_basetype_7_export_basetype_csv_default_options()
test_valid_export_basetype_8_export_basetype_json_explode_true()
test_valid_export_basetype_9_export_basetype_csv_with_sort_true()
```

```
test valid export resultset 10 export resultset csv default options()
test_valid_export_resultset_11_export_resultset_csv_type_true()
test_valid_export_resultset_12_export_resultset_csv_all_options()
test_valid_export_resultset_13_export_resultset_csv_sort_false()
test valid export resultset 1 export resultset json()
test valid export resultset 2 export resultset csv sensor true()
test_valid_export_resultset_3_export_resultset_csv_type_false()
test_valid_export_resultset_4_export_resultset_csv_expand_false()
test_valid_export_resultset_5_export_resultset_csv_sort_empty()
test_valid_export_resultset_6_export_resultset_csv_sort_true()
test_valid_export_resultset_7_export_resultset_csv_sort_list()
test_valid_export_resultset_8_export_resultset_csv_sensor_false()
test_valid_export_resultset_9_export_resultset_csv_expand_true()
test_valid_get_object_10_get_all_saved_questions()
test_valid_get_object_11_get_user_by_name()
test valid get object 12 get all userroless()
test_valid_get_object_13_get_all_questions()
test_valid_get_object_14_get_sensor_by_id()
test_valid_get_object_15_get_all_groups()
test_valid_get_object_16_get_all_sensors()
test_valid_get_object_17_get_sensor_by_mixed()
test_valid_get_object_18_get_whitelisted_url_by_id()
test_valid_get_object_19_get_group_by_name()
test_valid_get_object_1_get_all_users()
test_valid_get_object_20_get_all_whitelisted_urls()
test_valid_get_object_21_get_sensor_by_hash()
test_valid_get_object_22_get_package_by_name()
test_valid_get_object_23_get_all_clients()
test_valid_get_object_24_get_sensor_by_names()
test_valid_get_object_25_get_all_packages()
test_valid_get_object_26_get_saved_question_by_name()
test_valid_get_object_27_get_all_actions()
test_valid_get_object_28_get_user_by_id()
test_valid_get_object_29_get_sensor_by_name()
test_valid_get_object_2_get_action_by_id()
test_valid_get_object_30_get_saved_action_by_name()
```

```
test_valid_get_object_3_get_question_by_id()
    test_valid_get_object_4_get_saved_question_by_names()
    test_valid_get_object_5_get_userrole_by_id()
    test_valid_get_object_6_get_all_saved_actions()
    test_valid_get_object_7_get_leader_clients()
    test_valid_get_object_8_get_all_settings()
    test_valid_get_object_9_get_setting_by_name()
    test_valid_question_10_ask_manual_question_sensor_with_parameters_and_filter()
    test_valid_question_11_ask_parsed_question_pick_first()
    test_valid_question_12__ask_manual_question_sensor_complex()
    test_valid_question_13_ask_manual_question_simple_single_sensor()
    test_valid_question_14_ask_manual_question_sensor_with_filter()
    test_valid_question_15_ask_manual_question_multiple_sensors_identified_by_name()
    test_valid_question_16_ask_manual_question_sensor_with_parameters_and_filter_and_optio
    test_valid_question_17_ask_manual_question_sensor_with_filter_and_3_options()
    test valid question 18 ask manual question complex query2()
    test_valid_question_19_ask_manual_question_complex_query1()
    test_valid_question_1_ask_manual_question_sensor_with_parameters_and_some_supplied_par
    test_valid_question_2_ask_manual_question_multiple_sensors_with_parameters_and_some_su
    test_valid_question_3_ask_manual_question_simple_single_sensor_no_results()
    test_valid_question_4_ask_manual_question_simple_multiple_sensors()
    test_valid_question_5_ask_manual_question_simple_single_sensor_sse()
    test_valid_question_6_ask_manual_question_sensor_without_parameters_and_supplied_param
    test_valid_question_7_ask_parsed_question_pick_first_no_results()
    test_valid_question_8_ask_manual_question_sensor_with_filter_and_2_options()
    test_valid_question_9_ask_parsed_question_pick_first_sse()
    test_valid_saved_question_1_ask_saved_question_refresh_data()
    test_valid_saved_question_2_ask_saved_question_by_name_sse()
    test_valid_saved_question_3_ask_saved_question_by_name()
    test_valid_saved_question_4_ask_saved_question_by_name_in_list()
test_pytan_valid_server_tests.chew_csv(c)
test_pytan_valid_server_tests.spew (m, l=3)
```

# 1.3.2 Invalid Server Functional Tests

This contains invalid functional tests for pytan.

These functional tests require a connection to a Tanium server in order to run. The connection info is pulled from the SERVER\_INFO dictionary in test/API\_INFO.py.

These tests all use ddt, a package that provides for data driven tests via JSON files.

```
class test_pytan_invalid_server_tests.InvalidServerTests (methodName='runTest')
    Bases: unittest.case.TestCase
    classmethod setUpClass()
    test_invalid_connect_1_bad_username()
    test_invalid_connect_2_bad_host_and_non_ssl_port()
    test_invalid_connect_3_bad_password()
    test_invalid_connect_4_bad_host_and_bad_port()

test_pytan_invalid_server_tests.spew(m, l=3)
```

#### 1.3.3 Unit Tests

This contains unit tests for pytan.

These unit tests do not require a connection to a Tanium server in order to run.

```
class test_pytan_unit.TestDehumanizeExtractionUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test_extract_filter_invalid()
    test extract filter nofilter()
    test_extract_filter_valid()
    test_extract_filter_valid_all()
    test_extract_options_invalid_option()
    test_extract_options_many()
    test_extract_options_missing_value_max_data_age()
    test_extract_options_missing_value_value_type()
    test_extract_options_nooptions()
    test_extract_options_single()
    test_extract_params()
    test_extract_params_missing_seperator()
    test_extract_params_multiparams()
    test_extract_params_noparams()
    test_extract_selector()
    test_extract_selector_use_name_if_noselector()
class test_pytan_unit.TestDehumanizeQuestionFilterUtils (methodName='runTest')
    Bases: unittest.case.TestCase
```

```
test_empty_filterlist()
    test_empty_filterstr()
    test_invalid_filter1()
    test_invalid_filter2()
    test_invalid_filter3()
    test multi filter list()
    test_single_filter_list()
    test_single_filter_str()
class test_pytan_unit.TestDehumanizeQuestionOptionUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test_empty_optionlist()
    test_empty_optionstr()
    test_invalid_option1()
    test_invalid_option2()
    test_option_list_many()
    test_option_list_multi()
    test_option_list_single()
    test_option_str()
class test_pytan_unit.TestDehumanizeSensorUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test_empty_args_dict()
    test_empty_args_list()
    test_empty_args_str()
    test_multi_list_complex()
    test_single_str()
    test_single_str_complex1()
    test_single_str_complex2()
    test_single_str_with_filter()
    test_valid_simple_list()
    test_valid_simple_str_hash_selector()
    test_valid_simple_str_id_selector()
    test_valid_simple_str_name_selector()
class test_pytan_unit.TestDeserializeBadXML (methodName='runTest')
    Bases: unittest.case.TestCase
    test_bad_chars_basetype_control()
        This XML file has a number of control characters that are not valid in XML.
```

This test validates that pytan.xml\_clean.xml\_cleaner() will remove all the invalid and restricted characters, which should allow the body to be parsed properly.

#### test bad chars resultset latin1()

This XML file has some characters that are actually encoded as latin1 (as well as some restricted characters).

This test validates that pytan.xml\_clean.xml\_cleaner() will properly fall back to latin1 for decoding the docuemnt, as well as remove all the invalid and restricted characters, which should allow the body to be parsed properly.

#### test\_bad\_chars\_resultset\_surrogate()

This XML file has some characters that are unpaired surrogates in unicode. Surrogates (unpaired or otherwise) are not legal XML characters.

This test validates that pytan.xml\_clean.xml\_cleaner() will properly remove all the invalid and restricted characters, which should allow the body to be parsed properly.

```
class test_pytan_unit.TestGenericUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test_empty_obj()
    test_get_now()
    test_get_obj_map()
    test_get_q_obj_map()
    test_invalid_port()
    test is dict()
    test is list()
    test_is_not_dict()
    test_is_not_list()
    test_is_not_num()
    test_is_not_str()
    test_is_num()
    test_is_str()
    test_jsonify()
    test_load_param_file_invalid_file()
    test_load_param_file_invalid_json()
    test load param file valid()
    test_load_taniumpy_file_invalid_file()
    test_load_taniumpy_file_invalid_json()
    test_version_higher()
    test_version_lower()
class test_pytan_unit.TestManualBuildObjectUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    classmethod setUpClass()
    test build group obj()
    test_build_manual_q()
```

```
test_build_selectlist_obj_invalid_filter()
    test_build_selectlist_obj_missing_value()
    test_build_selectlist_obj_noparamssensorobj_noparams()
         builds a selectlist object using a sensor obj with no params
    test build selectlist obj noparamssensorobj withparams()
         builds a selectlist object using a sensor obj with no params, but passing in params (which should be added
         as of 1.0.4)
    test_build_selectlist_obj_withparamssensorobj_noparams()
         builds a selectlist object using a sensor obj with 4 params but not supplying any values for any of the
         params
    test_build_selectlist_obj_withparamssensorobj_withparams()
         builds a selectlist object using a sensor obj with 4 params but supplying a value for only one param
class test_pytan_unit.TestManualPackageDefValidateUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test invalid1()
    test invalid2()
    test_valid1()
    test_valid2()
class test pytan unit.TestManualQuestionFilterDefParseUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test_parse_emptydict()
    test_parse_emptylist()
    test_parse_emptystr()
    test_parse_multi_filter()
    test_parse_noargs()
    test_parse_none()
    test_parse_single_filter()
    test parse str()
class test_pytan_unit.TestManualQuestionFilterDefValidateUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test invalid1()
    test_valid1()
    test_valid2()
class test_pytan_unit.TestManualQuestionOptionDefParseUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test_parse_emptydict()
    test_parse_emptylist()
    test_parse_emptystr()
    test_parse_list()
```

```
test_parse_noargs()
    test_parse_none()
    test_parse_options_dict()
    test_parse_str()
class test_pytan_unit.TestManualSensorDefParseUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test_parse_complex()
         list with many items is parsed into same list
    test_parse_dict_hash()
         dict with hash is parsed into list of same dict
    test_parse_dict_id()
         dict with id is parsed into list of same dict
    test_parse_dict_name()
         dict with name is parsed into list of same dict
    test_parse_emptydict()
         args=={} throws exception
    test_parse_emptylist()
         args==[] throws exception
    test_parse_emptystr()
         args==" throws exception
    test_parse_noargs()
         no args throws exception
    test_parse_none()
         args==None throws exception
    test_parse_str1()
         simple str is parsed into list of same str
class test_pytan_unit.TestManualSensorDefValidateUtils (methodName='runTest')
    Bases: unittest.case.TestCase
    test_invalid1()
    test_invalid2()
    test_invalid3()
    test_invalid4()
    test_valid1()
    test_valid2()
    test_valid3()
    test_valid4()
```

# 1.4 TaniumPy Package

A python package that handles the serialization/deserialization of XML SOAP requests/responses from Tanium to/from python objects.

# 1.4.1 Subpackages

```
taniumpy.object_types package
```

**Submodules** 

taniumpy.object\_types.action module

```
class taniumpy.object_types.action.Action
    Bases: taniumpy.object_types.base.BaseType
```

taniumpy.object\_types.action\_list module

```
class taniumpy.object_types.action_list.ActionList
    Bases: taniumpy.object_types.base.BaseType
```

taniumpy.object\_types.action\_list\_info module

```
class taniumpy.object_types.action_list_info.ActionListInfo
    Bases: taniumpy.object_types.base.BaseType
```

taniumpy.object\_types.action\_stop module

```
class taniumpy.object_types.action_stop.ActionStop
    Bases: taniumpy.object_types.base.BaseType
```

taniumpy.object types.action stop list module

```
class taniumpy.object_types.action_stop_list.ActionStopList
     Bases: taniumpy.object_types.base.BaseType
```

taniumpy.object types.all objects module

taniumpy.object\_types.archived\_question module

```
class taniumpy.object_types.archived_question.ArchivedQuestion
    Bases: taniumpy.object_types.base.BaseType
```

taniumpy.object\_types.archived\_question\_list module

taniumpy.object\_types.audit\_data module

```
class taniumpy.object_types.audit_data.AuditData
    Bases: taniumpy.object_types.base.BaseType
```

#### taniumpy.object types.base module

```
class taniumpy.object_types.base.BaseType (simple_properties,
                                                                                 complex_properties,
                                                     list_properties)
     Bases: object
     append(n)
          Allow adding to list.
          Only supported on types that have a single property that is in list_properties
     explode_json(val)
     flatten_jsonable (val, prefix)
     classmethod fromSOAPBody (body)
          Parse body (text) and produce Python tanium objects.
          This method assumes a single result_object, which may be a list or a single object.
     classmethod fromSOAPElement (el)
     static from_jsonable (jsonable)
          Inverse of to_jsonable, with explode_json_string_values=False.
          This can be used to import objects from serialized JSON. This JSON should come from Base-
          Type.to isonable(explode ison string values=False, include+type=True)
          Examples
          >>> with open('question_list.json') as fd:
                  questions = json.loads(fd.read())
                   # is a list of serialized questions
                  question_objects = BaseType.from_jsonable(questions)
                   # will return a list of api.Question
     toSOAPBody (minimal=False)
     toSOAPElement (minimal=False)
     to_flat_dict (prefix='', explode_json_string_values=False)
          Convert the object to a dict, flattening any lists or nested types
     to_flat_dict_explode_json(val, prefix='')
          see if the value is ison. If so, flatten it out into a dict
     static to_json (jsonable, **kwargs)
          Convert to a json string.
          jsonable can be a single BaseType instance of a list of BaseType
     to jsonable (explode json string values=False, include type=True)
     static write_csv (fd, val, explode_json_string_values=False, **kwargs)
          Write 'val' to CSV. val can be a BaseType instance or a list of BaseType
```

This does a two-pass, calling to\_flat\_dict for each object, then finding the union of all headers, then writing out the value of each column for each object sorted by header name

explode\_json\_string\_values attempts to see if any of the str values are parseable by json.loads, and if so treat each property as a column value

fd is a file-like object

```
exception taniumpy.object_types.base.IncorrectTypeException(property, expected, ac-
    Bases: exceptions. Exception
    Raised when a property is not of the expected type
taniumpy.object types.cache filter module
class taniumpy.object_types.cache_filter.CacheFilter
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.cache_filter_list module
class taniumpy.object_types.cache_filter_list.CacheFilterList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.cache info module
class taniumpy.object_types.cache_info.CacheInfo
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.client count module
class taniumpy.object_types.client_count.ClientCount
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.client_status module
class taniumpy.object_types.client_status.ClientStatus
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.column module
class taniumpy.object_types.column.Column
    Bases: object
    classmethod from SOAPElement (el)
taniumpy.object_types.column_set module
class taniumpy.object_types.column_set.ColumnSet
    Bases: object
    classmethod from SOAPElement(el)
taniumpy.object_types.computer_group module
class taniumpy.object_types.computer_group.ComputerGroup
    Bases: taniumpy.object_types.base.BaseType
```

```
taniumpy.object_types.computer_group_list_module
class taniumpy.object_types.computer_group_list.ComputerGroupList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.computer group spec module
class taniumpy.object_types.computer_group_spec.ComputerGroupSpec
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.computer_spec_list module
class taniumpy.object_types.computer_spec_list.ComputerSpecList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.error_list module
class taniumpy.object_types.error_list.ErrorList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.filter module
class taniumpy.object_types.filter.Filter
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.filter list module
class taniumpy.object_types.filter_list.FilterList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.group module
class taniumpy.object_types.group.Group
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.group list module
class taniumpy.object_types.group_list.GroupList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.metadata item module
class taniumpy.object types.metadata item.MetadataItem
    Bases: taniumpy.object_types.base.BaseType
```

# taniumpy.object types.metadata list module class taniumpy.object\_types.metadata\_list.MetadataList Bases: taniumpy.object\_types.base.BaseType taniumpy.object types.object list module class taniumpy.object\_types.object\_list.ObjectList Bases: taniumpy.object\_types.base.BaseType taniumpy.object\_types.object\_list\_types module taniumpy.object\_types.options module class taniumpy.object\_types.options.Options Bases: taniumpy.object types.base.BaseType taniumpy.object\_types.package\_file module class taniumpy.object\_types.package\_file.PackageFile Bases: taniumpy.object\_types.base.BaseType taniumpy.object\_types.package\_file\_list\_module class taniumpy.object\_types.package\_file\_list.PackageFileList Bases: taniumpy.object\_types.base.BaseType taniumpy.object types.package file status module class taniumpy.object\_types.package\_file\_status.PackageFileStatus Bases: taniumpy.object\_types.base.BaseType taniumpy.object types.package file status list module class taniumpy.object\_types.package\_file\_status\_list.PackageFileStatusList Bases: taniumpy.object types.base.BaseType taniumpy.object types.package file template module class taniumpy.object\_types.package\_file\_template.PackageFileTemplate Bases: taniumpy.object\_types.base.BaseType taniumpy.object\_types.package\_file\_template\_list module class taniumpy.object\_types.package\_file\_template\_list.PackageFileTemplateList

Bases: taniumpy.object\_types.base.BaseType

```
taniumpy.object_types.package_spec module
class taniumpy.object_types.package_spec.PackageSpec
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.package_spec_list_module
class taniumpy.object_types.package_spec_list.PackageSpecList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.parameter module
class taniumpy.object_types.parameter.Parameter
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.parameter_list module
class taniumpy.object_types.parameter_list.ParameterList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.parse job module
class taniumpy.object_types.parse_job.ParseJob
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.parse job list module
class taniumpy.object_types.parse_job_list.ParseJobList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.parse_result module
class taniumpy.object_types.parse_result.ParseResult
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.parse result group module
class taniumpy.object_types.parse_result_group.ParseResultGroup
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.parse result group list module
class taniumpy.object_types.parse_result_group_list.ParseResultGroupList
    Bases: taniumpy.object_types.base.BaseType
```

## taniumpy.object\_types.parse\_result\_list module

class taniumpy.object\_types.parse\_result\_list.ParseResultList
 Bases: taniumpy.object\_types.base.BaseType

#### taniumpy.object types.permission list module

class taniumpy.object\_types.permission\_list.PermissionList
 Bases: taniumpy.object\_types.base.BaseType

#### taniumpy.object\_types.plugin module

class taniumpy.object\_types.plugin.Plugin
 Bases: taniumpy.object\_types.base.BaseType

# taniumpy.object\_types.plugin\_argument module

class taniumpy.object\_types.plugin\_argument.PluginArgument
 Bases: taniumpy.object\_types.base.BaseType

## taniumpy.object types.plugin argument list module

class taniumpy.object\_types.plugin\_argument\_list.PluginArgumentList
 Bases: taniumpy.object\_types.base.BaseType

#### taniumpy.object\_types.plugin\_command\_list module

# taniumpy.object\_types.plugin\_list module

# taniumpy.object\_types.plugin\_schedule module

class taniumpy.object\_types.plugin\_schedule.PluginSchedule
 Bases: taniumpy.object\_types.base.BaseType

# taniumpy.object\_types.plugin\_schedule\_list module

```
taniumpy.object types.plugin sql module
class taniumpy.object_types.plugin_sql.PluginSql
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.plugin sql column module
class taniumpy.object_types.plugin_sql_column.PluginSqlColumn
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.plugin_sql_result module
class taniumpy.object_types.plugin_sql_result.PluginSqlResult
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.question module
class taniumpy.object_types.question.Question
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.question_list_module
class taniumpy.object_types.question_list.QuestionList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.question list info module
class taniumpy.object_types.question_list_info.QuestionListInfo
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.result_info module
class taniumpy.object_types.result_info.ResultInfo
    Bases: object
    Wrap the result of GetResultInfo
    classmethod from SOAPElement (el)
         Deserialize a ResultInfo from a result info SOAPElement
         Assumes all properties are integer values (true today)
taniumpy.object_types.result_set module
class taniumpy.object_types.result_set.ResultSet
    Bases: object
    Wrap the result of GetResultData
```

```
classmethod fromSOAPElement (el)
         Deserialize a ResultSet from a result set SOAPElement
     static to_json (jsonable, **kwargs)
         Convert to a json string.
         isonable must be a ResultSet instance
     to_jsonable(**kwargs)
     static write_csv (fd, val, **kwargs)
taniumpy.object types.row module
class taniumpy.object_types.row.Row(columns)
     Bases: object
     A row in a result set.
     Values are stored in column order, also accessible by key using []
     classmethod fromSOAPElement (el, columns)
taniumpy.object_types.saved_action module
{\bf class} \; {\tt taniumpy.object\_types.saved\_action.} \\ {\bf SavedAction}
     Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.saved action approval module
class taniumpy.object_types.saved_action_approval.SavedActionApproval
     Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.saved_action_list module
class taniumpy.object_types.saved_action_list.SavedActionList
     Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.saved_action_policy module
class taniumpy.object_types.saved_action_policy.SavedActionPolicy
     Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.saved action row id list module
class taniumpy.object_types.saved_action_row_id_list.SavedActionRowIdList
     Bases: taniumpy.object_types.base.BaseType
```

```
taniumpy.object types.saved question module
class taniumpy.object_types.saved_question.SavedQuestion
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.saved question list module
class taniumpy.object_types.saved_question_list.SavedQuestionList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.select module
class taniumpy.object_types.select.Select
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.select_list module
class taniumpy.object_types.select_list.SelectList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.sensor module
class taniumpy.object_types.sensor.Sensor
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.sensor_list module
class taniumpy.object_types.sensor_list.SensorList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.sensor_query module
class taniumpy.object_types.sensor_query.SensorQuery
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.sensor query list module
class taniumpy.object_types.sensor_query_list.SensorQueryList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.sensor_subcolumn module
class taniumpy.object types.sensor subcolumn.SensorSubcolumn
    Bases: taniumpy.object_types.base.BaseType
```

# taniumpy.object types.sensor subcolumn list module class taniumpy.object\_types.sensor\_subcolumn\_list.SensorSubcolumnList Bases: taniumpy.object\_types.base.BaseType taniumpy.object\_types.sensor\_types module taniumpy.object types.soap error module class taniumpy.object\_types.soap\_error.SoapError Bases: taniumpy.object\_types.base.BaseType taniumpy.object\_types.string\_hint\_list\_module class taniumpy.object\_types.string\_hint\_list.StringHintList Bases: taniumpy.object types.base.BaseType taniumpy.object\_types.system\_setting module class taniumpy.object\_types.system\_setting.SystemSetting Bases: taniumpy.object\_types.base.BaseType taniumpy.object types.system setting list module class taniumpy.object\_types.system\_setting\_list.SystemSettingList Bases: taniumpy.object\_types.base.BaseType taniumpy.object types.system status aggregate module class taniumpy.object\_types.system\_status\_aggregate.SystemStatusAggregate Bases: taniumpy.object\_types.base.BaseType taniumpy.object types.system status list module class taniumpy.object\_types.system\_status\_list.SystemStatusList Bases: taniumpy.object types.base.BaseType taniumpy.object types.upload file module class taniumpy.object\_types.upload\_file.UploadFile Bases: taniumpy.object\_types.base.BaseType taniumpy.object\_types.upload\_file\_list module class taniumpy.object\_types.upload\_file\_list.UploadFileList Bases: taniumpy.object\_types.base.BaseType

```
taniumpy.object types.upload file status module
class taniumpy.object_types.upload_file_status.UploadFileStatus
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.user module
class taniumpy.object_types.user.User
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.user_list module
class taniumpy.object_types.user_list.UserList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.user_role module
class taniumpy.object_types.user_role.UserRole
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.user_role_list_module
class taniumpy.object_types.user_role_list.UserRoleList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.version aggregate module
class taniumpy.object_types.version_aggregate.VersionAggregate
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.version_aggregate_list module
class taniumpy.object_types.version_aggregate_list.VersionAggregateList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.white listed url module
class taniumpy.object_types.white_listed_url.WhiteListedUrl
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object types.white listed url list module
class taniumpy.object_types.white_listed_url_list.WhiteListedUrlList
    Bases: taniumpy.object_types.base.BaseType
```

#### taniumpy.object types.xml error module

```
class taniumpy.object_types.xml_error.XmlError
    Bases: taniumpy.object_types.base.BaseType
```

# 1.5 Other Packages

PyTan relies on a number of python packages to function properly. All dependencies are bundled with PyTan in order to make it easier for the user to start using PyTan right away.

# 1.5.1 requests Package

PyTan uses requests for all HTTP requests in order to get automatic keep alive support, session tracking, and a host of other things. requests is an open source package maintained at: https://github.com/kennethreitz/requests

### **Requests HTTP library**

Requests is an HTTP library, written in Python, for human beings. Basic GET usage:

```
>>> import requests
>>> r = requests.get('https://www.python.org')
>>> r.status_code
200
>>> 'Python is a programming language' in r.content
True
```

#### ... or POST:

```
>>> payload = dict(key1='value1', key2='value2')
>>> r = requests.post('http://httpbin.org/post', data=payload)
>>> print(r.text)
{
    ...
    "form": {
        "key2": "value2",
        "key1": "value1"
    },
    ...
}
```

The other HTTP methods are supported - see requests.api. Full documentation is at <a href="http://python-requests.org">http://python-requests.org</a>>.

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# 1.5.2 threaded http Package

PyTan uses threaded\_http to create a fake HTTP server on localhost for the invalid server functional tests (see: pytan.test\_pytan\_invalid\_server\_tests). threaded\_http is developed and maintained by Tanium. Simple HTTP server for testing purposes

# 1.5.3 xmltodict Package

PyTan uses xmltodict for pretty printing XML documents (see: pytan.utils.xml\_pretty()). xmltodict is an open source package maintained at: https://github.com/martinblech/xmltodict Makes working with XML feel like you are working with JSON

xml\_input can either be a string or a file-like object.

If *xml\_attribs* is *True*, element attributes are put in the dictionary among regular child elements, using @ as a prefix to avoid collisions. If set to *False*, they are just ignored.

Simple example:

If *item\_depth* is 0, the function returns a dictionary for the root element (default behavior). Otherwise, it calls *item\_callback* every time an item at the specified depth is found and returns *None* in the end (streaming mode).

The callback function receives two parameters: the *path* from the document root to the item (name-attribs pairs), and the *item* (dict). If the callback's return value is false-ish, parsing will be stopped with the ParsingInterrupted exception.

Streaming example:

```
>>> def handle(path, item):
... print 'path:%s item:%s' % (path, item)
... return True
```

The optional argument *postprocessor* is a function that takes *path*, *key* and *value* as positional arguments and returns a new (*key*, *value*) pair where both *key* and *value* may have changed. Usage example:

You can pass an alternate version of *expat* (such as *defusedexpat*) by using the *expat* parameter. E.g.:

```
>>> import defusedexpat
>>> xmltodict.parse('<a>hello</a>', expat=defusedexpat.pyexpat)
OrderedDict([(u'a', u'hello')])
```

xmltodict.unparse(input\_dict, output=None, encoding='utf-8', full\_document=True, \*\*kwargs)
Emit an XML document for the given input\_dict (reverse of parse).

The resulting XML document is returned as a string, but if *output* (a file-like object) is specified, it is written there instead.

Dictionary keys prefixed with attr\_prefix (default=''@') are interpreted as XML node attributes, whereas keys equal to 'cdata\_key (default=''#text'') are treated as character data.

The *pretty* parameter (default='False') enables pretty-printing. In this mode, lines are terminated with 'n' and indented with 't', but this can be customized with the *newl* and *indent* parameters.

# 1.5.4 ddt Package

PyTan uses ddt for creating automatically generating test cases from JSON files (see: pytan.test\_pytan\_valid\_server\_tests). ddt is an open source package maintained at: https://github.com/txels/ddt

```
ddt.data(*values)
```

Method decorator to add to your test methods.

Should be added to methods of instances of unittest. TestCase.

```
ddt.ddt (cls)
```

Class decorator for subclasses of unittest. TestCase.

Apply this decorator to the test case class, and then decorate test methods with @data.

For each method decorated with @data, this will effectively create as many methods as data items are passed as parameters to @data.

The names of the test methods follow the pattern original\_test\_name\_{ordinal}\_{data}. ordinal is the position of the data argument, starting with 1.

For data we use a string representation of the data value converted into a valid python identifier. If data.\_\_name\_\_ exists, we use that instead.

For each method decorated with <code>@file\_data('test\_data.json')</code>, the decorator will try to load the test\_data.json file located relative to the python file containing the method that is decorated. It will, for each test\_name key create as many methods in the list of values from the data key.

#### ddt.file data(value)

Method decorator to add to your test methods.

Should be added to methods of instances of unittest. TestCase.

value should be a path relative to the directory of the file containing the decorated unittest. TestCase. The file should contain JSON encoded data, that can either be a list or a dict.

In case of a list, each value in the list will correspond to one test case, and the value will be concatenated to the test method name.

In case of a dict, keys will be used as suffixes to the name of the test case, and values will be fed as test data.

#### ddt.is\_hash\_randomized()

#### ddt.mk\_test\_name (name, value, index=0)

Generate a new name for a test case.

It will take the original test name and append an ordinal index and a string representation of the value, and convert the result into a valid python identifier by replacing extraneous characters with \_.

If hash randomization is enabled (a feature available since 2.7.3/3.2.3 and enabled by default since 3.3) and a "non-trivial" value is passed this will omit the name argument by default. Set *PYTHONHASHSEED* to a fixed value before running tests in these cases to get the names back consistently or use the \_\_name\_\_ attribute on data values.

A "trivial" value is a plain scalar, or a tuple or list consisting only of trivial values.

### ddt.unpack(func)

Method decorator to add unpack feature.

# 1.5.5 pyreadline Package

PyTan uses pyreadline for providing tab completion within pytan\_shell.py/.bat on Windows (see: pytan.binsupport.HistoryConsole). pyreadline is stored in winlb/ instead of lib/ since it should only be imported on Windows. pyreadline is an open source package maintained at: https://pypi.python.org/pypi/pyreadline/2.0

# 1.6 PyTan API Validation Tests

This section contains the the output from running test/test\_pytan\_valid\_server\_tests.py from a number of different client configurations against a number of different server versions.

### 1.6.1 Tanium: 6.2.314.3321, OS: OS X 10.10.5, Python: 2.7.10

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.2.314.3321

- Test Date: 2015:09:04 19:59:21 EDT
- OS Version running PyTan: OS X 10.10.5
- Python version running PyTan: 2.7.10 (default, Jul 14 2015, 19:46:27)
- Output from tests: pytan\_validation\_test-6.2.314.3321-OS\_X\_10.10.5-2.7.10.log

# 1.6.2 Tanium: 6.2.314.3321, OS: Windows 2008ServerR2 SP1, Python: 2.7.10

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.2.314.3321
- Test Date: 2015:09:04 22:32:53 Eastern Daylight Time
- OS Version running PyTan: Windows 2008ServerR2 SP1
- Python version running PyTan: 2.7.10 (default, May 23 2015, 09:44:00) [MSC v.1500 64 bit (AMD64)]
- Output from tests: pytan validation test-6.2.314.3321-Windows 2008ServerR2 SP1-2.7.10.log

# 1.6.3 Tanium: 6.2.314.3321, OS: Windows 2008ServerR2 SP1, Python: 2.7.6

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.2.314.3321
- Test Date: 2015:09:04 22:13:34 Eastern Daylight Time
- OS Version running PyTan: Windows 2008ServerR2 SP1
- Python version running PyTan: 2.7.6 (default, Nov 10 2013, 19:24:24) [MSC v.1500 64 bit (AMD64)]
- Output from tests: pytan\_validation\_test-6.2.314.3321-Windows\_2008ServerR2\_SP1-2.7.6.log

# 1.6.4 Tanium: 6.2.314.3321, OS: Windows 2008ServerR2 SP1, Python: 2.7.9

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.2.314.3321
- Test Date: 2015:09:04 20:20:21 Eastern Daylight Time
- OS Version running PyTan: Windows 2008ServerR2 SP1
- Python version running PyTan: 2.7.9 (default, Dec 10 2014, 12:28:03) [MSC v.1500 64 bit (AMD64)]
- Output from tests: pytan\_validation\_test-6.2.314.3321-Windows\_2008ServerR2\_SP1-2.7.9.log

# 1.6.5 Tanium: 6.5.314.4301, OS: OS X 10.10.5, Python: 2.7.10

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.5.314.4301
- Test Date: 2015:09:04 17:40:53 EDT
- OS Version running PyTan: OS X 10.10.5
- Python version running PyTan: 2.7.10 (default, Jul 14 2015, 19:46:27)
- Output from tests: pytan\_validation\_test-6.5.314.4301-OS\_X\_10.10.5-2.7.10.log

# 1.6.6 Tanium: 6.5.314.4301, OS: Ubuntu 14.04 trusty, Python: 2.7.6

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.5.314.4301
- Test Date: 2015:09:04 21:26:30 PDT
- OS Version running PyTan: Ubuntu 14.04 trusty
- Python version running PyTan: 2.7.6 (default, Mar 22 2014, 22:59:56)
- Output from tests: pytan\_validation\_test-6.5.314.4301-Ubuntu\_14.04\_trusty-2.7.6.log

# 1.6.7 Tanium: 6.5.314.4301, OS: Windows 2008ServerR2 SP1, Python: 2.7.10

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.5.314.4301
- Test Date: 2015:09:04 22:56:14 Eastern Daylight Time
- OS Version running PyTan: Windows 2008ServerR2 SP1
- Python version running PyTan: 2.7.10 (default, May 23 2015, 09:44:00) [MSC v.1500 64 bit (AMD64)]
- Output from tests: pytan\_validation\_test-6.5.314.4301-Windows\_2008ServerR2\_SP1-2.7.10.log

# 1.6.8 Tanium: 6.5.314.4301, OS: Windows 2008ServerR2 SP1, Python: 2.7.6

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.5.314.4301
- Test Date: 2015:09:04 23:14:29 Eastern Daylight Time
- OS Version running PyTan: Windows 2008ServerR2 SP1
- Python version running PyTan: 2.7.6 (default, Nov 10 2013, 19:24:24) [MSC v.1500 64 bit (AMD64)]
- Output from tests: pytan\_validation\_test-6.5.314.4301-Windows\_2008ServerR2\_SP1-2.7.6.log

# 1.6.9 Tanium: 6.5.314.4301, OS: Windows 2008ServerR2 SP1, Python: 2.7.9

This is the output from running test/test\_pytan\_valid\_server\_tests.py against the following:

- PyTan Version: 2.1.0
- Tanium Platform Version: 6.5.314.4301
- Test Date: 2015:09:04 21:47:03 Eastern Daylight Time
- OS Version running PyTan: Windows 2008ServerR2 SP1
- Python version running PyTan: 2.7.9 (default, Dec 10 2014, 12:28:03) [MSC v.1500 64 bit (AMD64)]
- Output from tests: pytan\_validation\_test-6.5.314.4301-Windows\_2008ServerR2\_SP1-2.7.9.log

# 1.7 PyTan Command Line Help

The Command Line help for PyTan is generated using a different process as we have to test the ability to run the commands and check for various conditions on exit. It can be found here: Command Line Help Index

# 1.8 PyTan API Examples

Each of these sections contains examples that show Example Python code for using a PyTan method, along with the standard output and standard error from running each example

# 1.8.1 PyTan API Basic Handler Example

This is an example for how to instantiate a pytan. Handler object.

The username, password, host, and maybe port as well need to be provided on a per Tanium server basis.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
```

```
# try to automatically determine the pytan lib directory by assuming it is in '../../lib/
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
```

# 1.8.2 PyTan API Valid Create Object Examples

All of the PyTan API examples for Valid Create Object

#### **Create User**

Create a user called API Test User

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
```

```
import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
22
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.delete() method
58
   delete_kwargs = {}
59
   delete_kwargs["objtype"] = u'user'
   delete_kwarqs["name"] = u'API Test User'
```

```
# setup the arguments for the handler() class
63
   kwargs = {}
   kwargs["rolename"] = u'Administrator'
   kwargs["name"] = u'API Test User'
   kwargs["properties"] = [[u'property1', u'value1']]
67
68
   # delete the object in case it already exists
69
   # catch and print the exception error if it does not exist
70
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
71
72
       handler.delete(**delete_kwargs)
73
   except Exception as e:
       print "...EXCEPTION: {}".format(e)
75
76
   print "...CALLING: handler.create_user() with args: {}".format(kwargs)
77
   response = handler.create_user(**kwargs)
78
   print "...OUTPUT: Type of response: ", type(response)
80
   print "...OUTPUT: print of response:"
81
   print response
82
83
   # call the export_obj() method to convert response to JSON and store it in out
84
   export_kwargs = {}
85
   export_kwarqs['obj'] = response
   export_kwargs['export_format'] = 'json'
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
88
   out = handler.export_obj(**export_kwargs)
89
90
   # trim the output if it is more than 15 lines long
91
   if len(out.splitlines()) > 15:
92
93
       out = out.splitlines()[0:15]
       out.append('..trimmed for brevity..')
94
       out = ' \ n'. join (out)
95
96
   print "...OUTPUT: print the objects returned in JSON format:"
97
   print out
   # delete the object, we are done with it now
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
101
   delete_response = handler.delete(**delete_kwargs)
102
103
104
   print "...OUTPUT: print the delete response"
   print delete_response
```

#### **Create Package**

Create a package called package49

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
```

```
import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
22
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.delete() method
58
   delete_kwargs = {}
59
   delete_kwargs["objtype"] = u'package'
   delete_kwarqs["name"] = u'package49'
```

```
# setup the arguments for the handler() class
63
   kwargs = {}
   kwargs["expire_seconds"] = 1500
   kwargs["display_name"] = u'package49 API test'
   kwargs["name"] = u'package49'
67
   kwargs["parameters_json_file"] = u'../doc/example_of_all_package_parameters.json'
68
   kwargs["verify_expire_seconds"] = 3600
69
   kwargs["command"] = u'package49 $1 $2 $3 $4 $5 $6 $7 $8'
70
   kwargs["file_urls"] = [u'3600::testing.vbs||https://content.tanium.com/files/initialcontent/bundles/
71
   kwargs["verify_filter_options"] = [u'and']
   kwargs["verify_filters"] = [u'Custom Tags, that contains:tag']
73
   kwargs["command_timeout_seconds"] = 9999
75
   # delete the object in case it already exists
76
   # catch and print the exception error if it does not exist
77
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
78
79
   try:
       handler.delete(**delete_kwargs)
80
   except Exception as e:
81
       print "...EXCEPTION: {}".format(e)
82
83
   print "...CALLING: handler.create_package() with args: {}".format(kwargs)
84
   response = handler.create_package(**kwargs)
85
   print "...OUTPUT: Type of response: ", type(response)
   print "...OUTPUT: print of response:"
88
   print response
89
90
   # call the export_obj() method to convert response to JSON and store it in out
91
   export_kwargs = {}
92
   export_kwargs['obj'] = response
93
   export_kwargs['export_format'] = 'json'
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   out = handler.export_obj(**export_kwargs)
   # trim the output if it is more than 15 lines long
98
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
100
       out.append('..trimmed for brevity..')
101
       out = '\n'.join(out)
102
103
   print "...OUTPUT: print the objects returned in JSON format:"
104
   print out
105
106
   # delete the object, we are done with it now
107
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
108
   delete_response = handler.delete(**delete_kwargs)
109
110
   print "...OUTPUT: print the delete response"
111
   print delete_response
```

#### **Create Group**

Create a group called All Windows Computers API Test

- STDOUT from Example Python Code
- STDERR from Example Python Code

### • Example Python Code

```
# import the basic python packages we need
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont write bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
```

```
# setup the arguments for the handler.delete() method
   delete_kwargs = {}
59
   delete_kwargs["objtype"] = u'group'
60
   delete_kwargs["name"] = u'All Windows Computers API Test'
61
62
   # setup the arguments for the handler() class
63
   kwargs = {}
64
   kwargs["groupname"] = u'All Windows Computers API Test'
65
   kwargs["filters"] = [u'Operating System, that contains:Windows']
   kwargs["filter_options"] = [u'and']
   # delete the object in case it already exists
   # catch and print the exception error if it does not exist
70
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
71
   try:
72
       handler.delete(**delete_kwargs)
73
   except Exception as e:
74
75
       print "...EXCEPTION: {}".format(e)
76
   print "...CALLING: handler.create_group() with args: {}".format(kwargs)
77
   response = handler.create_group(**kwargs)
78
   print "...OUTPUT: Type of response: ", type(response)
   print "...OUTPUT: print of response:"
   print response
83
   # call the export_obj() method to convert response to JSON and store it in out
84
   export_kwargs = {}
85
   export_kwargs['obj'] = response
86
   export_kwargs['export_format'] = 'json'
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
88
   out = handler.export_obj(**export_kwargs)
89
90
   # trim the output if it is more than 15 lines long
91
   if len(out.splitlines()) > 15:
92
       out = out.splitlines()[0:15]
93
       out.append('..trimmed for brevity..')
       out = '\n'.join(out)
   print "...OUTPUT: print the objects returned in JSON format:"
97
   print out
98
   # delete the object, we are done with it now
100
101
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
102
   delete_response = handler.delete(**delete_kwargs)
103
   print "...OUTPUT: print the delete response"
104
   print delete_response
```

#### **Create Whitelisted Url**

Create a whitelisted url

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler.delete() method
```

```
delete_kwargs = {}
   delete_kwargs["objtype"] = u'whitelisted_url'
   delete_kwargs["url_regex"] = u'regex:http://test.com/.*API_Test.*URL'
   # setup the arguments for the handler() class
63
   kwargs = {}
64
   kwargs["url"] = u'http://test.com/.*API_Test.*URL'
65
   kwargs["regex"] = True
   kwargs["properties"] = [[u'property1', u'value1']]
   kwargs["download_seconds"] = 3600
   # delete the object in case it already exists
   # catch and print the exception error if it does not exist
71
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
72
   try:
73
       handler.delete(**delete_kwargs)
74
   except Exception as e:
75
76
       print "...EXCEPTION: {}".format(e)
77
   print "...CALLING: handler.create_whitelisted_url() with args: {}".format(kwarqs)
78
   response = handler.create_whitelisted_url(**kwargs)
79
   print "...OUTPUT: Type of response: ", type(response)
81
   print "...OUTPUT: print of response:"
   print response
84
   # call the export_obj() method to convert response to JSON and store it in out
85
   export_kwargs = {}
86
   export_kwargs['obj'] = response
   export_kwargs['export_format'] = 'json'
89
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   out = handler.export_obj(**export_kwargs)
91
   # trim the output if it is more than 15 lines long
92
   if len(out.splitlines()) > 15:
93
       out = out.splitlines()[0:15]
       out.append('..trimmed for brevity..')
       out = '\n'.join(out)
   print "...OUTPUT: print the objects returned in JSON format:"
98
   print out
99
100
   # delete the object, we are done with it now
101
102
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
103
   delete_response = handler.delete(**delete_kwargs)
104
   print "...OUTPUT: print the delete response"
105
   print delete_response
```

# 1.8.3 PyTan API Valid Create Object From JSON Examples

All of the PyTan API examples for Valid Create Object From JSON

# **Create Package From JSON**

Export a package object to a JSON file, adding 'API TEST' to the name of the package before exporting the JSON file and deleting any pre-existing package with the same (new) name, then create a new package object from the exported JSON file

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
6
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
```

```
handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
   get_kwargs = {}
   get_kwargs["objtype"] = u'package'
   get_kwarqs["id"] = 31
61
62.
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
64
   orig_objs = handler.get(**get_kwargs)
65
   # set the attribute name and value we want to add to the original objects
67
   # this is necessarry to avoid name conflicts when adding the new object
68
   attr_name = u'name'
69
   attr_value = u' API TEST'
71
   # modify the orig_objs to add attr_value to attr_name
72
   for x in orig_objs:
73
       new_attr = getattr(x, attr_name)
74
       new_attr += attr_value
75
       setattr(x, attr_name, new_attr)
76
77
        # delete the object in case it already exists
78
79
       del_kwarqs = {}
       del_kwargs[attr_name] = new_attr
80
       del_kwargs['objtype'] = u'package'
81
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
       try:
84
           handler.delete(**del_kwargs)
       except Exception as e:
           print "...EXCEPTION: {}".format(e)
87
88
   # export orig_objs to a json file
89
   export_kwargs = {}
   export_kwargs['obj'] = orig_objs
   export_kwargs['export_format'] = 'json'
93
   export_kwargs['report_dir'] = tempfile.gettempdir()
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
95
   json_file, results = handler.export_to_report_file(**export_kwargs)
96
   # create the object from the exported JSON file
   create_kwarqs = {}
   create_kwarqs['objtype'] = u'package'
100
   create_kwarqs['json_file'] = json_file
101
102
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
103
   response = handler.create_from_json(**create_kwargs)
104
   print "...OUTPUT: Type of response: ", type(response)
```

```
107
   print "...OUTPUT: print of response:"
108
   print response
   # call the export_obj() method to convert response to JSON and store it in out
111
   export kwargs = {}
112
   export_kwarqs['obj'] = response
113
   export_kwargs['export_format'] = 'json'
114
115
116
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
117
   out = handler.export_obj(**export_kwargs)
118
    # trim the output if it is more than 15 lines long
119
   if len(out.splitlines()) > 15:
120
        out = out.splitlines()[0:15]
121
        out.append('..trimmed for brevity..')
122
        out = '\n'.join(out)
124
   print "...OUTPUT: print the objects returned in JSON format:"
125
   print out
126
```

#### **Create User From JSON**

Export a user object to a JSON file, adding 'API TEST' to the name of the user before exporting the JSON file and deleting any pre-existing user with the same (new) name, then create a new user object from the exported JSON file

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
1
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
24
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
```

```
2.7
   # import pytan
28
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler.get() method
58
   get_kwarqs = {}
59
   get_kwargs["objtype"] = u'user'
60
   get_kwargs["id"] = 1
61
62
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
64
   orig_objs = handler.get(**get_kwargs)
65
66
   # set the attribute name and value we want to add to the original objects
67
   # this is necessarry to avoid name conflicts when adding the new object
   attr_name = u'name'
   attr_value = u' API TEST'
71
   # modify the orig_objs to add attr_value to attr_name
72
   for x in oriq_objs:
73
       new_attr = getattr(x, attr_name)
74
       new_attr += attr_value
75
       setattr(x, attr_name, new_attr)
76
77
       # delete the object in case it already exists
78
       del_kwarqs = {}
79
       del_kwargs[attr_name] = new_attr
80
       del_kwargs['objtype'] = u'user'
81
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
       try:
```

```
handler.delete(**del_kwargs)
85
        except Exception as e:
86
            print "...EXCEPTION: {}".format(e)
87
88
    # export orig_objs to a json file
89
   export_kwargs = {}
   export_kwargs['obj'] = orig_objs
91
   export_kwargs['export_format'] = 'json'
92
   export_kwargs['report_dir'] = tempfile.gettempdir()
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
   json_file, results = handler.export_to_report_file(**export_kwargs)
97
   # create the object from the exported JSON file
98
   create_kwargs = {}
99
   create_kwargs['objtype'] = u'user'
100
   create_kwargs['json_file'] = json_file
101
102
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
103
   response = handler.create_from_json(**create_kwargs)
104
105
   print "...OUTPUT: Type of response: ", type(response)
106
107
   print "...OUTPUT: print of response:"
108
   print response
109
110
   # call the export_obj() method to convert response to JSON and store it in out
111
   export_kwargs = {}
112
   export_kwargs['obj'] = response
113
   export_kwargs['export_format'] = 'json'
114
115
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
116
   out = handler.export_obj(**export_kwargs)
117
118
    # trim the output if it is more than 15 lines long
119
   if len(out.splitlines()) > 15:
120
       out = out.splitlines()[0:15]
121
        out.append('..trimmed for brevity..')
122
       out = '\n'.join(out)
123
124
   print "...OUTPUT: print the objects returned in JSON format:"
125
   print out
126
```

#### **Create Saved Question From JSON**

Export a saved question object to a JSON file, adding 'API TEST' to the name of the saved question before exporting the JSON file and deleting any pre-existing saved question with the same (new) name, then create a new saved question object from the exported JSON file

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
```

```
import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
21
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
47
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
48
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
   get_kwargs = {}
   get_kwargs["objtype"] = u'saved_question'
   get_kwarqs["id"] = 1
```

```
62.
    # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
64
   orig_objs = handler.get(**get_kwargs)
66
   # set the attribute name and value we want to add to the original objects
67
   # this is necessarry to avoid name conflicts when adding the new object
68
   attr name = u'name'
69
   attr_value = u' API TEST'
70
71
72.
    # modify the orig_objs to add attr_value to attr_name
73
    for x in oriq_objs:
        new_attr = getattr(x, attr_name)
74
        new_attr += attr_value
75
        setattr(x, attr_name, new_attr)
76
77
        # delete the object in case it already exists
        del kwargs = {}
79
        del kwargs[attr name] = new attr
80
       del_kwargs['objtype'] = u'saved_question'
81
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
        try:
84
            handler.delete(**del_kwargs)
85
        except Exception as e:
86
            print "...EXCEPTION: {}".format(e)
87
88
    # export orig_objs to a json file
89
   export_kwargs = {}
   export_kwarqs['obj'] = oriq_objs
   export_kwargs['export_format'] = 'json'
92
   export kwarqs['report dir'] = tempfile.gettempdir()
93
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
95
   json_file, results = handler.export_to_report_file(**export_kwargs)
    # create the object from the exported JSON file
   create_kwarqs = {}
   create_kwargs['objtype'] = u'saved_question'
100
   create_kwargs['json_file'] = json_file
101
102
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
   response = handler.create_from_json(**create_kwargs)
105
   print "...OUTPUT: Type of response: ", type(response)
106
107
   print "...OUTPUT: print of response:"
108
   print response
109
111
    # call the export_obj() method to convert response to JSON and store it in out
   export_kwargs = {}
112
   export_kwargs['obj'] = response
113
   export_kwargs['export_format'] = 'json'
114
115
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
116
   out = handler.export_obj(**export_kwargs)
118
   # trim the output if it is more than 15 lines long
119
```

```
if len(out.splitlines()) > 15:
    out = out.splitlines()[0:15]
    out.append('..trimmed for brevity..')
    out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"
print out
```

#### **Create Action From JSON**

Export an action object to a JSON file, then create a new action object from the exported JSON file. Actions can not be deleted, so do not delete it. This will, in effect, 're-deploy' an action.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
6
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
```

```
# optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler.get() method
58
   get_kwarqs = {}
59
   get_kwargs["objtype"] = u'action'
60
   get_kwargs["id"] = 1
61
62
   # get objects to use as an export to JSON file
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   orig_objs = handler.get(**get_kwargs)
65
66
   # export orig_objs to a json file
67
   export_kwargs = {}
68
   export_kwargs['obj'] = orig_objs
   export_kwargs['export_format'] = 'json'
   export_kwargs['report_dir'] = tempfile.gettempdir()
71
72
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
73
   json_file, results = handler.export_to_report_file(**export_kwargs)
7.1
75
   # create the object from the exported JSON file
   create_kwargs = {}
   create_kwarqs['objtype'] = u'action'
78
   create_kwargs['json_file'] = json_file
79
80
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
81
82
   response = handler.create_from_json(**create_kwargs)
83
84
   print "...OUTPUT: Type of response: ", type(response)
85
   print "...OUTPUT: print of response:"
86
   print response
87
88
   # call the export_obj() method to convert response to JSON and store it in out
   export_kwarqs = {}
   export_kwargs['obj'] = response
   export_kwargs['export_format'] = 'json'
92
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
94
   out = handler.export_obj(**export_kwargs)
95
   # trim the output if it is more than 15 lines long
```

```
if len(out.splitlines()) > 15:
    out = out.splitlines()[0:15]
    out.append('..trimmed for brevity..')
    out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"
print out
```

#### **Create Sensor From JSON**

Export a sensor object to a JSON file, adding 'API TEST' to the name of the sensor before exporting the JSON file and deleting any pre-existing sensor with the same (new) name, then create a new sensor object from the exported JSON file

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
```

```
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
   get kwargs = {}
59
   get_kwarqs["objtype"] = u'sensor'
60
   get_kwargs["id"] = 381
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get kwargs)
64
   oriq_objs = handler.get(**get_kwargs)
65
   # set the attribute name and value we want to add to the original objects
   # this is necessarry to avoid name conflicts when adding the new object
   attr name = u'name'
   attr value = u' API TEST'
71
   # modify the orig_objs to add attr_value to attr_name
72
   for x in orig_objs:
73
       new_attr = getattr(x, attr_name)
74
       new_attr += attr_value
75
       setattr(x, attr_name, new_attr)
76
77
       # delete the object in case it already exists
78
       del_kwarqs = {}
79
       del_kwargs[attr_name] = new_attr
       del_kwargs['objtype'] = u'sensor'
81
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
       try:
84
           handler.delete(**del_kwargs)
85
       except Exception as e:
86
           print "...EXCEPTION: {}".format(e)
88
   # export orig_objs to a json file
89
   export_kwargs = {}
   export_kwargs['obj'] = orig_objs
91
   export_kwargs['export_format'] = 'json'
92
   export_kwargs['report_dir'] = tempfile.gettempdir()
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
   json_file, results = handler.export_to_report_file(**export_kwargs)
```

```
97
    # create the object from the exported JSON file
   create_kwargs = {}
100
   create_kwargs['objtype'] = u'sensor'
   create_kwarqs['json_file'] = json_file
101
102
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
103
   response = handler.create_from_json(**create_kwargs)
104
105
   print "...OUTPUT: Type of response: ", type(response)
107
   print "...OUTPUT: print of response:"
108
   print response
109
110
   # call the export_obj() method to convert response to JSON and store it in out
111
   export_kwargs = {}
   export_kwargs['obj'] = response
   export_kwargs['export_format'] = 'json'
114
115
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
116
   out = handler.export_obj(**export_kwargs)
117
118
    # trim the output if it is more than 15 lines long
119
   if len(out.splitlines()) > 15:
120
        out = out.splitlines()[0:15]
121
        out.append('..trimmed for brevity..')
122
        out = ' \ n'. join (out)
123
124
   print "...OUTPUT: print the objects returned in JSON format:"
   print out
```

#### **Create Question From JSON**

Export a question object to a JSON file, then create a new question object from the exported JSON file. Questions can not be deleted, so do not delete it. This will, in effect, 're-ask' a question.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
```

```
my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
   get_kwarqs = {}
59
60
   get_kwargs["objtype"] = u'question'
61
   get_kwargs["id"] = 1
62
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   oriq_objs = handler.get(**get_kwargs)
65
   # export orig_objs to a json file
   export_kwargs = {}
68
   export kwarqs['obj'] = oriq objs
   export_kwarqs['export_format'] = 'json'
   export_kwargs['report_dir'] = tempfile.gettempdir()
71
72
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
   json_file, results = handler.export_to_report_file(**export_kwargs)
```

```
75
   # create the object from the exported JSON file
76
77
   create_kwargs = {}
   create_kwargs['objtype'] = u'question'
   create_kwarqs['json_file'] = json_file
79
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
81
   response = handler.create_from_json(**create_kwargs)
82
83
   print "...OUTPUT: Type of response: ", type(response)
85
   print "...OUTPUT: print of response:"
86
   print response
87
88
   # call the export_obj() method to convert response to JSON and store it in out
89
   export_kwargs = {}
   export_kwargs['obj'] = response
   export_kwargs['export_format'] = 'json'
92
93
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
94
   out = handler.export_obj(**export_kwargs)
95
   # trim the output if it is more than 15 lines long
97
   if len(out.splitlines()) > 15:
98
       out = out.splitlines()[0:15]
99
        out.append('..trimmed for brevity..')
100
       out = ' \ n'. join (out)
101
102
   print "...OUTPUT: print the objects returned in JSON format:"
   print out
```

#### **Create Whitelisted Url From JSON**

Export a whitelisted url object to a JSON file, adding 'test1' to the url\_regex of the whitelisted url before exporting the JSON file and deleting any pre-existing whitelisted url with the same (new) name, then create a new whitelisted url object from the exported JSON file

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
```

```
my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
59
   get_kwargs = {}
   get_kwarqs["objtype"] = u'whitelisted_url'
60
   get_kwarqs["url_regex"] = u'test1'
61
62.
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   orig_objs = handler.get(**get_kwargs)
   # set the attribute name and value we want to add to the original objects
67
   # this is necessarry to avoid name conflicts when adding the new object
68
   attr_name = u'url_regex'
69
   attr_value = u' API TEST'
71
   # modify the orig_objs to add attr_value to attr_name
   for x in orig_objs:
```

```
new_attr = getattr(x, attr_name)
74
        new_attr += attr_value
75
        setattr(x, attr_name, new_attr)
76
77
        # delete the object in case it already exists
78
        del_kwargs = {}
79
        del_kwargs[attr_name] = new_attr
80
        del_kwargs['objtype'] = u'whitelisted_url'
81
82
        print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
84
            handler.delete(**del_kwargs)
85
        except Exception as e:
86
            print "...EXCEPTION: {}".format(e)
87
88
    # export orig_objs to a json file
89
   export_kwargs = {}
    export_kwargs['obj'] = orig_objs
91
   export_kwargs['export_format'] = 'json'
92
   export_kwargs['report_dir'] = tempfile.gettempdir()
93
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
   json_file, results = handler.export_to_report_file(**export_kwargs)
   # create the object from the exported JSON file
   create_kwarqs = {}
   create_kwargs['objtype'] = u'whitelisted_url'
100
   create_kwargs['json_file'] = json_file
101
102
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
   response = handler.create_from_json(**create_kwargs)
104
105
   print "...OUTPUT: Type of response: ", type(response)
106
107
   print "...OUTPUT: print of response:"
108
   print response
109
    # call the export_obj() method to convert response to JSON and store it in out
111
   export_kwargs = {}
112
   export_kwarqs['obj'] = response
113
   export_kwargs['export_format'] = 'json'
114
115
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
116
117
   out = handler.export_obj(**export_kwargs)
118
    # trim the output if it is more than 15 lines long
119
   if len(out.splitlines()) > 15:
120
        out = out.splitlines()[0:15]
121
        out.append('..trimmed for brevity..')
122
        out = ' \ n'. join (out)
123
124
   print "...OUTPUT: print the objects returned in JSON format:"
125
   print out
126
```

#### **Create Group From JSON**

Export a group object to a JSON file, adding 'API TEST' to the name of the group before exporting the JSON file and deleting any pre-existing group with the same (new) name, then create a new group object from the exported JSON file

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
6
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
```

```
handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
   get_kwargs = {}
   get_kwargs["objtype"] = u'group'
   get_kwarqs["name"] = u'All Computers'
61
62
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
64
   orig_objs = handler.get(**get_kwargs)
65
   # set the attribute name and value we want to add to the original objects
67
   # this is necessarry to avoid name conflicts when adding the new object
68
   attr_name = u'name'
69
   attr_value = u' API TEST'
71
   # modify the orig_objs to add attr_value to attr_name
   for x in orig_objs:
73
       new_attr = getattr(x, attr_name)
74
       new_attr += attr_value
75
       setattr(x, attr_name, new_attr)
76
77
        # delete the object in case it already exists
78
79
       del_kwarqs = {}
       del_kwargs[attr_name] = new_attr
80
       del_kwargs['objtype'] = u'group'
81
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
       try:
84
           handler.delete(**del_kwargs)
       except Exception as e:
           print "...EXCEPTION: {}".format(e)
87
88
   # export orig_objs to a json file
89
   export_kwargs = {}
   export_kwargs['obj'] = orig_objs
   export_kwargs['export_format'] = 'json'
93
   export_kwargs['report_dir'] = tempfile.gettempdir()
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
95
   json_file, results = handler.export_to_report_file(**export_kwargs)
96
   # create the object from the exported JSON file
   create_kwarqs = {}
   create_kwargs['objtype'] = u'group'
100
   create_kwarqs['json_file'] = json_file
101
102
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
103
   response = handler.create_from_json(**create_kwargs)
104
   print "...OUTPUT: Type of response: ", type(response)
```

```
107
   print "...OUTPUT: print of response:"
108
   print response
110
   # call the export_obj() method to convert response to JSON and store it in out
111
   export kwargs = {}
112
   export_kwarqs['obj'] = response
113
   export_kwargs['export_format'] = 'json'
114
115
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
117
   out = handler.export_obj(**export_kwargs)
118
   # trim the output if it is more than 15 lines long
119
   if len(out.splitlines()) > 15:
120
       out = out.splitlines()[0:15]
121
       out.append('..trimmed for brevity..')
122
       out = '\n'.join(out)
124
   print "...OUTPUT: print the objects returned in JSON format:"
125
   print out
126
```

# 1.8.4 PyTan API Valid Deploy Action Examples

All of the PyTan API examples for Valid Deploy Action

### **Deploy Action Simple**

Deploy an action against all computers using human strings and use Server Side Export when performing a GetResultData

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
  pytan_root_dir = os.path.dirname(parent_dir)
```

```
lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwargs = {}
   kwarqs["sse"] = True
60
   kwarqs["run"] = True
61
   kwarqs["package"] = u'Distribute Tanium Standard Utilities'
62
63
   print "...CALLING: handler.deploy_action with args: {}".format(kwargs)
65
   response = handler.deploy_action(**kwargs)
66
   print "...OUTPUT: Type of response: ", type(response)
67
68
   print "...OUTPUT: Pretty print of response:"
69
   print pprint.pformat(response)
70
   print "...OUTPUT: Print of action object: "
   print response['action_object']
73
74
   # if results were returned (i.e. get_results=True was one of the kwargs passed in):
75
   if response['action_results']:
76
       # call the export_obj() method to convert response to CSV and store it in out
77
       export_kwargs = {}
       export_kwargs['obj'] = response['action_results']
```

```
export_kwarqs['export_format'] = 'csv'
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
       out = handler.export_obj(**export_kwargs)
82
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
85
           out = out.splitlines()[0:15]
86
           out.append('..trimmed for brevity..')
87
           out = '\n'.join(out)
88
       print "...OUTPUT: CSV Results of response: "
       print out
```

# **Deploy Action Simple Without Results**

Deploy an action against all computers using human strings, but do not get the completed results of the job – return right away with the deploy action object.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
```

```
handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
52
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = {}
   kwarqs["get_results"] = False
60
   kwarqs["run"] = True
61
   kwargs["package"] = u'Distribute Tanium Standard Utilities'
62
63
   print "...CALLING: handler.deploy_action with args: {}".format(kwargs)
65
   response = handler.deploy_action(**kwargs)
66
   print "...OUTPUT: Type of response: ", type(response)
67
68
   print "...OUTPUT: Pretty print of response:"
60
   print pprint.pformat(response)
70
   print "...OUTPUT: Print of action object: "
   print response['action_object']
73
74
   # if results were returned (i.e. get_results=True was one of the kwargs passed in):
75
   if response['action_results']:
76
       # call the export_obj() method to convert response to CSV and store it in out
77
78
       export_kwargs = {}
       export_kwarqs['obj'] = response['action_results']
79
       export_kwargs['export_format'] = 'csv'
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
       out = handler.export_obj(**export_kwargs)
82
83
       # trim the output if it is more than 15 lines long
84
85
       if len(out.splitlines()) > 15:
           out = out.splitlines()[0:15]
86
           out.append('..trimmed for brevity..')
87
           out = ' \ n'.join(out)
88
89
       print "...OUTPUT: CSV Results of response: "
       print out
```

#### **Deploy Action Simple Against Windows Computers**

Deploy an action against only windows computers using human strings. This requires passing in an action filter

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
29
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
41
   # level 1 through 12 are more and more verbose
42
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
```

```
# instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["run"] = True
   kwargs["action_filters"] = u'Operating System, that contains:Windows'
   kwargs["package"] = u'Distribute Tanium Standard Utilities'
62
63
   print "...CALLING: handler.deploy_action with args: {}".format(kwargs)
64
   response = handler.deploy_action(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
67
68
   print "...OUTPUT: Pretty print of response:"
69
   print pprint.pformat(response)
70
71
   print "...OUTPUT: Print of action object: "
72
   print response['action_object']
73
   # if results were returned (i.e. get_results=True was one of the kwargs passed in):
75
   if response['action_results']:
76
       # call the export_obj() method to convert response to CSV and store it in out
77
       export_kwargs = {}
78
       export_kwargs['obj'] = response['action_results']
79
       export_kwargs['export_format'] = 'csv'
81
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
       out = handler.export_obj(**export_kwargs)
82
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
85
           out = out.splitlines()[0:15]
86
           out.append('..trimmed for brevity..')
           out = ' \ n'.join(out)
88
89
       print "...OUTPUT: CSV Results of response: "
90
       print out
```

#### **Deploy Action With Params Against Windows Computers**

Deploy an action with parameters against only windows computers using human strings.

This will use the Package 'Custom Tagging - Add Tags' and supply two parameters. The second parameter will be ignored because the package in question only requires one parameter.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
```

```
import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
21
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
47
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
48
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = {}
   kwarqs["run"] = True
   kwargs["action_filters"] = u'Operating System, that contains:Windows'
```

```
kwargs["package"] = u'Custom Tagging - Add Tags{$1=tag_should_be_added,$2=tag_should_be_ignore}'
   print "...CALLING: handler.deploy_action with args: {}".format(kwargs)
   response = handler.deploy_action(**kwargs)
65
66
   print "...OUTPUT: Type of response: ", type(response)
67
68
   print "...OUTPUT: Pretty print of response:"
69
   print pprint.pformat(response)
   print "...OUTPUT: Print of action object: "
72
   print response['action_object']
73
74
   # if results were returned (i.e. get_results=True was one of the kwargs passed in):
75
   if response['action_results']:
76
       # call the export_obj() method to convert response to CSV and store it in out
77
       export_kwargs = {}
78
       export_kwargs['obj'] = response['action_results']
79
       export_kwargs['export_format'] = 'csv'
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
       out = handler.export_obj(**export_kwargs)
82
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
85
           out = out.splitlines()[0:15]
86
           out.append('..trimmed for brevity..')
87
           out = '\n'.join(out)
88
       print "...OUTPUT: CSV Results of response: "
       print out
```

# 1.8.5 PyTan API Valid Export Basetype Examples

All of the PyTan API examples for Valid Export Basetype

#### **Export Basetype CSV Default Options**

Export a BaseType from getting objects as CSV with the default options

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True

# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
pytan_loc = "~/gh/pytan"
```

```
pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
55
   # print out the handler string
56
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["export_format"] = u'csv'
60
61
   # setup the arguments for handler.get()
62
63
   get_kwargs = {
       'name': [
64
           "Computer Name", "IP Route Details", "IP Address",
65
           'Folder Contents',
66
67
       'objtype': 'sensor',
68
```

```
# get the objects that will provide the basetype that we want to export
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
72
   response = handler.get(**get_kwargs)
73
   # store the basetype object as the obj we want to export
75
   kwargs['obj'] = response
76
77
   # export the object to a string
78
   # (we could just as easily export to a file using export_to_report_file)
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**kwargs)
81
82
   # trim the output if it is more than 15 lines long
83
   if len(out.splitlines()) > 15:
84
       out = out.splitlines()[0:15]
85
       out.append('..trimmed for brevity..')
86
       out = '\n'.join(out)
87
88
   print "...OUTPUT: print the export_str returned from export_obj():"
89
  print out
```

#### **Export Basetype JSON Type False**

Export a BaseType from getting objects as JSON with false for include\_type

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
```

```
# import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
32
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
40
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
58
   # setup the arguments for the handler() class
   kwarqs = \{\}
59
   kwarqs["export_format"] = u'json'
60
   kwargs["include_type"] = False
61
62.
   # setup the arguments for handler.get()
63
   get_kwargs = {
       'name': [
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
68
       'objtype': 'sensor',
69
70
71
72
   # get the objects that will provide the basetype that we want to export
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
   if len(out.splitlines()) > 15:
```

```
out = out.splitlines()[0:15]
out.append('..trimmed for brevity..')
out = '\n'.join(out)

print "...OUTPUT: print the export_str returned from export_obj():"
print out
```

### **Export Basetype JSON Explode False**

Export a BaseType from getting objects as JSON with false for explode\_json\_string\_values

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
```

```
handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
59
   kwargs = {}
   kwargs["export_format"] = u'json'
60
   kwarqs["explode_json_string_values"] = False
61
62.
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
        'name': [
            "Computer Name", "IP Route Details", "IP Address",
66
            'Folder Contents',
67
       ],
68
        'objtype': 'sensor',
69
70
71
72
   # get the objects that will provide the basetype that we want to export
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
85
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = ' \ n'. join (out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
   print out
```

### **Export Basetype JSON Explode True**

Export a BaseType from getting objects as JSON with true for explode\_json\_string\_values

- STDOUT from Example Python Code
- STDERR from Example Python Code

#### • Example Python Code

```
# import the basic python packages we need
   import os
   import sys
3
   import tempfile
4
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
20
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
```

```
# setup the arguments for the handler() class
   kwargs = {}
59
   kwargs["export_format"] = u'json'
60
   kwargs["explode_json_string_values"] = True
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
       'objtype': 'sensor',
70
71
   # get the objects that will provide the basetype that we want to export
72
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**kwargs)
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
87
       out.append('..trimmed for brevity..')
       out = '\n'.join(out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

#### **Export Basetype XML Default Options**

Export a BaseType from getting objects as XML with the default options

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True

# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
pytan_loc = "~/gh/pytan"
pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
```

```
14
15
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
24
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
2.7
   # import pytan
28
29
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["export_format"] = u'xml'
60
61
   # setup the arguments for handler.get()
62
   get_kwargs = {
63
64
        'name': [
           "Computer Name", "IP Route Details", "IP Address",
65
            'Folder Contents',
66
67
       ],
       'objtype': 'sensor',
68
   # get the objects that will provide the basetype that we want to export
```

```
print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   response = handler.get(**get_kwargs)
73
74
   # store the basetype object as the obj we want to export
75
   kwargs['obj'] = response
76
77
   # export the object to a string
78
   # (we could just as easily export to a file using export_to_report_file)
79
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**kwargs)
81
82
   # trim the output if it is more than 15 lines long
83
   if len(out.splitlines()) > 15:
84
       out = out.splitlines()[0:15]
85
       out.append('..trimmed for brevity..')
86
       out = '\n'.join(out)
87
88
   print "...OUTPUT: print the export_str returned from export_obj():"
89
   print out
```

#### **Export Basetype XML Minimal False**

Export a BaseType from getting objects as XML with false for minimal

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
```

```
import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwarqs["export_format"] = u'xml'
60
   kwargs["minimal"] = False
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
       'name': [
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
68
       'objtype': 'sensor',
69
70
   # get the objects that will provide the basetype that we want to export
73
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
85
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
```

```
out.append('..trimmed for brevity..')
out = '\n'.join(out)

print "...OUTPUT: print the export_str returned from export_obj():"
print out
```

#### **Export Basetype XML Minimal True**

Export a BaseType from getting objects as XML with true for minimal

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
```

```
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
52
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
53
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwargs["export_format"] = u'xml'
60
   kwarqs["minimal"] = True
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
68
       ١,
       'objtype': 'sensor',
69
70
71
   # get the objects that will provide the basetype that we want to export
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

### **Export Basetype CSV With Explode False**

Export a BaseType from getting objects as CSV with false for explode\_json\_string\_values

- STDOUT from Example Python Code
- STDERR from Example Python Code

### • Example Python Code

```
# import the basic python packages we need
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont write bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
```

```
# setup the arguments for the handler() class
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
60
   kwargs["explode_json_string_values"] = False
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
       'objtype': 'sensor',
70
71
   # get the objects that will provide the basetype that we want to export
72
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**kwargs)
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

#### **Export Basetype CSV With Explode True**

Export a BaseType from getting objects as CSV with true for explode\_json\_string\_values

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True

# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
pytan_loc = "~/gh/pytan"
pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
```

```
14
15
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
29
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["export_format"] = u'csv'
60
   kwargs["explode_json_string_values"] = True
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
        'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
            'Folder Contents',
67
68
       'objtype': 'sensor',
71
```

```
# get the objects that will provide the basetype that we want to export
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
90
  print out
```

#### **Export Basetype CSV With Sort Empty List**

Export a BaseType from getting objects as CSV with an empty list for header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
```

```
# import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
32
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
40
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwarqs["export_format"] = u'csv'
60
   kwargs["header_sort"] = []
61
62.
   # setup the arguments for handler.get()
63
   get_kwargs = {
       'name': [
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
68
       'objtype': 'sensor',
69
70
71
72
   # get the objects that will provide the basetype that we want to export
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
   if len(out.splitlines()) > 15:
```

```
out = out.splitlines()[0:15]
out.append('..trimmed for brevity..')
out = '\n'.join(out)

print "...OUTPUT: print the export_str returned from export_obj():"
print out
```

### **Export Basetype CSV With Sort True**

Export a BaseType from getting objects as CSV with true for header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
```

```
handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
59
   kwargs = {}
   kwargs["export_format"] = u'csv'
60
   kwarqs["header_sort"] = True
61
62.
   # setup the arguments for handler.get()
63
   get_kwargs = {
       'name': [
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
       ],
68
       'objtype': 'sensor',
69
70
71
72
   # get the objects that will provide the basetype that we want to export
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
85
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = ' \ n'. join (out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
   print out
```

### **Export Basetype CSV With Sort List**

Export a BaseType from getting objects as CSV with name and description for header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code

### • Example Python Code

```
# import the basic python packages we need
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
```

```
# setup the arguments for the handler() class
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
60
   kwargs["header_sort"] = [u'name', u'description']
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
       'objtype': 'sensor',
70
71
   # get the objects that will provide the basetype that we want to export
72
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**kwargs)
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

#### **Export Basetype JSON Default Options**

Export a BaseType from getting objects as JSON with the default options

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True

# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
pytan_loc = "~/gh/pytan"
pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
```

```
14
15
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
24
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
2.7
   # import pytan
28
29
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["export_format"] = u'json'
60
61
   # setup the arguments for handler.get()
62
   get_kwargs = {
63
        'name': [
64
           "Computer Name", "IP Route Details", "IP Address",
65
            'Folder Contents',
66
67
       ],
       'objtype': 'sensor',
68
   # get the objects that will provide the basetype that we want to export
```

```
print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   response = handler.get(**get_kwargs)
73
74
   # store the basetype object as the obj we want to export
75
   kwargs['obj'] = response
76
77
   # export the object to a string
78
   # (we could just as easily export to a file using export_to_report_file)
79
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**kwargs)
81
82
   # trim the output if it is more than 15 lines long
83
   if len(out.splitlines()) > 15:
84
       out = out.splitlines()[0:15]
85
       out.append('..trimmed for brevity..')
86
       out = '\n'.join(out)
87
88
   print "...OUTPUT: print the export_str returned from export_obj():"
89
   print out
```

#### **Export Basetype JSON Type True**

Export a BaseType from getting objects as JSON with true for include\_type

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
```

```
import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
   # optional, this saves all response objects to handler.session.ALL REQUESTS RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwarqs["export_format"] = u'json'
60
   kwargs["include_type"] = True
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
       'name': [
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
68
       'objtype': 'sensor',
69
70
   # get the objects that will provide the basetype that we want to export
73
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
85
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
```

```
out.append('..trimmed for brevity..')
out = '\n'.join(out)

print "...OUTPUT: print the export_str returned from export_obj():"
print out
```

# 1.8.6 PyTan API Valid Export ResultSet Examples

All of the PyTan API examples for Valid Export ResultSet

# **Export ResultSet CSV Default Options**

Export a ResultSet from asking a question as CSV with the default options

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
```

```
handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
60
   # setup the arguments for handler.ask()
62
   ask_kwargs = {
63
       'qtype': 'manual',
64
       'sensors': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents{folderPath=C:\Program Files}',
67
       ],
68
69
70
   # ask the question that will provide the resultset that we want to use
71
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
72
   response = handler.ask(**ask_kwargs)
73
   # store the resultset object as the obj we want to export into kwargs
   kwarqs['obj'] = response['question_results']
76
77
   # export the object to a string
78
   # (we could just as easily export to a file using export_to_report_file)
79
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
   # trim the output if it is more than 15 lines long
83
   if len(out.splitlines()) > 15:
84
       out = out.splitlines()[0:15]
85
       out.append('..trimmed for brevity..')
86
       out = ' \ n'. join (out)
   print "...OUTPUT: print the export_str returned from export_obj():"
   print out
```

# **Export ResultSet CSV Expand False**

Export a ResultSet from asking a question as CSV with false for expand\_grouped\_columns

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
```

```
# print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
60
   kwarqs["expand_grouped_columns"] = False
61
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
67
           'Folder Contents{folderPath=C:\Program Files}',
68
       ],
69
70
71
72
   # ask the question that will provide the resultset that we want to use
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
74
75
   # store the resultset object as the obj we want to export into kwargs
76
   kwargs['obj'] = response['question_results']
77
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
85
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
88
   print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

## **Export ResultSet CSV Expand True**

Export a ResultSet from asking a question as CSV with true for expand\_grouped\_columns

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True
```

```
# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
28
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["export_format"] = u'csv'
   kwarqs["expand_grouped_columns"] = True
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
           'Folder Contents{folderPath=C:\Program Files}',
```

```
],
69
70
71
   # ask the question that will provide the resultset that we want to use
72
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
74
75
   # store the resultset object as the obj we want to export into kwargs
76
   kwargs['obj'] = response['question_results']
77
78
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = ' \ n'. join (out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
   print out
```

### **Export ResultSet CSV All Options**

Export a ResultSet from asking a question as CSV with true for header\_add\_sensor, true for header\_add\_type, true for header\_sort, and true for expand\_grouped\_columns

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
```

```
# add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["header_sort"] = True
   kwargs["export_format"] = u'csv'
   kwargs["header_add_type"] = True
62
   kwargs["expand grouped columns"] = True
63
   kwarqs["header_add_sensor"] = True
64
65
   # setup the arguments for handler.ask()
66
67
   ask_kwarqs = {
       'qtype': 'manual',
68
       'sensors': [
69
           "Computer Name", "IP Route Details", "IP Address",
70
           'Folder Contents{folderPath=C:\Program Files}',
71
       ],
72
   # ask the question that will provide the resultset that we want to use
75
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
76
   response = handler.ask(**ask_kwargs)
77
   # store the resultset object as the obj we want to export into kwargs
79
   kwargs['obj'] = response['question_results']
```

```
# export the object to a string
82
   # (we could just as easily export to a file using export_to_report_file)
83
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
84
   out = handler.export_obj(**kwargs)
85
86
   # trim the output if it is more than 15 lines long
87
   if len(out.splitlines()) > 15:
88
       out = out.splitlines()[0:15]
89
       out.append('..trimmed for brevity..')
       out = '\n'.join(out)
91
  print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

## **Export ResultSet JSON**

Export a ResultSet from asking a question as JSON with the default options

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
11
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
24
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
```

```
handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = {}
   kwarqs["export_format"] = u'json'
60
61
   # setup the arguments for handler.ask()
62
   ask_kwargs = {
63
       'qtype': 'manual',
64
65
       'sensors': [
           "Computer Name", "IP Route Details", "IP Address",
66
            'Folder Contents{folderPath=C:\Program Files}',
67
       ],
68
60
70
   # ask the question that will provide the resultset that we want to use
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
   response = handler.ask(**ask_kwargs)
73
74
   # store the resultset object as the obj we want to export into kwargs
75
   kwargs['obj'] = response['question_results']
76
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
80
   out = handler.export_obj(**kwargs)
81
82
   # trim the output if it is more than 15 lines long
83
   if len(out.splitlines()) > 15:
84
85
       out = out.splitlines()[0:15]
       out.append('..trimmed for brevity..')
86
       out = '\n'.join(out)
87
88
   print "...OUTPUT: print the export_str returned from export_obj():"
89
   print out
```

### **Export ResultSet CSV Sort Empty**

Export a ResultSet from asking a question as CSV with an empty list for header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
29
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
```

```
# instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
   kwargs["header_sort"] = []
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
            "Computer Name", "IP Route Details", "IP Address",
67
            'Folder Contents{folderPath=C:\Program Files}',
68
       ],
69
70
71
   # ask the question that will provide the resultset that we want to use
72
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
   # store the resultset object as the obj we want to export into kwargs
76
   kwargs['obj'] = response['question_results']
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
       out = '\n'.join(out)
89
   print "...OUTPUT: print the export_str returned from export_obj():"
90
  print out
```

### **Export ResultSet CSV Sort True**

Export a ResultSet from asking a question as CSV with true for header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback
```

```
7
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["export_format"] = u'csv'
60
   kwargs["header_sort"] = True
61
   # setup the arguments for handler.ask()
   ask_kwargs = {
```

```
'qtype': 'manual',
65
       'sensors': [
66
            "Computer Name", "IP Route Details", "IP Address",
67
            'Folder Contents{folderPath=C:\Program Files}',
       ],
69
70
71
   # ask the question that will provide the resultset that we want to use
72
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
   # store the resultset object as the obj we want to export into kwargs
76
   kwargs['obj'] = response['question_results']
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
82
   out = handler.export_obj(**kwargs)
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
   print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

### **Export ResultSet CSV Sort False**

Export a ResultSet from asking a question as CSV with false for header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
```

```
pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
25
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
51
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
   kwarqs = {}
59
   kwargs["export_format"] = u'csv'
60
   kwarqs["header_sort"] = False
61
62
   # setup the arguments for handler.ask()
63
64
   ask_kwargs = {
       'qtype': 'manual',
65
        'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
67
            'Folder Contents{folderPath=C:\Program Files}',
68
       ],
69
   # ask the question that will provide the resultset that we want to use
72
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
74
75
   # store the resultset object as the obj we want to export into kwargs
76
   kwargs['obj'] = response['question_results']
77
```

```
# export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
88
   print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

## **Export ResultSet CSV Sort List**

Export a ResultSet from asking a question as CSV with Computer Name and IP Address for the header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
```

```
handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
   # optional, this saves all response objects to handler.session.ALL REQUESTS RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwarqs["export_format"] = u'csv'
60
   kwargs["header_sort"] = [u'Computer Name', u'IP Address']
61
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
67
           'Folder Contents{folderPath=C:\Program Files}',
68
60
       ],
70
   # ask the question that will provide the resultset that we want to use
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
74
75
   # store the resultset object as the obj we want to export into kwargs
76
77
   kwargs['obj'] = response['question_results']
79
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = ' \ n'. join (out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
   print out
```

## **Export ResultSet CSV Type False**

Export a ResultSet from asking a question as CSV with false for header\_add\_type

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
41
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
```

```
# instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
   kwargs["header_add_type"] = False
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
67
            'Folder Contents{folderPath=C:\Program Files}',
68
       ],
69
70
71
   # ask the question that will provide the resultset that we want to use
72
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
   # store the resultset object as the obj we want to export into kwargs
76
   kwargs['obj'] = response['question_results']
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
81
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
       out = '\n'.join(out)
88
89
  print "...OUTPUT: print the export_str returned from export_obj():"
90
  print out
```

### **Export ResultSet CSV Type True**

Export a ResultSet from asking a question as CSV with true for header\_add\_type

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback
```

```
# disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan loc and lib dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["export_format"] = u'csv'
60
   kwargs["header_add_type"] = True
61
   # setup the arguments for handler.ask()
   ask_kwargs = {
```

```
'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
67
            'Folder Contents{folderPath=C:\Program Files}',
       ],
69
70
71
   # ask the question that will provide the resultset that we want to use
72
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
75
   # store the resultset object as the obj we want to export into kwargs
76
   kwarqs['obj'] = response['question_results']
77
78
   # export the object to a string
79
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
82
   out = handler.export_obj(**kwargs)
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
88
   print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

### **Export ResultSet CSV Sensor False**

Export a ResultSet from asking a question as CSV with false for header\_add\_sensor

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
5
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
```

```
pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
25
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
   kwargs = {}
59
   kwarqs["export format"] = u'csv'
60
   kwarqs["header_add_sensor"] = False
61
62
63
   # setup the arguments for handler.ask()
64
   ask_kwargs = {
65
       'qtype': 'manual',
        'sensors': [
66
            "Computer Name", "IP Route Details", "IP Address",
67
            'Folder Contents{folderPath=C:\Program Files}',
68
       ],
69
   # ask the question that will provide the resultset that we want to use
72
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
74
75
   # store the resultset object as the obj we want to export into kwargs
76
   kwargs['obj'] = response['question_results']
77
```

```
# export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = '\n'.join(out)
88
  print "...OUTPUT: print the export_str returned from export_obj():"
  print out
```

## **Export ResultSet CSV Sensor True**

Export a ResultSet from asking a question as CSV with true for header\_add\_sensor

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
11
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
```

```
handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = {}
   kwarqs["export_format"] = u'csv'
60
   kwargs["header_add_sensor"] = True
61
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
67
            'Folder Contents{folderPath=C:\Program Files}',
68
60
       1,
70
   # ask the question that will provide the resultset that we want to use
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
74
75
   # store the resultset object as the obj we want to export into kwargs
76
77
   kwargs['obj'] = response['question_results']
79
   # export the object to a string
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
83
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
86
       out.append('..trimmed for brevity..')
87
       out = ' \ n'. join (out)
88
89
   print "...OUTPUT: print the export_str returned from export_obj():"
   print out
```

# 1.8.7 PyTan API Valid Get Object Examples

All of the PyTan API examples for Valid Get Object

### Get Action By Id

Get an action by id

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
11
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
```

```
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'action'
60
   kwargs["id"] = 1
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
69
70
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = ' \ n'. join (out)
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
85
   print out
```

### **Get Question By Id**

Get a question by id

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback
```

```
7
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["objtype"] = u'question'
60
   kwargs["id"] = 1
61
  print "...CALLING: handler.get with args: {}".format(kwargs)
   response = handler.get(**kwargs)
```

```
65
   print "...OUTPUT: Type of response: ", type(response)
66
   print "...OUTPUT: print of response:"
   print response
69
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export obj(**export kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
85
  print out
```

## **Get Saved Question By Names**

Get two saved questions by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
```

```
[sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'saved_question'
60
   kwargs["name"] = [u'Installed Applications', u'Computer Name']
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
69
   print response
70
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
82
       out.append('..trimmed for brevity..')
83
       out = '\n'.join(out)
```

```
print "...OUTPUT: print the objects returned in JSON format:"
print out
```

# Get Userrole By Id

Get a user role by id.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   \# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
```

```
handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'userrole'
60
   kwargs["id"] = 1
61
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
69
70
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
85
   print out
```

#### **Get Leader Clients**

Get all clients that are Leader status

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
```

```
import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["objtype"] = u'client'
   kwarqs["status"] = u'Leader'
   print "...CALLING: handler.get with args: {}".format(kwargs)
```

```
response = handler.get(**kwargs)
64
   print "...OUTPUT: Type of response: ", type(response)
67
   print "...OUTPUT: print of response:"
68
   print response
69
70
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
81
       out = out.splitlines()[0:15]
       out.append('..trimmed for brevity..')
82
       out = ' \ n'. join (out)
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
   print out
```

### **Get Setting By Name**

Get a system setting by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
9
10
   \# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
```

```
path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'setting'
   kwargs["name"] = u'control_address'
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
68
69
   print response
70
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
81
       out = out.splitlines()[0:15]
82
       out.append('..trimmed for brevity..')
```

```
out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"

print out
```

### **Get User By Name**

Get a user by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
```

```
# optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
59
   kwargs["objtype"] = u'user'
60
   kwargs["name"] = u'Administrator'
61
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
   print "...OUTPUT: print of response:"
   print response
69
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
74
   export_kwargs['export_format'] = 'json'
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
85
   print out
```

### Get Sensor By Id

Get a sensor by id

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
```

```
import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
22
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'sensor'
   kwarqs["id"] = 1
```

```
print "...CALLING: handler.get with args: {}".format(kwargs)
   response = handler.get(**kwargs)
   print "...OUTPUT: Type of response: ", type(response)
67
   print "...OUTPUT: print of response:"
68
   print response
69
70
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwarqs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
   # trim the output if it is more than 15 lines long
79
80
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
  print "...OUTPUT: print the objects returned in JSON format:"
  print out
```

## **Get Sensor By Mixed**

Get multiple sensors by id, name, and hash

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
13
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in ".../.../li\rlap//"
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
```

```
# add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
41
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'sensor'
   kwargs["hash"] = [u'322086833']
   kwargs["name"] = [u'Computer Name']
62
   kwargs["id"] = [1, 2]
63
   print "...CALLING: handler.get with args: {}".format(kwargs)
65
   response = handler.get(**kwargs)
66
   print "...OUTPUT: Type of response: ", type(response)
68
69
   print "...OUTPUT: print of response:"
70
   print response
71
72
   # call the export_obj() method to convert response to JSON and store it in out
   export_kwarqs = {}
   export_kwarqs['obj'] = response
75
   export_kwargs['export_format'] = 'json'
76
77
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
78
   out = handler.export_obj(**export_kwargs)
79
   # trim the output if it is more than 15 lines long
```

```
if len(out.splitlines()) > 15:
    out = out.splitlines()[0:15]
    out.append('..trimmed for brevity..')
    out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"
print out
```

# Get Whitelisted Url By Id

Get a whitelisted url by id

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
```

```
# level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
59
   kwargs["objtype"] = u'whitelisted_url'
60
   kwargs["id"] = 1
61
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
68
   print response
69
71
   # call the export_obj() method to convert response to JSON and store it in out
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
85
   print out
```

# **Get Group By Name**

Get a group by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
```

```
kwargs = \{\}
   kwargs["objtype"] = u'group'
60
   kwargs["name"] = u'All Computers'
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
  print "...OUTPUT: print the objects returned in JSON format:"
85
  print out
```

## **Get Sensor By Hash**

Get a sensor by hash

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../li\rlap/
```

```
parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["objtype"] = u'sensor'
60
   kwargs["hash"] = u'322086833'
61
62
63
   print "...CALLING: handler.get with args: {}".format(kwargs)
64
   response = handler.get(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
   # call the export_obj() method to convert response to JSON and store it in out
   export kwargs = {}
72
   export_kwarqs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   out = handler.export_obj(**export_kwargs)
```

```
# trim the output if it is more than 15 lines long
if len(out.splitlines()) > 15:
    out = out.splitlines()[0:15]
    out.append('..trimmed for brevity..')
    out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"
print out
```

# **Get Package By Name**

Get a package by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
21
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler args['password'] = "Tanium2015!"
36
  handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
```

```
39
40
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
59
   kwargs["objtype"] = u'package'
60
   kwarqs["name"] = u'Distribute Tanium Standard Utilities'
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
69
70
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwarqs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
85
   print out
```

#### **Get Sensor By Names**

Get multiple sensors by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
```

```
kwargs = \{\}
   kwargs["objtype"] = u'sensor'
60
   kwargs["name"] = [u'Computer Name', u'Action Statuses']
61
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
  print "...OUTPUT: print the objects returned in JSON format:"
85
  print out
```

## **Get Saved Question By Name**

Get saved question by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../li
atural
```

```
parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["objtype"] = u'saved_question'
60
   kwarqs["name"] = u'Installed Applications'
61
62
63
   print "...CALLING: handler.get with args: {}".format(kwargs)
64
   response = handler.get(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
   # call the export_obj() method to convert response to JSON and store it in out
71
   export kwargs = {}
72.
   export_kwarqs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   out = handler.export_obj(**export_kwargs)
```

```
# trim the output if it is more than 15 lines long
if len(out.splitlines()) > 15:
    out = out.splitlines()[0:15]
    out.append('..trimmed for brevity..')
    out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"
print out
```

## Get User By Id

Get a user by id

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   \# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
21
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler args['password'] = "Tanium2015!"
36
  handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
```

```
39
40
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
59
   kwargs["objtype"] = u'user'
60
   kwargs["id"] = 1
61
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
69
70
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
85
   print out
```

#### **Get Sensor By Name**

Get a sensor by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
```

```
kwargs = \{\}
   kwargs["objtype"] = u'sensor'
   kwargs["name"] = u'Computer Name'
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
76
   out = handler.export_obj(**export_kwargs)
77
78
   # trim the output if it is more than 15 lines long
79
   if len(out.splitlines()) > 15:
80
       out = out.splitlines()[0:15]
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
83
84
  print "...OUTPUT: print the objects returned in JSON format:"
85
  print out
```

## **Get Saved Action By Name**

Get a saved action by name

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../li\rlap/
```

```
parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwarqs["objtype"] = u'saved_action'
60
   kwargs["name"] = u'Distribute Tanium Standard Utilities'
61
62
63
   print "...CALLING: handler.get with args: {}".format(kwargs)
64
   response = handler.get(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
   print response
   # call the export_obj() method to convert response to JSON and store it in out
   export kwargs = {}
72
   export_kwarqs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   out = handler.export_obj(**export_kwargs)
```

```
# trim the output if it is more than 15 lines long
if len(out.splitlines()) > 15:
    out = out.splitlines()[0:15]
    out.append('..trimmed for brevity..')
    out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"
print out
```

#### **Get All Users**

Get all users

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
21
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler args['password'] = "Tanium2015!"
36
  handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
```

```
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwarqs["objtype"] = u'user'
60
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
64
   print "...OUTPUT: Type of response: ", type(response)
65
66
   print "...OUTPUT: print of response:"
67
   print response
   # call the export obj() method to convert response to JSON and store it in out
70
   export_kwarqs = {}
71
   export_kwargs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
76
77
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
80
       out.append('..trimmed for brevity..')
81
       out = '\n'.join(out)
82
83
   print "...OUTPUT: print the objects returned in JSON format:"
84
  print out
```

#### **Get All Saved Actions**

Get all saved actions

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
```

```
kwarqs = \{\}
   kwargs["objtype"] = u'saved_action'
60
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
64
   print "...OUTPUT: Type of response: ", type(response)
65
66
   print "...OUTPUT: print of response:"
67
   print response
   # call the export_obj() method to convert response to JSON and store it in out
   export_kwarqs = {}
71
   export_kwargs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
76
   out = handler.export_obj(**export_kwargs)
77
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
80
       out.append('..trimmed for brevity..')
81
       out = '\n'.join(out)
82
   print "...OUTPUT: print the objects returned in JSON format:"
84
  print out
```

#### **Get All Settings**

Get all system settings

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
```

```
pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
25
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
51
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
   kwarqs = {}
59
   kwargs["objtype"] = u'setting'
60
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
   print "...OUTPUT: Type of response: ", type(response)
65
66
   print "...OUTPUT: print of response:"
67
   print response
68
   # call the export_obj() method to convert response to JSON and store it in out
   export_kwarqs = {}
   export_kwarqs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
76
   # trim the output if it is more than 15 lines long
```

```
if len(out.splitlines()) > 15:
    out = out.splitlines()[0:15]
    out.append('..trimmed for brevity..')
    out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"
print out
```

## **Get All Saved Questions**

Get all saved questions

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
```

```
# level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
59
   kwargs["objtype"] = u'saved_question'
60
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
   print "...OUTPUT: Type of response: ", type(response)
65
66
   print "...OUTPUT: print of response:"
67
   print response
68
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
   export_kwargs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
76
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
80
       out.append('..trimmed for brevity..')
81
       out = '\n'.join(out)
82
83
84
   print "...OUTPUT: print the objects returned in JSON format:"
   print out
```

# **Get All Userroless**

Get all user roles

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
```

```
import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
20
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
47
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwargs["objtype"] = u'userrole'
```

```
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
   print "...OUTPUT: Type of response: ", type(response)
65
66
   print "...OUTPUT: print of response:"
67
   print response
68
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
   export_kwarqs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
77
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
80
       out.append('..trimmed for brevity..')
81
       out = '\n'.join(out)
82
   print "...OUTPUT: print the objects returned in JSON format:"
84
   print out
```

#### **Get All Questions**

Get all questions

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent dir = os.path.dirname(my dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
```

```
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
32
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
59
   kwarqs["objtype"] = u'question'
60
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
   print "...OUTPUT: Type of response: ", type(response)
   print "...OUTPUT: print of response:"
67
   print response
68
   # call the export_obj() method to convert response to JSON and store it in out
70
   export_kwargs = {}
71
   export_kwarqs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
76
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
       out = out.splitlines()[0:15]
```

```
out.append('..trimmed for brevity..')
out = '\n'.join(out)

print "...OUTPUT: print the objects returned in JSON format:"
print out
```

## **Get All Groups**

Get all groups

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
32
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
```

```
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
53
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwargs["objtype"] = u'group'
60
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
   print "...OUTPUT: Type of response: ", type(response)
66
   print "...OUTPUT: print of response:"
67
   print response
68
69
   # call the export_obj() method to convert response to JSON and store it in out
70
   export_kwargs = {}
71
   export_kwarqs['obj'] = response
   export_kwargs['export_format'] = 'json'
73
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
76
77
   # trim the output if it is more than 15 lines long
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
80
       out.append('..trimmed for brevity..')
81
       out = '\n'.join(out)
82
83
   print "...OUTPUT: print the objects returned in JSON format:"
   print out
```

#### **Get All Sensors**

Get all sensors

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
```

```
import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
22
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
35
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'sensor'
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
```

```
response = handler.get_all(**kwargs)
63
   print "...OUTPUT: Type of response: ", type(response)
65
67
   print "...OUTPUT: print of response:"
   print response
68
69
   # call the export_obj() method to convert response to JSON and store it in out
70
   export_kwargs = {}
71
   export_kwargs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
76
77
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
80
       out = out.splitlines()[0:15]
       out.append('..trimmed for brevity..')
81
       out = '\n'.join(out)
82
83
   print "...OUTPUT: print the objects returned in JSON format:"
   print out
```

## **Get All Whitelisted Urls**

Get all whitelisted urls

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
```

```
path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
42
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
59
   kwargs["objtype"] = u'whitelisted_url'
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
   response = handler.get_all(**kwargs)
63
64
   print "...OUTPUT: Type of response: ", type(response)
65
66
   print "...OUTPUT: print of response:"
67
68
   print response
69
   # call the export_obj() method to convert response to JSON and store it in out
70
   export_kwargs = {}
71
   export_kwargs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   out = handler.export_obj(**export_kwargs)
76
77
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
80
81
       out.append('..trimmed for brevity..')
82
       out = '\n'.join(out)
```

```
83
84 print "...OUTPUT: print the objects returned in JSON format:"
85 print out
```

## **Get All Clients**

Get all clients

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
9
10
   \# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
```

```
handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'client'
60
61
62
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
   response = handler.get_all(**kwargs)
63
64
   print "...OUTPUT: Type of response: ", type(response)
65
   print "...OUTPUT: print of response:"
67
   print response
   # call the export_obj() method to convert response to JSON and store it in out
70
   export_kwargs = {}
71
   export_kwargs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   out = handler.export_obj(**export_kwargs)
76
77
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
80
       out.append('..trimmed for brevity..')
81
       out = '\n'.join(out)
83
   print "...OUTPUT: print the objects returned in JSON format:"
84
  print out
```

#### **Get All Packages**

Get all packages

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback
```

```
# disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan loc and lib dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["objtype"] = u'package'
60
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
   response = handler.get_all(**kwargs)
63
```

```
print "...OUTPUT: Type of response: ", type(response)
   print "...OUTPUT: print of response:"
   print response
68
69
   # call the export_obj() method to convert response to JSON and store it in out
70
   export_kwargs = {}
71
   export_kwargs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
76
77
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
       out.append('..trimmed for brevity..')
81
82
       out = '\n'.join(out)
83
   print "...OUTPUT: print the objects returned in JSON format:"
84
   print out
```

#### **Get All Actions**

Get all actions

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
```

```
2.7
   # import pytan
28
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["objtype"] = u'action'
60
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
64
   print "...OUTPUT: Type of response: ", type(response)
65
66
   print "...OUTPUT: print of response:"
67
   print response
   # call the export_obj() method to convert response to JSON and store it in out
   export_kwargs = {}
71
   export_kwarqs['obj'] = response
72
   export_kwargs['export_format'] = 'json'
73
74
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
75
   out = handler.export_obj(**export_kwargs)
76
77
   # trim the output if it is more than 15 lines long
78
   if len(out.splitlines()) > 15:
79
       out = out.splitlines()[0:15]
80
       out.append('..trimmed for brevity..')
81
       out = '\n'.join(out)
82
83
   print "...OUTPUT: print the objects returned in JSON format:"
```

```
print out
```

# 1.8.8 PyTan API Valid Questions Examples

All of the PyTan API examples for Valid Questions

## **Ask Parsed Question Pick First No Results**

Ask the server to parse the question text 'computer name and ip route details' and choose the first parsed result as the question to run, return right away and do not wait for results to complete/do not get result data at all

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
1
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
```

```
# level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
59
   kwarqs["get_results"] = False
60
   kwargs["picker"] = 1
61
   kwargs["question_text"] = u'computer name and ip route details'
62
   kwargs["qtype"] = u'parsed'
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
66
67
   print "...OUTPUT: Type of response: ", type(response)
68
69
   print "...OUTPUT: Pretty print of response:"
71
   print pprint.pformat(response)
72.
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
73
   print response['question_object'].query_text
74
75
   if response['question_results']:
76
       # call the export_obj() method to convert response to CSV and store it in out
       export_kwarqs = {}
78
       export_kwargs['obj'] = response['question_results']
79
       export kwargs['export format'] = 'csv'
80
81
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
82
       out = handler.export_obj(**export_kwargs)
83
84
       # trim the output if it is more than 15 lines long
85
       if len(out.splitlines()) > 15:
86
           out = out.splitlines()[0:15]
87
           out.append('..trimmed for brevity..')
88
           out = '\n'.join(out)
29
       print "...OUTPUT: CSV Results of response: "
```

## **Ask Parsed Question Pick First Sse**

Ask the server to parse the question text 'computer name and ip route details' and choose the first parsed result as the question to run and use server side export when performing a GetResultData

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
24
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
```

```
# print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwarqs["picker"] = 1
60
   kwargs["sse"] = True
61
   kwargs["question_text"] = u'computer name and ip route details'
62
   kwargs["qtype"] = u'parsed'
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
66
67
   print "...OUTPUT: Type of response: ", type(response)
68
69
   print "...OUTPUT: Pretty print of response:"
70
   print pprint.pformat(response)
71
72
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
73
   print response['question_object'].query_text
74
75
   if response['question_results']:
76
       # call the export_obj() method to convert response to CSV and store it in out
77
       export_kwargs = {}
78
       export_kwargs['obj'] = response['question_results']
       export_kwarqs['export_format'] = 'csv'
80
81
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
82
       out = handler.export_obj(**export_kwargs)
83
84
       # trim the output if it is more than 15 lines long
85
       if len(out.splitlines()) > 15:
86
           out = out.splitlines()[0:15]
87
           out.append('..trimmed for brevity..')
88
           out = '\n'.join(out)
89
       print "...OUTPUT: CSV Results of response: "
       print out
```

#### **Ask Parsed Question Pick First**

Ask the server to parse the question text 'computer name and ip route details' and choose the first parsed result as the question to run

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
```

```
sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
26
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
47
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
52
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
53
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwargs = {}
   kwargs["picker"] = 1
60
   kwarqs["question_text"] = u'computer name and ip route details'
61
   kwargs["qtype"] = u'parsed'
62
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
```

```
print "...OUTPUT: Type of response: ", type(response)
67
   print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
70
71
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
72
   print response['question_object'].query_text
73
74
   if response['question_results']:
75
       # call the export_obj() method to convert response to CSV and store it in out
76
       export_kwargs = {}
77
       export_kwargs['obj'] = response['question_results']
78
       export_kwarqs['export_format'] = 'csv'
79
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
       out = handler.export_obj(**export_kwargs)
82
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
85
           out = out.splitlines()[0:15]
86
           out.append('..trimmed for brevity..')
87
           out = '\n'.join(out)
88
       print "...OUTPUT: CSV Results of response: "
       print out
```

## **Ask Manual Question Simple Single Sensor No Results**

Ask a manual question using human strings by referencing the name of a single sensor in a string, return right away and do not wait for results to complete/do not get result data at all.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
6
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lik
```

```
parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwarqs["get_results"] = False
60
   kwargs["sensors"] = u'Computer Name'
   kwargs["qtype"] = u'manual'
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
64
   response = handler.ask(**kwargs)
65
66
   print "...OUTPUT: Type of response: ", type(response)
67
68
   print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
71
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
72.
   print response['question_object'].query_text
73
74
75
   if response['question_results']:
       # call the export_obj() method to convert response to CSV and store it in out
       export_kwargs = {}
```

```
export_kwargs['obj'] = response['question_results']
78
       export_kwargs['export_format'] = 'csv'
79
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
82
       out = handler.export_obj(**export_kwargs)
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
85
           out = out.splitlines()[0:15]
           out.append('..trimmed for brevity..')
87
           out = ' \ n'. join (out)
       print "...OUTPUT: CSV Results of response: "
90
       print out
```

# **Ask Manual Question Simple Multiple Sensors**

Ask a manual question using human strings by referencing the name of multiple sensors in a list.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
```

```
handler_args = {}
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["sensors"] = [u'Computer Name', u'Installed Applications']
60
   kwargs["qtype"] = u'manual'
61
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
74
   if response['question_results']:
75
       # call the export_obj() method to convert response to CSV and store it in out
76
       export_kwargs = {}
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
84
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = '\n'.join(out)
87
       print "...OUTPUT: CSV Results of response: "
```

```
print out
```

## Ask Manual Question Simple Single Sensor Sse

Ask a manual question using human strings by referencing the name of a single sensor in a string and use server side export when getting result data.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
```

```
46
47
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["sse"] = True
60
   kwargs["sensors"] = u'Computer Name'
   kwargs["qtype"] = u'manual'
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
64
   response = handler.ask(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
67
   print "...OUTPUT: Pretty print of response:"
69
   print pprint.pformat(response)
70
71
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
72
   print response['question_object'].query_text
73
74
   if response['question_results']:
75
       # call the export_obj() method to convert response to CSV and store it in out
76
       export kwargs = {}
77
       export_kwargs['obj'] = response['question_results']
78
       export_kwargs['export_format'] = 'csv'
79
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
       out = handler.export_obj(**export_kwargs)
82
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
85
           out = out.splitlines()[0:15]
86
           out.append('..trimmed for brevity..')
           out = ' \ n'.join(out)
       print "...OUTPUT: CSV Results of response: "
       print out
```

## **Ask Manual Question Simple Single Sensor**

Ask a manual question using human strings by referencing the name of a single sensor in a string.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
```

```
kwargs = \{\}
   kwargs["sensors"] = u'Computer Name'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
   if response['question_results']:
74
       # call the export_obj() method to convert response to CSV and store it in out
75
76
       export_kwargs = {}
       export_kwargs['obj'] = response['question_results']
77
       export_kwarqs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
84
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = '\n'.join(out)
87
88
       print "...OUTPUT: CSV Results of response: "
89
       print out
```

## Ask Manual Question Multiple Sensors Identified By Name

Ask a manual question using human strings by referencing the name of multiple sensors and providing a selector that tells pytan explicitly that we are providing a name of a sensor.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
4
   import pprint
5
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
```

```
pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan loc and lib dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
56
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwarqs["sensors"] = [u'name:Computer Name', u'name:Installed Applications']
60
   kwargs["qtype"] = u'manual'
61
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
68
   print pprint.pformat(response)
```

```
print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
   if response['question_results']:
74
       # call the export_obj() method to convert response to CSV and store it in out
75
       export_kwarqs = {}
76
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
84
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
           out = '\n'.join(out)
87
88
       print "...OUTPUT: CSV Results of response: "
89
       print out
```

#### Ask Manual Question Sensor With Parameters And Some Supplied Parameters

Ask a manual question using human strings by referencing the name of a single sensor that takes parameters, but supplying only two of the four parameters that are used by the sensor (and letting pytan automatically determine the appropriate default value for those parameters which require a value and none was supplied).

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
```

```
# add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
41
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["sensors"] = u'Folder Contents{folderPath=C:\\Program Files}'
   kwargs["qtype"] = u'manual'
62.
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
   print "...OUTPUT: Type of response: ", type(response)
66
   print "...OUTPUT: Pretty print of response:"
68
   print pprint.pformat(response)
69
70
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
74
   if response['question_results']:
       # call the export_obj() method to convert response to CSV and store it in out
75
       export kwargs = {}
76
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
       out = handler.export_obj(**export_kwargs)
```

```
# trim the output if it is more than 15 lines long

if len(out.splitlines()) > 15:
    out = out.splitlines()[0:15]
    out.append('..trimmed for brevity..')

out = '\n'.join(out)

print "...OUTPUT: CSV Results of response: "
print out
```

# Ask Manual Question Multiple Sensors With Parameters And Some Supplied Parameters

Ask a manual question using human strings by referencing the name of multiple sensors, one that takes parameters, but supplying only two of the four parameters that are used by the sensor (and letting pytan automatically determine the appropriate default value for those parameters which require a value and none was supplied), and one that does not take parameters.

No sensor filters, question filters, or question options supplied.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
```

```
# establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
51
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
   kwarqs = {}
59
   kwargs["sensors"] = [u'Folder Contents{folderPath=C:\\Program Files}', u'Computer Name']
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
68
   print pprint.pformat(response)
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
   print response['question_object'].query_text
72
73
   if response['question_results']:
74
       # call the export_obj() method to convert response to CSV and store it in out
75
       export_kwargs = {}
76
77
       export_kwargs['obj'] = response['question_results']
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = '\n'.join(out)
87
88
       print "...OUTPUT: CSV Results of response: "
89
       print out
```

## Ask Manual Question Sensor Without Parameters And Supplied Parameters

Ask a manual question using human strings by referencing the name of a single sensor that does NOT take parameters, but supplying parameters anyways (which will be ignored since the sensor does not take parameters).

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
```

```
# very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwarqs["sensors"] = u'Computer Name{fake=Dweedle}'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
68
   print pprint.pformat(response)
69
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
   print response['question_object'].query_text
73
   if response['question_results']:
74
       # call the export_obj() method to convert response to CSV and store it in out
75
       export_kwargs = {}
76
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = ' \ n'. join (out)
87
88
       print "...OUTPUT: CSV Results of response: "
89
       print out
```

### **Ask Manual Question Sensor With Parameters And Filter**

Ask a manual question using human strings by referencing the name of a single sensor that takes parameters, but supplying only two of the four parameters that are used by the sensor.

Also supply a sensor filter that limits the column data that is shown to values that match the regex '.\*Shared.\*'.

No sensor filter options, question filters, or question options supplied.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
44
   # optional, use a debug format for the logging output (uses two lines per log entry)
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
```

```
kwargs = \{\}
59
   kwargs["sensors"] = u'Folder Contents{folderPath=C:\\Program Files}, that regex match:.*Shared.*'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
   if response['question_results']:
74
       # call the export_obj() method to convert response to CSV and store it in out
75
       export_kwargs = {}
76
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
84
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = '\n'.join(out)
87
       print "...OUTPUT: CSV Results of response: "
89
       print out
```

## Ask Manual Question Sensor With Filter And 2 Options

Ask a manual question using human strings by referencing the name of a single sensor.

Also supply a sensor filter that limits the column data that is shown to values that contain Windows (which is short hand for regex match against .\*Windows.\*).

Also supply filter options that re-fetches any cached data that is older than 3600 seconds and treats the values as type string.

No question filters or question options supplied.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
```

```
sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
26
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
47
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
53
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwargs["sensors"] = u'Operating System, that contains:Windows, opt:max_data_age:3600, opt:value_type
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
   print "...OUTPUT: Type of response: ", type(response)
```

```
67
   print "...OUTPUT: Pretty print of response:"
68
   print pprint.pformat(response)
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72.
73
   if response['question_results']:
74
       # call the export_obj() method to convert response to CSV and store it in out
75
76
       export_kwarqs = {}
       export_kwarqs['obj'] = response['question_results']
77
       export_kwarqs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
84
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = ' \ n'. join (out)
87
88
       print "...OUTPUT: CSV Results of response: "
89
       print out
```

#### **Ask Manual Question Sensor With Filter**

Ask a manual question using human strings by referencing the name of a single sensor.

Also supply a sensor filter that limits the column data that is shown to values that contain Windows (which is short hand for regex match against .\*Windows.\*).

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
17
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '.../../lib
```

```
parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["sensors"] = u'Operating System, that contains:Windows'
60
   kwargs["qtype"] = u'manual'
61
62
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
64
   response = handler.ask(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
   if response['question_results']:
74
       # call the export_obj() method to convert response to CSV and store it in out
75
       export_kwargs = {}
       export_kwargs['obj'] = response['question_results']
```

```
export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
84
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
           out = '\n'.join(out)
87
88
       print "...OUTPUT: CSV Results of response: "
89
       print out
```

## Ask Manual Question Sensor With Parameters And Filter And Options

Ask a manual question using human strings by referencing the name of a single sensor that takes parameters, but supplying only two of the four parameters that are used by the sensor.

Also supply a sensor filter that limits the column data that is shown to values that match the regex '.\*Shared.\*', and a sensor filter option that re-fetches any cached data that is older than 3600 seconds.

No question filters or question options supplied.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
4
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in ".../.../lib/"
19
   parent_dir = os.path.dirname(my_dir)
21
   pytan_root_dir = os.path.dirname(parent_dir)
22
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan loc and lib dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
```

```
30
   # create a dictionary of arguments for the pytan handler
31
32
   handler_args = {}
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
40
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwargs["sensors"] = u'Folder Contents{folderPath=C:\\Program Files}, that regex match:...*Shared.*, opt
   kwarqs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
68
   print pprint.pformat(response)
69
70
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
   if response['question_results']:
74
       # call the export_obj() method to convert response to CSV and store it in out
75
       export_kwargs = {}
76
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
84
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = '\n'.join(out)
```

```
print "...OUTPUT: CSV Results of response: "
print out
```

## **Ask Manual Question Sensor With Filter And 3 Options**

Ask a manual question using human strings by referencing the name of a single sensor.

Also supply a sensor filter that limits the column data that is shown to values that contain Windows (which is short hand for regex match against .\*Windows.\*).

Also supply filter options that re-fetches any cached data that is older than 3600 seconds, matches all values supplied in the filter, and ignores case for any value match of the filter.

No sensor paramaters, question filters, or question options supplied.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
22
   lib_dir = os.path.join(pytan_root_dir, 'lib')
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
```

```
handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
59
   kwarqs = \{\}
   kwargs["sensors"] = u'Operating System, that contains: Windows, opt:match_all_values, opt:ignore_case
   kwargs["qtype"] = u'manual'
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
68
   print pprint.pformat(response)
69
70
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
   if response['question_results']:
       # call the export_obj() method to convert response to CSV and store it in out
75
       export_kwargs = {}
76
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
81
       out = handler.export_obj(**export_kwargs)
82
       # trim the output if it is more than 15 lines long
83
       if len(out.splitlines()) > 15:
84
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = '\n'.join(out)
88
       print "...OUTPUT: CSV Results of response: "
89
       print out
```

# **Ask Manual Question Complex Query1**

Ask a manual question using human strings by referencing the name of a two sensors sensor.

Supply 3 parameters for the second sensor, one of which is not a valid parameter (and will be ignored).

Supply one option to the second sensor.

Supply two question filters that limit the rows returned in the result to computers that match the sensor Operating System that contains Windows and does not contain Windows.

Supply two question options that 'or' the two question filters and ignore the case of any values while matching the question filters.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
```

```
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
59
   kwargs["question_filters"] = [u'Operating System, that contains:Windows',
60
   u'Operating System, that does not contain: Windows']
   kwargs["sensors"] = [u'Computer Name',
   u'Folder Contents{folderPath=C:\\Program Files, invalidparam=test}, that regex match:.*Shared.*, opt
63
   kwargs["question_options"] = [u'ignore_case', u'or']
64
   kwarqs["qtype"] = u'manual'
65
   print "...CALLING: handler.ask with args: {}".format(kwargs)
67
   response = handler.ask(**kwargs)
68
69
   print "...OUTPUT: Type of response: ", type(response)
70
71
   print "...OUTPUT: Pretty print of response:"
72
   print pprint.pformat(response)
73
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
   print response['question_object'].query_text
76
77
   if response['question_results']:
78
       # call the export_obj() method to convert response to CSV and store it in out
79
       export_kwarqs = {}
80
       export_kwargs['obj'] = response['question_results']
81
       export_kwargs['export_format'] = 'csv'
82
83
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
84
       out = handler.export_obj(**export_kwargs)
85
86
       # trim the output if it is more than 15 lines long
87
       if len(out.splitlines()) > 15:
           out = out.splitlines()[0:15]
89
           out.append('..trimmed for brevity..')
           out = '\n'.join(out)
91
92
       print "...OUTPUT: CSV Results of response: "
93
       print out
```

## **Ask Manual Question Complex Query2**

This is another complex query that gets the Computer Name and Last Logged in User and Installed Applications that contains Google Search or Google Chrome and limits the rows that are displayed to computers that contain the Installed Applications of Google Search or Google Chrome

• STDOUT from Example Python Code

- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
15
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
28
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
41
   # level 1 through 12 are more and more verbose
42
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
53
   handler = pytan.Handler(**handler_args)
   # print out the handler string
```

```
print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
   kwargs = \{\}
59
   kwargs["question_filters"] = [u'Installed Applications, that regex match:.*Google.*']
60
   kwargs["sensors"] = [u'Computer Name',
61
   u'Last Logged In User',
62.
   u'Installed Applications, that regex match:.*Google.*']
63
   kwargs["question_options"] = [u'ignore_case', u'or']
   kwargs["qtype"] = u'manual'
65
   print "...CALLING: handler.ask with args: {}".format(kwargs)
67
   response = handler.ask(**kwargs)
68
   print "...OUTPUT: Type of response: ", type(response)
70
71
   print "...OUTPUT: Pretty print of response:"
72
73
   print pprint.pformat(response)
74
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
75
   print response['question_object'].query_text
76
77
   if response['question_results']:
78
       # call the export_obj() method to convert response to CSV and store it in out
79
       export_kwargs = {}
80
       export_kwargs['obj'] = response['question_results']
81
       export_kwargs['export_format'] = 'csv'
82
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
       out = handler.export_obj(**export_kwargs)
85
86
       # trim the output if it is more than 15 lines long
87
       if len(out.splitlines()) > 15:
88
           out = out.splitlines()[0:15]
89
           out.append('..trimmed for brevity..')
           out = '\n'.join(out)
91
92
       print "...OUTPUT: CSV Results of response: "
93
       print out
```

#### **Ask Manual Question Sensor Complex**

This provides an example for asking a manual question without using human strings.

It uses the Computer Name and Folder Contents sensors.

The second sensor has a single parameter, folderPath, with a value of 'c:Program Files'.

The second sensor also has 3 sensor filter options that set the max data age to 3600 seconds, does NOT ignore case, and treats all values as string.

There is also a question filter supplied that limits the rows that are displayed to computers that match an Operating System that contains Windows, and has 3 question filter options supplied that set the max data age to 3600 seconds, does NOT ignore case, and uses 'and' to join all question filters.

- STDOUT from Example Python Code
- STDERR from Example Python Code

# • Example Python Code

```
# import the basic python packages we need
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont write bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
```

```
# setup the arguments for the handler() class
   kwargs = {}
   kwargs["question_filter_defs"] = [{u'filter': {u'not_flag': 0,
                  u'operator': u'RegexMatch',
61
                  u'value': u'.*Windows.*'},
62
     u'name': u'Operating System'}]
63
   kwargs["sensor_defs"] = [u'Computer Name',
64
    {u'filter': {u'not_flag': 0,
65
                  u'operator': u'RegexMatch',
                  u'value': u'.*Shared.*'},
     u'name': u'Folder Contents',
     u'options': {u'ignore_case_flag': 0,
                   u'max_age_seconds': 3600,
70
                   u'value_type': u'string'},
71
     u'params': {u'folderPath': u'C:\\Program Files'}}]
72
   kwargs["question_option_defs"] = {u'and_flag': 0, u'ignore_case_flag': 0, u'max_age_seconds': 3600}
73
   kwargs["qtype"] = u'_manual'
74
75
   print "...CALLING: handler.ask with args: {}".format(kwargs)
76
   response = handler.ask(**kwargs)
77
78
   print "...OUTPUT: Type of response: ", type(response)
   print "...OUTPUT: Pretty print of response:"
81
   print pprint.pformat(response)
82
83
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
84
   print response['question_object'].query_text
85
   if response['question_results']:
87
        # call the export_obj() method to convert response to CSV and store it in out
88
       export_kwargs = {}
89
       export_kwargs['obj'] = response['question_results']
90
       export_kwargs['export_format'] = 'csv'
91
92
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
93
       out = handler.export_obj(**export_kwargs)
       # trim the output if it is more than 15 lines long
96
       if len(out.splitlines()) > 15:
97
           out = out.splitlines()[0:15]
98
           out.append('..trimmed for brevity..')
           out = '\n'.join(out)
100
101
102
       print "...OUTPUT: CSV Results of response: "
       print out
103
```

# 1.8.9 PyTan API Valid Saved Questions Examples

All of the PyTan API examples for Valid Saved Questions

#### **Ask Saved Question Refresh Data**

Ask a saved question and refresh the data for the saved question (asks a new question)

• STDOUT from Example Python Code

- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
15
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
28
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
41
   # level 1 through 12 are more and more verbose
42
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
53
   handler = pytan.Handler(**handler_args)
   # print out the handler string
```

```
print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
   kwargs = \{\}
59
   kwargs["refresh_data"] = True
60
   kwargs["qtype"] = u'saved'
61
   kwargs["name"] = u'Installed Applications'
62.
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
67
68
   print "...OUTPUT: Pretty print of response:"
69
   print pprint.pformat(response)
70
71
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
72
73
   print response['question_object'].query_text
74
   if response['question_results']:
75
       # call the export_obj() method to convert response to CSV and store it in out
76
       export_kwargs = {}
77
       export_kwargs['obj'] = response['question_results']
78
       export_kwargs['export_format'] = 'csv'
79
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
       out = handler.export_obj(**export_kwargs)
82
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
85
           out = out.splitlines()[0:15]
86
           out.append('..trimmed for brevity..')
87
           out = '\n'.join(out)
88
89
       print "...OUTPUT: CSV Results of response: "
       print out
```

#### Ask Saved Question By Name Sse

Ask a saved question by referencing the name of a saved question in a string and use Server Side Export when performing a GetResultData

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True
```

```
# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
28
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwarqs["sse"] = True
   kwargs["qtype"] = u'saved'
   kwargs["name"] = u'Installed Applications'
62
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
64
   response = handler.ask(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
```

```
print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
71
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
72
   print response['question_object'].query_text
73
74
   if response['question_results']:
75
       # call the export_obj() method to convert response to CSV and store it in out
76
       export_kwargs = {}
77
       export_kwargs['obj'] = response['question_results']
78
       export_kwargs['export_format'] = 'csv'
79
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
81
       out = handler.export_obj(**export_kwargs)
82
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
85
           out = out.splitlines()[0:15]
86
           out.append('..trimmed for brevity..')
87
           out = '\n'.join(out)
88
89
       print "...OUTPUT: CSV Results of response: "
       print out
```

### **Ask Saved Question By Name**

Ask a saved question by referencing the name of a saved question in a string.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
```

```
path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
42
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["qtype"] = u'saved'
   kwargs["name"] = u'Installed Applications'
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
68
   print "...OUTPUT: Pretty print of response:"
69
   print pprint.pformat(response)
70
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
   if response['question_results']:
74
75
       # call the export_obj() method to convert response to CSV and store it in out
       export_kwargs = {}
76
       export_kwarqs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
81
       out = handler.export_obj(**export_kwargs)
82
```

```
# trim the output if it is more than 15 lines long

if len(out.splitlines()) > 15:

out = out.splitlines()[0:15]

out.append('..trimmed for brevity..')

out = '\n'.join(out)

print "...OUTPUT: CSV Results of response: "

print out
```

### **Ask Saved Question By Name In List**

Ask a saved question by referencing the name of a saved question in a list of strings.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
```

```
# optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["qtype"] = u'saved'
60
   kwargs["name"] = [u'Installed Applications']
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: Pretty print of response:"
68
   print pprint.pformat(response)
70
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
71
   print response['question_object'].query_text
72
73
   if response['question_results']:
7.1
       # call the export_obj() method to convert response to CSV and store it in out
75
       export_kwargs = {}
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
79
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
80
       out = handler.export_obj(**export_kwargs)
81
82
83
       # trim the output if it is more than 15 lines long
84
       if len(out.splitlines()) > 15:
           out = out.splitlines()[0:15]
85
           out.append('..trimmed for brevity..')
86
           out = '\n'.join(out)
87
88
       print "...OUTPUT: CSV Results of response: "
       print out
```

## 1.8.10 PyTan API Invalid Create Object Examples

All of the PyTan API examples for Invalid Create Object

### **Invalid Create Sensor**

Create a sensor (Unsupported!)

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
29
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
```

```
# instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["unsupported"] = True
   print "...CALLING: handler.create_sensor() with args: {}".format(kwargs)
62
   try:
63
       handler.create_sensor(**kwargs)
64
   except Exception as e:
65
       print "...EXCEPTION: {}".format(e)
66
       # this should throw an exception of type: pytan.exceptions.HandlerError
67
       # uncomment to see full exception
68
       # traceback.print_exc(file=sys.stdout)
```

## 1.8.11 PyTan API Invalid Create Object From JSON Examples

All of the PyTan API examples for Invalid Create Object From JSON

### **Invalid Create Saved Action From JSON**

Create a saved action from json (not supported!)

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
15
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
```

```
# add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
41
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
   get_kwargs = {}
59
   get_kwargs["objtype"] = u'saved_action'
   qet_kwarqs["name"] = u'Distribute Tanium Standard Utilities'
62.
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
64
   orig_objs = handler.get(**get_kwargs)
65
67
   # export orig_objs to a json file
   export_kwargs = {}
68
   export_kwargs['obj'] = orig_objs
69
   export_kwargs['export_format'] = 'json'
70
   export_kwargs['report_dir'] = tempfile.gettempdir()
71
72
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
   json_file, results = handler.export_to_report_file(**export_kwargs)
75
   # create the object from the exported JSON file
76
   create_kwargs = {}
77
   create_kwargs['objtype'] = u'saved_action'
78
   create_kwargs['json_file'] = json_file
79
   # call the handler with the create_from_json method, passing in kwargs for arguments
```

```
print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
try:
    response = handler.create_from_json(**create_kwargs)

except Exception as e:
    print "...EXCEPTION: {}".format(e)

# this should throw an exception of type: pytan.exceptions.HandlerError
# uncomment to see full exception
# traceback.print_exc(file=sys.stdout)
```

#### **Invalid Create Client From JSON**

Create a client from json (not supported!)

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
```

```
# optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
   get_kwarqs = {}
59
   get_kwargs["objtype"] = u'client'
60
   get_kwargs["status"] = u'Leader'
61
62
   # get objects to use as an export to JSON file
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   oriq_objs = handler.get(**get_kwargs)
65
66
   # export orig_objs to a json file
67
   export_kwargs = {}
68
   export_kwargs['obj'] = orig_objs
   export_kwargs['export_format'] = 'json'
70
   export_kwargs['report_dir'] = tempfile.gettempdir()
71
72
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
73
   json_file, results = handler.export_to_report_file(**export_kwargs)
74
75
   # create the object from the exported JSON file
   create_kwargs = {}
77
   create_kwargs['objtype'] = u'client'
78
   create_kwargs['json_file'] = json_file
79
80
   # call the handler with the create_from_json method, passing in kwargs for arguments
81
82
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
83
   try:
84
       response = handler.create_from_json(**create_kwargs)
   except Exception as e:
85
       print "...EXCEPTION: {}".format(e)
86
       # this should throw an exception of type: pytan.exceptions.HandlerError
87
       # uncomment to see full exception
88
       # traceback.print_exc(file=sys.stdout)
```

### **Invalid Create Userrole From JSON**

Create a user role from json (not supported!)

- STDOUT from Example Python Code
- STDERR from Example Python Code

## • Example Python Code

```
# import the basic python packages we need
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont write bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
```

```
# setup the arguments for the handler.get() method
   get_kwargs = {}
59
   get_kwargs["objtype"] = u'userrole'
60
   get_kwargs["name"] = u'Administrator'
61
62
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
64
   orig_objs = handler.get(**get_kwargs)
65
   # export orig_objs to a json file
   export_kwargs = {}
   export_kwargs['obj'] = orig_objs
   export_kwarqs['export_format'] = 'json'
   export_kwargs['report_dir'] = tempfile.gettempdir()
71
72
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
73
   json_file, results = handler.export_to_report_file(**export_kwargs)
74
75
   # create the object from the exported JSON file
76
   create_kwargs = {}
77
   create_kwargs['objtype'] = u'userrole'
78
   create_kwargs['json_file'] = json_file
   # call the handler with the create_from_json method, passing in kwargs for arguments
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
82
   try:
83
       response = handler.create_from_json(**create_kwargs)
84
   except Exception as e:
85
       print "...EXCEPTION: {}".format(e)
86
       # this should throw an exception of type: pytan.exceptions.HandlerError
87
       # uncomment to see full exception
88
       # traceback.print_exc(file=sys.stdout)
```

### **Invalid Create Setting From JSON**

Create a setting from json (not supported!)

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
```

```
my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler.get() method
58
   get_kwarqs = {}
   get_kwargs["objtype"] = u'setting'
60
   get_kwarqs["id"] = 1
61
62.
   # get objects to use as an export to JSON file
63
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   orig_objs = handler.get(**get_kwargs)
   # export orig_objs to a json file
67
   export kwargs = {}
68
   export_kwarqs['obj'] = oriq_objs
   export_kwarqs['export_format'] = 'json'
   export_kwargs['report_dir'] = tempfile.gettempdir()
71
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
```

```
json_file, results = handler.export_to_report_file(**export_kwargs)
75
   # create the object from the exported JSON file
76
   create_kwargs = {}
77
   create_kwargs['objtype'] = u'setting'
78
   create_kwargs['json_file'] = json_file
   # call the handler with the create_from_json method, passing in kwargs for arguments
81
   print "...CALLING: handler.create_from_json() with args {}".format(create_kwargs)
82
83
       response = handler.create_from_json(**create_kwargs)
   except Exception as e:
85
       print "...EXCEPTION: {}".format(e)
86
       # this should throw an exception of type: pytan.exceptions.HandlerError
87
       # uncomment to see full exception
88
       # traceback.print_exc(file=sys.stdout)
```

# 1.8.12 PyTan API Invalid Deploy Action Examples

All of the PyTan API examples for Invalid Deploy Action

### **Invalid Deploy Action Run False**

Deploy an action without run=True, which will only run the pre-deploy action question that matches action\_filters, export the results to a file, and raise a RunFalse exception

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
```

```
[sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
56
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["package"] = u'Distribute Tanium Standard Utilities'
60
61
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
62
   try:
63
       handler.deploy_action(**kwargs)
64
   except Exception as e:
65
       print "...EXCEPTION: {}".format(e)
66
       # this should throw an exception of type: pytan.exceptions.RunFalse
67
       # uncomment to see full exception
       # traceback.print_exc(file=sys.stdout)
```

## **Invalid Deploy Action Package Help**

Have deploy\_action() return the help for package

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
```

```
import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
21
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
48
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
60
   kwargs["package_help"] = True
61
```

```
print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)

try:
    handler.deploy_action(**kwargs)

except Exception as e:
    print "...EXCEPTION: {}".format(e)

# this should throw an exception of type: pytan.exceptions.PytanHelp
# uncomment to see full exception
# traceback.print_exc(file=sys.stdout)
```

### **Invalid Deploy Action Package**

Deploy an action using a non-existing package.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
```

```
# optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["run"] = True
60
   kwargs["package"] = u'Invalid Package'
61
62
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
   try:
       handler.deploy_action(**kwargs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.HandlerError
68
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
```

## **Invalid Deploy Action Options Help**

Have deploy\_action() return the help for options

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
Q
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
```

```
my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
34
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
39
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
47
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
60
   kwargs["options_help"] = True
61
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
62
63
   try:
       handler.deploy_action(**kwargs)
64
   except Exception as e:
65
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.PytanHelp
       # uncomment to see full exception
68
       # traceback.print exc(file=sys.stdout)
```

## **Invalid Deploy Action Empty Package**

Deploy an action using an empty package string.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
24
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
```

```
# print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["run"] = True
60
   kwargs["package"] = u''
61
62
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
63
       handler.deploy_action(**kwargs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.HumanParserError
68
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
```

### **Invalid Deploy Action Filters Help**

Have deploy\_action() return the help for filters

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
21
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
```

```
handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
49
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["filters_help"] = True
60
61
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
62
   try:
63
       handler.deploy_action(**kwargs)
64
   except Exception as e:
65
       print "...EXCEPTION: {}".format(e)
66
       # this should throw an exception of type: pytan.exceptions.PytanHelp
67
       # uncomment to see full exception
       # traceback.print_exc(file=sys.stdout)
```

### **Invalid Deploy Action Missing Parameters**

Deploy an action using a package that requires parameters but do not supply any parameters.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True
```

```
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
19
   # try to automatically determine the pytan lib directory by assuming it is in ".../.../li\rlap//"
20
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwargs = \{\}
59
   kwargs["run"] = True
60
   kwargs["package"] = u'Custom Tagging - Add Tags'
61
62
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
63
   try:
64
       handler.deploy_action(**kwargs)
   except Exception as e:
       print "...EXCEPTION: {}".format(e)
```

```
# this should throw an exception of type: pytan.exceptions.HandlerError
# uncomment to see full exception
# traceback.print_exc(file=sys.stdout)
```

## 1.8.13 PyTan API Invalid Export Basetype Examples

All of the PyTan API examples for Invalid Export Basetype

### **Invalid Export Basetype CSV Bad Explode Type**

Export a BaseType from getting objects using a bad explode\_json\_string\_values

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
17
   my_dir = os.path.dirname(my_file)
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
26
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
```

```
# optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["export_format"] = u'csv'
60
   kwargs["explode_json_string_values"] = u'bad'
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
            "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
       1,
68
       'objtype': 'sensor',
69
70
71
   # get the objects that will provide the basetype that we want to use
72
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
   kwargs['obj'] = response
77
78
   # export the object to a string
79
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
80
   try:
81
82
       handler.export_obj(**kwargs)
83
   except Exception as e:
84
       print "...EXCEPTION: {}".format(e)
       # this should throw an exception of type: pytan.exceptions.HandlerError
85
       # uncomment to see full exception
86
       # traceback.print_exc(file=sys.stdout)
87
```

## **Invalid Export Basetype CSV Bad Sort Sub Type**

Export a BaseType from getting objects using a bad header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
31
   # create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
```

```
kwargs = {}
   kwargs["export_format"] = u'csv'
   kwargs["header_sort"] = [[]]
61
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
       'objtype': 'sensor',
71
   # get the objects that will provide the basetype that we want to use
72
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
   # store the basetype object as the obj we want to export
76
   kwarqs['obj'] = response
77
78
   # export the object to a string
79
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
80
81
   try:
       handler.export_obj(**kwargs)
82
   except Exception as e:
83
       print "...EXCEPTION: {}".format(e)
84
       # this should throw an exception of type: pytan.exceptions.HandlerError
85
       # uncomment to see full exception
86
       # traceback.print_exc(file=sys.stdout)
```

## **Invalid Export Basetype CSV Bad Sort Type**

Export a BaseType from getting objects using a bad header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
```

```
# try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["export_format"] = u'csv'
60
   kwargs["header_sort"] = u'bad'
61
63
   # setup the arguments for handler.get()
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
       ],
       'objtype': 'sensor',
71
   # get the objects that will provide the basetype that we want to use
72
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
73
   response = handler.get(**get_kwargs)
74
   # store the basetype object as the obj we want to export
```

```
kwargs['obj'] = response
78
   # export the object to a string
79
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
80
81
       handler.export_obj(**kwargs)
82
   except Exception as e:
83
       print "...EXCEPTION: {}".format(e)
84
       # this should throw an exception of type: pytan.exceptions.HandlerError
85
       # uncomment to see full exception
       # traceback.print_exc(file=sys.stdout)
```

## **Invalid Export Basetype XML Bad Minimal Type**

Export a BaseType from getting objects using a bad minimal

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
13
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
```

```
handler args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'xml'
   kwargs["minimal"] = u'bad'
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
67
           'Folder Contents',
68
        'objtype': 'sensor',
69
70
71
   # get the objects that will provide the basetype that we want to use
72
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   response = handler.get(**get_kwargs)
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
78
   # export the object to a string
79
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   try:
       handler.export_obj(**kwargs)
82
   except Exception as e:
83
       print "...EXCEPTION: {}".format(e)
84
       # this should throw an exception of type: pytan.exceptions.HandlerError
85
       # uncomment to see full exception
       # traceback.print_exc(file=sys.stdout)
```

### **Invalid Export Basetype JSON Bad Include Type**

Export a BaseType from getting objects using a bad include\_type

• STDOUT from Example Python Code

- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
2
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
15
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
28
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
41
   # level 1 through 12 are more and more verbose
42
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
53
   handler = pytan.Handler(**handler_args)
   # print out the handler string
```

```
print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
   kwargs = \{\}
   kwargs["export_format"] = u'json'
60
   kwargs["include_type"] = u'bad'
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
67
68
       'objtype': 'sensor',
69
70
71
   # get the objects that will provide the basetype that we want to use
72
73
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
   response = handler.get(**get_kwargs)
74
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
   # export the object to a string
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
80
   try:
81
       handler.export_obj(**kwargs)
82
   except Exception as e:
83
       print "...EXCEPTION: {}".format(e)
84
       # this should throw an exception of type: pytan.exceptions.HandlerError
85
       # uncomment to see full exception
86
       # traceback.print_exc(file=sys.stdout)
87
```

### **Invalid Export Basetype JSON Bad Explode Type**

Export a BaseType from getting objects using a bad explode\_json\_string\_values

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
```

```
my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
45
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
59
   kwarqs = \{\}
   kwarqs["export_format"] = u'json'
60
   kwarqs["explode_json_string_values"] = u'bad'
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
           "Computer Name", "IP Route Details", "IP Address",
           'Folder Contents',
67
68
       'objtype': 'sensor',
69
70
71
   # get the objects that will provide the basetype that we want to use
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
```

```
response = handler.get(**get_kwargs)
75
   # store the basetype object as the obj we want to export
76
   kwargs['obj'] = response
77
78
   # export the object to a string
79
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
80
81
       handler.export_obj(**kwargs)
82
   except Exception as e:
83
       print "...EXCEPTION: {}".format(e)
84
       # this should throw an exception of type: pytan.exceptions.HandlerError
85
       # uncomment to see full exception
86
       # traceback.print_exc(file=sys.stdout)
```

### **Invalid Export Basetype Bad Format**

Export a BaseType from getting objects using a bad export\_format

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
```

```
# establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
   # optional, use a debug format for the logging output (uses two lines per log entry)
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
51
   # instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
   kwarqs = \{\}
59
   kwargs["export_format"] = u'bad'
60
61
   # setup the arguments for handler.get()
62
   get_kwargs = {
63
64
       'name': [
           "Computer Name", "IP Route Details", "IP Address",
65
           'Folder Contents',
66
67
       1,
       'objtype': 'sensor',
68
   # get the objects that will provide the basetype that we want to use
   print "...CALLING: handler.get() with args: {}".format(get_kwargs)
72.
   response = handler.get(**get_kwargs)
73
74
   # store the basetype object as the obj we want to export
75
   kwargs['obj'] = response
76
78
   # export the object to a string
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
79
80
   try:
       handler.export_obj(**kwargs)
81
   except Exception as e:
82
       print "...EXCEPTION: {}".format(e)
       # this should throw an exception of type: pytan.exceptions.HandlerError
       # uncomment to see full exception
85
       # traceback.print exc(file=sys.stdout)
```

## 1.8.14 PyTan API Invalid Export ResultSet Examples

All of the PyTan API examples for Invalid Export ResultSet

### Invalid Export ResultSet CSV Bad Sort Sub Type

Export a ResultSet from asking a question using a bad header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
29
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
```

```
# instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
   kwargs["header_sort"] = [[]]
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name"
67
       ],
68
69
70
   # ask the question that will provide the resultset that we want to use
71
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
   response = handler.ask(**ask_kwargs)
73
   # store the resultset object as the obj we want to export
   kwargs['obj'] = response['question_results']
76
77
   # export the object to a string
78
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
79
   try:
80
81
       handler.export_obj(**kwargs)
   except Exception as e:
82
       print "...EXCEPTION: {}".format(e)
83
       # this should throw an exception of type: pytan.exceptions.HandlerError
84
       # uncomment to see full exception
85
       # traceback.print_exc(file=sys.stdout)
```

#### Invalid Export ResultSet CSV Bad Sort Type

Export a ResultSet from asking a question using a bad header\_sort

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True

# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
```

```
pytan_loc = "~/gh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
29
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
56
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["export_format"] = u'csv'
   kwargs["header_sort"] = u'bad'
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name"
67
       ],
```

```
70
   # ask the question that will provide the resultset that we want to use
71
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
   response = handler.ask(**ask_kwargs)
74
   # store the resultset object as the obj we want to export
75
   kwarqs['obj'] = response['question_results']
76
77
   # export the object to a string
78
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
79
80
       handler.export_obj(**kwargs)
81
   except Exception as e:
82
       print "...EXCEPTION: {}".format(e)
83
       # this should throw an exception of type: pytan.exceptions.HandlerError
84
       # uncomment to see full exception
       # traceback.print_exc(file=sys.stdout)
```

## **Invalid Export ResultSet CSV Bad Expand Type**

Export a ResultSet from asking a question using a bad expand\_grouped\_columns

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
13
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
```

```
# create a dictionary of arguments for the pytan handler
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
   kwargs["expand_grouped_columns"] = u'bad'
61
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
           "Computer Name"
       ],
70
   # ask the question that will provide the resultset that we want to use
71
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
72
73
   response = handler.ask(**ask_kwargs)
75
   # store the resultset object as the obj we want to export
   kwarqs['obj'] = response['question_results']
76
77
   # export the object to a string
78
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
79
       handler.export_obj(**kwargs)
   except Exception as e:
82
       print "...EXCEPTION: {}".format(e)
83
       # this should throw an exception of type: pytan.exceptions.HandlerError
84
       # uncomment to see full exception
85
       # traceback.print_exc(file=sys.stdout)
```

## Invalid Export ResultSet CSV Bad Sensors Sub Type

Export a ResultSet from asking a question using a bad sensors

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
41
   # level 1 through 12 are more and more verbose
42
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
```

```
# instantiate a handler using all of the arguments in the handler_args dictionary
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
   kwargs["sensors"] = [[]]
   kwargs["header_add_sensor"] = True
63
   # setup the arguments for handler.ask()
64
   ask_kwargs = {
65
       'qtype': 'manual',
66
       'sensors': [
67
           "Computer Name"
68
       ],
69
70
71
   # ask the question that will provide the resultset that we want to use
72
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
73
   response = handler.ask(**ask_kwargs)
   # store the resultset object as the obj we want to export
76
   kwargs['obj'] = response['question_results']
77
78
   # export the object to a string
79
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
80
81
       handler.export_obj(**kwargs)
82
   except Exception as e:
83
       print "...EXCEPTION: {}".format(e)
84
       # this should throw an exception of type: pytan.exceptions.HandlerError
85
       # uncomment to see full exception
86
       # traceback.print_exc(file=sys.stdout)
```

#### **Invalid Export ResultSet Bad Format**

Export a ResultSet from asking a question using a bad export\_format

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True
```

```
# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
   lib_dir = os.path.join(pytan_root_dir, 'lib')
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
28
   # import pytan
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
53
   handler = pytan.Handler(**handler_args)
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["export_format"] = u'bad'
   # setup the arguments for handler.ask()
62
   ask_kwargs = {
63
       'qtype': 'manual',
64
       'sensors': [
65
           "Computer Name"
66
       ],
```

```
69
   # ask the question that will provide the resultset that we want to use
70
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
71
   response = handler.ask(**ask_kwargs)
73
   # store the resultset object as the obj we want to export
74
   kwargs['obj'] = response['question_results']
75
   # export the object to a string
77
78
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
79
       handler.export_obj(**kwargs)
80
   except Exception as e:
81
       print "...EXCEPTION: {}".format(e)
82
       # this should throw an exception of type: pytan.exceptions.HandlerError
83
       # uncomment to see full exception
       # traceback.print_exc(file=sys.stdout)
```

## 1.8.15 PyTan API Invalid Get Object Examples

All of the PyTan API examples for Invalid Get Object

#### **Invalid Get Action Single By Name**

Get an action by name (name is not a supported selector for action)

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
18
   # try to automatically determine the pytan lib directory by assuming it is in ".../.../li\rlap//"
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
```

```
[sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["objtype"] = u'action'
60
   kwargs["name"] = u'Distribute Tanium Standard Utilities'
   print "...CALLING: handler.get() with args: {}".format(kwargs)
63
   try:
64
       handler.get(**kwargs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.HandlerError
69
       # uncomment to see full exception
       # traceback.print_exc(file=sys.stdout)
```

#### **Invalid Get Question By Name**

Get a question by name (name is not a supported selector for question)

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
```

```
import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
20
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
47
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = \{\}
   kwargs["objtype"] = u'question'
```

```
kwargs["name"] = u'dweedle'

print "...CALLING: handler.get() with args: {}".format(kwargs)

try:
    handler.get(**kwargs)

except Exception as e:
    print "...EXCEPTION: {}".format(e)

# this should throw an exception of type: pytan.exceptions.HandlerError

# uncomment to see full exception

# traceback.print_exc(file=sys.stdout)
```

## 1.8.16 PyTan API Invalid Questions Examples

All of the PyTan API examples for Invalid Questions

## **Invalid Ask Manual Question Sensor Help**

Have ask\_manual() return the help for sensors

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont write bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
  handler_args = {}
```

```
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["qtype"] = u'manual'
60
   kwarqs["sensors_help"] = True
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   try:
64
       handler.ask(**kwargs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.PytanHelp
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
```

## **Invalid Ask Manual Question Filter Help**

Have ask\_manual() return the help for filters

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True
```

```
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
20
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwargs = \{\}
59
   kwargs["filters_help"] = True
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   try:
64
       handler.ask(**kwargs)
   except Exception as e:
       print "...EXCEPTION: {}".format(e)
```

```
# this should throw an exception of type: pytan.exceptions.PytanHelp
# uncomment to see full exception
# traceback.print_exc(file=sys.stdout)
```

#### **Invalid Ask Manual Question Option Help**

Have ask\_manual() return the help for options

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
```

```
handler_args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["options_help"] = True
60
   kwargs["qtype"] = u'manual'
61
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
64
   trv:
       handler.ask(**kwargs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.PytanHelp
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
```

#### **Invalid Ask Manual Question Bad Filter**

Ask a question using an invalid filter.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
```

```
lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42.
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
46
   # optional, this saves all response objects to handler.session.ALL REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
52
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = {}
   kwarqs["sensors"] = u'Computer name, that does not meet:little'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   try:
64
65
       handler.ask(**kwargs)
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.HumanParserError
68
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
```

#### **Invalid Ask Parsed Question No Picker**

Ask a parsed question without supplying a picker

- STDOUT from Example Python Code
- STDERR from Example Python Code

## • Example Python Code

```
# import the basic python packages we need
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
8
   sys.dont write bytecode = True
9
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
   parent_dir = os.path.dirname(my_dir)
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
23
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
2.7
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
35
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
   handler = pytan.Handler(**handler_args)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
```

```
# setup the arguments for the handler() class
   kwargs = {}
59
   kwargs["question_text"] = u'Computer Name'
60
   kwargs["qtype"] = u'parsed'
61
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   trv:
64
       handler.ask(**kwargs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.PickerError
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
```

#### **Invalid Ask Manual Question Bad Sensorname**

Ask a question using a sensor that does not exist

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
11
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
   pytan_loc = "~/qh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
```

```
handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
   # optional, this saves all response objects to handler.session.ALL REQUESTS RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
   kwarqs = {}
   kwarqs["sensors"] = u'Dweedle Dee and Dum'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   try:
64
65
       handler.ask(**kwargs)
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.HandlerError
68
       # uncomment to see full exception
60
       # traceback.print_exc(file=sys.stdout)
```

#### **Invalid Ask Manual Question Too Many Parameter Blocks**

Ask a question that supplies too many parameter blocks ({}).

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
import os
import sys
import tempfile
import pprint
import traceback

# disable python from generating a .pyc file
sys.dont_write_bytecode = True

# change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
```

```
pytan_loc = "~/gh/pytan"
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../lib/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
29
   import pytan
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler args['debugformat'] = False
45
46
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
55
   # print out the handler string
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["sensors"] = u'Folder Name Search with RegEx Match{dirname=Program Files,regex=.∤}{}'
   kwargs["qtype"] = u'manual'
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   try:
64
       handler.ask(**kwarqs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.HumanParserError
       # uncomment to see full exception
```

```
# traceback.print_exc(file=sys.stdout)
```

## **Invalid Ask Manual Question Bad Option**

Ask a question using an invalid option.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
2
   import sys
3
   import tempfile
   import pprint
   import traceback
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/pytan"
12
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
13
14
   # Determine our script name, script dir
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
18
   # try to automatically determine the pytan lib directory by assuming it is in '../../liþ/'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
34
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
39
   # optional, level 0 is no output except warnings/errors
40
   # level 1 through 12 are more and more verbose
41
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
```

```
# optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
47
   # very useful for capturing the full exchange of XML requests and responses
48
   handler_args['record_all_requests'] = True
49
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
   # setup the arguments for the handler() class
58
   kwarqs = {}
59
   kwargs["sensors"] = u'Operating system, opt:bad'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
64
   try:
       handler.ask(**kwargs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.HumanParserError
68
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
```

## **Invalid Ask Manual Question Missing Parameter Split**

Ask a question with parameters that are missing a splitter (=) to designate the key from value.

- STDOUT from Example Python Code
- STDERR from Example Python Code
- Example Python Code

```
# import the basic python packages we need
   import os
   import sys
3
   import tempfile
   import pprint
   import traceback
6
   # disable python from generating a .pyc file
   sys.dont_write_bytecode = True
10
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/qh/pytan"
12
13
   pytan_static_path = os.path.join(os.path.expanduser(pytan_loc), 'lib')
14
   # Determine our script name, script dir
15
   my_file = os.path.abspath(sys.argv[0])
16
   my_dir = os.path.dirname(my_file)
17
   # try to automatically determine the pytan lib directory by assuming it is in '../../li\rlap//'
19
   parent_dir = os.path.dirname(my_dir)
20
   pytan_root_dir = os.path.dirname(parent_dir)
21
   lib_dir = os.path.join(pytan_root_dir, 'lib')
22
```

```
# add pytan_loc and lib_dir to the PYTHONPATH variable
   path_adds = [lib_dir, pytan_static_path]
25
   [sys.path.append(aa) for aa in path_adds if aa not in sys.path]
26
27
   # import pytan
28
   import pytan
29
30
   # create a dictionary of arguments for the pytan handler
31
   handler_args = {}
32
33
   # establish our connection info for the Tanium Server
   handler_args['username'] = "Administrator"
   handler_args['password'] = "Tanium2015!"
36
   handler_args['host'] = "10.0.1.240"
37
   handler_args['port'] = "443" # optional
38
   # optional, level 0 is no output except warnings/errors
40
41
   # level 1 through 12 are more and more verbose
   handler_args['loglevel'] = 1
42
43
   # optional, use a debug format for the logging output (uses two lines per log entry)
44
   handler_args['debugformat'] = False
45
   # optional, this saves all response objects to handler.session.ALL_REQUESTS_RESPONSES
   # very useful for capturing the full exchange of XML requests and responses
   handler_args['record_all_requests'] = True
49
50
   # instantiate a handler using all of the arguments in the handler_args dictionary
51
   print "...CALLING: pytan.handler() with args: {}".format(handler_args)
52
   handler = pytan.Handler(**handler_args)
53
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwargs["sensors"] = u'Computer Name{Dweedle}'
   kwargs["qtype"] = u'manual'
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   try:
64
       handler.ask(**kwargs)
65
   except Exception as e:
66
67
       print "...EXCEPTION: {}".format(e)
       # this should throw an exception of type: pytan.exceptions.HumanParserError
68
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
```

# 1.9 SOAP API Examples

This section contains the raw XML request bodies for each step in a number of workflows, and is meant to provide best practices for people who wish to write their own programmatic client to interface with Tanium's SOAP API.

Another point of reference for people who wish to write their own programmatic client is the WSDL File for the Tanium SOAP API.

## 1.9.1 SOAP API Examples for Platform Version 6.2.314.3321

Each of these sections contains examples that show the HTTP request and response for each step in a given workflow.

#### **Basic API Authentication**

This is an example for how to authenticate against the SOAP API

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.101474
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:28 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001446
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1571-cacee3f25c1c8f0954a8d3a0125a965aaab6514060dd84c20c9d510164ebaf477714a7041f3a98",
]
```

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:19:28 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.006108
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "content-length": "10254",
3    "content-type": "application/json"
4 }
```

#### **Create User**

Create a user called API Test User

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

- · HTTP Method: GET
- Elapsed Time: 0:00:00.015510
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:28 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.000979
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

· Response Headers:

```
1 {
2   "connection": "Keep-Alive",
3   "content-length": "207",
```

```
"content-type": "text/html; charset=iso-8859-1",

"date": "Sat, 05 Sep 2015 05:19:28 GMT",

"keep-alive": "timeout=5, max=99",

"server": "Apache",

"x-frame-options": "SAMEORIGIN"

9 }
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.006681
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1572-c6bd07bca7257b861bd60f60e9a779ded9a318f63e2975aa2bf5e73d27d2e066d691300d19396d38]
```

• Response Headers:

```
1 {
2    "content-length": "10254",
3    "content-type": "application/json"
4 }
```

#### Step 4 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003425
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1157",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:28 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 5 - Issue a GetObject to find an object

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003860

• Step 5 Request Body

• Step 5 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "468",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1572-c6bd07bca7257b861bd60f60e9a779ded9a318f63e2975aa2bf5e73d27d2e066d691300d19396d9]
}
```

Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1234",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:28 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 6 - Issue an AddObject to add a User object

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

Elapsed Time: 0:00:00.009338

- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "912",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:28 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003117
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "820",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:19:28 GMT",

"keep-alive": "timeout=5, max=95",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"1]
}
```

## Step 8 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.002909
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1258",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:28 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 9 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004875
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "992",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## **Create Package**

Create a package called package49

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.014977
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "107",
"content-type": "text/plain; charset=us-ascii",
```

```
"date": "Sat, 05 Sep 2015 05:19:29 GMT",

"keep-alive": "timeout=5, max=100",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"vary": "Accept-Encoding",

"x-frame-options": "SAMEORIGIN"

}
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.000912
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd1150-7
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.007120
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
```

```
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd1150-88"]
```

```
"content-length": "10254",
"content-type": "application/json"
}
```

#### Step 4 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.004148
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "510",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd115049]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "422",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a question or action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004154

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "563",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd1150.99
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1777",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 6 - Issue an AddObject to add a Group object for this package

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008544
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "521",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:19:29 GMT",

"keep-alive": "timeout=5, max=96",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"vary": "Accept-Encoding",

"x-frame-options": "SAMEORIGIN"
```

## Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.018229
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 8 - Issue an AddObject to add a Group object for this package

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.033742
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "5192",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd1150.99"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1725",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 9 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.009935
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
| {
| "Accept": "*/*",
| "Accept-Encoding": "gzip",
| "Connection": "keep-alive",
| "Content-Length": "500",
| "Content-Type": "text/xml; charset=utf-8",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ffle16dfd1150.99
| }
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1917",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

## Step 10 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003112
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "510",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd1150-9]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1917",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 11 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005127
- Step 11 Request Body
- Step 11 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
```

```
"Content-Length": "5575",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd1150-9",
"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1902",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### **Create Group**

Create a group called All Windows Computers API Test

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.017659
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"

}
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001377
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.216515
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e7088")
```

```
1 {
2     "content-length": "10254",
3     "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.189645
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "534",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e769)
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "421",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue a GetObject to get the full object of specified sensors for inclusion in a group

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008612
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e709)
"Session": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e709)
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2158",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 6 - Issue an AddObject to add a Group object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007758
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "692",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e769]
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "550",
"content-type": "text/xml;charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"

12 }
```

### Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.011607
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "486",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e79)
}
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "754",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 8 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003007
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",
"Content-Length": "534",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e709 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "755",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 9 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004349
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "736",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## **Create Whitelisted Url**

Create a whitelisted url

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.015354
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001556
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1575-121611b2fcfa63c76e1768fadafeb89ee8b14713f480e998b79d782e3d8ee11b6b96bb57542f4987
7 }
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
```

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.012913
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1575-121611b2fcfa63c76e1768fadafeb89ee8b14713f480e998b79d782e3d8ee11b6b96bb57542f4988")
```

• Response Headers:

```
1 {
2    "content-length": "10254",
3    "content-type": "application/json"
4  }
```

## Step 4 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.009347
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "4450",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 5 - Issue an AddObject to add a WhitelistedURL object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006784
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "589",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

#### Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003351
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "549",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 7 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.009612
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

### Step 8 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005375
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "588",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:29 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## **Create Package From JSON**

Get a package object, add 'API TEST' to the name of the package object, delete any pre-existing package with the new name, then create a new package object with the new name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.189716
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001037
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1576-27755dcd26250a2df8e29a9b5526496e84ee8a0559538ba98221c467ba9076bffb39321ba3d5adl
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005552
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1576-27755dcd26250a2df8e29a9b5526496e84ee8a0559538ba98221c467ba9076bffb39321ba3d5adl8]
```

• Response Headers:

```
1 {
2    "content-length": "10256",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003801
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

### Step 5 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.010231
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1085",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
```

```
"keep-alive": "timeout=5, max=97",

"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
]
```

### Step 6 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005037
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1950",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1576-27755dcd26250a2df8e29a9b5526496e84ee8a0559538ba98221c467ba9076bffb39321ba3d5adlegeliant
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1072",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 7 - Issue an AddObject to add an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007714
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1070",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 8 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.172852
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "500",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1576-27755dcd26250a2df8e29a9b5526496e84ee8a0559538ba98221c467ba9076bffb39321ba3d5adf9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1086",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

#### **Create User From JSON**

Get a user object, add 'API TEST' to the name of the user object, delete any pre-existing user with the new name, then create a new user object with the new name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.084676
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.001065
- Step 2 Request Body
- Step 2 Response Body

• Request Headers:

• Response Headers:

# Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.006752
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0a88]
```

· Response Headers:

```
1 {
2     "content-length": "10256",
3     "content-type": "application/json"
4 }
```

#### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.002943

- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "753",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003112
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "468",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0a.
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1158",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:19:30 GMT",

"keep-alive": "timeout=5, max=97",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"]
```

## Step 6 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004731
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2686",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0a.gegold)
"Accept": "*/*",
"Connection": "keep-alive",
"Content-Length": "2686",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0a.gegold)
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "922",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 7 - Issue an AddObject to add an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007650
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2726",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0a.9
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "948",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 8 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003992
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
| {
| "Accept": "*/*",
| "Accept-Encoding": "gzip",
| "Connection": "keep-alive",
| "Content-Length": "2737",
| "Content-Type": "text/xml; charset=utf-8",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0a89 | }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

#### **Create Saved Question From JSON**

Get a saved question object, add 'API TEST' to the name of the saved question object, delete any pre-existing saved question with the new name, then create a new saved question object with the new name

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.015147

- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

• URL: https://172.16.31.128:443/info.json

· HTTP Method: GET

• Elapsed Time: 0:00:00.000968

• Step 2 Request Body

• Step 2 Response Body

• Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.015059
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "content-length": "10256",
3    "content-type": "application/json"
4 }
```

#### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.170766

- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1516",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.197561
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "554",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1578-3c95cd89ee6258b9a9a3b854b0b095e77f6fe10a8d6ffc4f1818d11c877c962f98229c32291ad5")
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1516",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:19:31 GMT",

"keep-alive": "timeout=5, max=97",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"]
```

## Step 6 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.119250
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "3363",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1578-3c95cd89ee6258b9a9a3b854b0b095e77f6fe10a8d6ffc4f1818d11c877c962f98229c32291ad5:
    }
}
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1472",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 7 - Issue an AddObject to add an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006207
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

## Step 8 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008732
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "504",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1578-3c95cd89ee6258b9a9a3b854b0b095e77f6fe10a8d6ffc4f1818d11c877c962f98229c32291ad5.9
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1516",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

### **Create Action From JSON**

Get an action object, then create a new object from that (aka re-deploy an action)

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.016187
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001044
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",

"date": "Sat, 05 Sep 2015 05:19:31 GMT",

"keep-alive": "timeout=5, max=99",

"server": "Apache",
"x-frame-options": "SAMEORIGIN"

9 }
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005800
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1579-c3e9663caa8e9ff60830dcee019b2a9215c7cb384670bc811a587de8da859f84f8a05ae481f2d3688]
```

• Response Headers:

```
1 {
2    "content-length": "10256",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004756
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "486",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1579-c3e9663caa8e9ff60830dcee019b2a9215c7cb384670bc811a587de8da859f84f8a05ae481f2d369]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "850",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue an AddObject to add an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.066375
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "869",
"content-type": "text/xml;charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
```

### Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004180
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",

"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "488",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1579-c3e9663caa8e9ff60830dcee019b2a9215c7cb384670bc811a587de8da859f84f8a05ae481f2d36

"Bession": "25-1579-c3e9663caa8e9ff60830dcee019b2a9215c7cb384670bc811a587de8da859f84f8a05ae481f2d36

"Temperature of the content of the
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "864",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### **Create Sensor From JSON**

Get a sensor object, add 'API TEST' to the name of the sensor object, delete any pre-existing sensor with the new name, then create a new sensor object with the new name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.016068

- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001358
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
```

```
"x-frame-options": "SAMEORIGIN"
9 }
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.037185
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1580-345d6c9cdb2f1c246eb306037b8c67c3c196bdb877f00c79e811bed0c3d8bad7bbf55c64f6ae41
}
```

• Response Headers:

```
"content-length": "10256",
"content-type": "application/json"
}
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004745
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "507",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1580-345d6c9cdb2f1c246eb306037b8c67c3c196bdb877f00c79e811bed0c3d8bad7bbf55c64f6ae41
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5225",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 5 - Issue a GetObject to find the object to be deleted

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004188

• Step 5 Request Body

• Step 5 Response Body

• Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "552",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1580-345d6c9cdb2f1c246eb306037b8c67c3c196bdb877f00c79e811bed0c3d8bad7bbf55c64f6ae41
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5239",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 6 - Issue a DeleteObject to delete an object

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.011161

• Step 6 Request Body

- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "16013",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1580-345d6c9cdb2f1c246eb306037b8c67c3c196bdb877f00c79e811bed0c3d8bad7bbf55c64f6ae41
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5228",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 7 - Issue an AddObject to add an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.097855
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5221",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
```

```
"keep-alive": "timeout=5, max=95",

s     "server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

11 }
```

### Step 8 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.106906
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "488",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1580-345d6c9cdb2f1c246eb306037b8c67c3c196bdb877f00c79e811bed0c3d8bad7bbf55c64f6ae41
]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5233",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### **Create Question From JSON**

Get a question object, then create a new object from that (aka re-ask a question)

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.017374
- Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001295
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1581-115ac44c7a744c828e045a143da19d0f96b745f0031d069b1743813dfa1278151175c58b85ab2c.]
"Bession": "25-1581-115ac44c7a744c828e045a143da19d0f96b745f0031d069b1743813dfa1278151175c58b85ab2c.]
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
```

```
"x-frame-options": "SAMEORIGIN"
9 }
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.014175
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1581-115ac44c7a744c828e045a143da19d0f96b745f0031d069b1743813dfa1278151175c58b85ab2c.
8
```

• Response Headers:

```
1 {
2    "content-length": "10256",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.018310
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "632",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 5 - Issue an AddObject to add an object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005162
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "649",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005291
- Step 6 Request Body

- Step 6 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "643",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### **Create Whitelisted Url From JSON**

Get a whitelisted url object, add 'API TEST' to the url\_regex of the whitelisted url object, delete any pre-existing whitelisted url with the new url\_regex, then create a new whitelisted url object with the new url\_regex

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.116769
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:32 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.002065
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1582-70044f8f41fe3f24601d82eefda2d1f1d0a1860b576018dbb8e79b3191b59c6e8728d2452b04b7.
```

• Response Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.263996
- Step 3 Request Body
- Step 3 Response Body

• Request Headers:

• Response Headers:

```
1 {
2     "content-length": "10255",
3     "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.417216
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",

"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "480",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1582-70044f8f41fe3f24601d82eefda2d1f1d0a1860b576018dbb8e79b3191b59c6e8728d2452b04b7.
]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "4460",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:32 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue a GetObject to find the object to be deleted

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.010165

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "480",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1582-70044f8f41fe3f24601d82eefda2d1f1d0a1860b576018dbb8e79b3191b59c6e8728d2452b04b739
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "4460",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:32 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 6 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005093
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "476",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:32 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 7 - Issue an AddObject to add an object

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005401

- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "575",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1582-70044f8f41fe3f24601d82eefda2d1f1d0a1860b576018dbb8e79b3191b59c6e8728d2452b04b7;
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "484",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:32 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 8 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.120933
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "471",
     "content-type": "text/xml; charset=UTF-8",
5
     "date": "Sat, 05 Sep 2015 05:19:32 GMT",
6
     "keep-alive": "timeout=5, max=94",
7
     "server": "Apache",
     "strict-transport-security": "max-age=15768000",
     "vary": "Accept-Encoding",
     "x-frame-options": "SAMEORIGIN"
11
12
```

## **Create Group From JSON**

Get a group object, add 'API TEST' to the name of the group object, delete any pre-existing group with the new name, then create a new group object with the new name

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.015730
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "109",
4
     "content-type": "text/plain; charset=us-ascii",
6
     "date": "Sat, 05 Sep 2015 05:19:33 GMT",
     "keep-alive": "timeout=5, max=100",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "vary": "Accept-Encoding",
10
     "x-frame-options": "SAMEORIGIN"
11
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001238
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1583-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995cs7",
"The second is a second in the se
```

• Response Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.017017
- Step 3 Request Body
- Step 3 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1583-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995cts]
```

• Response Headers:

```
1 {
2    "content-length": "10255",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004637
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "517",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1583-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995cs
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "494",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:33 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 5 - Issue a GetObject to find the object to be deleted

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003931
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "526",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1583-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995cs9]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "502",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:33 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 6 - Issue a DeleteObject to delete an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.103461
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "583",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
"session": "25-1583-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995c8
```

### Step 7 - Issue an AddObject to add an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007811
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

### Step 8 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.301418

• Step 8 Request Body

- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "486",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1583-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995cs9",
""]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "498",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:33 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## **Deploy Action Simple**

Deploy an action using the package 'Distribute Tanium Standard Utilities' to all computers, wait for result data to be complete, and then get result data using Server Side Export

### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

· HTTP Method: GET

• Elapsed Time: 0:00:00.016442

• Step 1 Request Body

• Step 1 Response Body

· Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:19:33 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001892
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:19:33 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.006488
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4688]
```

· Response Headers:

```
1 {
2    "content-length": "10255",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to get the full object of a package for inclusion in an action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004135
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "581",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a46
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2206",
"content-type": "text/xml; charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:19:33 GMT",

"keep-alive": "timeout=5, max=98",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"1]
}
```

## Step 5 - Issue an AddObject to add a single Action (6.2 logic)

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.227444
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1193",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

· Response Headers:

```
1
     "connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "755",
     "content-type": "text/xml; charset=UTF-8",
5
     "date": "Sat, 05 Sep 2015 05:19:33 GMT",
6
     "keep-alive": "timeout=5, max=97",
7
     "server": "Apache",
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
```

## Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.190842
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "488",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "812",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:34 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 7 - Issue a GetObject to get the package for an Action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004395
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "625",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a46
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2193",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:34 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

# Step 8 - Issue a GetResultInfo on an Action to have the Server create a question that tracks the results for a Deployed Action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.075703
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "552",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "762",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:34 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 9 - Issue a GetObject on the package for an action to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003802
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2193",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:34 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 10 - ID 193: Issuing an AddObject of a Question object with no Selects and the same Group used by the Action object. The number of systems that should successfully run the Action will be taken from result\_info.passed\_count for the Question asked when all answers for the question have reported in.

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005635
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "457",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:34 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
```

```
"x-frame-options": "SAMEORIGIN"
12 }
```

### Step 11 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005288
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "640",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:34 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003206
- Step 12 Request Body
- Step 12 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "703",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:34 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 13 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003492
- Step 13 Request Body
- Step 13 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "713",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:39 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004765

• Step 14 Request Body

- Step 14 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "712",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:44 GMT",
"keep-alive": "timeout=5, max=88",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 15 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.209734

Step 15 Request Body

• Step 15 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1406",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "813",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:44 GMT",
"keep-alive": "timeout=5, max=87",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 16 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005615

- Step 16 Request Body
- Step 16 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "552",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "765",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:44 GMT",
"keep-alive": "timeout=5, max=86",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 17 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004272

- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "626",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "834",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:44 GMT",
"keep-alive": "timeout=5, max=85",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 18 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.251983
- Step 18 Request Body
- Step 18 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1406",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "813",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:49 GMT",
"keep-alive": "timeout=5, max=84",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 19 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

Elapsed Time: 0:00:00.409178

- Step 19 Request Body
- Step 19 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "552",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "765",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:49 GMT",
"keep-alive": "timeout=5, max=83",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 20 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.007249

- Step 20 Request Body
- Step 20 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "626",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "885",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:50 GMT",
"keep-alive": "timeout=5, max=82",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Step 21 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.082268
- Step 21 Request Body
- Step 21 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1406",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "815",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:55 GMT",
"keep-alive": "timeout=5, max=81",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 22 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005819

- Step 22 Request Body
- Step 22 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "552",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "765",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:55 GMT",
"keep-alive": "timeout=5, max=80",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 23 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.008335

- Step 23 Request Body
- Step 23 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "626",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "885",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:55 GMT",
"keep-alive": "timeout=5, max=79",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 24 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004191
- Step 24 Request Body
- Step 24 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1406",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8     "session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a4e
9     }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "815",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=78",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 25 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004853

- Step 25 Request Body
- Step 25 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "552",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "765",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=77",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 26 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.005121

- Step 26 Request Body
- Step 26 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "626",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "881",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=76",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 27 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004330
- Step 27 Request Body
- Step 27 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1406",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "815",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=75",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 28 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004907

- Step 28 Request Body
- Step 28 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "552",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a46
    }
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "765",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=74",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 29 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.005278

- Step 29 Request Body
- Step 29 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "580",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a46

) }
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "967",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=73",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### **Deploy Action Simple Without Results**

Deploy an action using the package 'Distribute Tanium Standard Utilities' to all computers and do not wait for result data to be complete and do not get result data

### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.141060

• Step 1 Request Body

• Step 1 Response Body

· Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001370
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
| {
| "Accept": "*/*",
| "Accept-Encoding": "gzip, deflate",
| "Connection": "keep-alive",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "25-1585-dc5087cf93f82333b3512d7348fef1554d946a643b58658ccfcb0c7160e00e694e2df8feef6f9d;
| }
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.013027
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1585-dc5087cf93f82333b3512d7348fef1554d946a643b58658ccfcb0c7160e00e694e2df8feef6f9d."
"Bession": "25-1585-dc5087cf93f82333b3512d7348fef1554d946a643b58658ccfcb0c7160e00e694e2df8feef6f9d."
```

· Response Headers:

```
1 {
2     "content-length": "10256",
3     "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to get the full object of a package for inclusion in an action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004356
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "581",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1585-dc5087cf93f82333b3512d7348fef1554d946a643b58658ccfcb0c7160e00e694e2df8feef6f9drg
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2213",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:20:00 GMT",

"keep-alive": "timeout=5, max=98",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"]
```

## Step 5 - Issue an AddObject to add a single Action (6.2 logic)

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004924
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1193",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1585-dc5087cf93f82333b3512d7348fef1554d946a643b58658ccfcb0c7160e00e694e2df8feef6f9d",
]
```

· Response Headers:

```
1
     "connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "760",
     "content-type": "text/xml; charset=UTF-8",
5
     "date": "Sat, 05 Sep 2015 05:20:00 GMT",
6
     "keep-alive": "timeout=5, max=97",
7
     "server": "Apache",
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
```

## Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004014
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "488",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1585-dc5087cf93f82333b3512d7348fef1554d946a643b58658ccfcb0c7160e00e694e2df8feef6f9d",
)
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "815",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 7 - Issue a GetObject to get the package for an Action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003013
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"x-frame-options": "SAMEORIGIN"

11 }
```

## Step 8 - Issue a GetResultInfo on an Action to have the Server create a question that tracks the results for a Deployed Action

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.006641
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "767",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 9 - Issue a GetObject on the package for an action to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004476
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1585-dc5087cf93f82333b3512d7348fef1554d946a643b58658ccfcb0c7160e00e694e2df8feef6f9d",
]
```

## **Deploy Action Simple Against Windows Computers**

Deploy an action using the package 'Distribute Tanium Standard Utilities' to all computers that pass the filter Operating System, that contains Windows, wait for result data to be complete, and then get result data

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.015683
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=100",
```

```
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"

}
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.000936
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
"}
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.006338
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-88" }
```

```
1 {
2    "content-length": "10258",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to get the full object of a package for inclusion in an action

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003317
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2215",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for an Action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004380
- Step 5 Request Body

- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2156",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 6 - Issue an AddObject to add a single Action (6.2 logic)

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007743
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "854",
"content-type": "text/xml;charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
```

```
"keep-alive": "timeout=5, max=96",

"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003687
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "816",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 8 - Issue a GetObject to get the package for an Action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003488
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2201",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Step 9 - Issue a GetResultInfo on an Action to have the Server create a question that tracks the results for a Deployed Action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005936
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "766",
"content-type": "text/xml;charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
```

```
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"

11 }
```

## Step 10 - Issue a GetObject on the package for an action to get the full object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003885
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2201",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 11 - Issue a GetObject on the target\_group for an action to get the full Group object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012925
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",
"Content-Length": "506",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-9"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "727",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 12 - ID 195: Issuing an AddObject of a Question object with no Selects and the same Group used by the Action object. The number of systems that should successfully run the Action will be taken from result\_info.passed\_count for the Question asked when all answers for the question have reported in.

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.010385
- Step 12 Request Body
- Step 12 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "731",
"content-type": "text/xml;charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

#### Step 13 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012198
- Step 13 Request Body
- Step 13 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "960",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003280
- Step 14 Request Body
- Step 14 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "704",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:01 GMT",
"keep-alive": "timeout=5, max=88",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.004570
- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "716",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:06 GMT",
"keep-alive": "timeout=5, max=87",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 16 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008738
- Step 16 Request Body
- Step 16 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-9
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "716",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:11 GMT",
"keep-alive": "timeout=5, max=86",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 17 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.097931
- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1408",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8     "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9     }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "817",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:11 GMT",
"keep-alive": "timeout=5, max=85",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 18 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.101363

- Step 18 Request Body
- Step 18 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "552",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae4
9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:11 GMT",
"keep-alive": "timeout=5, max=84",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 19 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.073087

- Step 19 Request Body
- Step 19 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "831",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:11 GMT",
"keep-alive": "timeout=5, max=83",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 20 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004305
- Step 20 Request Body
- Step 20 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1408",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8     "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9     }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "816",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:16 GMT",
"keep-alive": "timeout=5, max=82",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 21 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004853

- Step 21 Request Body
- Step 21 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "552",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae4
9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "764",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:16 GMT",
"keep-alive": "timeout=5, max=81",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 22 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.004782

- Step 22 Request Body
- Step 22 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "832",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:16 GMT",
"keep-alive": "timeout=5, max=80",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 23 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004438
- Step 23 Request Body
- Step 23 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1408",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8     "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9     }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "817",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:21 GMT",
"keep-alive": "timeout=5, max=79",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 24 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005524

- Step 24 Request Body
- Step 24 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "764",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:21 GMT",
"keep-alive": "timeout=5, max=78",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 25 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005867

- Step 25 Request Body
- Step 25 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "884",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:21 GMT",
"keep-alive": "timeout=5, max=77",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 26 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004690
- Step 26 Request Body
- Step 26 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1408",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8     "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9     }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "817",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:21 GMT",
"keep-alive": "timeout=5, max=76",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 27 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005683

- Step 27 Request Body
- Step 27 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "552",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae4
9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "764",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:21 GMT",
"keep-alive": "timeout=5, max=75",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 28 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004429

• Step 28 Request Body

- Step 28 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "902",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:21 GMT",
"keep-alive": "timeout=5, max=74",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 29 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004568
- Step 29 Request Body
- Step 29 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1408",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8     "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9     }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "816",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:26 GMT",
"keep-alive": "timeout=5, max=73",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 30 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

Elapsed Time: 0:00:00.004851

- Step 30 Request Body
- Step 30 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "763",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:26 GMT",
"keep-alive": "timeout=5, max=72",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 31 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.004321

- Step 31 Request Body
- Step 31 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "902",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:26 GMT",
"keep-alive": "timeout=5, max=71",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 32 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.039305
- Step 32 Request Body
- Step 32 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1408",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8     "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9     }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "817",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:31 GMT",
"keep-alive": "timeout=5, max=70",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 33 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005426

- Step 33 Request Body
- Step 33 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "763",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:31 GMT",
"keep-alive": "timeout=5, max=69",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 34 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.005306

• Step 34 Request Body

- Step 34 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "902",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:31 GMT",
"keep-alive": "timeout=5, max=68",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 35 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004278

• Step 35 Request Body

• Step 35 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1408",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8     "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9     }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "817",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=67",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 36 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005412

- Step 36 Request Body
- Step 36 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "552",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae4
9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=66",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 37 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.004595

• Step 37 Request Body

- Step 37 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "903",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=65",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## **Deploy Action With Params Against Windows Computers**

Deploy an action using the package 'Custom Tagging - Add Tags' with parameter \$1 set to 'tag\_should\_be\_added' and parameter \$2 set to 'tag\_should\_be\_ignore' to all computers that pass the filter Operating System, that contains Windows, wait for result data to be complete, and then get result data

#### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.015738

• Step 1 Request Body

• Step 1 Response Body

· Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "107",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001017
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5."
}
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.013929
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.8")
```

· Response Headers:

```
1 {
2    "content-length": "10254",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to get the full object of a package for inclusion in an action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003465
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "570",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf539]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1080",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:20:36 GMT",

"keep-alive": "timeout=5, max=98",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"1]
}
```

## Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for an Action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003538
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2160",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 6 - Issue an AddObject to add a single Action (6.2 logic)

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012257
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1262",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.009775
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "488",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "819",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

#### Step 8 - Issue a GetObject to get the package for an Action

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003059
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "619",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
9 }
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1137",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 9 - Issue a GetResultInfo on an Action to have the Server create a question that tracks the results for a Deployed Action

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004848
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",
"Content-Length": "541",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "758",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 10 - Issue a GetObject on the package for an action to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003442
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1137",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 11 - Issue a GetObject on the target\_group for an action to get the full Group object

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.010984

Step 11 Request Body

- Step 11 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "730",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 12 - ID 196: Issuing an AddObject of a Question object with no Selects and the same Group used by the Action object. The number of systems that should successfully run the Action will be taken from result info.passed count for the Question asked when all answers for the question have reported in.

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.011040

Step 12 Request Body

- Step 12 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1142",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
s "session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5;
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "732",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 13 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.012572

- Step 13 Request Body
- Step 13 Response Body
- · Request Headers:

```
"Accept": "*/*",

"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "493",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "964",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003483

- Step 14 Request Body
- Step 14 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9",
"Bession": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9",
"Temperature of the content of the co
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "706",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:36 GMT",
"keep-alive": "timeout=5, max=88",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003290
- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "706",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:41 GMT",
"keep-alive": "timeout=5, max=87",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 16 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003549

• Step 16 Request Body

• Step 16 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:46 GMT",
"keep-alive": "timeout=5, max=86",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

Step 17 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004205

- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "819",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:46 GMT",
"keep-alive": "timeout=5, max=85",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 18 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004648
- Step 18 Request Body
- Step 18 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "541",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0beadlae5dadf5.
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "758",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:20:46 GMT",

"keep-alive": "timeout=5, max=84",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"]
```

# Step 19 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005115
- Step 19 Request Body
- Step 19 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "615",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9"]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "825",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:46 GMT",
"keep-alive": "timeout=5, max=83",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Step 20 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.030131
- Step 20 Request Body
- Step 20 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1390",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.

| "Accept": "*/*",
| "Accept-Encoding": "gzip",
| "Connection": "text/xml; charset=utf-8",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "819",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:51 GMT",
"keep-alive": "timeout=5, max=82",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 21 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005488
- Step 21 Request Body
- Step 21 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "758",
"content-type": "text/xml;charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:52 GMT",
"keep-alive": "timeout=5, max=81",
"server": "Apache",
```

```
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Step 22 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005314
- Step 22 Request Body
- Step 22 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "615",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
9 }
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "825",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:52 GMT",
"keep-alive": "timeout=5, max=80",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 23 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.109029
- Step 23 Request Body
- Step 23 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1390",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "819",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:57 GMT",
"keep-alive": "timeout=5, max=79",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 24 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005634
- Step 24 Request Body
- Step 24 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "541",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "759",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:57 GMT",
"keep-alive": "timeout=5, max=78",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

# Step 25 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.011087

• Step 25 Request Body

• Step 25 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "615",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "877",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:57 GMT",
"keep-alive": "timeout=5, max=77",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Step 26 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.095163

Step 26 Request Body

• Step 26 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1390",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "819",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:57 GMT",
"keep-alive": "timeout=5, max=76",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 27 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005579
- Step 27 Request Body
- Step 27 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "541",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "759",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:57 GMT",
"keep-alive": "timeout=5, max=75",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
"11 }
```

Step 28 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005596
- Step 28 Request Body
- Step 28 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "569",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
9 }
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "897",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:57 GMT",
"keep-alive": "timeout=5, max=74",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Get Action By Id

Get an action object by id

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.016175
- Step 1 Request Body
- Step 1 Response Body

• Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001247
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.013774
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1615-1bb609053925e7ad19917ad092af44adc1a9f4dfdbf7ddb990a487f87c98c2151b4712cc207c538")
```

· Response Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004106
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "486",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1615-1bb609053925e7ad19917ad092af44adc1a9f4dfdbf7ddb990a487f87c98c2151b4712cc207c53-9
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "854",
"content-type": "text/xml; charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:36:17 GMT",

"keep-alive": "timeout=5, max=98",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

11 }
```

## **Get Question By Id**

Get a question object by id

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.013800
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001024
- Step 2 Request Body

- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1616-f744832a79aceb77adb238c458a90ded745a56dd6cce8caeeecaf56ea3f422ddaa3e8e698634c8
]
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005429
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.111823
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "490",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1616-f744832a79aceb77adb238c458a90ded745a56dd6cce8caeeecaf56ea3f422ddaa3e8e698634c8
"Bession": "25-1616-f744832a79aceb77adb238c458a90ded745a56dd6cce8caeeecaf56ea3f422ddaa3e8e698634c8
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "631",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## **Get Saved Question By Names**

Get two saved question objects by name

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.013917
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001025
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1617-f81eba2e2339b96e1f3217ef94a107ee6ffb9682713299e0897cfeeb56ecb3f3f0bceab2cc04c0",
"Bession": "25-1617-f81eba2e2339b96e1f3217ef94a107ee6ffb9682713299e0897cfeeb56ecb3f3f0bceab2cc04c0",
"The session of the sessi
```

• Response Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005475
- Step 3 Request Body
- Step 3 Response Body

• Request Headers:

• Response Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008675
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "527",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1617-f81eba2e2339b96e1f3217ef94a107ee6ffb9682713299e0897cfeeb56ecb3f3f0bceab2cc04c009]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7218",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 5 - Issue a GetObject to find an object

• URL: https://172.16.31.128:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.008163
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "518",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1617-f81eba2e2339b96e1f3217ef94a107ee6ffb9682713299e0897cfeeb56ecb3f3f0bceab2cc04c009

}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1364",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Get Userrole By Id

Get a user role object by id.

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.014318
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "109",
4
     "content-type": "text/plain; charset=us-ascii",
6
     "date": "Sat, 05 Sep 2015 05:36:17 GMT",
     "keep-alive": "timeout=5, max=100",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "vary": "Accept-Encoding",
10
     "x-frame-options": "SAMEORIGIN"
11
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001018
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1618-dd023086f7c2828245d858f2d9fba6a52105415f6635962b36335879115b51937a798eee5a5f23"
}
```

• Response Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005140
- Step 3 Request Body
- Step 3 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1618-dd023086f7c2828245d858f2d9fba6a52105415f6635962b36335879115b51937a798eee5a5f23'8
}
```

• Response Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4  }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.002931
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1236",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Get Setting By Name**

Get a system setting object by name

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.015007
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "108",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001011
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005403
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1620-238843d48d10686772e2fcef521d320dac82b6522877b0ac7e1c66112847a9069d0304af0232d5"
"Bession": "25-1620-238843d48d10686772e2fcef521d320dac82b6522877b0ac7e1c66112847a9069d0304af0232d5"
```

• Response Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003545
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "555",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1620-238843d48d10686772e2fcef521d320dac82b6522877b0ac7e1c66112847a9069d0304af0232d5"
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "531",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# **Get User By Name**

Get a user object by name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.013692
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"

12 }
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001005
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005848
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003696
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1158",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Get Sensor By Id

Get a sensor object by id

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.077765
- Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "107",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:17 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001089
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"x-frame-options": "SAMEORIGIN"
9 }
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.287009
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "content-length": "11012",
3     "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.282680
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "505",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1622-c7f508db7d36e3277c6628b83921f84540f24905dba84d5fadb1fd16f3b7b518f08f3ae5d83b299)
"Session": "25-1622-c7f508db7d36e3277c6628b83921f84540f24905dba84d5fadb1fd16f3b7b518f08f3ae5d83b299)
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "768",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:18 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Get Sensor By Mixed**

Get multiple sensor objects by id, name, and hash

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.048458
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:18 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

• URL: https://172.16.31.128:443/info.json

- HTTP Method: GET
- Elapsed Time: 0:00:00.001114
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1623-9b67ecce414047ee2cc549e037c92b7e8b8c26bb9a6eb56ea25fc6e50c9166ea149aa481503068;
"]
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:18 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

# Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.014916
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.082861
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1102",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:18 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Get Whitelisted Url By Id

Get a whitelisted url object by id

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.169277
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:18 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.001325
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1624-de5d0d6502865da22e383168c9240ed9858545ab3103bd26b1add3a84e741938ba4f65f5dad09587."]
```

· Response Headers:

# Step 3 - Get the server version via /info.json

• URL: https://172.16.31.128:444/info.json

- HTTP Method: POST
- Elapsed Time: 0:00:00.005562
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.008362
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "480",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1624-de5d0d6502865da22e383168c9240ed9858545ab3103bd26b1add3a84e741938ba4f65f5dad095.9
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "4451",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:18 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

# **Get Group By Name**

Get a group object by name

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.808268
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"password": "VGFuaXVtMjAxNSE=",
"username": "QWRtaW5pc3RyYXRvcg=="
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:19 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001308
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1625-fe799e459da07a224f4bf51bf9982f345ce0d87fc4b432c162acdb10c230f746539edba630dbd7;
"]
```

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:19 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
```

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.011051
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004371
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "517",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1625-fe799e459da07a224f4bf51bf9982f345ce0d87fc4b432c162acdb10c230f746539edba630dbd7
9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "494",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:19 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## **Get Sensor By Hash**

Get a sensor object by hash

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.016312
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:19 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001064
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1626-506a2c6a3f62dbb803e6601a6eeae2d01c657aedbf7b766fe977bc193044efd52369746b016708.
```

• Response Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.006468
- Step 3 Request Body
- Step 3 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1626-506a2c6a3f62dbb803e6601a6eeae2d01c657aedbf7b766fe977bc193044efd52369746b016708.
8

| **Taccept**: "**/*",
| "Connection": "keep-alive",
| "User-Agent": "0",
| "session": "25-1626-506a2c6a3f62dbb803e6601a6eeae2d01c657aedbf7b766fe977bc193044efd52369746b016708.
```

• Response Headers:

```
1 {
2     "content-length": "11012",
3     "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.052764
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "818",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:19 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Get Package By Name**

Get a package object by name

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.013662
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:20 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001096
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005916
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1627-4449658f761a146801b5bdd2356c64ecb02e28f28fd9aacceaabd07e677ba40585641ab25de52168]
```

• Response Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003995
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "537",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1627-4449658f761a146801b5bdd2356c64ecb02e28f28fd9aacceaabd07e677ba40585641ab25de52169"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2202",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:20 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## **Get Sensor By Names**

Get multiple sensor objects by name

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.015158
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:20 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
```

```
"x-frame-options": "SAMEORIGIN"
12 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.001097
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1628-3ad55a264b776d669eee935914122d871119de66152973d13bce8b0a7e65clalcf52a2776638d9677
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:20 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.228940
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1628-3ad55a264b776d669eee935914122d871119de66152973d13bce8b0a7e65c1a1cf52a2776638d9688]
```

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.773339
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "566",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1628-3ad55a264b776d669eee935914122d871119de66152973d13bce8b0a7e65c1alcf52a2776638d9699)
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "903",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:20 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### **Get Saved Question By Name**

Get saved question object by name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.016271
- Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.000896
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1629-99be0ac0413ac60a29d912dc02d989f3b2e763494c12f13626a00ecf2e89e2eaad3604a1dc0e3cd7
}
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
```

```
"x-frame-options": "SAMEORIGIN"
9 }
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.011689
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1629-99be0ac0413ac60a29d912dc02d989f3b2e763494c12f13626a00ecf2e89e2eaad3604a1dc0e3cd8]
```

• Response Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.010322
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7218",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Get User By Id

Get a user object by id

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.016276
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

• URL: https://172.16.31.128:443/info.json

- · HTTP Method: GET
- Elapsed Time: 0:00:00.001071
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005259
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

#### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003009
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "482",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1630-a9c56c17e2b93a7ab1567912291acc88b008113bdc79457ae64afc1abb41492f9563ce66e840fe89]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "753",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## **Get Sensor By Name**

Get a sensor object by name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.014419
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
4    "Connection": "keep-alive",
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "108",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.001006
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

· Response Headers:

# Step 3 - Get the server version via /info.json

• URL: https://172.16.31.128:444/info.json

- HTTP Method: POST
- Elapsed Time: 0:00:00.005608
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1631-20c0ed3da9dbb0e304d201f459cad7a07fd23160642882d53fad0202657e67f1889dd6c520eb5588"]
```

```
1 {
2    "content-length": "11012",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003969
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "779",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

## **Get Saved Action By Name**

Get a saved action object by name

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.014089
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"password": "VGFuaXVtMjAxNSE=",
"username": "QWRtaW5pc3RyYXRvcg=="
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.000949
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1632-43300e3c8e15ca8e5a4a04b1fff876e155cafaaa57ba1ee3ba405d56ddbebbd6bd219dda22d9b5"
"Bession": "25-1632-43300e3c8e15ca8e5a4a04b1fff876e155cafaaa57ba1ee3ba405d56ddbebbd6bd219dda22d9b5")
```

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",

"date": "Sat, 05 Sep 2015 05:36:21 GMT",

"keep-alive": "timeout=5, max=99",

"server": "Apache",
"x-frame-options": "SAMEORIGIN"

9 }
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.005277
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003117
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "784",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### **Get All Users**

Get all user objects

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.013524
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

• URL: https://172.16.31.128:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.000984

- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1633-2f60810b5f0aee60c9ebae92b3a1d6b6cfa2e735251ef84372dff8bb75ae613581faa8ed88c007,
"]
```

• Response Headers:

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005804
- Step 3 Request Body
- Step 3 Response Body

• Request Headers:

• Response Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

#### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003323
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "468",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1633-2f60810b5f0aee60c9ebae92b3ald6b6cfa2e73525lef84372dff8bb75ae61358lfaa8ed88c007,
]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1160",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### **Get All Saved Actions**

Get all saved action objects

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.015599
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.000927
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005389
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1634-9386e956ade470f0d5bb56bd4bca1c05d6e0f3a7028193d58bff7a542caeb9273a94ef2e5609ff68"]
```

· Response Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.295056
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "476",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1634-9386e956ade470f0d5bb56bd4bca1c05d6e0f3a7028193d58bff7a542caeb9273a94ef2e5609ff69"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5787",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## **Get All Settings**

Get all system setting objects

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.067670
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
```

```
"x-frame-options": "SAMEORIGIN"
12 }
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.001075
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005551
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006431
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "478",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1635-70385e26372792dbcd7a047f890d005ab3d008699e8a5b5d79acaae4b63aa58b3e5b419054bc9369998]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "3008",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:21 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## **Get All Saved Questions**

Get all saved question objects

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.016213
- Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:22 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001114
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"x-frame-options": "SAMEORIGIN"
9 }
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.006085
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1636-49d69ff644958a7bbc2e40db3b85c9c0465558a4230283b4ba349cbea91ee8934a0e19e05c94c168]
```

• Response Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.215379
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "478",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1636-49d69ff644958a7bbc2e40db3b85c9c0465558a4230283b4ba349cbea9lee8934a0e19e05c94c16
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "12752",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:22 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### **Get All Userroless**

Get all user role objects

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.236220
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "112",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:22 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

• URL: https://172.16.31.128:443/info.json

- HTTP Method: GET
- Elapsed Time: 0:00:00.001007
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.013578
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1637-dcc1e083beb182862bd1eb1e8de7a4b45cc3949ddce9863ec52632a4bce2eb72227b0f9dbb81bases]
```

#### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003139
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "468",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1637-dcc1e083beb182862bd1eb1e8de7a4b45cc3949ddce9863ec52632a4bce2eb72227b0f9dbb81base

"Bession": "25-1637-dcc1e083beb182862bd1eb1e8de7a4b45cc3949ddce9863ec52632a4bce2eb72227b0f9dbb81base
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1232",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:23 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Get All Questions**

Get all question objects

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.015839
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
4    "Connection": "keep-alive",
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:23 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.001179
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1638-cd0fcd38c2b1c8092aab61be72ffdf70801497434e05af82a2173d35376453fd00cc44f4223217;
]
```

· Response Headers:

## Step 3 - Get the server version via /info.json

• URL: https://172.16.31.128:444/info.json

- HTTP Method: POST
- Elapsed Time: 0:00:00.006545
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1638-cd0fcd38c2b1c8092aab61be72ffdf70801497434e05af82a2173d35376453fd00cc44f42232178
```

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.021569
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"x-frame-options": "SAMEORIGIN"

11 }
```

## **Get All Groups**

Get all group objects

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.199815
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:24 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001195
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1639-fec4a3e52228486f0208b82f64c72a67eef66b32074bf7cbc1294a91e513f5f3c14cb360b9faeff
7 }
```

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",

"date": "Sat, 05 Sep 2015 05:36:24 GMT",

"keep-alive": "timeout=5, max=99",

"server": "Apache",
"x-frame-options": "SAMEORIGIN"

}
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.011780
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003175
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "632",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:24 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### **Get All Sensors**

Get all sensor objects

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.013533
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:24 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001279
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1640-f8084e14b83b6f04db4f745bddb707eff844b93317ded6ada8aee34e8b4716bac7583a7d9958726
```

• Response Headers:

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005786
- Step 3 Request Body
- Step 3 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1640-f8084e14b83b6f04db4f745bddb707eff844b93317ded6ada8aee34e8b4716bac7583a7d99587268]
```

• Response Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

#### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.116335
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "635511",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:24 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### **Get All Whitelisted Urls**

Get all whitelisted url objects

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.016276
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:26 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001029
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.010885
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008296
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "480",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1641-46720e2b9e299d799638816cb81844b5d605b40be364ab22f66388fd485fb17646b6ba0b3628cee
9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "4448",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:26 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### **Get All Clients**

Get all client objects

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.013731
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "108",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:26 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
```

```
"x-frame-options": "SAMEORIGIN"
12 }
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.000934
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005741
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1642-0a92197efe3c22512bdab652b4bf07fec8fa036447189c5f99287580aea5ae60129e8890f05e9338
```

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003113
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "476",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1642-0a92197efe3c22512bdab652b4bf07fec8fa036447189c5f99287580aea5ae60129e8890f05e93.
9 }
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1397",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:26 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## **Get All Packages**

Get all package objects

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.016008
- Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:26 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.000967
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1643-c52763b98bedd410480f9e276234e3d3419a6e7175f09475cdee498d4b257f76451575ff5ca6f667]
```

```
"x-frame-options": "SAMEORIGIN"
9 }
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005876
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1643-c52763b98bedd410480f9e276234e3d3419a6e7175f09475cdee498d4b257f76451575ff5ca6f688]
```

• Response Headers:

```
1 {
2    "content-length": "11014",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008801
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "475",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1643-c52763b98bedd410480f9e276234e3d3419a6e7175f09475cdee498d4b257f76451575ff5ca6f6699]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "23200",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:26 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### **Get All Actions**

Get all action objects

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.014946
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:27 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

• URL: https://172.16.31.128:443/info.json

- HTTP Method: GET
- Elapsed Time: 0:00:00.000924
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1644-0f27a94bbb1c8b6a779cb7c259d5ddc285e7b3d81e87581b27621e8ddb765c144e2d03a82965e8677"]
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:27 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
]
```

# Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005251
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
1 {
2     "content-length": "11010",
3     "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find an object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008838
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "470",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1644-0f27a94bbb1c8b6a779cb7c259d5ddc285e7b3d81e87581b27621e8ddb765c144e2d03a82965e869)
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "13800",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:27 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Ask Manual Question Simple Single Sensor No Results**

Ask the question 'Get Computer Name from all machines' and do not get result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.146861
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
4    "Connection": "keep-alive",
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:27 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.000972
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1645-c041496fdaff8c6b8alb6fa20882bc6300c21fb9ce7d0a8e3e8fc1ca089683a3533cef2d235d12.7"
}
```

· Response Headers:

# Step 3 - Get the server version via /info.json

• URL: https://172.16.31.128:444/info.json

- HTTP Method: POST
- Elapsed Time: 0:00:00.020624
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1645-c041496fdaff8c6b8alb6fa20882bc6300c21fb9ce7d0a8e3e8fc1ca089683a3533cef2d235d12:8]
```

```
1 {
2     "content-length": "11010",
3     "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003613
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "786",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

### Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012392
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "493",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.013611
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",

"Content-Length": "493",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1645-c041496fdaff8c6b8a1b6fa20882bc6300c21fb9ce7d0a8e3e8fc1ca089683a3533cef2d235d123
9 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1202",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Ask Manual Question Simple Multiple Sensors**

Ask the question 'Get Computer Name and Installed Applications from all machines', wait for result data to be complete, and get result data

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.015185
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
"keep-alive": "timeout=5, max=100",
```

```
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"

}
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.001083
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828867";
"]
```

· Response Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.006023
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
4    "Connection": "keep-alive",
5    "Content-Length": "0",
```

```
1 {
2    "content-length": "11010",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.090539

• Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "565",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828869]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "789",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005001

• Step 5 Request Body

- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "574",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828869]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "6639",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 6 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012633
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "523",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
```

```
"keep-alive": "timeout=5, max=96",

"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
]
```

### Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.014071
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828869]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7258",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003066
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828869]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:28 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012134
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828869]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:33 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

### Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.004400
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828869]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:38 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005040
- Step 11 Request Body
- Step 11 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828869 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:43 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"
}
```

#### Step 12 - Issue a GetResultData to get answers for a question

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.058514
- Step 12 Request Body
- Step 12 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "38025",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:43 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Ask Manual Question Simple Single Sensor Sse**

Ask the question 'Get Computer Name from all machines', wait for result data to be complete, and get result data

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.017374
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:43 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001257
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
4    "Connection": "keep-alive",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042da7
}
```

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.014372
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042daggerent"
"The second content is a second content in the second content in the second content is a second content in the second content in the second content is a second content in the second content in the second content is a second content in the second c
```

• Response Headers:

```
1 {
2   "content-length": "11011",
3   "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004925
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "565",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042daggerel
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "788",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:43 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.011706
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "639",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042daggerel
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "494",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:43 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"

}
```

### Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.012991
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042daggerel
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1204",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:43 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003373
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042dagger)
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:43 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003404
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042daggerel
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:48 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003535
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "497",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042da9

}
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:53 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 10 - Issue a GetResultData to get answers for a question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003386
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "864",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:53 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Ask Manual Question Simple Single Sensor**

Ask the question 'Get Computer Name from all machines', wait for result data to be complete, and get result data

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.020380
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:36:53 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001520
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.018169
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1 {
2    "content-length": "11013",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004913
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",

"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "565",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1648-0adef5537109d23ce3f2522a10b7cc2bb3bc8a4862de7f27a536cf4e9a143a2447503e5801003b;

]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "787",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:53 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.016358
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "639",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1648-0adef5537109d23ce3f2522a10b7cc2bb3bc8a4862de7f27a536cf4e9a143a2447503e5801003b;
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "493",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:53 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.013270
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1648-0adef5537109d23ce3f2522a10b7cc2bb3bc8a4862de7f27a536cf4e9a143a2447503e5801003bd9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1200",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:53 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
```

```
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003363
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1648-0adef5537109d23ce3f2522a10b7cc2bb3bc8a4862de7f27a536cf4e9a143a2447503e5801003b;
]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "703",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:53 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003451
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

#### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003539
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "717",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:03 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 10 - Issue a GetResultData to get answers for a question

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003088

• Step 10 Request Body

- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1648-0adef5537109d23ce3f2522a10b7cc2bb3bc8a4862de7f27a536cf4e9a143a2447503e5801003b;
"]
```

· Response Headers:

# Ask Manual Question Sensor With Parameters And Some Supplied Parameters

Ask the question 'Get Folder Name Search with RegEx Match[Program Files,Microsoft.\*] from all machines', wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.233099

• Step 1 Request Body

• Step 1 Response Body

• Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:37:13 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001080
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"}
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.012345
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"Bession": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"The session of the session of the
```

· Response Headers:

```
1 {
2     "content-length": "11013",
3     "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004870
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "587",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5246",
"content-type": "text/xml; charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:37:14 GMT",

"keep-alive": "timeout=5, max=98",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"1]
}
```

# Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.016649
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1003",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"Bession": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"Temperature of the content of the content
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "628",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:14 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.630962
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
) }
```

### Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.002682
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "704",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:14 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

## Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003785
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"}
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "708",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:19 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003871
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"January Properties of the Content of the Content
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "708",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:24 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003755
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "708",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:29 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004183
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"Bession": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
"Temperature of the content of the content
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "708",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:34 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003481
- Step 12 Request Body
- Step 12 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "708",
4
     "content-type": "text/xml; charset=UTF-8",
6
     "date": "Sat, 05 Sep 2015 05:37:39 GMT",
     "keep-alive": "timeout=5, max=90",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
11
```

## Step 13 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003502

• Step 13 Request Body

- Step 13 Response Body
- · Request Headers:

```
"Accept": "*/*",

"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "497",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;

"Bession": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;

"Temperature of the content of the
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "717",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:44 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004410

- Step 14 Request Body
- Step 14 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:49 GMT",
"keep-alive": "timeout=5, max=88",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004279
- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "723",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:37:54 GMT",

"keep-alive": "timeout=5, max=87",

server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

11 }
```

## Step 16 - Issue a GetResultData to get answers for a question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008563
- Step 16 Request Body
- Step 16 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "525",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1650-61d690d780f717803ea85bf3d380d8a225a687da80cf254e1fd0815a1770a0a43bfe2a9454833b;
}
```

· Response Headers:

```
1
     "connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "18768",
     "content-type": "text/xml; charset=UTF-8",
5
     "date": "Sat, 05 Sep 2015 05:37:54 GMT",
6
     "keep-alive": "timeout=5, max=86",
7
     "server": "Apache",
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
```

## Ask Manual Question Multiple Sensors With Parameters And Some Supplied Parameters

Ask the question 'Get Folder Name Search with RegEx Match[Program Files, , No, No, Microsoft.\*] and Computer Name from all machines', wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.014172

- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:37:55 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.000999
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:37:55 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
```

```
"x-frame-options": "SAMEORIGIN"
9 }
```

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.012727
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc068}
```

• Response Headers:

```
1 {
2    "content-length": "11073",
3    "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005101
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5237",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:55 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003734
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "565",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc0eggy)
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "784",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:55 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 6 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.026844
- Step 6 Request Body

- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1117",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc069]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "653",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:55 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.188873
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1263",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:55 GMT",
```

```
"keep-alive": "timeout=5, max=95",

"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
]
```

## Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003272
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "702",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:55 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004163
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc0699"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:00 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003148
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc069]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:05 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

## Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003618
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:10 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003663
- Step 12 Request Body
- Step 12 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc0699 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:15 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 13 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003614
- Step 13 Request Body
- Step 13 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:20 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003815
- Step 14 Request Body
- Step 14 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:25 GMT",
"keep-alive": "timeout=5, max=88",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003675
- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "705",
4
     "content-type": "text/xml; charset=UTF-8",
6
     "date": "Sat, 05 Sep 2015 05:38:30 GMT",
     "keep-alive": "timeout=5, max=87",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
11
```

# Step 16 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

HTTP Method: POST

• Elapsed Time: 0:00:00.003932

• Step 16 Request Body

- Step 16 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:35 GMT",
"keep-alive": "timeout=5, max=86",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 17 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

Elapsed Time: 0:00:00.003682

- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc069]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:40 GMT",
"keep-alive": "timeout=5, max=85",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 18 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003741
- Step 18 Request Body
- Step 18 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml;charset=UTF-8",
```

# Step 19 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003600
- Step 19 Request Body
- Step 19 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept=Encoding": "gzip",
"Connection": "keep-alive",
"Content=Length": "497",
"Content=Type": "text/xml; charset=utf-8",
"User=Agent": "python=requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc069]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:38:50 GMT",
"keep-alive": "timeout=5, max=83",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 20 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004192
- Step 20 Request Body
- Step 20 Response Body
- Request Headers:

## Step 21 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003346
- Step 21 Request Body
- Step 21 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc069]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:39:00 GMT",
"keep-alive": "timeout=5, max=81",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

## Step 22 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003484
- Step 22 Request Body
- Step 22 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:39:05 GMT",
"keep-alive": "timeout=5, max=80",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 23 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003365
- Step 23 Request Body
- Step 23 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc0699 }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:39:10 GMT",
"keep-alive": "timeout=5, max=79",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 24 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003791
- Step 24 Request Body
- Step 24 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "715",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:39:15 GMT",
"keep-alive": "timeout=5, max=78",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 25 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003856
- Step 25 Request Body
- Step 25 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "715",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:39:20 GMT",
"keep-alive": "timeout=5, max=77",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 26 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004089
- Step 26 Request Body
- Step 26 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "717",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:39:25 GMT",
"keep-alive": "timeout=5, max=76",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Step 27 - Issue a GetResultData to get answers for a question

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004835

• Step 27 Request Body

• Step 27 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1651-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc069]
```

Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "11013",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:39:25 GMT",
"keep-alive": "timeout=5, max=75",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]

**Time to the property of the pr
```

# Ask Manual Question Sensor With Parameters And No Supplied Parameters

Ask the question 'Get Folder Name Search with RegEx Match from all machines' using sane defaults for parameters, wait for result data to be complete, and get result data

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.248915
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:41:10 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001017
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.014203
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "content-length": "11181",
3    "content-type": "application/json"
4  }
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005171
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "587",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cd9",
"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5241",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:11 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue an AddObject to add a Question object

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.015802

- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "599",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:11 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.028136
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5457",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:11 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003460
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "704",
4
     "content-type": "text/xml; charset=UTF-8",
6
     "date": "Sat, 05 Sep 2015 05:41:11 GMT",
     "keep-alive": "timeout=5, max=95",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
11
```

## Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

HTTP Method: POST

• Elapsed Time: 0:00:00.003117

• Step 8 Request Body

• Step 8 Response Body

· Request Headers:

Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "704",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:16 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

Elapsed Time: 0:00:00.003290

- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "708",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:21 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003868
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept=Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cd9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "716",
"content-type": "text/xml;charset=UTF-8",
```

## Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003528
- Step 11 Request Body
- Step 11 Response Body
- Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "716",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:31 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003524
- Step 12 Request Body
- Step 12 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:36 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 13 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003762
- Step 13 Request Body
- Step 13 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cda9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:41 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

## Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003200
- Step 14 Request Body
- Step 14 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cd9]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:46 GMT",
"keep-alive": "timeout=5, max=88",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004167
- Step 15 Request Body
- Step 15 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:51 GMT",
"keep-alive": "timeout=5, max=87",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 16 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003791
- Step 16 Request Body
- Step 16 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:41:56 GMT",
"keep-alive": "timeout=5, max=86",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 17 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003728
- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:01 GMT",
"keep-alive": "timeout=5, max=85",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 18 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003537
- Step 18 Request Body
- Step 18 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cd.
"Session": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cd.
"Temperature of the content of the content
```

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "719",
4
     "content-type": "text/xml; charset=UTF-8",
6
     "date": "Sat, 05 Sep 2015 05:42:06 GMT",
     "keep-alive": "timeout=5, max=84",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
11
```

# Step 19 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

HTTP Method: POST

• Elapsed Time: 0:00:00.003870

• Step 19 Request Body

• Step 19 Response Body

· Request Headers:

Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:11 GMT",
"keep-alive": "timeout=5, max=83",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 20 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004066

- Step 20 Request Body
- Step 20 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:16 GMT",
"keep-alive": "timeout=5, max=82",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 21 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003255
- Step 21 Request Body
- Step 21 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept=Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cd9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml;charset=UTF-8",
```

# Step 22 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003429
- Step 22 Request Body
- Step 22 Response Body
- Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:26 GMT",
"keep-alive": "timeout=5, max=80",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 23 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004359
- Step 23 Request Body
- Step 23 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "727",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:31 GMT",
"keep-alive": "timeout=5, max=79",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 24 - Issue a GetResultData to get answers for a question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007732
- Step 24 Request Body
- Step 24 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cda9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "35700",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:31 GMT",
"keep-alive": "timeout=5, max=78",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

### Ask Manual Question Sensor With Parameters And Filter

Ask the question 'Get Folder Name Search with RegEx Match[Program Files, , No, No, Microsoft.\*] containing "Shared" from all machines', wait for result data to be complete, and get result data

### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.026226

• Step 1 Request Body

• Step 1 Response Body

· Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:42:31 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

• URL: https://172.16.31.128:443/info.json

· HTTP Method: GET

• Elapsed Time: 0:00:00.000996

• Step 2 Request Body

• Step 2 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",

"date": "Sat, 05 Sep 2015 05:42:31 GMT",

"keep-alive": "timeout=5, max=99",

"server": "Apache",

"x-frame-options": "SAMEORIGIN"

}
```

# Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.012990
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2   "content-length": "11245",
3   "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004739

- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5243",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:31 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.016234
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1081",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "669",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:42:31 GMT",

"keep-alive": "timeout=5, max=97",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

11 }
```

# Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.032395
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5528",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:31 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003087
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004357
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "703",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:36 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004188
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "497",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
}
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:41 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003386
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"In the content of the co
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:46 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003846
- Step 11 Request Body
- Step 11 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:51 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003976
- Step 12 Request Body
- Step 12 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:56 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 13 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003742
- Step 13 Request Body
- Step 13 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "707",
4
     "content-type": "text/xml; charset=UTF-8",
6
     "date": "Sat, 05 Sep 2015 05:43:01 GMT",
     "keep-alive": "timeout=5, max=89",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
11
```

# Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

HTTP Method: POST

• Elapsed Time: 0:00:00.003744

• Step 14 Request Body

• Step 14 Response Body

· Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "497",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
}
```

Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:06 GMT",
"keep-alive": "timeout=5, max=88",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003480

- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:11 GMT",
"keep-alive": "timeout=5, max=87",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 16 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003659
- Step 16 Request Body
- Step 16 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:43:16 GMT",

"keep-alive": "timeout=5, max=86",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"1]
```

# Step 17 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003424
- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept=Encoding": "gzip",
"Connection": "keep-alive",
"Content=Length": "497",
"Content=Type": "text/xml; charset=utf-8",
"User=Agent": "python=requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:21 GMT",
"keep-alive": "timeout=5, max=85",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 18 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004960
- Step 18 Request Body
- Step 18 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:26 GMT",
"keep-alive": "timeout=5, max=84",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 19 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004205
- Step 19 Request Body
- Step 19 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:31 GMT",
"keep-alive": "timeout=5, max=83",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

### Step 20 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003853
- Step 20 Request Body
- Step 20 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "706",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:36 GMT",
"keep-alive": "timeout=5, max=82",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 21 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003312
- Step 21 Request Body
- Step 21 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"January Property Prope
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:41 GMT",
"keep-alive": "timeout=5, max=81",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 22 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003503
- Step 22 Request Body
- Step 22 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:46 GMT",
"keep-alive": "timeout=5, max=80",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 23 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003567
- Step 23 Request Body
- Step 23 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "707",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:43:51 GMT",
"keep-alive": "timeout=5, max=79",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 24 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003462
- Step 24 Request Body
- Step 24 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "707",
4
     "content-type": "text/xml; charset=UTF-8",
6
     "date": "Sat, 05 Sep 2015 05:43:56 GMT",
     "keep-alive": "timeout=5, max=78",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
11
```

# Step 25 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003819

Step 25 Request Body

• Step 25 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "716",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:01 GMT",
"keep-alive": "timeout=5, max=77",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 26 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003773

- Step 26 Request Body
- Step 26 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
}
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:06 GMT",
"keep-alive": "timeout=5, max=76",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 27 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003905
- Step 27 Request Body
- Step 27 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml;charset=UTF-8",
```

## Step 28 - Issue a GetResultData to get answers for a question

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004016

- Step 28 Request Body
- Step 28 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2491",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:11 GMT",
"keep-alive": "timeout=5, max=74",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

# Ask Manual Question Sensor With Filter And 2 Options

Ask the question 'Get Operating System containing "Windows" from all machines' and set max\_age\_seconds to 3600 and value\_type to 1 on the Operating System sensor, then wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.217238

- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "108",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:44:11 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001106
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"x-frame-options": "SAMEORIGIN"
9 }
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.014527
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4cd8)
}
```

• Response Headers:

```
1 {
2    "content-length": "11304",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005623
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4cd99
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2160",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:12 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012608
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "784",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4ce
]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "583",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:12 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.098143
- Step 6 Request Body

- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4cd9)
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2609",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:12 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003290
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "706",
"content-type": "text/xml;charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:12 GMT",
```

```
"keep-alive": "timeout=5, max=95",

"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
]
```

### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003437
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4ce
9 }
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "710",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:17 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003485
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4cd9)
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "720",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:22 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003509
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4cd9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "723",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:27 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

### Step 11 - Issue a GetResultData to get answers for a question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003228
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "854",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:27 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Ask Manual Question Sensor With Filter**

Ask the question 'Get Operating System containing "Windows" from all machines', then wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.014744
- Step 1 Request Body
- Step 1 Response Body

• Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:44:27 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.000955
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.012648
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "content-length": "11300",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005481
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "568",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3berg
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2162",
"content-type": "text/xml; charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:44:27 GMT",

"keep-alive": "timeout=5, max=98",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"1]
}
```

## Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012860
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

· Response Headers:

```
1
     "connection": "Keep-Alive",
2
     "content-encoding": "gzip",
     "content-length": "542",
     "content-type": "text/xml; charset=UTF-8",
5
     "date": "Sat, 05 Sep 2015 05:44:27 GMT",
6
     "keep-alive": "timeout=5, max=97",
7
     "server": "Apache",
     "strict-transport-security": "max-age=15768000",
     "vary": "Accept-Encoding",
11
     "x-frame-options": "SAMEORIGIN"
```

# Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012727
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3be)
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2607",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:27 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004093
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3berger]
"Session": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3berger]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "705",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:27 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003756
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:32 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003968
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3be'
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "722",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:37 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 10 - Issue a GetResultData to get answers for a question

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003392
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3berger)
"Temperature of the content of the
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "853",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:37 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Ask Manual Question Sensor With Parameters And Filter And Options

Ask the question 'Get Folder Name Search with RegEx Match[Program Files, , No, No, Microsoft.\*] containing "Shared" from all machines' and set max\_age\_seconds to 3600 on the Folder Name Search with RegEx Match sensor, then wait for result data to be complete, and get result data

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.033793
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:44:37 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001348
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1657-090ffe354a3d7839364ab480954ccf79e1c35f82060ce64e7eeeb7c8701136be716f3e5d6e9c4777",
]
```

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:44:37 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
"x-frame-options": "SAMEORIGIN"
```

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.054358
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1657-090ffe354a3d7839364ab480954ccf79e1c35f82060ce64e7eeeb7c8701136be716f3e5d6e9c4788]
```

• Response Headers:

```
1 {
2     "content-length": "11300",
3     "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004917
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5241",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:37 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.017094
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "688",
"content-type": "text/xml;charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:37 GMT",
```

```
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.027250
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",

"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "493",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "25-1657-090ffe354a3d7839364ab480954ccf79e1c35f82060ce64e7eeeb7c8701136be716f3e5d6e9c479

}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5527",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:37 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003039
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "704",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:37 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003704
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
| {
| "Accept": "*/*",
| "Accept-Encoding": "gzip",
| "Connection": "keep-alive",
| "Content-Length": "497",
| "Content-Type": "text/xml; charset=utf-8",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "25-1657-090ffe354a3d7839364ab480954ccf79e1c35f82060ce64e7eeeb7c8701136be716f3e5d6e9c47.
| }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "704",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:42 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

#### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004074
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "717",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:47 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003745
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1657-090ffe354a3d7839364ab480954ccf79e1c35f82060ce64e7eeeb7c8701136be716f3e5d6e9c4799")
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:52 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003525
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:44:57 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004302
- Step 12 Request Body
- Step 12 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "721",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:02 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 13 - Issue a GetResultData to get answers for a question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003580
- Step 13 Request Body
- Step 13 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1657-090ffe354a3d7839364ab480954ccf79e1c35f82060ce64e7eeeb7c8701136be716f3e5d6e9c4799]
```

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "2485",
4
     "content-type": "text/xml; charset=UTF-8",
     "date": "Sat, 05 Sep 2015 05:45:02 GMT",
6
     "keep-alive": "timeout=5, max=89",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
11
```

# **Ask Manual Question Sensor With Filter And 3 Options**

Ask the question 'Get Operating System containing "Windows" from all machines' and set max\_age\_seconds to 3600, all\_values\_flag to 1, and ignore\_case\_flag to 1 on the Operating System sensor, then wait for result data to be complete, and get result data

#### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.015767

- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "112",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:45:02 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001034
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.014047
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1 {
2    "content-length": "11362",
3    "content-type": "application/json"
4 }
```

#### Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005473
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1658-91ba3767a240aa2418dc6ce4c06461a50f6e4cd0fdddecff3f01da9c49b0c85412e634c7f3a203.9
}
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2156",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:02 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 5 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012192
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "604",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:02 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012847
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1658-91ba3767a240aa2418dc6ce4c06461a50f6e4cd0fddddecff3f01da9c49b0c85412e634c7f3a203.9]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2608",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:02 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

#### Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003055
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "703",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:02 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003428
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1658-91ba3767a240aa2418dc6ce4c06461a50f6e4cd0fdddecff3f01da9c49b0c85412e634c7f3a203.
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "716",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:07 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003437
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1658-91ba3767a240aa2418dc6ce4c06461a50f6e4cd0fdddecff3f01da9c49b0c85412e634c7f3a203.9"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:12 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 10 - Issue a GetResultData to get answers for a question

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.003638

• Step 10 Request Body

- Step 10 Response Body
- · Request Headers:

```
| {
| "Accept": "*/*",
| "Accept-Encoding": "gzip",
| "Connection": "keep-alive",
| "Content-Length": "525",
| "Content-Type": "text/xml; charset=utf-8",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "25-1658-91ba3767a240aa2418dc6ce4c06461a50f6e4cd0fdddecff3f01da9c49b0c85412e634c7f3a203
| }
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "849",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:12 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## **Ask Manual Question Complex Query1**

Ask the question 'Get Computer Name and Folder Name Search with RegEx Match[Program Files, , No, No, Microsoft.\*, test] containing "Shared" from all machines with (Operating System containing "Windows" or any Operating System not containing "Windows") and set ignore\_case\_flag to 1 and or\_flag to 1 on the Operating System sensors on the right hand side of the question, then wait for result data to be complete, and get result data

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.015935

• Step 1 Request Body

Step 1 Response Body

• Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:45:12 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001141
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
| {
| "Accept": "*/*",
| "Accept-Encoding": "gzip, deflate",
| "Connection": "keep-alive",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5620]
| }
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.013609
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "content-length": "11360",
3     "content-type": "application/json"
4 }
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004923
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "565",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629
}
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "790",
"content-type": "text/xml; charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:45:12 GMT",

"keep-alive": "timeout=5, max=98",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"1]
}
```

## Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004080
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "587",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5244",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:12 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 6 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003729
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f56209)
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2160",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:12 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 7 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.237876
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2160",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:12 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

#### Step 8 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.024499
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1678",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "792",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:13 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 9 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.027880
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5910",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:13 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003139
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
| {
| "Accept": "*/*",
| "Accept-Encoding": "gzip",
| "Connection": "keep-alive",
| "Content-Length": "497",
| "Content-Type": "text/xml; charset=utf-8",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629
| }
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "706",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:13 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003562
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "710",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:18 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003758
- Step 12 Request Body
- Step 12 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

```
"connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "722",
4
     "content-type": "text/xml; charset=UTF-8",
6
     "date": "Sat, 05 Sep 2015 05:45:23 GMT",
     "keep-alive": "timeout=5, max=90",
     "server": "Apache",
8
     "strict-transport-security": "max-age=15768000",
     "x-frame-options": "SAMEORIGIN"
10
11
```

## Step 13 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

HTTP Method: POST

• Elapsed Time: 0:00:00.003498

• Step 13 Request Body

• Step 13 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "722",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:28 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003796

- Step 14 Request Body
- Step 14 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:33 GMT",
"keep-alive": "timeout=5, max=88",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003145
- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml;charset=UTF-8",
```

```
"date": "Sat, 05 Sep 2015 05:45:38 GMT",

"keep-alive": "timeout=5, max=87",

"server": "Apache",

"strict-transport-security": "max-age=15768000",

"x-frame-options": "SAMEORIGIN"

"1]
}
```

## Step 16 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004256
- Step 16 Request Body
- Step 16 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f56209)
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "718",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:43 GMT",
"keep-alive": "timeout=5, max=86",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 17 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003566
- Step 17 Request Body
- Step 17 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:48 GMT",
"keep-alive": "timeout=5, max=85",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 18 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003500
- Step 18 Request Body
- Step 18 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "722",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:53 GMT",
"keep-alive": "timeout=5, max=84",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"
11 }
```

#### Step 19 - Issue a GetResultData to get answers for a question

• URL: https://172.16.31.128:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003816

• Step 19 Request Body

- Step 19 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "525",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629
}
```

Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "995",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:53 GMT",
"keep-alive": "timeout=5, max=83",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# **Ask Manual Question Complex Query2**

Ask the question 'Get Computer Name and Last Logged In User and Installed Applications containing "Google (Search|Chrome)" from all machines with Installed Applications containing "Google (Search|Chrome)" and set ignore\_case\_flag to 1 and or\_flag to 1 on the Installed Applications sensors on the right hand side of the question, then wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

• URL: https://172.16.31.128:443/auth

· HTTP Method: GET

• Elapsed Time: 0:00:00.918888

• Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "110",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:45:53 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001068
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbage."
]
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:45:54 GMT",
"keep-alive": "timeout=5, max=99",
"server": "Apache",
```

```
8  "x-frame-options": "SAMEORIGIN"
9  }
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.013805
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
"content-length": "11414",
"content-type": "application/json"
"type": "application/json"
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004761
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "787",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:54 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.004087
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2848",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:54 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 6 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003998
- Step 6 Request Body

- Step 6 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "6637",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:54 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 7 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for a Question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003972
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "6637",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:54 GMT",
```

```
"keep-alive": "timeout=5, max=95",

"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
]
```

#### Step 8 - Issue an AddObject to add a Question object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.017401
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "643",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:54 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

## Step 9 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.013665
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "493",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeggapt")
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "9093",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:54 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003197
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeed.")
"Bession": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeed.")
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "703",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:54 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

#### Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003699
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeget)
"Session": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeget)
```

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "720",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:59 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003498
- Step 12 Request Body
- Step 12 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "720",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:04 GMT",
"keep-alive": "timeout=5, max=90",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 13 - Issue a GetResultData to get answers for a question

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.004140
- Step 13 Request Body
- Step 13 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1058",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:04 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## **Ask Saved Question Refresh Data**

Get the Saved Question object for Installed Applications, ask the server to refresh the data vailable, wait for the new question spawned to complete results, then get the latest result data available for that Saved Question

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.014049
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "111",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:46:29 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

## Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.000998
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1662-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f4259677"]
```

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",

"date": "Sat, 05 Sep 2015 05:46:29 GMT",

"keep-alive": "timeout=5, max=99",

"server": "Apache",
"x-frame-options": "SAMEORIGIN"

9 }
```

## Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.014909
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "content-length": "11472",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find saved question objects

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.010746
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "527",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1662-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f425969]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7218",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:29 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 5 - Issue a GetObject to get the full object of the last question asked by a saved question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006648
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "21211",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1662-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f4259cgg]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "6996",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:29 GMT",
```

# Step 6 - Issue a GetResultInfo for a saved question in order to issue a new question, which refreshes the data for that saved question

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.011610
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "542",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1662-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f4259699"]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "748",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:29 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

## Step 7 - Issue a GetObject for the saved question in order get the ID of the newly asked question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.018217
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "538",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1662-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f425969]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7224",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:29 GMT",
"keep-alive": "timeout=5, max=95",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 8 - Issue a GetObject to get the full object of the last question asked by a saved question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005837
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "21211",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1662-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f425969]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7001",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:29 GMT",
"keep-alive": "timeout=5, max=94",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
```

```
"x-frame-options": "SAMEORIGIN"

11 }
```

#### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003160
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "703",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:29 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005080
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "497",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1662-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f4259699"]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "727",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:34 GMT",
"keep-alive": "timeout=5, max=92",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

#### Step 11 - Issue a GetResultData to get the answers for the last asked question of this saved question

- URL: https://172.16.31.128:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.017555
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "49609",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:34 GMT",
"keep-alive": "timeout=5, max=91",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# Ask Saved Question By Name Sse

Get the Saved Question object for Installed Applications then get the latest result data available using Server Side Export for that Saved Question

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.143883
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:46:34 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

# Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001178
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- · HTTP Method: POST
- Elapsed Time: 0:00:00.010842
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf118]
```

• Response Headers:

```
1 {
2    "content-length": "11474",
3    "content-type": "application/json"
4 }
```

# Step 4 - Issue a GetObject to find saved question objects

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.009711
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7226",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:35 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 5 - Issue a GetObject to get the full object of the last question asked by a saved question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006446
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "21211",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf119]
```

```
"keep-alive": "timeout=5, max=97",

"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

#### Step 6 - Issue a GetResultData to get the answers for the last asked question of this saved question

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.020634
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf1]
"Bession": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf1]
```

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "49608",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:35 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]

"SAMEORIGIN"
```

# **Ask Saved Question By Name**

Get the Saved Question object for Installed Applications then get the latest result data available for that Saved Question

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://172.16.31.128:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.280506
- Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "109",
"content-type": "text/plain; charset=us-ascii",
"date": "Sat, 05 Sep 2015 05:46:35 GMT",
"keep-alive": "timeout=5, max=100",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"vary": "Accept-Encoding",
"x-frame-options": "SAMEORIGIN"
```

#### Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001110
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1664-99d4384ab4846ff2d202859e22656efa6e79cf6b8277bd52d4817fea70e66a343abaa3b0e3e0f1"
]
```

```
"x-frame-options": "SAMEORIGIN"
9 }
```

#### Step 3 - Get the server version via /info.json

- URL: https://172.16.31.128:444/info.json
- HTTP Method: POST
- Elapsed Time: 0:00:00.005538
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"Content-Length": "0",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1664-99d4384ab4846ff2d202859e22656efa6e79cf6b8277bd52d4817fea70e66a343abaa3b0e3e0f18
}
```

• Response Headers:

```
1 {
2    "content-length": "11474",
3    "content-type": "application/json"
4 }
```

### Step 4 - Issue a GetObject to find saved question objects

- URL: https://172.16.31.128:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008324
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7232",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:35 GMT",
"keep-alive": "timeout=5, max=98",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

### Step 5 - Issue a GetObject to get the full object of the last question asked by a saved question

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.005634

• Step 5 Request Body

• Step 5 Response Body

• Request Headers:

• Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7007",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:35 GMT",
"keep-alive": "timeout=5, max=97",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

### Step 6 - Issue a GetResultData to get the answers for the last asked question of this saved question

• URL: https://172.16.31.128:443/soap

· HTTP Method: POST

Elapsed Time: 0:00:00.016212

• Step 6 Request Body

- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1664-99d4384ab4846ff2d202859e22656efa6e79cf6b8277bd52d4817fea70e66a343abaa3b0e3e0f1."]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "49611",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:35 GMT",
"keep-alive": "timeout=5, max=96",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

# 1.9.2 SOAP API Examples for Platform Version 6.5.314.4301

Each of these sections contains examples that show the HTTP request and response for each step in a given workflow.

# **Basic API Authentication**

This is an example for how to authenticate against the SOAP API

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.268788
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

### Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.043694

- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "19289",
4     "content-type": "application/json"
5 }
```

# **Create User**

Create a user called API Test User

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.012725
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.040827
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19289",
4    "content-type": "application/json"
5  }
```

# Step 3 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003331
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "468",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-608-bf782776cd0ff216acd619ea90ea7616a5faa8c11066cb99a239638d716e70d6fcd1f9fd271c903fl
"] }
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 4 - Issue a GetObject to find a user role

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.030474

- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

### Step 5 - Issue an AddObject to add a User object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.039295

- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.254671
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 7 - Issue a GetObject to find the object to be deleted

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004353

• Step 7 Request Body

- Step 7 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "468",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-608-bf782776cd0ff216acd619ea90ea7616a5faa8c11066cb99a239638d716e70d6fcd1f9fd271c903f)
"}
```

· Response Headers:

### Step 8 - Issue a DeleteObject to delete an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.009112
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

# **Create Package**

Create a package called package49

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.017485
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.050633
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "19289",
4     "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006047
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "666",
4    "content-type": "text/xml;charset=UTF-8"
5 }
```

# Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a question or action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.015344
- Step 4 Request Body
- Step 4 Response Body

• Request Headers:

· Response Headers:

### Step 5 - Issue an AddObject to add a Group object for this package

• URL: https://10.0.1.240:443/soap

HTTP Method: POST

• Elapsed Time: 0:00:01.853679

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "647",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-609-160bb2e4709ab569d127ea1bca868a734acea52a1b545ccff6fb59bb2bca090370e7fa2c81a275dddggg]
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "760",
4    "content-type": "text/xml;charset=UTF-8"
5 }
```

### Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.063014
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

### Step 7 - Issue an AddObject to add a Group object for this package

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:01.643400
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 8 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.062128

• Step 8 Request Body

- Step 8 Response Body
- · Request Headers:

· Response Headers:

#### Step 9 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.002946
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 10 - Issue a DeleteObject to delete an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.238124
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# **Create Group**

Create a group called All Windows Computers API Test

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.074814
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.016627
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-610-e8f4a6a0cf03d4e5aa660f9155b4f55bc8990fa8a6cb966aa8866a0eb8733ace37327eaaf3cedd30",
}
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "19289",
4     "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008605
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "534",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-610-e8f4a6a0cf03d4e5aa660f9155b4f55bc8990fa8a6cb966aa8866a0eb8733ace37327eaaf3cedd30.

"Bession": "1-610-e8f4a6a0cf03d4e5aa660f9155b4f55bc8990fa8a6cb966aa8866a0eb8733ace37327eaaf3cedd30.
```

```
"connection": "keep-alive",
"content-length": "664",
"content-type": "text/xml; charset=UTF-8"
}
```

#### Step 4 - Issue a GetObject to get the full object of specified sensors for inclusion in a group

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.010181
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-610-e8f4a6a0cf03d4e5aa660f9155b4f55bc8990fa8a6cb966aa8866a0eb8733ace37327eaaf3cedd30.9
)
}
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 5 - Issue an AddObject to add a Group object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.029520

- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "692",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-610-e8f4a6a0cf03d4e5aa660f9155b4f55bc8990fa8a6cb966aa8866a0eb8733ace37327eaaf3cedd30.9
]
```

```
"connection": "keep-alive",
"content-length": "760",
"content-type": "text/xml; charset=UTF-8"
""s }
```

### Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.264540
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 7 - Issue a GetObject to find the object to be deleted

• URL: https://10.0.1.240:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.030600
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

#### Step 8 - Issue a DeleteObject to delete an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006256
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

### **Create Whitelisted Url**

Create a whitelisted url

#### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.047244

- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5  }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.013061
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19289",
4    "content-type": "application/json"
5  }
```

#### Step 3 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003514
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## Step 4 - Issue an AddObject to add a WhitelistedURL object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.279121
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "698",
6    "Content-Type": "text/xml; charset=utf-8",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-611-275a13394bf5c20daa898559d19e2388ea12601e887e9f31e516a3e864e5d709eb5fe87b933fd0000
9 }
```

```
1 {
2    "connection": "keep-alive",
3    "content-length": "1016",
4    "content-type": "text/xml; charset=UTF-8"
5 }
```

### Step 5 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005018

• Step 5 Request Body

- Step 5 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "987",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

# Step 6 - Issue a GetObject to find the object to be deleted

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003609

• Step 6 Request Body

• Step 6 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "480",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-611-275a13394bf5c20daa898559d19e2388ea12601e887e9f31e516a3e864e5d709eb5fe87b933fd000699"]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 7 - Issue a DeleteObject to delete an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.033705
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "684",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-611-275a13394bf5c20daa898559d19e2388ea12601e887e9f31e516a3e864e5d709eb5fe87b933fd00069]
```

• Response Headers:

# **Create Package From JSON**

Get a package object, add 'API TEST' to the name of the package object, delete any pre-existing package with the new name, then create a new package object with the new name

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.050537
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.014156
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "19291",
4     "content-type": "application/json"
5 }
```

#### Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.018142
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "499",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd5]
"Bession": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd5]
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 4 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003708
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "538",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd5]
"Bession": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd5]
```

### Step 5 - Issue a DeleteObject to delete an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.054816
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "2439",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd5]
}
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

### Step 6 - Issue an AddObject to add an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.038964
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "2429",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd5]
"Session": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd5]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 7 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003492

• Step 7 Request Body

- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2151",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd5]

9 }
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# **Create User From JSON**

Get a user object, add 'API TEST' to the name of the user object, delete any pre-existing user with the new name, then create a new user object with the new name

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- · HTTP Method: GET

- Elapsed Time: 0:00:00.028765
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.049281
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19291",
4    "content-type": "application/json"
5 }
```

### Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.005239
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

### Step 4 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003519
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "468",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-613-6752ac971c0b9286acdb297f4f8ba7e537cc970d5042fddcc5e1eaa32134d7e95588980d0dc72fbeegy
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 5 - Issue a DeleteObject to delete an object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.090627

• Step 5 Request Body

- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2728",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-613-6752ac971c0b9286acdb297f4f8ba7e537cc970d5042fddcc5e1eaa32134d7e95588980d0dc72fbeegeness.")
```

· Response Headers:

### Step 6 - Issue an AddObject to add an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.011987
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2768",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-613-6752ac971c0b9286acdb297f4f8ba7e537cc970d5042fddcc5eleaa32134d7e95588980d0dc72fbeeleas)
"Bession": "1-613-6752ac971c0b9286acdb297f4f8ba7e537cc970d5042fddcc5eleaa32134d7e95588980d0dc72fbeeleas)
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 7 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004758

• Step 7 Request Body

- Step 7 Response Body
- Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### **Create Saved Question From JSON**

Get a saved question object, add 'API TEST' to the name of the saved question object, delete any pre-existing saved question with the new name, then create a new saved question object with the new name

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.062562

• Step 1 Request Body

• Step 1 Response Body

· Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.013690

- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-614-48eb82387220130c7c27652700900120850043c88b3968975115cdbd53ed3716e09a5ac3b16fa1620
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19291",
4    "content-type": "application/json"
5  }
```

# Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.010951
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "502",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-614-48eb82387220130c7c27652700900120850043c88b3968975115cdbd53ed3716e09a5ac3b16fa16209)
}
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 4 - Issue a GetObject to find the object to be deleted

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.049034

• Step 4 Request Body

• Step 4 Response Body

· Request Headers:

• Response Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## Step 5 - Issue a DeleteObject to delete an object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.037303

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 6 - Issue an AddObject to add an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.008286
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "11021",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-614-48eb82387220130c7c27652700900120850043c88b3968975115cdbd53ed3716e09a5ac3b16fa1629
}
```

• Response Headers:

```
"connection": "keep-alive",
"content-length": "830",
"content-type": "text/xml;charset=UTF-8"
}
```

## Step 7 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.268103
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### **Create Action From JSON**

Get an action object, then create a new object from that (aka re-deploy an action)

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.062401
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.040361
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-615-e396eb190b2cb11328561f3ab5912f6dd8a51324f494739a7d78e4ca49f48ad870b789303a950a2367]
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19291",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007336
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept=Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "486",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-615-e396eb190b2cb11328561f3ab5912f6dd8a51324f494739a7d78e4ca49f48ad870b789303a950a2369]
```

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## Step 4 - Issue an AddObject to add an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.320572
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "1356",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-615-e396eb190b2cb11328561f3ab5912f6dd8a51324f494739a7d78e4ca49f48ad870b789303a950a2369
}
```

Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.023701
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
1 {
2     "Accept": "*/*",
3     "Accept-Encoding": "gzip",
4     "Connection": "keep-alive",
```

```
"Content-Length": "1366",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-615-e396eb190b2cb11328561f3ab5912f6dd8a51324f494739a7d78e4ca49f48ad870b789303a950a23d9)
}
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

#### Create Sensor From JSON

Get a sensor object, add 'API TEST' to the name of the sensor object, delete any pre-existing sensor with the new name, then create a new sensor object with the new name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.021167
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET

- Elapsed Time: 0:00:00.024954
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

# Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003914
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 4 - Issue a GetObject to find the object to be deleted

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004953

- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

## Step 5 - Issue a DeleteObject to delete an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006953
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 6 - Issue an AddObject to add an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.019305
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1809",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-616-2e870e86903255e8cd2e8870adaa1d3c093967722ae49700020aaa6f30576677f269793b7d65b3cd69]
```

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "762",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

### Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.056533
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
```

```
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### **Create Question From JSON**

Get a question object, then create a new object from that (aka re-ask a question)

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.078661
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.275634
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
"session": "1-617-7b399a9919f1e20d7e1adae0efad9bea67861ce4cba879745ef64a7a3bc9457e6b7a9a5951d16ca137a
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "19291",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.033236

- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "490",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-617-7b399a9919f1e20d7e1adae0efad9bea67861ce4cba879745ef64a7a3bc9457e6b7a9a5951d16ca1:9]
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 4 - Issue an AddObject to add an object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.009098

• Step 4 Request Body

• Step 4 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2146",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-617-7b399a9919f1e20d7e1adae0efad9bea67861ce4cba879745ef64a7a3bc9457e6b7a9a5951d16ca1
]
**Temple of the content of the
```

```
"connection": "keep-alive",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8"
}
```

## Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.015562
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### **Create Whitelisted Url From JSON**

Get a whitelisted url object, add 'API TEST' to the url\_regex of the whitelisted url object, delete any pre-existing whitelisted url with the new url\_regex, then create a new whitelisted url object with the new url\_regex

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.050520
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.013842
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19291",
4    "content-type": "application/json"
5 }
```

#### Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.327725

• Step 3 Request Body

- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "480",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-618-f573d43c4fa5f4dd8134a1c3f8cbd8c28e6e2be54428f252099a6b66fb7b88dc9de60c5b17a4e71fs9"]
```

· Response Headers:

### Step 4 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004698
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

## Step 5 - Issue a DeleteObject to delete an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.048635
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "535",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-618-f573d43c4fa5f4dd8134a1c3f8cbd8c28e6e2be54428f252099a6b66fb7b88dc9de60c5b17a4e71fs9"]
```

• Response Headers:

```
"connection": "keep-alive",
"content-length": "950",
"content-type": "text/xml; charset=UTF-8"
}
```

## Step 6 - Issue an AddObject to add an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.009301
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "575",
"Content-Type": "text/xml; charset=utf-8",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-618-f573d43c4fa5f4dd8134a1c3f8cbd8c28e6e2be54428f252099a6b66fb7b88dc9de60c5b17a4e71f39"]
```

```
1 {
2    "connection": "keep-alive",
3    "content-length": "862",
4    "content-type": "text/xml; charset=UTF-8"
5 }
```

### Step 7 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003909

• Step 7 Request Body

- Step 7 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "586",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-618-f573d43c4fa5f4dd8134a1c3f8cbd8c28e6e2be54428f252099a6b66fb7b88dc9de60c5b17a4e71f.
}
```

• Response Headers:

```
"connection": "keep-alive",
"content-length": "833",
"content-type": "text/xml; charset=UTF-8"
""s }
```

## **Create Group From JSON**

Get a group object, add 'API TEST' to the name of the group object, delete any pre-existing group with the new name, then create a new group object with the new name

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.063510

• Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.015372
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19291",
4    "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004840
- Step 3 Request Body

- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "517",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-619-labf7bb04651784ffcb76d9e03fa3e9f5c4a83b94fb07bfc2a9b5b2a04b82802cd320785f785a024
]
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "940",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

#### Step 4 - Issue a GetObject to find the object to be deleted

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.226534
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "526",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-619-1abf7bb04651784ffcb76d9e03fa3e9f5c4a83b94fb07bfc2a9b5b2a04b82802cd320785f785a024
}
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "950",
4    "content-type": "text/xml;charset=UTF-8"
5 }
```

## Step 5 - Issue a DeleteObject to delete an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.004718
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "619",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-619-labf7bb04651784ffcb76d9e03fa3e9f5c4a83b94fb07bfc2a9b5b2a04b82802cd320785f785a024
"Session": "1-619-labf7bb04651784ffcb76d9e03fa3e9f5c4a83b94fb07bfc2a9b5b2a04b82802cd320785f785a024
"Temperature of the content of
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "947",
4     "content-type": "text/xml;charset=UTF-8"
5 }
```

## Step 6 - Issue an AddObject to add an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.037626
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "760",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

#### Step 7 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.011678
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "932",
4    "content-type": "text/xml;charset=UTF-8"
5 }
```

## **Deploy Action Simple**

Deploy an action using the package 'Distribute Tanium Standard Utilities' to all computers, wait for result data to be complete, and then get result data using Server Side Export

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.048353
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.014802
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "19290",
4     "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to get the full object of a package for inclusion in an action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006022
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "581",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc32633
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

### Step 4 - Issue an AddObject to add a list of SavedActions (6.5 logic)

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.032692

- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.007378

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1521",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.

| "Accept": "*/*",
| "Connection": "keep-alive",
| "Content-Length": "1521",
| "Content-Type": "text/xml; charset=utf-8",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 6 - Issue a GetObject to get the last action created for a SavedAction

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.279146

- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

• Response Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

# Step 7 - Issue a GetObject to get the package for an Action

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.004650

- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6ald14fc3263.
9 }
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 8 - Issue a GetResultInfo on an Action to have the Server create a question that tracks the results for a Deployed Action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008012
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

Step 9 - Issue a GetObject on the package for an action to get the full object

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.040013

• Step 9 Request Body

• Step 9 Response Body

· Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

Step 10 - ID 79: Issuing an AddObject of a Question object with no Selects and the same Group used by the Action object. The number of systems that should successfully run the Action will be taken from result\_info.passed\_count for the Question asked when all answers for the question have reported in.

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.007407

• Step 10 Request Body

• Step 10 Response Body

Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "525",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.9")
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

#### Step 11 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.036038
- Step 11 Request Body
- Step 11 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6ald14fc3263.9")
```

• Response Headers:

## Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004959
- Step 12 Request Body
- Step 12 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "496",
6    "Content-Type": "text/xml; charset=utf-8",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc326339")
"Jession": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263399")
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 13 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.036768

- Step 13 Request Body
- Step 13 Response Body
- · Request Headers:

• Response Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

# Step 14 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.035266
- Step 14 Request Body
- Step 14 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1457",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 15 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.006924

- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

Step 16 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.005715
- Step 16 Request Body
- Step 16 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6ald14fc3263.
9 }
```

# Step 17 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.219046
- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1457",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

#### Step 18 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.039710

• Step 18 Request Body

- Step 18 Response Body
- · Request Headers:

· Response Headers:

# Step 19 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005306
- Step 19 Request Body
- Step 19 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 20 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.152778
- Step 20 Request Body
- Step 20 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1457",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.9")
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 21 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004898
- Step 21 Request Body
- Step 21 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "551",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc326339
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 22 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.040211

- Step 22 Request Body
- Step 22 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 23 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.170688

Step 23 Request Body

- Step 23 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

#### Step 24 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.032788
- Step 24 Request Body
- Step 24 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 25 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.018379

• Step 25 Request Body

- Step 25 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "625",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6ald14fc3263

) }
```

• Response Headers:

# Step 26 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.185280

• Step 26 Request Body

• Step 26 Response Body

· Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 27 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.050586
- Step 27 Request Body
- Step 27 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "551",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc326339
}
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 28 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008901
- Step 28 Request Body
- Step 28 Response Body
- Request Headers:

```
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
9 }
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 29 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.009727

- Step 29 Request Body
- Step 29 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 30 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.038353

• Step 30 Request Body

- Step 30 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

# Step 31 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.044180
- Step 31 Request Body
- Step 31 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 32 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.032532

- Step 32 Request Body
- Step 32 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "1457",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6ald14fc3263

) }
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 33 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.015371
- Step 33 Request Body
- Step 33 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 34 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007737
- Step 34 Request Body
- Step 34 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "579",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263:
"9 }
```

• Response Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 35 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.263489
- Step 35 Request Body
- Step 35 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",
"Content-Length": "1457",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 36 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.375295

• Step 36 Request Body

- Step 36 Response Body
- Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 37 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.044297

• Step 37 Request Body

- Step 37 Response Body
- · Request Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

## **Deploy Action Simple Without Results**

Deploy an action using the package 'Distribute Tanium Standard Utilities' to all computers and do not wait for result data to be complete and do not get result data

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.321828
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.035296
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19290",
4    "content-type": "application/json"
5 }
```

### Step 3 - Issue a GetObject to get the full object of a package for inclusion in an action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.037010
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "581",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-621-afb1d46105ffaaab5496cad137052128d03cb870720f6c9bad352df1ecac743870c7fd897d5bef539]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
```

```
s "transfer-encoding": "chunked"
6 }
```

#### Step 4 - Issue an AddObject to add a list of SavedActions (6.5 logic)

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.030735
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1443",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-621-afb1d46105ffaaab5496cad137052128d03cb870720f6c9bad352dflecac743870c7fd897d5bef53.9")
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.025474
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

### Step 6 - Issue a GetObject to get the last action created for a SavedAction

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005034
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "556",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-621-afb1d46105ffaaab5496cad137052128d03cb870720f6c9bad352dflecac743870c7fd897d5bef53.9
]
```

Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 7 - Issue a GetObject to get the package for an Action

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.283089
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-621-afb1d46105ffaaab5496cad137052128d03cb870720f6c9bad352df1ecac743870c7fd897d5bef5399"]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 8 - Issue a GetResultInfo on an Action to have the Server create a question that tracks the results for a Deployed Action

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.013982

• Step 8 Request Body

- Step 8 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 9 - Issue a GetObject on the package for an action to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.040974

• Step 9 Request Body

- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-621-afb1d46105ffaaab5496cad137052128d03cb870720f6c9bad352df1ecac743870c7fd897d5bef539]
```

## **Deploy Action Simple Against Windows Computers**

Deploy an action using the package 'Distribute Tanium Standard Utilities' to all computers that pass the filter Operating System, that contains Windows, wait for result data to be complete, and then get result data

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- · HTTP Method: GET
- Elapsed Time: 0:00:00.077209
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.017385
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19289",
4    "content-type": "application/json"
5 }
```

### Step 3 - Issue a GetObject to get the full object of a package for inclusion in an action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.040225
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "581",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6.
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
```

```
s "transfer-encoding": "chunked"
6 }
```

#### Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for an Action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.015061
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6-9
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 5 - Issue an AddObject to add a list of SavedActions (6.5 logic)

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.046774
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept=Encoding": "gzip",
"Connection": "keep-alive",
"Content=Length": "1625",
"Content=Type": "text/xml; charset=utf-8",
"User=Agent": "python=requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69]
```

# Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.047805
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1523",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6-9
]
```

Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 7 - Issue a GetObject to get the last action created for a SavedAction

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.039913
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "558",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69")
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 8 - Issue a GetObject to get the package for an Action

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.224671

- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

# Step 9 - Issue a GetResultInfo on an Action to have the Server create a question that tracks the results for a Deployed Action

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.009453

• Step 9 Request Body

- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "551",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

### Step 10 - Issue a GetObject on the package for an action to get the full object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.034797
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6-9]
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 11 - Issue a GetObject on the target\_group for an action to get the full Group object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.021211

- Step 11 Request Body
- Step 11 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "506",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6.
]
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

Step 12 - ID 81: Issuing an AddObject of a Question object with no Selects and the same Group used by the Action object. The number of systems that should successfully run the Action will be taken from result\_info.passed\_count for the Question asked when all answers for the question have reported in.

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.045384
- Step 12 Request Body
- Step 12 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

#### Step 13 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.015932

• Step 13 Request Body

- Step 13 Response Body
- · Request Headers:

· Response Headers:

#### Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.026569
- Step 14 Request Body
- Step 14 Response Body
- · Request Headers:

### Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.110539
- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

### Step 16 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.184619
- Step 16 Request Body
- Step 16 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69",
"]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 17 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.005867

- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

```
| {
| "Accept": "*/*",
| "Accept-Encoding": "gzip",
| "Connection": "keep-alive",
| "Content-Length": "1459",
| "Content-Type": "text/xml; charset=utf-8",
| "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
| "session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6.
| }
```

• Response Headers:

### Step 18 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.008785

- Step 18 Request Body
- Step 18 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "551",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6.9
]
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 19 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.013333
- Step 19 Request Body
- Step 19 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "625",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6.
}
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

Step 20 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://10.0.1.240:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.200528
- Step 20 Request Body
- Step 20 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1459",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 21 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.039954
- Step 21 Request Body
- Step 21 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 22 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.043147

• Step 22 Request Body

- Step 22 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "625",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6-9]
```

• Response Headers:

# Step 23 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005525

• Step 23 Request Body

• Step 23 Response Body

· Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 24 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.065215
- Step 24 Request Body
- Step 24 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 25 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.029920
- Step 25 Request Body
- Step 25 Response Body
- Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "579",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6.
9 }
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 26 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.050392
- Step 26 Request Body
- Step 26 Response Body
- Request Headers:

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 27 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004834
- Step 27 Request Body

- Step 27 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "551",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 28 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006135
- Step 28 Request Body
- Step 28 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "579",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6.
}
```

## **Deploy Action With Params Against Windows Computers**

Deploy an action using the package 'Custom Tagging - Add Tags' with parameter \$1 set to 'tag\_should\_be\_added' and parameter \$2 set to 'tag\_should\_be\_ignore' to all computers that pass the filter Operating System, that contains Windows, wait for result data to be complete, and then get result data

### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.017249
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.014662
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "19290",
4    "content-type": "application/json"
5 }
```

#### Step 3 - Issue a GetObject to get the full object of a package for inclusion in an action

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.040737
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "570",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.
9 }
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for an Action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004751
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c339")
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 5 - Issue an AddObject to add a list of SavedActions (6.5 logic)

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.066885
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.032146
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1448",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.
9 }
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 7 - Issue a GetObject to get the last action created for a SavedAction

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.007240

• Step 7 Request Body

• Step 7 Response Body

· Request Headers:

• Response Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## Step 8 - Issue a GetObject to get the package for an Action

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003480

- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "618",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 9 - Issue a GetResultInfo on an Action to have the Server create a question that tracks the results for a Deployed Action

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.270437
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

#### Step 10 - Issue a GetObject on the package for an action to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003796

• Step 10 Request Body

- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "618",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.
9 }
```

· Response Headers:

#### Step 11 - Issue a GetObject on the target\_group for an action to get the full Group object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.017676

• Step 11 Request Body

• Step 11 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "506",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

Step 12 - ID 82: Issuing an AddObject of a Question object with no Selects and the same Group used by the Action object. The number of systems that should successfully run the Action will be taken from result\_info.passed\_count for the Question asked when all answers for the question have reported in.

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.022956

- Step 12 Request Body
- Step 12 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml;charset=UTF-8"
5 }
```

## Step 13 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.043548
- Step 13 Request Body
- Step 13 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
```

```
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.")
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003913
- Step 14 Request Body
- Step 14 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

## Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.112043
- Step 15 Request Body
- Step 15 Response Body

• Request Headers:

· Response Headers:

# Step 16 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.045500
- Step 16 Request Body
- Step 16 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1440",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c339]
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

Step 17 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

URL: https://10.0.1.240:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.033540
- Step 17 Request Body
- Step 17 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 18 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005351
- Step 18 Request Body
- Step 18 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept=Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "614",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.
9 }
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 19 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.141804

- Step 19 Request Body
- Step 19 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 20 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012278
- Step 20 Request Body
- Step 20 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 21 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004534
- Step 21 Request Body
- Step 21 Response Body
- · Request Headers:

• Response Headers:

# Step 22 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.205111
- Step 22 Request Body
- Step 22 Response Body
- · Request Headers:

```
1  {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
```

```
"Connection": "keep-alive",
"Content-Length": "1440",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c33
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## Step 23 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005830

Step 23 Request Body

• Step 23 Response Body

• Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 24 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005095

• Step 24 Request Body

- Step 24 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

# Step 25 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.211727
- Step 25 Request Body
- Step 25 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "1440",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 26 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.006229

• Step 26 Request Body

- Step 26 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 27 - Issue a GetResultData with the aggregate option set to True. This will return row counts of machines that have answered instead of all the data

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.033959
- Step 27 Request Body
- Step 27 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

# Step 28 - Issue a GetObject for an Action in order to have access to the latest values for stopped\_flag and status

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003956
- Step 28 Request Body
- Step 28 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1440",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.
9 }
```

• Response Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## Step 29 - Issue a GetResultInfo for an Action to ensure fresh data is available for a GetResultData call

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003375
- Step 29 Request Body
- Step 29 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
```

```
"Content-Length": "540",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.9"]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 30 - Issue a GetResultData for an Action with the aggregate option set to False. This will return all of the Action Statuses for each computer that have run this Action

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003426

- Step 30 Request Body
- Step 30 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Get Action By Id

Get an action object by id

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

- HTTP Method: GET
- Elapsed Time: 0:00:00.022026
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.024925
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20906",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.051599
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "486",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-651-bc96eecda6aa90265ddd85a2b6bd1c4e37afeb49639fc341c4af9b51a3683ef75547f7c4e12662b2.9
]
```

## **Get Question By Id**

Get a question object by id

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.021351
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.037456
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-652-0b99ab46875ec8bbd7f71eac3c24b6723af0c557ce95750aab9ee072aae447cb6d957dc729d1f0fe.
]
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20906",
4    "content-type": "application/json"
5 }
```

#### Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.034376
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## **Get Saved Question By Names**

Get two saved question objects by name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.053087
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-length": "134",
"content-type": "text/plain; charset=us-ascii"
""content-type": "text/plain; charset=us-ascii"
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.012346
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-653-54d9cbd22af5de882c32871ac23316928a22bb916e1c3b2843a2ed1144b13628313ac5137701759fa7
```

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.043432
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 4 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.014450
- Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "518",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-653-54d9cbd22af5de882c32871ac23316928a22bb916e1c3b2843a2ed1144b13628313ac5137701759f8

9 }
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

## Get Userrole By Id

Get a user role object by id.

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.059940
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-length": "134",
"content-type": "text/plain; charset=us-ascii"
}
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.041443
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.054283
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
```

```
s "transfer-encoding": "chunked"
6 }
```

## **Get Setting By Name**

Get a system setting object by name

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.137396
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-length": "134",
"content-type": "text/plain; charset=us-ascii"
}
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.046667
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"session": "1-656-62109f92058c624b852f9db7a1c6d8377231d65e4753b4118ca9c9ed5fab9677262dee80d454177937
7 }
```

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005205

• Step 3 Request Body

- Step 3 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

## **Get User By Name**

Get a user object by name

#### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.098570

• Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.015306
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20905",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003866
- Step 3 Request Body

- Step 3 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## Get Sensor By Id

Get a sensor object by id

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.050217
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.013129
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20905",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.034649
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "505",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-658-fbef3bb8462edcc8965e961ad50032487f2190188c9093d25f90e908bc122179716453b27a9017b0-9
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
```

```
s "transfer-encoding": "chunked"
6 }
```

## **Get Sensor By Mixed**

Get multiple sensor objects by id, name, and hash

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.111105
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-length": "134",
"content-type": "text/plain; charset=us-ascii"
}
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.228800
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
"session": "1-659-84c6937246fd3be6a92edd34b2c2747a10f8ddc25b9995e2dca040d54afb1aae10a080015cb57f22
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20904",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.043787

• Step 3 Request Body

- Step 3 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

## Get Whitelisted Url By Id

Get a whitelisted url object by id

#### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.098816

• Step 1 Request Body

- Step 1 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.014473
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20905",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004292
- Step 3 Request Body

- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "480",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-660-ea459649757a630f63ed7861fa5d580637e1386e8ad53e1b92ce7d3c62f8ec69713a2ab827456c8689]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

## **Get Group By Name**

Get a group object by name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.018342
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-length": "134",
"content-type": "text/plain; charset=us-ascii"
}
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.017452
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.027766
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "517",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-661-9d69683f0e73ffae7f3f3aa8629535e4b9f919faab0599c9460046ceac66c8b6bcb2b92a9dc3b9419
}
```

## **Get Sensor By Hash**

Get a sensor object by hash

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.110553
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.015517
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20905",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.056668

• Step 3 Request Body

• Step 3 Response Body

• Request Headers:

• Response Headers:

## **Get Package By Name**

Get a package object by name

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.068655

• Step 1 Request Body

• Step 1 Response Body

• Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.047742

- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5  }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.061050
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "537",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-663-95b651b398b1330e7987df1800b2980e850532f8f756f53523f31b0ae628e63e8a07dfdbfe991d78
]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## **Get Sensor By Names**

Get multiple sensor objects by name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.016618
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

- · HTTP Method: GET
- Elapsed Time: 0:00:00.014010
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.007956
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## **Get Saved Question By Name**

Get saved question object by name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.237995
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.062023
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20904",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.011064

• Step 3 Request Body

• Step 3 Response Body

• Request Headers:

```
"Accept": "*/*",

"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "527",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-665-232a53a6aad360e2997f787cd4ef030884852b0c7e31e94e5144d8b33588ef755cdc773d16d947a8

9 }
```

• Response Headers:

## Get User By Id

Get a user object by id

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.018785

• Step 1 Request Body

• Step 1 Response Body

• Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.083114
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-666-22e1dcb3019f18eb8f1037fa1de08ed2e6955fc7c9c05da057561ed0a7f9f64c3d7b2b6823d022c36",
]
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5  }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.037923
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "482",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-666-22e1dcb3019f18eb8f1037fa1de08ed2e6955fc7c9c05da057561ed0a7f9f64c3d7b2b6823d022c369]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## **Get Sensor By Name**

Get a sensor object by name

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.057258
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

- · HTTP Method: GET
- Elapsed Time: 0:00:00.015217
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-667-fd0ee3ee389d3df522a35d644decbf147cc3fccc6706213ebe7db6f86243ec2debb89e5bce9cf15867"]
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20905",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.008172
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# **Get Saved Action By Name**

Get a saved action object by name

#### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.354149

- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5  }
```

# Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.016008

- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.020067
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-668-808f0d0410e56e2670691bc80bf3534a49f27d64f0518523666ac27cd49218ea01f6ac7792a71fd7:
"9 }
```

• Response Headers:

## **Get All Users**

Get all user objects

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.071347
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.230592

- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-669-3bc9ac8e68cb928ef584928b199d847e5e022d88e543e3e260fbd87b0c5bf99822d46d76db1a587e3
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5  }
```

# Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.051915
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "468",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-669-3bc9ac8e68cb928ef584928b199d847e5e022d88e543e3e260fbd87b0c5bf99822d46d76db1a587e.
]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### **Get All Saved Actions**

Get all saved action objects

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.059757
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

- · HTTP Method: GET
- Elapsed Time: 0:00:00.017936
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.254171
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## **Get All Settings**

Get all system setting objects

# Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.073716

- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.042557

- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5  }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.042125
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "478",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-671-6f687be5b039c71c064270628606bda7e01ccabc4c996b4c09f5abe7269e527f09a750dd422b9b3ds9"]
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## **Get All Saved Questions**

Get all saved question objects

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.055169
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.014232
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.059000
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "478",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-672-2bbb146e8a420c82f598d147498d31f06b3ee25f0a573a733cacbf4b56248c9c95a30a12e83bb83589]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## **Get All Userroless**

Get all user role objects

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.018407
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

- HTTP Method: GET
- Elapsed Time: 0:00:00.013391
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.003726
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## **Get All Questions**

Get all question objects

#### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.072384

- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.039423
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:01.384398

• Step 3 Request Body

- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "472",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-674-537548be2dd18c88ced54f2b76676b6a973f176c687fce257056e0085020fba210a275db7d930a3es
9 }
```

• Response Headers:

# **Get All Groups**

Get all group objects

# Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.019004

• Step 1 Request Body

• Step 1 Response Body

• Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.018268

- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20905",
4    "content-type": "application/json"
5  }
```

# Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.269973
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "469",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-675-4c2f74eac215ef52bf8070f5794fa94b5a3db110e07c22497e67707b413d517050e34c5c0fdd9a2419]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## **Get All Sensors**

Get all sensor objects

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.055016
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

- · HTTP Method: GET
- Elapsed Time: 0:00:00.662916
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-676-cef177056e8f3639ccbbb6d72bb2e93b1acdd137db66e4b7f5dfb0eb2561d169fbd97fdbffd5db90007."
}
```

```
"connection": "keep-alive",
"content-length": "20905",
"content-type": "application/json"
}
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.359207
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept=Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "470",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-676-cef177056e8f3639ccbbb6d72bb2e93b1acdd137db66e4b7f5dfb0eb2561d169fbd97fdbffd5db90]
"Session": "1-676-cef177056e8f3639ccbbb6d72bb2e93b1acdd137db66e4b7f5dfb0eb2561d169fbd97fdbffd5db90]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## **Get All Whitelisted Urls**

Get all whitelisted url objects

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.062078
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5  }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.013262
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20906",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.004804
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "480",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-677-1db55844c235daeb10b56dd650c56ab94d490a3c2bd6033f67504294887a54e38b6d1916dc8cc10fg
]
```

• Response Headers:

## **Get All Clients**

Get all client objects

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.049149
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.225725
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20906",
4    "content-type": "application/json"
5  }
```

# Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012385
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "476",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-678-d953df6b2117636b222a3878de3d8148d343ec6dbad057f74466f4c4de132f517418317b903498d7.
9 }
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

## **Get All Packages**

Get all package objects

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.065163
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

- · HTTP Method: GET
- Elapsed Time: 0:00:00.261418
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20906",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find an object

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.054853
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## **Get All Actions**

Get all action objects

#### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.022633

- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.043555

- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20906",
4     "content-type": "application/json"
5 }
```

#### Step 3 - Issue a GetObject to find an object

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.005966

• Step 3 Request Body

- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",

"Accept-Encoding": "gzip",

"Connection": "keep-alive",

"Content-Length": "470",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-680-38f23e7f2dd7f2ed8c4df27b41ab38a5fd545cf7e66e59dc10507511b55d54aa3781a77da941f63e

"Accept": "*/*",

"Connection": "keep-alive",

"Content-Type": "text/xml; charset=utf-8",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-680-38f23e7f2dd7f2ed8c4df27b41ab38a5fd545cf7e66e59dc10507511b55d54aa3781a77da941f63e

"Accept": "*/*",

"Connection": "keep-alive",

"Content-Length": "470",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-680-38f23e7f2dd7f2ed8c4df27b41ab38a5fd545cf7e66e59dc10507511b55d54aa3781a77da941f63e

"Accept": "*/*",

"Accept": "*/*",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-680-38f23e7f2dd7f2ed8c4df27b41ab38a5fd545cf7e66e59dc10507511b55d54aa3781a77da941f63e

"Accept": "*/**",

"Accept": "*/**",

"Accept": "*/**",

"Accept": "*/**",

"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-680-38f23e7f2dd7f2ed8c4df27b41ab38a5fd545cf7e66e59dc10507511b55d54aa3781a77da941f63e

"Accept": "*/**",

"Accept": "*/*
```

• Response Headers:

## **Ask Parsed Question Pick First No Results**

Ask the server to parse the question text 'computer name and ip route details' and add the question object that is returned in the first ParseResultGroup, do not get result data

## Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

• HTTP Method: GET

• Elapsed Time: 0:00:00.051992

• Step 1 Request Body

• Step 1 Response Body

· Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

• URL: https://10.0.1.240:443/info.json

• HTTP Method: GET

• Elapsed Time: 0:00:00.012421

- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20906",
4     "content-type": "application/json"
5 }
```

# Step 3 - Issue an AddObject to add a ParseJob for question\_text and get back ParseResultGroups

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.120114
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 4 - Issue an AddObject to add the Question object from the chosen ParseResultGroup

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.225482

- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "713",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-681-6cd9aebd109c6af36faa009d4636e38b90926c64690cf812bcfc3957b591da119a94af41ae115992
}
```

• Response Headers:

```
"connection": "keep-alive",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8"
}
```

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.015624

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-681-6cd9aebd109c6af36faa009d4636e38b90926c64690cf812bcfc3957b591da119a94af41ae115992
9 }
```

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

#### **Ask Parsed Question Pick First Sse**

Ask the server to parse the question text 'computer name and ip route details' and add the question object that is returned in the first ParseResultGroup, wait for result data to be complete, then use server side export to get the result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.050073
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-length": "134",
```

```
"content-type": "text/plain; charset=us-ascii"
}
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.057523
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20907",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue an AddObject to add a ParseJob for question\_text and get back ParseResultGroups

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.276596
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

# Step 4 - Issue an AddObject to add the Question object from the chosen ParseResultGroup

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.021862
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.055439
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

## Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003493

- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fces.

"Baccept": "*/*",
"Connection": "keep-alive",
"Content-Length": "496",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fces.
"Baccept": "*/*",
"Baccept": "*/*",
"Connection": "496",
"Content-Length": "496",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fces.")
"Baccept": "*/*",
"Ba
```

• Response Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

## Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.137176

- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fces9)
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

#### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.283579

- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fcesepples
```

• Response Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## Step 9 - Issue a GetResultData to start a Server Side Export and get an export\_id

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.007293

- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "874",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

## Step 10 - Perform an HTTP get to retrieve the status of a server side export

- URL: https://10.0.1.240:443/export/1/495576641239.xml.status
- · HTTP Method: GET
- Elapsed Time: 0:00:00.017539
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

• Response Headers:

```
"content-length": "27",
"content-type": "application/octet-stream"
}
```

## Step 11 - Perform an HTTP get to retrieve the data of a server side export

- URL: https://10.0.1.240:443/export/1/495576641239.xml.gz
- HTTP Method: GET
- Elapsed Time: 0:00:00.023642

- Step 11 Request Body
- Step 11 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fce87
```

```
1 {
2     "content-encoding": "gzip",
3     "content-length": "467",
4     "content-type": "application/octet-stream"
5 }
```

## **Ask Parsed Question Pick First**

Ask the server to parse the question text 'computer name and ip route details' and add the question object that is returned in the first ParseResultGroup, wait for result data to be complete, then get result data

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.054550
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-length": "134",
"content-type": "text/plain; charset=us-ascii"
}
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.013470
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "20907",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue an AddObject to add a ParseJob for question\_text and get back ParseResultGroups

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.079246
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
```

```
s "transfer-encoding": "chunked"
6 }
```

#### Step 4 - Issue an AddObject to add the Question object from the chosen ParseResultGroup

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.013926
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "713",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-683-7ba21d3c150d1800371119b1fd267928d6581e6a71ee9149d745c136fe051b20c07d283a8ae38576
}
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "766",
4    "content-type": "text/xml;charset=UTF-8"
5 }
```

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.060058
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-683-7ba21d3c150d1800371119b1fd267928d6581e6a71ee9149d745c136fe051b20c07d283a8ae385769]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003313
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-683-7ba21d3c150d1800371119b1fd267928d6581e6a71ee9149d745c136fe051b20c07d283a8ae385769]
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.041357
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-683-7ba21d3c150d1800371119b1fd267928d6581e6a71ee9149d745c136fe051b20c07d283a8ae385769",
"]
```

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

#### Step 8 - Issue a GetResultData to get answers for a question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.024001
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "524",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-683-7ba21d3c150d1800371119b1fd267928d6581e6a7lee9149d745c136fe051b20c07d283a8ae385769
}
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# **Ask Manual Question Simple Single Sensor No Results**

Ask the question 'Get Computer Name from all machines' and do not get result data

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- · HTTP Method: GET

- Elapsed Time: 0:00:00.048510
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-length": "134",
"content-type": "text/plain; charset=us-ascii"
}
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.014226
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-684-f8a1caca6c34ae19ea2405b039bd86fd556ee894df2982412861f7718ee45439aa46439ae6f9a555."
}
```

· Response Headers:

#### Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.008809
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 4 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.037730
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8"
""content-type": "text/xml; charset=UTF-8"
```

#### Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.018149
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-684-f8a1caca6c34ae19ea2405b039bd86fd556ee894df2982412861f7718ee45439aa46439ae6f9a555.
```

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# **Ask Manual Question Simple Multiple Sensors**

Ask the question 'Get Computer Name and Installed Applications from all machines', wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.060169
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- · HTTP Method: GET
- Elapsed Time: 0:00:00.019010
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds
```

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20906",
4     "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.006969
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "565",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

```
8  "session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677d3
9  }
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.032278

- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "574",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds9"]
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 5 - Issue an AddObject to add a Question object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.014303

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "753",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds9",
"Session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds9",
"Temperature of the content of the co
```

```
"connection": "keep-alive",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8"
}
```

# Step 6 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.058660
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds9"]
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.035616

- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.066067
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.119950

• Step 9 Request Body

- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds9"]
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 10 - Issue a GetResultData to get answers for a question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.009759
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "524",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds9"]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# **Ask Manual Question Simple Single Sensor Sse**

Ask the question 'Get Computer Name from all machines', wait for result data to be complete, and get result data

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.014375
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.035130
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-686-e3a7d7eebdd64d851b738f6be2ffd5f52a869aleae15bd756d92c00c65eb269284b788acb904193d",
]
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20906",
4     "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.270664

• Step 3 Request Body

• Step 3 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "565",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-686-e3a7d7eebdd64d851b738f6be2ffd5f52a869aleae15bd756d92c00c65eb269284b788acb904193d79]
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 4 - Issue an AddObject to add a Question object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.012705

• Step 4 Request Body

- Step 4 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

#### Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.019470
- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "492",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-686-e3a7d7eebdd64d851b738f6be2ffd5f52a869a1eae15bd756d92c00c65eb269284b788acb904193d
}
```

• Response Headers:

# Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.033041
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-686-e3a7d7eebdd64d851b738f6be2ffd5f52a869aleae15bd756d92c00c65eb269284b788acb904193d",
]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.210846
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "496",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-686-e3a7d7eebdd64d851b738f6be2ffd5f52a869aleae15bd756d92c00c65eb269284b788acb904193d*
    }
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.161301
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 9 - Issue a GetResultData to start a Server Side Export and get an export\_id

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.007986
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "556",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-686-e3a7d7eebdd64d851b738f6be2ffd5f52a869aleae15bd756d92c00c65eb269284b788acb904193d9]
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "874",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

#### Step 10 - Perform an HTTP get to retrieve the status of a server side export

- URL: https://10.0.1.240:443/export/1/495576668976.xml.status
- · HTTP Method: GET
- Elapsed Time: 0:00:00.017106
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

· Response Headers:

```
"content-length": "27",
"content-type": "application/octet-stream"
}
```

# Step 11 - Perform an HTTP get to retrieve the data of a server side export

- URL: https://10.0.1.240:443/export/1/495576668976.xml.gz
- HTTP Method: GET
- Elapsed Time: 0:00:00.016918
- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
1 {
2     "content-encoding": "gzip",
3     "content-length": "229",
4     "content-type": "application/octet-stream"
5 }
```

# **Ask Manual Question Simple Single Sensor**

Ask the question 'Get Computer Name from all machines', wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.014798
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5  }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.039155
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
1 {
2   "Accept": "*/*",
3   "Accept-Encoding": "gzip, deflate",
```

```
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-687-994742215820b4a8d4a6d90dc1d0bbea6ab30fda6b1acf7f6e18fd6c00b0e7c6d48041d004e69fa277"
}
```

```
"connection": "keep-alive",
"content-length": "20907",
"content-type": "application/json"

}
```

# Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.004963
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

• Response Headers:

# Step 4 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.042187
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8"
}
```

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.238864
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.035674

- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.178964
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.010662
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-687-994742215820b4a8d4a6d90dc1d0bbea6ab30fda6b1acf7f6e18fd6c00b0e7c6d48041d004e69fa2-9)
```

· Response Headers:

#### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.061602
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

# Step 10 - Issue a GetResultData to get answers for a question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005323
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "524",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-687-994742215820b4a8d4a6d90dc1d0bbea6ab30fda6blacf7f6e18fd6c00b0e7c6d48041d004e69fa2.
"Session": "1-687-994742215820b4a8d4a6d90dc1d0bbea6ab30fda6blacf7f6e18fd6c00b0e7c6d48041d004e69fa2.
"Temporal Procedure of the Content of the
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Ask Manual Question Sensor With Parameters And Some Supplied Parameters

Ask the question 'Get Folder Contents{folderPath=C:Program Files} from all machines', wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.106349
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.247151
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-689-2a03816e698477276b936587ef80b2c3696518452227d8e8f1747447823783356f9e029f79978f957"
}
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "20906",
4     "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.032673
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "567",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-689-2a03816e698477276b936587ef80b2c3696518452227d8e8f1747447823783356f9e029f79978f95.9
]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

#### Step 4 - Issue an AddObject to add a Question object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.024219

• Step 4 Request Body

• Step 4 Response Body

· Request Headers:

• Response Headers:

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.066723

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-689-2a03816e698477276b936587ef80b2c3696518452227d8e8f1747447823783356f9e029f79978f95.9"]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.023351
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-689-2a03816e698477276b936587ef80b2c3696518452227d8e8f1747447823783356f9e029f79978f95-9
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.069058

• Step 7 Request Body

- Step 7 Response Body
- · Request Headers:

· Response Headers:

#### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.242871
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.212345
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-689-2a03816e698477276b936587ef80b2c3696518452227d8e8f1747447823783356f9e029f79978f95.
9 }
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 10 - Issue a GetResultData to get answers for a question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004960
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "524",
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Ask Manual Question Multiple Sensors With Parameters And Some Supplied Parameters

Ask the question 'Folder Contents{folderPath=C:Program Files} and Computer Name from all machines', wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.070609
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

· Response Headers:

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.013828

- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4.
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "21008",
4     "content-type": "application/json"
5 }
```

# Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.072748
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

# Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST

- Elapsed Time: 0:00:00.276248
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "565",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4:
"9 }
```

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 5 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.050028
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-length": "766",
"content-type": "text/xml; charset=UTF-8"
""content-type": "text/xml; charset=UTF-8"
```

#### Step 6 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.022514

• Step 6 Request Body

• Step 6 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4:
"9 }
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.044419

• Step 7 Request Body

• Step 7 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4399)
```

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

# Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.097019
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4:
"Beta in the content of the content of
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.239529
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4.
"Session": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4.
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 10 - Issue a GetResultData to get answers for a question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.030524

- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# **Ask Manual Question Sensor With Parameters And Filter**

Ask the question 'Get Folder Contents{folderPath=C:Program Files} containing "Shared" from all machines', wait for result data to be complete, and get result data

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- · HTTP Method: GET

- Elapsed Time: 0:00:00.099760
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

# Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.015883
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-692-39cedd0ba8f7255c8d68bfb02b1ad433001a9587e6062777f412cf4ef1cc0aa3b69ebb408b0c0ea7e7)
}
```

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "21209",
4     "content-type": "application/json"
5 }
```

#### Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.008740
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "567",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-692-39cedd0ba8f7255c8d68bfb02b1ad433001a9587e6062777f412cf4ef1cc0aa3b69ebb408b0c0ea7egelength.")
"Incomplete the content of the content of
```

# Step 4 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.052536
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "766",
4    "content-type": "text/xml;charset=UTF-8"
5 }
```

#### Step 5 - Issue a GetObject on the recently added object in order to get the full object

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.023615

• Step 5 Request Body

- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-692-39cedd0ba8f7255c8d68bfb02b1ad433001a9587e6062777f412cf4ef1cc0aa3b69ebb408b0c0ea7eggleent")
"Incomparison of the content of the content
```

· Response Headers:

#### Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.252171
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.210575
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.225511
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-692-39cedd0ba8f7255c8d68bfb02b1ad433001a9587e6062777f412cf4ef1cc0aa3b69ebb408b0c0ea769 }
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.250460
- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 10 - Issue a GetResultData to get answers for a question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004491
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

# **Ask Manual Question Sensor With Filter And 2 Options**

Ask the question 'Get Operating System containing "Windows" from all machines' and set max\_age\_seconds to 3600 and value\_type to 1 on the Operating System sensor, then wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.061492
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.017664
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "21310",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.047004
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "568",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9alalfd62c9789a5f0aa295a478
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
```

#### Step 4 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.261710
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "784",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9ala1fd62c9789a5f0aa295a4789]
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.049051
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9alalfd62c9789a5f0aa295a47899]
```

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

# Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.034148
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9a1a1fd62c9789a5f0aa295a47899]
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.155014
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9a1a1fd62c9789a5f0aa295a4789",
"]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.226356

• Step 8 Request Body

- Step 8 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "496",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9ala1fd62c9789a5f0aa295a4739
}
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 9 - Issue a GetResultData to get answers for a question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.010519

• Step 9 Request Body

• Step 9 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "524",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9ala1fd62c9789a5f0aa295a47899]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## **Ask Manual Question Sensor With Filter**

Ask the question 'Get Operating System containing "Windows" from all machines', then wait for result data to be complete, and get result data

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.053781
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.013374
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "21310",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.067991
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
```

```
s "transfer-encoding": "chunked"
6 }
```

### Step 4 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.033677
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "714",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-694-22928c0af0fc1d91eed7dc4424a21a38b53a000acce5dbe534e2d43494597b3e70067b61e5affe71:9]
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.273163
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.003452
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-694-22928c0af0fc1d91eed7dc4424a21a38b53a000acce5dbe534e2d43494597b3e70067b61e5affe71:
]

"Bession": "1-694-22928c0af0fc1d91eed7dc4424a21a38b53a000acce5dbe534e2d43494597b3e70067b61e5affe71:
"Temple of the content of the
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:01.335918
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-694-22928c0af0fc1d91eed7dc4424a21a38b53a000acce5dbe534e2d43494597b3e70067b61e5affe71:
9 }
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

### Step 8 - Issue a GetResultData to get answers for a question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.003266

• Step 8 Request Body

• Step 8 Response Body

• Request Headers:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Ask Manual Question Sensor With Parameters And Filter And Options

Ask the question 'Get Folder Contents {folderPath=C:Program Files} containing "Shared" from all machines' and set max\_age\_seconds to 3600 on the Folder Contents sensor, then wait for result data to be complete, and get result data

### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

· HTTP Method: GET

- Elapsed Time: 0:00:00.051336
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.013641
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-695-ebe881a1bd43fa1a2ba1d453a8b15e5c76d20893cb4cf70077b884f3caeb720866ecfc02f5dfe371.
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "21310",
4    "content-type": "application/json"
5 }
```

### Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.011656
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "567",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-695-ebe881a1bd43fa1a2ba1d453a8b15e5c76d20893cb4cf70077b884f3caeb720866ecfc02f5dfe371.9"]
```

## Step 4 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.042629
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "875",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-695-ebe881a1bd43fa1a2ba1d453a8b15e5c76d20893cb4cf70077b884f3caeb720866ecfc02f5dfe371.9"]
```

#### Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.027400
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-695-ebe881a1bd43fa1a2ba1d453a8b15e5c76d20893cb4cf70077b884f3caeb720866ecfc02f5dfe371.9"]
```

· Response Headers:

### Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008565
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

# Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.106474
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.222132
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-695-ebe881a1bd43fa1a2ba1d453a8b15e5c76d20893cb4cf70077b884f3caeb720866ecfc02f5dfe371.")
}
```

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.225796

• Step 9 Request Body

- Step 9 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "496",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-695-ebe881albd43fala2bald453a8b15e5c76d20893cb4cf70077b884f3caeb720866ecfc02f5dfe371.9
}
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 10 - Issue a GetResultData to get answers for a question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.038504

• Step 10 Request Body

• Step 10 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "524",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-695-ebe881a1bd43fa1a2ba1d453a8b15e5c76d20893cb4cf70077b884f3caeb720866ecfc02f5dfe371.9"]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## **Ask Manual Question Sensor With Filter And 3 Options**

Ask the question 'Get Operating System containing "Windows" from all machines' and set max\_age\_seconds to 3600, all\_values\_flag to 1, and ignore\_case\_flag to 1 on the Operating System sensor, then wait for result data to be complete, and get result data

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.015359
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "134",
4    "content-type": "text/plain; charset=us-ascii"
5 }
```

#### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.012821
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "21411",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004289
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "568",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-696-558c4caa82406b81f9e1358af1173f779441ce0ad59ec6f7f628c7bd85a6b5f6c19c45514a2ee3986
}
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
```

```
s "transfer-encoding": "chunked"
6 }
```

#### Step 4 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.012568
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "861",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-696-558c4caa82406b81f9e1358af1173f779441ce0ad59ec6f7f628c7bd85a6b5f6c19c45514a2ee398c9)
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml;charset=UTF-8"
5 }
```

# Step 5 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.091672
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-696-558c4caa82406b81f9e1358af1173f779441ce0ad59ec6f7f628c7bd85a6b5f6c19c45514a2ee398c9]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 6 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.004804
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## Step 7 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.519997
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-696-558c4caa82406b81f9e1358af1173f779441ce0ad59ec6f7f628c7bd85a6b5f6c19c45514a2ee39869")
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

#### Step 8 - Issue a GetResultData to get answers for a question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.030119

- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "524",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-696-558c4caa82406b81f9e1358af1173f779441ce0ad59ec6f7f628c7bd85a6b5f6c19c45514a2ee398c9]
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# **Ask Manual Question Complex Query1**

Ask the question 'Get Computer Name and Folder Contents{folderPath=C:Program Files} containing "Shared" from all machines with (Operating System containing "Windows" or any Operating System not containing "Windows") and set ignore\_case\_flag to 1 and or\_flag to 1 on the Operating System sensors on the right hand side of the question, then wait for result data to be complete, and get result data

# Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

- HTTP Method: GET
- Elapsed Time: 0:00:00.056504
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-length": "134",
"content-type": "text/plain; charset=us-ascii"
}
```

### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.309269
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "21411",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

• URL: https://10.0.1.240:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.006260
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "565",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.039178
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for a Question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.010257

• Step 5 Request Body

- Step 5 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "568",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369]
```

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

### Step 6 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.060927
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

# Step 7 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.060039
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1433",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369]
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "766",
4    "content-type": "text/xml; charset=UTF-8"
5 }
```

## Step 8 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.283671
- Step 8 Request Body
- Step 8 Response Body
- Request Headers:

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369"]
```

### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.034084
- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369]
```

• Response Headers:

## Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.180043
- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 11 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.252375

- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369]
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

## Step 12 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.211936

- Step 12 Request Body
- Step 12 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## Step 13 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.234385
- Step 13 Request Body
- Step 13 Response Body
- · Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 14 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.252098

• Step 14 Request Body

- Step 14 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369]
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 15 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.230463
- Step 15 Request Body
- Step 15 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369]
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

# Step 16 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.237951
- Step 16 Request Body
- Step 16 Response Body
- Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "496",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e36
}
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

## Step 17 - Issue a GetResultInfo for a Question to check the current progress of answers

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.262537
- Step 17 Request Body
- Step 17 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "496",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-697-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e369")
```

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

#### Step 18 - Issue a GetResultData to get answers for a question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.045614

- Step 18 Request Body
- Step 18 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

# **Ask Manual Question Complex Query2**

Ask the question 'Get Computer Name and Last Logged In User and Installed Applications containing "Google" from all machines with Installed Applications containing "Google" and set ignore\_case\_flag to 1 and or\_flag to 1 on the Installed Applications sensors on the right hand side of the question, then wait for result data to be complete, and get result data

### Step 1 - Authenticate to the SOAP API via /auth

• URL: https://10.0.1.240:443/auth

- HTTP Method: GET
- Elapsed Time: 0:00:00.072698
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.249758
- Step 2 Request Body
- Step 2 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "21411",
4     "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

• URL: https://10.0.1.240:443/soap

- HTTP Method: POST
- Elapsed Time: 0:00:00.006385
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "565",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-698-457dcc4ba72ab687aa4f742e528b30f1aa521a9579572ecfcc7812b22edf5aac5fcbaa37a1e5d205.9
}
```

## Step 4 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.005201
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 5 - Issue a GetObject to get the full object of a sensor for inclusion in a Select for a Question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.027013

• Step 5 Request Body

• Step 5 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "574",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-698-457dcc4ba72ab687aa4f742e528b30f1aa521a9579572ecfcc7812b22edf5aac5fcbaa37a1e5d205-9]
```

· Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 6 - Issue a GetObject to get the full object of a sensor for inclusion in a Group for a Question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.005611

• Step 6 Request Body

• Step 6 Response Body

· Request Headers:

# Step 7 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.403178
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1142",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-698-457dcc4ba72ab687aa4f742e528b30f1aa521a9579572ecfcc7812b22edf5aac5fcbaa37a1e5d205.9"]
```

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "766",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

## Step 8 - Issue a GetObject on the recently added object in order to get the full object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.019010
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "492",
"Content-Type": "text/xml; charset=utf-8",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",

"session": "1-698-457dcc4ba72ab687aa4f742e528b30f1aa521a9579572ecfcc7812b22edf5aac5fcbaa37a1e5d2059

}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.057502

- Step 9 Request Body
- Step 9 Response Body
- · Request Headers:

• Response Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

## Step 10 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.115560

- Step 10 Request Body
- Step 10 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-698-457dcc4ba72ab687aa4f742e528b30f1aa521a9579572ecfcc7812b22edf5aac5fcbaa37a1e5d205.9"]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 11 - Issue a GetResultData to get answers for a question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.009806

- Step 11 Request Body
- Step 11 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "524",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-698-457dcc4ba72ab687aa4f742e528b30f1aa521a9579572ecfcc7812b22edf5aac5fcbaa37a1e5d205-9]
```

• Response Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

## **Ask Saved Question Refresh Data**

Get the Saved Question object for Installed Applications, ask the server to refresh the data vailable, wait for the new question spawned to complete results, then get the latest result data available for that Saved Question

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.019314
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

· Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

## Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.041418
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "21410",
4     "content-type": "application/json"
5 }
```

### Step 3 - Issue a GetObject to find saved question objects

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.037435

• Step 3 Request Body

Step 3 Response Body

· Request Headers:

· Response Headers:

#### Step 4 - Issue a GetObject to get the full object of the last question asked by a saved question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.010466

• Step 4 Request Body

• Step 4 Response Body

· Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "21692",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-700-6994c0aafc5acfe93d8e0597690acddb0b9aa30f1c467bda22e98ef8201f85870f813597f07d5aebc9]
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

# Step 5 - Issue a GetResultInfo for a saved question in order to issue a new question, which refreshes the data for that saved question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.042549
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

• Response Headers:

## Step 6 - Issue a GetObject for the saved question in order get the ID of the newly asked question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.017623
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Content-Length": "538",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-700-6994c0aafc5acfe93d8e0597690acddb0b9aa30f1c467bda22e98ef8201f85870f813597f07d5aebc99 }
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 7 - Issue a GetObject to get the full object of the last question asked by a saved question

• URL: https://10.0.1.240:443/soap

· HTTP Method: POST

• Elapsed Time: 0:00:00.030393

- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "940",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-700-6994c0aafc5acfe93d8e0597690acddb0b9aa30f1c467bda22e98ef8201f85870f813597f07d5aebc9]
```

• Response Headers:

## Step 8 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.011412

• Step 8 Request Body

• Step 8 Response Body

• Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "496",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-700-6994c0aafc5acfe93d8e0597690acddb0b9aa30f1c467bda22e98ef8201f85870f813597f07d5aebc9]
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 9 - Issue a GetResultInfo for a Question to check the current progress of answers

• URL: https://10.0.1.240:443/soap

HTTP Method: POST

• Elapsed Time: 0:00:00.012419

- Step 9 Request Body
- Step 9 Response Body
- Request Headers:

· Response Headers:

#### Step 10 - Issue a GetResultData to get the answers for the last asked question of this saved question

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST

- Elapsed Time: 0:00:00.011922
- Step 10 Request Body
- Step 10 Response Body
- Request Headers:

· Response Headers:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

#### Ask Saved Question By Name Sse

Get the Saved Question object for Installed Applications then get the latest result data available using Server Side Export for that Saved Question

#### Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.031615
- Step 1 Request Body
- Step 1 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2   "connection": "keep-alive",
3   "content-length": "134",
```

```
"content-type": "text/plain; charset=us-ascii"
}
```

### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.048952
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "21408",
4    "content-type": "application/json"
5 }
```

#### Step 3 - Issue a GetObject to find saved question objects

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.019343
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "527",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-701-29b97782e68278725322ab84aafb73c07c061edb94c7a92b4c41f6242974fd25eec5231da64b31a0-9]
```

• Response Headers:

### Step 4 - Issue a GetObject to get the full object of the last question asked by a saved question

- URL: https://10.0.1.240:443/soap
- · HTTP Method: POST
- Elapsed Time: 0:00:00.097412
- Step 4 Request Body
- Step 4 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "21692",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-701-29b97782e68278725322ab84aafb73c07c061edb94c7a92b4c41f6242974fd25eec5231da64b31a0.99"]
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

#### Step 5 - Issue a GetResultData to start a Server Side Export and get an export\_id

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.008340
- Step 5 Request Body
- Step 5 Response Body
- · Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "Content-Length": "556",
```

```
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-701-29b97782e68278725322ab84aafb73c07c061edb94c7a92b4c41f6242974fd25eec5231da64b31a0499"]
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "874",
4    "content-type": "text/xml; charset=UTF-8"
5 }
```

#### Step 6 - Perform an HTTP get to retrieve the status of a server side export

- URL: https://10.0.1.240:443/export/1/495576890344.xml.status
- HTTP Method: GET
- Elapsed Time: 0:00:00.004215
- Step 6 Request Body
- Step 6 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-701-29b97782e68278725322ab84aafb73c07c061edb94c7a92b4c41f6242974fd25eec5231da64b31a0-7
```

• Response Headers:

```
1 {
2    "content-length": "12",
3    "content-type": "application/octet-stream"
4 }
```

## Step 7 - Perform an HTTP get to retrieve the status of a server side export

- URL: https://10.0.1.240:443/export/1/495576890344.xml.status
- · HTTP Method: GET
- Elapsed Time: 0:00:00.012210
- Step 7 Request Body
- Step 7 Response Body
- Request Headers:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
4    "Connection": "keep-alive",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-701-29b97782e68278725322ab84aafb73c07c061edb94c7a92b4c41f6242974fd25eec5231da64b31a0-7
}
```

• Response Headers:

```
1 {
2     "content-length": "30",
3     "content-type": "application/octet-stream"
4 }
```

#### Step 8 - Perform an HTTP get to retrieve the data of a server side export

- URL: https://10.0.1.240:443/export/1/495576890344.xml.gz
- HTTP Method: GET
- Elapsed Time: 0:00:00.009353
- Step 8 Request Body
- Step 8 Response Body
- · Request Headers:

• Response Headers:

```
1 {
2     "content-encoding": "gzip",
3     "content-length": "26799",
4     "content-type": "application/octet-stream"
5  }
```

## **Ask Saved Question By Name**

Get the Saved Question object for Installed Applications then get the latest result data available for that Saved Question

## Step 1 - Authenticate to the SOAP API via /auth

- URL: https://10.0.1.240:443/auth
- HTTP Method: GET
- Elapsed Time: 0:00:00.083601
- Step 1 Request Body
- Step 1 Response Body
- Request Headers:

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-length": "134",
4     "content-type": "text/plain; charset=us-ascii"
5 }
```

### Step 2 - Get the server version via /info.json

- URL: https://10.0.1.240:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.017949
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-702-a5ae5e2e6cd9f876accd2af071c861f83f6bfdd5e6759f9a167a39d542184a684434c8ecc39a9ad037
```

• Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "21408",
4    "content-type": "application/json"
5 }
```

## Step 3 - Issue a GetObject to find saved question objects

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.016348
- Step 3 Request Body
- Step 3 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "527",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-702-a5ae5e2e6cd9f876accd2af071c861f83f6bfdd5e6759f9a167a39d542184a684434c8ecc39a9ad039
```

Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

#### Step 4 - Issue a GetObject to get the full object of the last question asked by a saved question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.337781

• Step 4 Request Body

• Step 4 Response Body

· Request Headers:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "21692",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-702-a5ae5e2e6cd9f876accd2af071c861f83f6bfdd5e6759f9a167a39d542184a684434c8ecc39a9ad039
}
```

• Response Headers:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml; charset=UTF-8",
5     "transfer-encoding": "chunked"
6 }
```

#### Step 5 - Issue a GetResultData to get the answers for the last asked question of this saved question

• URL: https://10.0.1.240:443/soap

• HTTP Method: POST

• Elapsed Time: 0:00:00.048861

- Step 5 Request Body
- Step 5 Response Body
- Request Headers:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "524",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-702-a5ae5e2e6cd9f876accd2af071c861f83f6bfdd5e6759f9a167a39d542184a684434c8ecc39a9ad089
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

## **CHAPTER**

## TWO

## **INDICES AND TABLES**

- genindex
- modindex
- search

## PYTHON MODULE INDEX

d	taniumpy.object_types.computer_group,
ddt,111	99
p	taniumpy.object_types.computer_group_list, 100
pytan, 3	taniumpy.object_types.computer_group_spec,
pytan.binsupport,75	100
pytan.constants,59	taniumpy.object_types.computer_spec_list,
pytan.exceptions,84	100
pytan.handler,3	taniumpy.object_types.error_list,100
pytan.pollers,53	taniumpy.object_types.filter,100
pytan.sessions,36	taniumpy.object_types.filter_list, 100
pytan.utils,61	taniumpy.object_types.group,100 taniumpy.object_types.group_list,100
pytan.xml_clean,86	taniumpy.object_types.metadata_item, 100
r	taniumpy.object_types.metadata_list,101
•	taniumpy.object_types.object_list,101
requests, 109	taniumpy.object_types.object_list_types,
t	101
	taniumpy.object_types.options, 101
taniumpy,96	taniumpy.object_types.package_file, 101
taniumpy.object_types,97	taniumpy.object_types.package_file_list,
taniumpy.object_types.action,97	101
taniumpy.object_types.action_list,97 taniumpy.object_types.action_list_info, 97	<pre>taniumpy.object_types.package_file_status,</pre>
taniumpy.object_types.action_stop,97	<pre>taniumpy.object_types.package_file_status_list,</pre>
taniumpy.object_types.action_stop_list,	101
97	taniumpy.object_types.package_file_template, 101
taniumpy.object_types.all_objects,97 taniumpy.object_types.archived_question,	<pre>taniumpy.object_types.package_file_template_list</pre>
9/	taniumpy.object_types.package_spec, 102
taniumpy.object_types.archived_question_ 97	taniumpy.object_types.package_spec,102 _list, taniumpy.object_types.package_spec_list, 102
taniumpy.object_types.audit_data,97	taniumpy.object_types.parameter, 102
taniumpy.object_types.base,98	taniumpy.object_types.parameter_list,
taniumpy.object_types.cache_filter,99	102
taniumpy.object_types.cache_filter_list,	taniumpy.object_types.parse_job, 102
taniumpy.object_types.cache_info,99	taniumpy.object_types.parse_job_list,
taniumpy.object_types.cache_inio,99 taniumpy.object_types.client_count,99	102
taniumpy.object_types.client_count,99 taniumpy.object_types.client_status,99	taniumpy.object_types.parse_result,102
taniumpy.object_types.column,99	taniumpy.object_types.parse_result_group,
taniumpy.object types.column set.99	102

```
taniumpy.object_types.parse_result_grouptainstmpy.object_types.sensor_types, 107
                                          taniumpy.object_types.soap_error, 107
       102
taniumpy.object_types.parse_result_list, taniumpy.object_types.string_hint_list,
                                                107
taniumpy.object_types.permission_list,
                                         taniumpy.object_types.system_setting,
                                                 107
taniumpy.object_types.plugin, 103
                                          taniumpy.object_types.system_setting_list,
taniumpy.object_types.plugin_argument,
                                          taniumpy.object_types.system_status_aggregate,
taniumpy.object_types.plugin_argument_list,
                                                107
                                          taniumpy.object_types.system_status_list,
taniumpy.object_types.plugin_command_list,
                                                107
                                          taniumpy.object_types.upload_file, 107
                                          taniumpy.object_types.upload_file_list,
taniumpy.object_types.plugin_list, 103
taniumpy.object_types.plugin_schedule,
       103
                                          taniumpy.object_types.upload_file_status,
taniumpy.object_types.plugin_schedule_list,
                                                108
       103
                                          taniumpy.object_types.user, 108
taniumpy.object_types.plugin_sql, 104
                                          taniumpy.object_types.user_list, 108
taniumpy.object_types.plugin_sql_column, taniumpy.object_types.user_role, 108
                                          taniumpy.object_types.user_role_list,
taniumpy.object_types.plugin_sql_result,
       104
                                          taniumpy.object_types.version_aggregate,
taniumpy.object_types.question, 104
taniumpy.object_types.question_list,104 taniumpy.object_types.version_aggregate_list,
taniumpy.object_types.question_list_info,
       104
                                          taniumpy.object_types.white_listed_url,
taniumpy.object_types.result_info, 104
taniumpy.object_types.result_set, 104
                                          taniumpy.object_types.white_listed_url_list,
taniumpy.object_types.row, 105
                                                108
taniumpy.object_types.saved_action, 105
                                          taniumpy.object_types.xml_error, 109
taniumpy.object_types.saved_action_approtest_pytan_invalid_server_tests,92
                                          test_pytan_unit,92
taniumpy.object_types.saved_action_list, test_pytan_valid_server_tests, 87
                                          threaded http, 109
taniumpy.object_types.saved_action_policy,
taniumpy.object_types.saved_action_row_idmltsdict, 110
taniumpy.object_types.saved_question,
taniumpy.object_types.saved_question_list,
taniumpy.object_types.select, 106
taniumpy.object_types.select_list, 106
taniumpy.object_types.sensor, 106
taniumpy.object_types.sensor_list, 106
taniumpy.object_types.sensor_query, 106
taniumpy.object_types.sensor_query_list,
       106
taniumpy.object_types.sensor_subcolumn,
taniumpy.object_types.sensor_subcolumn_list,
       107
```

948 Python Module Index

Symbols	_derive_object_info() (pytan.pollers.ActionPoller
_author (in module pytan), 3 _copyright (in module pytan), 3 _license (in module pytan), 3	method), 54 _derive_object_info() (pytan.pollers.QuestionPoller method), 56
icense (in module pytan), 3version (in module pytan), 3 _add() (pytan.handler.Handler method), 7	_derive_package_spec() (pytan.pollers.ActionPoller method), 54
ask_manual() (pytan.handler.Handler method), 7 build_body() (pytan.sessions.Session method), 38	_derive_result_map() (pytan.pollers.ActionPoller method), 54
check_auth() (pytan.sessions.Session method), 38 check_sse_crash_prevention() (pytan.handler.Handler method), 9	_derive_status() (pytan.pollers.ActionPoller method), 54 _derive_stopped_flag() (pytan.pollers.ActionPoller method), 54
check_sse_empty_rs() (pytan.handler.Handler method),	_derive_target_group() (pytan.pollers.ActionPoller method), 54
check_sse_format_support() (pytan.handler.Handler method), 9	_derive_verify_enabled() (pytan.pollers.ActionPoller method), 54
check_sse_timing() (pytan.handler.Handler method), 10 check_sse_version() (pytan.handler.Handler method),	_export_class_BaseType() (pytan.handler.Handler method), 12
10	_export_class_ResultSet() (pytan.handler.Handler method), 13
clean_headers() (pytan.sessions.Session method), 38 create_add_object_body() (pytan.sessions.Session method), 38	_export_format_csv() (pytan.handler.Handler method),
create_delete_object_body() (pytan.sessions.Session method), 39	_export_format_json() (pytan.handler.Handler method), 13
create_get_object_body() (pytan.sessions.Session method), 39	_export_format_xml() (pytan.handler.Handler method), 13
create_get_result_data_body() (pytan.sessions.Session method), 39	_extract_resultxml() (pytan.sessions.Session method), 40 _find() (pytan.handler.Handler method), 13
create_get_result_info_body() (pytan.sessions.Session method), 39	_find_stat_target() (pytan.sessions.Session method), 40 _fix_group() (pytan.pollers.ActionPoller method), 54
create_run_plugin_object_body() (py-tan.sessions.Session method), 39	_flatten_server_info() (pytan.sessions.Session method), 40
create_update_object_body() (pytan.sessions.Session method), 40	_full_url() (pytan.sessions.Session method), 41 _get_multi() (pytan.handler.Handler method), 14
debug_locals() (pytan.handler.Handler method), 10 debug_locals() (pytan.pollers.QuestionPoller method), 56	_get_package_def() (pytan.handler.Handler method), 14 _get_percentage() (pytan.sessions.Session method), 41 _get_response() (pytan.sessions.Session method), 41
debug_locals() (pytan.sessions.Session method), 40	_get_sensor_defs() (pytan.handler.Handler method), 14
_deploy_action() (pytan.handler.Handler method), 10	_get_single() (pytan.handler.Handler method), 14
derive_attribute() (pytan.pollers.QuestionPoller	_http_get() (pytan.sessions.Session method), 42
method), 56	_http_post() (pytan.sessions.Session method), 43
derive_expiration() (pytan.pollers.QuestionPoller method), 56	_invalid_server_version() (pytan.sessions.Session method), 44

_post_init() (pytan.pollers.ActionPoller method), 54 _post_init() (pytan.pollers.QuestionPoller method), 56 _post_init() (pytan.pollers.SSEPoller method), 58	ask_saved() (pytan.handler.Handler method), 20 AuditData (class in taniumpy.object_types.audit_data), 97
_refetch_obj() (pytan.pollers.QuestionPoller method), 56	AUTH_CONNECT_TIMEOUT_SEC (py-
_regex_body_for_element() (pytan.sessions.Session	tan.sessions.Session attribute), 36
method), 44	AUTH_FAIL_CODES (pytan.sessions.Session attribute),
_replace_auth() (pytan.sessions.Session method), 45	36
_resolve_sse_format() (pytan.handler.Handler method),	AUTH_RES (pytan.sessions.Session attribute), 36
14	AUTH_RESPONSE_TIMEOUT_SEC (py-
_resolve_stat_target() (pytan.sessions.Session method),	tan.sessions.Session attribute), 36
45	authenticate() (pytan.sessions.Session method), 46
_single_find() (pytan.handler.Handler method), 14	AuthorizationError, 84
_start_stats_thread() (pytan.sessions.Session method), 45	В
_stats_loop() (pytan.sessions.Session method), 45	
_stop (pytan.pollers.QuestionPoller attribute), 57 _version_support_check() (pytan.handler.Handler	BAD_RESPONSE_CMD_PRUNES (py-
method), 15	tan.sessions.Session attribute), 37 BAD_SERVER_VERSIONS (pytan.sessions.Session at-
method), 13	tribute), 37
A	BadResponseError, 84
Action (class in taniumpy.object_types.action), 97	BaseType (class in taniumpy.object_types.base), 98
ACTION_DONE_KEY (pytan.pollers.ActionPoller at-	build_group_obj() (in module pytan.utils), 61
tribute), 53	build_manual_q() (in module pytan.utils), 62
ActionList (class in taniumpy.object_types.action_list),	build_metadatalist_obj() (in module pytan.utils), 62
97	build_param_obj() (in module pytan.utils), 62
ActionListInfo (class in tani-	build_param_objlist() (in module pytan.utils), 62
umpy.object_types.action_list_info), 97	build_selectlist_obj() (in module pytan.utils), 63
ActionPoller (class in pytan.pollers), 53	0
ActionStop (class in taniumpy.object_types.action_stop),	C
97	CacheFilter (class in taniumpy.object_types.cache_filter),
ActionStopList (class in tani-	99
umpy.object_types.action_stop_list), 97	CacheFilterList (class in tani-
add() (pytan.sessions.Session method), 45	umpy.object_types.cache_filter_list), 99
add_ask_report_argparser() (in module py-tan.binsupport), 75	CacheInfo (class in taniumpy.object_types.cache_info), 99
add_file_log() (in module pytan.binsupport), 75	calc_percent() (in module pytan.utils), 63
add_get_object_report_argparser() (in module py-	calculate_question_start_time() (in module pytan.utils),
tan.binsupport), 75 add_report_file_options() (in module pytan.binsupport),	63
75	change_console_format() (in module pytan.utils), 63 check_dictkey() (in module pytan.utils), 64
ALL_REQUESTS_RESPONSES (py-	check_for_help() (in module pytan.utils), 64
tan.sessions.Session attribute), 36	chew_csv() (in module test_pytan_valid_server_tests), 91
append() (taniumpy.object_types.base.BaseType	chk_def_key() (in module pytan.utils), 64
method), 98	clean_kwargs() (in module pytan.utils), 64
apply_options_obj() (in module pytan.utils), 61	ClientCount (class in tani-
approve_saved_action() (pytan.handler.Handler method),	umpy.object_types.client_count), 99
15	ClientStatus (class in tani-
ArchivedQuestion (class in tani-	umpy.object_types.client_status), 99
umpy.object_types.archived_question), 97	Column (class in taniumpy.object_types.column), 99
ArchivedQuestionList (class in tani-	ColumnSet (class in taniumpy.object_types.column_set),
umpy.object_types.archived_question_list),	99
97 ask ( (nutan handlar Handlar mathod) 15	COMPLETE_PCT_DEFAULT (py-
ask() (pytan.handler.Handler method), 15 ask_manual() (pytan.handler.Handler method), 15	tan.pollers.ActionPoller attribute), 53
ask_parsed() (pytan.handler.Handler method), 18	COMPLETE_PCT_DEFAULT (py-tan.pollers.OuestionPoller attribute), 56
and particular (p) minimulator intended), 10	tan.poners.Ouestionfoner allitudes. Ju

ComputerGroup	(class	in	tani-	E	
	_types.computer	r_group), 99		ELEMENT_RE_TXT (pytan.sessions.Session attri	bute),
ComputerGroupList	(class	in	tani-	37	,,
	_types.computer	r_group_list),		emit() (pytan.utils.SplitStreamHandler method), 61	
100				empty_obj() (in module pytan.utils), 66	
ComputerGroupSpec	(class	in	tani-	ENABLE_LOGGING (threaded_http.CustomHTTF	Handler
	_types.computer	r_group_spec)	),	attribute), 110	
100	. 1			enable_stats_loop() (pytan.sessions.Session method	
ComputerSpecList	(class	in	tani-	error() (pytan.binsupport.CustomArgParse method).	
	_types.computer	r_spec_list),		ErrorList (class in taniumpy.object_types.error_list)	, 100
100	mutan utila) 64			eval_timing() (in module pytan.utils), 66	
<pre>copy_obj() (in module copy_package_obj_for</pre>			ıtila)	EXPIRATION_ATTR (pytan.pollers.ActionPoller	at-
65	_action() (iii ii	iodule pytali.t	au18),	tribute), 53	
create_dashboard() (py	rtan handler Har	ndler method)	22	EXPIRATION_ATTR (pytan.pollers.QuestionPolle	er at-
create_from_json() (py				tribute), 56	,
create_group() (pytan.h			, 22	EXPIRY_FALLBACK_SECS	(py-
create_package() (pyta			3	tan.pollers.QuestionPoller attribute), 56	т
create_report_file() (py				explode_json() (taniumpy.object_types.base.Base	erype
create_sensor() (pytan.			,	method), 98 export_id (pytan.pollers.SSEPoller attribute), 58	
create_user() (pytan.ha				EXPORT_MAPS (in module pytan.constants), 59	
create_whitelisted_url(			hod),	export_obj() (pytan.handler.Handler method), 29	
26	, <b>1</b> ,		,,	export_to_report_file() (pytan.handler.Handler me	thod)
csvdictwriter() (in mod	lule pytan.binsu	ipport), 75		30	inou),
CustomArgFormat (cla	ss in pytan.bins	support), 75		extract_filter() (in module pytan.utils), 66	
CustomArgParse (class	in pytan.binsu	pport), 75		extract_options() (in module pytan.utils), 67	
CustomHTTPHandler	(class in threade	ed_http), 109		extract_params() (in module pytan.utils), 67	
				=1	
Ъ				extract_selector() (in module pytan.utils), 67	
D					
data() (in module ddt),				extract_selector() (in module pytan.utils), 67	
data() (in module ddt), datetime_to_timestr() (		n.utils), 65		F file_data() (in module ddt), 112	
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111	in module pytar	n.utils), 65		File_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100	
data() (in module ddt), datetime_to_timestr() (ddt (module), 111 ddt() (in module ddt), 1	in module pytai			File_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76	
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (in	in module pytan 111 n module pytan.	constants), 59		F file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59	
data() (in module ddt), datetime_to_timestr() (ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (in debug_list() (in module	(in module pytan 111 n module pytan. e pytan.binsupp	constants), 59 ort), 76		F file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59	
data() (in module ddt), datetime_to_timestr() (ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (ir debug_list() (in module debug_obj() (in module	(in module pytan 111 n module pytan. e pytan.binsupp e pytan.binsupp	constants), 59 ort), 76 oort), 76		Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76	
data() (in module ddt), datetime_to_timestr() (ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module DEFAULT_REPLACE	in module pytan module pytan. pytan.binsupp pytan.binsupp MENT (in	constants), 59 ort), 76	ру-	F file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.binsupport), 76 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport)	
data() (in module ddt), datetime_to_timestr() (ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea	(in module pytan. n module pytan. e pytan.binsupp e pytan.binsupp EMENT (in n), 86	constants), 59 ort), 76 oort), 76		Filter_(class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list)	
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (ir debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError,	(in module pytan. n module pytan. e pytan.binsupp e pytan.binsupp EMENT (in n), 86	constants), 59 ort), 76 oort), 76 module		file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48	, 100
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (ir debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package()	(in module pytan.)  n module pytan. e pytan.binsupp e pytan.binsupp MENT (in n), 86 84 0 (in module pytan.)	constants), 59 ort), 76 oort), 76 module	ру-	Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_so	, 100
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_	in module pytan. In module pytan. In module pytan. In pytan.binsupp In pyt	constants), 59 ort), 76 oort), 76 module tan.utils), 65 dule pytan.utils	py- s), 65	Filter_(class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_list (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action method), 54	, 100 Poller
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_	in module pytan. In module pytan. In module pytan. In pytan.binsupp In pyt	constants), 59 ort), 76 oort), 76 module tan.utils), 65 dule pytan.utils	py- s), 65	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action	, 100 Poller
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ 65	in module pytan. in module pytan. in module pytan. in pytan.binsuppe in pytan.binsuppe in pytan.binsuppe in module pytan.	constants), 59 ort), 76 oort), 76 module tan.utils), 65 dule pytan.utils	py- s), 65	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_isourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98	, 100 Poller eType
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ 65 dehumanize_sensors()	in module pytan. in module pytan. in module pytan. in pytan.binsuppe in pytan.binsuppe in module pytan.	constants), 59 ort), 76 ort), 76 module tan.utils), 65 dule pytan.utils nodule pytan.utils	py- s), 65	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_isourced_sensors() (in module pytan.binsupport FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_method), 98	, 100 Poller eType
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ 65 dehumanize_sensors() delete() (pytan.handler.	in module pytan. in module pytan. in module pytan. in pytan.binsuppe in pytan.binsuppe in module pytan.	constants), 59 ort), 76 ort), 76 module tan.utils), 65 dule pytan.utils nodule pytan.utils an.utils), 66 d), 26	py- s), 65	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_list (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_static method), 98	, 100 Poller eType eType
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ 65 dehumanize_sensors()	in module pytan. in module pytan. in module pytan. in pytan.binsuppe in pytan.binsuppe in module pytan. in module methor in m	constants), 59 ort), 76 ort), 76 module tan.utils), 65 dule pytan.utils nodule pytan.utils an.utils), 66 d), 26 od), 47	py- s), 65 utils),	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action method), 54 flatten_jsonable() (taniumpy.object_types.base.Base method), 98 from_jsonable() (taniumpy.object_types.base.Base static method), 98 fromSOAPBody()	, 100 Poller eType eType (tani-
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ 65 dehumanize_sensors() delete() (pytan.handler. delete() (pytan.sessions	in module pytan. in module pytan. in module pytan. in pytan.binsuppe in pytan.binsuppe in pytan.binsuppe in pytan.binsuppe in module pytan.	constants), 59 ort), 76 ort), 76 module tan.utils), 65 dule pytan.utils nodule pytan.utils an.utils), 66 d), 26 od), 47 ndler method),	py- s), 65 utils),	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_static method), 98 fromSOAPBody() umpy.object_types.base.BaseType	, 100 Poller eType eType
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ debumanize_sensors() delete() (pytan.handler. delete() (pytan.sessions delete_dashboard() (py	in module pytan. In module pytan. In module pytan. In module pytan. In pytan.binsuppe IMENT (in In), 86 In module pytan.	constants), 59 ort), 76 ort), 76 module tan.utils), 65 dule pytan.utils nodule pytan.utils an.utils), 66 d), 26 od), 47 ndler method), er method), 27	py- s), 65 utils),	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_static method), 98 fromSOAPBody()     umpy.object_types.base.BaseType method), 98	Poller eType eType (taniclass
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ 65 dehumanize_sensors() delete() (pytan.handler delete() (pytan.sessions delete_dashboard() (py deploy_action() (pytan.	in module pytan.  In module pytan.  pytan.binsuppe pytan.binsuppe MENT (in n), 86  (in module pyt filters() (in mod options() (in m (in module pyta .Handler metho s.Session metho rtan.handler.Handle ) (in module pyta	constants), 59 ort), 76 ort), 76 module tan.utils), 65 dule pytan.utils nodule pytan.utils an.utils), 66 d), 26 od), 47 ndler method), er method), 27 tan.utils), 66	py- s), 65 utils),	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_static method), 98 fromSOAPBody()     umpy.object_types.base.BaseType method), 98 fromSOAPElement()	, 100 Poller eType eType (tani-
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ 65 dehumanize_sensors() delete() (pytan.handler. delete() (pytan.sessions delete_dashboard() (pytanlerive_param_default() disable_stats_loop() (p	in module pytan.  In module pytan.  pytan.binsuppe pytan.binsuppe MENT (in n), 86  (in module pyt filters() (in mod options() (in m (in module pyta .Handler metho s.Session metho rtan.handler.Handle ) (in module pyta	constants), 59 ort), 76 ort), 76 module tan.utils), 65 dule pytan.utils nodule pytan.utils an.utils), 66 d), 26 od), 47 ndler method), er method), 27 tan.utils), 66 ession method	py- s), 65 utils),	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_static method), 98 fromSOAPBody()     umpy.object_types.base.BaseType method), 98	Poller eType eType (taniclass (taniclass)
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ dehumanize_sensors() delete() (pytan.handler, delete() (pytan.sessions, delete_dashboard() (py deploy_action() (pytan derive_param_default() disable_stats_loop() (p do_GET() (th method), 110	in module pytan. in module pytan. in module pytan. in pytan.binsuppe in pytan.binsuppe in module pytan. in module methor itan.handler. in module pytan.	constants), 59 ort), 76 ort), 76 module  tan.utils), 65 dule pytan.utils nodule pytan.utils an.utils), 66 d), 26 od), 47 ndler method), er method), er method), 27 tan.utils), 66 ession method stomHTTPHa	py- s), 65 utils), 27	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_static method), 98 fromSOAPBody()     umpy.object_types.base.BaseType     method), 98 fromSOAPElement()     umpy.object_types.base.BaseType	Poller eType eType (taniclass (taniclass)
data() (in module ddt), datetime_to_timestr() ( ddt (module), 111 ddt() (in module ddt), 1 DEBUG_FORMAT (in debug_list() (in module debug_obj() (in module debug_obj() (in module DEFAULT_REPLACE tan.xml_clea DefinitionParserError, dehumanize_package() dehumanize_question_ dehumanize_question_ dehumanize_sensors() delete() (pytan.handler, delete() (pytan.sessions, delete_dashboard() (py deploy_action() (pytan derive_param_default() disable_stats_loop() (p do_GET() (th method), 110	in module pytan. in module pytan. in module pytan. in pytan.binsuppe in pytan.binsuppe in pytan.binsuppe in pytan.binsuppe in module pytan.	constants), 59 ort), 76 ort), 76 module  tan.utils), 65 dule pytan.utils nodule pytan.utils an.utils), 66 d), 26 od), 47 ndler method), er method), er method), 27 tan.utils), 66 ession method stomHTTPHa	py- s), 65 utils), 27	file_data() (in module ddt), 112 Filter (class in taniumpy.object_types.filter), 100 filter_filename() (in module pytan.binsupport), 76 FILTER_MAPS (in module pytan.constants), 59 FILTER_RE (in module pytan.constants), 59 filter_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport), 76 filter_sourced_sensors() (in module pytan.binsupport) FilterList (class in taniumpy.object_types.filter_list) find() (pytan.sessions.Session method), 48 finished_eq_passed_loop() (pytan.pollers.Action_method), 54 flatten_jsonable() (taniumpy.object_types.base.Base_method), 98 from_jsonable() (taniumpy.object_types.base.Base_static method), 98 fromSOAPBody()	Poller eType eType (taniclass (taniclass

fromSOAPElement() (tani- umpy.object_types.column_set.ColumnSet class method), 99	handler (pytan.pollers.QuestionPoller attribute), 57 HANDLER_ARG_DEFAULTS (in module pytan.constants), 60
fromSOAPElement() (tani-	HandlerError, 84
umpy.object_types.result_info.ResultInfo	HistoryConsole (class in pytan.binsupport), 75
class method), 104	host (pytan.sessions.Session attribute), 49
fromSOAPElement() (tani-	HTTP_AUTH_RETRY (pytan.sessions.Session at-
umpy.object_types.result_set.ResultSet class	tribute), 37
method), 104	HTTP_DEBUG (pytan.sessions.Session attribute), 37
fromSOAPElement() (taniumpy.object_types.row.Row	http_get() (pytan.sessions.Session method), 49
class method), 105	http_post() (pytan.sessions.Session method), 50
func_timing() (in module pytan.utils), 67	HTTP_RETRY_COUNT (pytan.sessions.Session at-
$\sim$	tribute), 37
G	HttpError, 85
get() (pytan.handler.Handler method), 32	human_time() (in module pytan.utils), 69
get_all() (pytan.handler.Handler method), 33	HumanParserError, 85
get_all_headers() (in module pytan.binsupport), 76	
get_all_loggers() (in module pytan.utils), 67	
get_all_pytan_loggers() (in module pytan.utils), 67	import_readline() (pytan.binsupport.HistoryConsole
get_dashboards() (pytan.handler.Handler method), 33	method), 75
	IncorrectTypeException, 98
get_dict_list_len() (in module pytan.utils), 67	INFO_CONNECT_TIMEOUT_SEC (py-
get_filter_obj() (in module pytan.utils), 68	tan.sessions.Session attribute), 37
get_grp_opts() (in module pytan.binsupport), 76	INFO_FORMAT (in module pytan.constants), 60
get_kwargs_int() (in module pytan.utils), 68	_ · · · · · · · · · · · · · · · · · · ·
get_now() (in module pytan.utils), 68	INFO_RES (pytan.sessions.Session attribute), 37
GET_OBJ_MAP (in module pytan.constants), 59	INFO_RESPONSE_TIMEOUT_SEC (py-
get_obj_map() (in module pytan.utils), 68	tan.sessions.Session attribute), 37
get_obj_params() (in module pytan.utils), 68	input_prompts() (in module pytan.binsupport), 76
get_percentage() (in module pytan.utils), 69	introspect() (in module pytan.binsupport), 76
get_q_obj_map() (in module pytan.utils), 69	INVALID_UNICODE_RAW_RE (in module py-
get_result_data() (pytan.handler.Handler method), 33	tan.xml_clean), 86
<pre>get_result_data() (pytan.pollers.QuestionPoller method),</pre>	INVALID_UNICODE_RE (in module pytan.xml_clean),
57	86
get_result_data() (pytan.sessions.Session method), 48	InvalidServerTests (class in
get_result_data_sse() (pytan.handler.Handler method), 33	test_pytan_invalid_server_tests), 92
get_result_data_sse() (pytan.sessions.Session method),	is_auth (pytan.sessions.Session attribute), 51
48	is_dict() (in module pytan.utils), 69
get_result_info() (pytan.handler.Handler method), 34	is_hash_randomized() (in module ddt), 112
get_result_info() (pytan.pollers.QuestionPoller method),	is_list() (in module pytan.utils), 69
57	is_num() (in module pytan.utils), 69
get_result_info() (pytan.sessions.Session method), 48	is_str() (in module pytan.utils), 69
	is_sit() (in module pytan.utils), 0)
get_server_info() (pytan.sessions.Session method), 48	J
get_server_stats() (pytan.sessions.Session method), 49	
get_server_version() (pytan.handler.Handler method), 35	jsonify() (in module pytan.utils), 69
get_server_version() (pytan.sessions.Session method), 49	1
get_sse_data() (pytan.pollers.SSEPoller method), 59	L
get_sse_status() (pytan.pollers.SSEPoller method), 59	LAST_REQUESTS_RESPONSE (py-
get_taniumpy_obj() (in module pytan.utils), 69	tan.sessions.Session attribute), 37
Group (class in taniumpy.object_types.group), 100	LAST_RESPONSE_INFO (pytan.sessions.Session at-
GroupList (class in taniumpy.object_types.group_list),	tribute), 37
100	load_param_json_file() (in module pytan.utils), 70
Н	load_taniumpy_from_json() (in module pytan.utils), 70
	LOG_LEVEL_MAPS (in module pytan.constants), 60
Handler (class in pytan.handler), 3	•

log_message() (threaded_http.CustomHTTPHandler method), 110	PARAM_DELIM (in module pytan.constants), 60 PARAM_KEY_SPLIT (in module pytan.constants), 60
log_session_communication() (in module pytan.utils), 70 logout() (pytan.sessions.Session method), 52	PARAM_RE (in module pytan.constants), 60 PARAM_SPLIT_RE (in module pytan.constants), 60
logout() (pytan.sessions.session method), 32	Parameter (class in taniumpy.object_types.parameter),
M	102
map_filter() (in module pytan.utils), 70	ParameterList (class in tani-
map_option() (in module pytan.utils), 70	umpy.object_types.parameter_list), 102
map_options() (in module pytam.utils), 70	parse() (in module xmltodict), 110
MetadataItem (class in tani-	parse_defs() (in module pytan.utils), 71
umpy.object_types.metadata_item), 100	parse_query() (pytan.handler.Handler method), 35
MetadataList (class in tani-	parse_sensor_platforms() (in module pytan.binsupport),
umpy.object_types.metadata_list), 101	76
mk_test_name() (in module ddt), 112	parse_versioning() (in module pytan.utils), 71
<u></u>	ParseJob (class in taniumpy.object_types.parse_job), 102
N	ParseJobList (class in tani-
NotFoundError, 85	umpy.object_types.parse_job_list), 102
Noti ounderroi, 65	ParseResult (class in tani-
0	umpy.object_types.parse_result), 102
obj (pytan.pollers.QuestionPoller attribute), 57	ParseResultGroup (class in tani-
OBJECT_TYPE (pytan.pollers.ActionPoller attribute), 53	umpy.object_types.parse_result_group), 102
OBJECT_TYPE (pytan.pollers.QuestionPoller attribute),	ParseResultGroupList (class in tani-
56	umpy.object_types.parse_result_group_list), 102
ObjectList (class in taniumpy.object_types.object_list),	ParseResultList (class in tani-
101	umpy.object_types.parse_result_list), 103
OPTION_MAPS (in module pytan.constants), 60	passed_eq_est_total_loop() (pytan.pollers.QuestionPoller
OPTION_RE (in module pytan.constants), 60	method), 57
Options (class in taniumpy.object_types.options), 101	PermissionList (class in tani-
OVERRIDE_TIMEOUT_SECS_DEFAULT (py-	umpy.object_types.permission_list), 103
tan.pollers.QuestionPoller attribute), 56	PickerError, 85
P	platform_is_6_5() (pytan.sessions.Session method), 52
	Plugin (class in taniumpy.object_types.plugin), 103
PackageFile (class in tani-	plugin_zip() (in module pytan.utils), 71
umpy.object_types.package_file), 101	PluginArgument (class in tani-
PackageFileList (class in tani-	umpy.object_types.plugin_argument), 103
umpy.object_types.package_file_list), 101 PackageFileStatus (class in tani-	PluginArgumentList (class in tani-
PackageFileStatus (class in tani- umpy.object_types.package_file_status),	umpy.object_types.plugin_argument_list),
101	103
PackageFileStatusList (class in tani-	PluginCommandList (class in tani-
umpy.object_types.package_file_status_list),	umpy.object_types.plugin_command_list),
101	103
PackageFileTemplate (class in tani-	PluginList (class in taniumpy.object_types.plugin_list),
umpy.object_types.package_file_template),	103
101	PluginSchedule (class in tani-
PackageFileTemplateList (class in tani-	umpy.object_types.plugin_schedule), 103
umpy.object_types.package_file_template_list),	PluginScheduleList (class in tani-
101	umpy.object_types.plugin_schedule_list), 103
PackageSpec (class in tani-	PluginSql (class in taniumpy.object_types.plugin_sql),
umpy.object_types.package_spec), 102	104
PackageSpecList (class in tani-	PluginSqlColumn (class in tani-
umpy.object_types.package_spec_list), 102	umpy object types plugin sal column)

104	process_write_pytan_user_config_args() (in module py-
PluginSqlResult (class in tani-	tan.binsupport), 82
umpy.object_types.plugin_sql_result), 104	pytan (module), 3
POLLING_SECS_DEFAULT (py-	pytan.binsupport (module), 75
tan.pollers.QuestionPoller attribute), 56	pytan.constants (module), 59
POLLING_SECS_DEFAULT (pytan.pollers.SSEPoller	pytan.exceptions (module), 84
attribute), 58	pytan.handler (module), 3
PollingError, 85	pytan.pollers (module), 53
port (pytan.sessions.Session attribute), 52	pytan.sessions (module), 36
port_check() (in module pytan.utils), 71	pytan.utils (module), 61
<pre>print_help() (pytan.binsupport.CustomArgParse method),</pre>	pytan.xml_clean (module), 86
75	PYTAN_KEY (in module pytan.constants), 60
print_log_levels() (in module pytan.utils), 72	PYTAN_USER_CONFIG (in module pytan.constants),
print_obj() (in module pytan.binsupport), 76	61
process_approve_saved_action_args() (in module py-	PytanHelp, 85
tan.binsupport), 76 process_ask_manual_args() (in module py-	Q
tan.binsupport), 76	Q_OBJ_MAP (in module pytan.constants), 61
process_ask_parsed_args() (in module pytan.binsupport),	Question (class in taniumpy.object_types.question), 104
77	QuestionList (class in tani-
process_ask_saved_args() (in module pytan.binsupport),	umpy.object_types.question_list), 104
77	QuestionListInfo (class in tani-
process_create_group_args() (in module py-	umpy.object_types.question_list_info), 104
tan.binsupport), 77	QuestionPoller (class in pytan.pollers), 55
process_create_json_object_args() (in module py-	
tan.binsupport), 78	R
process_create_package_args() (in module py-tan.binsupport), 78	read_history() (pytan.binsupport.HistoryConsole method), 75
process_create_sensor_args() (in module py-tan.binsupport), 78	read_pytan_user_config() (pytan.handler.Handler
process_create_user_args() (in module pytan.binsupport),	method), 35 RECORD_ALL_REQUESTS (pytan.sessions.Session at-
78	tribute), 37
process_create_whitelisted_url_args() (in module py-	remove_file_log() (in module pytan.binsupport), 82
tan.binsupport), 79	remove_logging_handler() (in module pytan.utils), 72
process_delete_object_args() (in module py- tan.binsupport), 79	replace_invalid_unicode() (in module pytan.xml_clean), 86
process_deploy_action_args() (in module py-	replace_restricted_unicode() (in module py-
tan.binsupport), 79	tan.xml_clean), 86
<pre>process_get_object_args() (in module pytan.binsupport),</pre>	REQ_KWARGS (in module pytan.constants), 61
80	REQUEST_BODY_BASE (pytan.sessions.Session at-
process_get_results_args() (in module pytan.binsupport),	tribute), 37
80	requests (module), 109
process_get_saved_question_history_args() (in module	REQUESTS_SESSION (pytan.sessions.Session at-
pytan.binsupport), 80	tribute), 37
process_handler_args() (in module pytan.binsupport), 80	RESTRICTED_UNICODE_RAW_RE (in module py-
process_print_sensors_args() (in module py-	tan.xml_clean), 86
tan.binsupport), 81	RESTRICTED_UNICODE_RE (in module py-
process_print_server_info_args() (in module py-	tan.xml_clean), 86
tan.binsupport), 81	result_info (pytan.pollers.QuestionPoller attribute), 57
process_pytan_shell_args() (in module pytan.binsupport),	ResultInfo (class in taniumpy.object_types.result_info),
81	104
process_stop_action_args() (in module pytan.binsupport), 81	ResultSet (class in taniumpy.object_types.result_set), 104
process_tsat_args() (in module pytan.binsupport), 81	Row (class in taniumpy.object_types.row), 105
process_isat_args() (iii iiiouute pytan.oiiisupport), 01	run() (pytan.pollers.ActionPoller method), 54

run() (pytan.pollers.QuestionPoller method), 57 run() (pytan.pollers.SSEPoller method), 59	set_all_loglevels() (in module pytan.utils), 72 set_complect_pct() (pytan.pollers.QuestionPoller
run_callback() (pytan.pollers.QuestionPoller method), 58	method), 58
run_plugin() (pytan.handler.Handler method), 35	set_log_levels() (in module pytan.utils), 72
run_plugin() (pytan.sessions.Session method), 52	setup_approve_saved_action_argparser() (in module py-
RunFalse, 85	tan.binsupport), 82
RUNNING_STATUSES (pytan.pollers.ActionPoller at-	setup_ask_manual_argparser() (in module py-
tribute), 54	tan.binsupport), 82
110410), 51	setup_ask_parsed_argparser() (in module py-
S	tan.binsupport), 82
save() (pytan.sessions.Session method), 52	setup_ask_saved_argparser() (in module py-tan.binsupport), 82
SavedAction (class in tani-	
umpy.object_types.saved_action), 105	
SavedActionApproval (class in tani-	• • • • • • • • • • • • • • • • • • • •
umpy.object_types.saved_action_approval),	75
105	setup_autocomplete() (pytan.binsupport.HistoryConsole
SavedActionList (class in tani-	method), 75
umpy.object_types.saved_action_list), 105	setup_console_logging() (in module pytan.utils), 72
SavedActionPolicy (class in tani-	setup_create_group_argparser() (in module py-
umpy.object_types.saved_action_policy),	tan.binsupport), 82
105	setup_create_json_object_argparser() (in module py-
SavedActionRowIdList (class in tani-	tan.binsupport), 82
umpy.object_types.saved_action_row_id_list),	setup_create_package_argparser() (in module py-
105	tan.binsupport), 82
SavedQuestion (class in tani-	setup_create_sensor_argparser() (in module py-
umpy.object_types.saved_question), 106	tan.binsupport), 83
SavedQuestionList (class in tani-	setup_create_user_argparser() (in module py-
umpy.object_types.saved_question_list),	tan.binsupport), 83
106	setup_create_whitelisted_url_argparser() (in module py-
seconds_from_now() (in module pytan.utils), 72	tan.binsupport), 83
seen_eq_passed_loop() (pytan.pollers.ActionPoller	setup_delete_object_argparser() (in module py-
method), 55	tan.binsupport), 83
Select (class in taniumpy.object_types.select), 106	setup_deploy_action_argparser() (in module py-
SelectList (class in taniumpy.object_types.select_list),	tan.binsupport), 83
106	setup_get_object_argparser() (in module py-
SELECTORS (in module pytan.constants), 61	tan.binsupport), 83
Sensor (class in taniumpy.object_types.sensor), 106	setup_get_results_argparser() (in module py-
SENSOR_TYPE_MAP (in module pytan.constants), 61	tan.binsupport), 83
SensorList (class in taniumpy.object_types.sensor_list),	setup_get_saved_question_history_argparser() (in mod-
106	ule pytan.binsupport), 83
SensorQuery (class in tani-	setup_logging() (pytan.pollers.QuestionPoller method),
- · ·	58
umpy.object_types.sensor_query), 106 SensorQueryList (class in tani-	setup_logging() (pytan.sessions.Session method), 53
- ·	setup_parent_parser() (in module pytan.binsupport), 83
umpy.object_types.sensor_query_list), 106	setup_parser() (in module pytan.binsupport), 83
SensorSubcolumn (class in tani-	setup_print_sensors_argparser() (in module py-
umpy.object_types.sensor_subcolumn), 106	tan.binsupport), 84
SensorSubcolumnList (class in tani-	
umpy.object_types.sensor_subcolumn_list),	
107	tan.binsupport), 84
server_version (pytan.sessions.Session attribute), 52	setup_pytan_shell_argparser() (in module py-
ServerParseError, 85	tan.binsupport), 84
ServerSideExportError, 85	setup_stop_action_argparser() (in module py-
Session (class in pytan.sessions), 36	tan.binsupport), 84
session_id (pytan.sessions.Session attribute), 52	

setup_test() (test_pytan_valid_server_tests.ValidServerTest	sT
method), 88	taniumpy (module), 96
setup_tsat_argparser() (in module pytan.binsupport), 84	taniumpy.object_types (module), 97
setup_write_pytan_user_config_argparser() (in module	taniumpy.object_types.action (module), 97
pytan.binsupport), 84	taniumny object types action list (module) 07
setUpClass() (test_pytan_invalid_server_tests.InvalidServer	Tantumpy.object_types.action_list_info (module), 97
class method), 92	taniumpy.object_types.action_stop (module), 97
$set Up Class() \ (test\_pytan\_unit. Test Manual Build Object Utils$	taniumpy.object_types.action_stop_list (module), 97
class method), 94	taniumpy.object_types.all_objects (module), 97
setUpClass() (test_pytan_valid_server_tests.ValidServerTest	Staniumpy.object_types.archived_question (module), 97
class method), 88	taniumpy.object_types.archived_question_list (module),
shrink_obj() (in module pytan.utils), 72	97
SOAP_CONNECT_TIMEOUT_SEC (py-	taniumpy.object_types.audit_data (module), 97
tan.sessions.Session attribute), 37	taniumpy.object_types.base (module), 98
SOAP_REQUEST_HEADERS (pytan.sessions.Session	taniumpy.object_types.cache_filter (module), 99
attribute), 37	taniumpy.object_types.cache_filter_list (module), 99
SOAP_RES (pytan.sessions.Session attribute), 37	taniumpy.object_types.cache_info (module), 99
SOAP_RESPONSE_TIMEOUT_SEC (py-	taniumpy.object_types.client_count (module), 99
tan.sessions.Session attribute), 37	taniumpy.object_types.client_status (module), 99
SoapError (class in taniumpy.object_types.soap_error), 107	taniumpy.object_types.column (module), 99
	taniumpy.object_types.column_set (module), 99
spew() (in module pytan.utils), 72 spew() (in module test_pytan_invalid_server_tests), 92	taniumpy.object_types.computer_group (module), 99
spew() (in module test_pytan_invalid_server_tests), 91	taniumpy.object_types.computer_group_list (module),
SplitStreamHandler (class in pytan.utils), 61	100
SSE_CRASH_MAP (in module pytan.constants), 61	taniumpy.object_types.computer_group_spec (module),
SSE_FORMAT_MAP (in module pytan.constants), 61	100
SSE_RESTRICT_MAP (in module pytan.constants), 61	taniumpy.object_types.computer_spec_list (module), 100
sse_status_has_completed_loop() (py-	taniumpy.object_types.error_list (module), 100
tan.pollers.SSEPoller method), 59	taniumpy.object_types.filter (module), 100
SSEPoller (class in pytan.pollers), 58	taniumpy.object_types.filter_list (module), 100
STATS_LOOP_ENABLED (pytan.sessions.Session at-	taniumpy.object_types.group (module), 100 taniumpy.object_types.group_list (module), 100
tribute), 37	taniumpy.object_types.group_nst (module), 100 taniumpy.object_types.metadata_item (module), 100
STATS_LOOP_SLEEP_SEC (pytan.sessions.Session at-	taniumpy.object_types.metadata_list (module), 100 taniumpy.object_types.metadata_list (module), 101
tribute), 37	taniumpy.object_types.object_list (module), 101
STATS_LOOP_TARGETS (pytan.sessions.Session at-	taniumpy.object_types.object_list_types (module), 101
tribute), 38	taniumpy.object_types.object_nst_types (module), 101
stop() (pytan.pollers.QuestionPoller method), 58	taniumpy.object_types.package_file (module), 101
stop_action() (pytan.handler.Handler method), 35	taniumpy.object_types.package_file_list (module), 101
STR_ATTRS (pytan.pollers.QuestionPoller attribute), 56	taniumpy.object_types.package_file_status (module), 101
STR_ATTRS (pytan.pollers.SSEPoller attribute), 58	taniumpy.object_types.package_file_status_list (module),
StringHintList (class in tani-	101
umpy.object_types.string_hint_list), 107	taniumpy.object_types.package_file_template (module),
SystemSetting (class in tani-	101
umpy.object_types.system_setting), 107	taniumpy.object_types.package_file_template_list (mod-
SystemSettingList (class in tani-	ule), 101
umpy.object_types.system_setting_list),	taniumpy.object_types.package_spec (module), 102
107	taniumpy.object_types.package_spec_list (module), 102
SystemStatusAggregate (class in tani-	taniumpy.object_types.parameter (module), 102
umpy.object_types.system_status_aggregate),	taniumpy.object_types.parameter_list (module), 102
107	taniumpy.object_types.parse_job (module), 102
SystemStatusList (class in tani-	taniumpy.object_types.parse_job_list (module), 102
umpy.object_types.system_status_list), 107	taniumpy.object_types.parse_result (module), 102
	taniumpy.object types.parse result group (module), 102

taniumpy.object_types.user_list (module), 108 taniumpy.object_types.user_role (module), 108 taniumpy.object_types.user_role_list (module), 108 taniumpy.object_types.version_aggregate (module), 108 taniumpy.object_types.version_aggregate_list (module),
taniumpy.object_types.user_role_list (module), 108 taniumpy.object_types.version_aggregate (module), 108 taniumpy.object_types.version_aggregate_list (module),
taniumpy.object_types.version_aggregate (module), 108 taniumpy.object_types.version_aggregate_list (module),
taniumpy.object_types.version_aggregate_list (module),
100
108
taniumpy.object_types.white_listed_url (module), 108
taniumpy.object_types.white_listed_url_list (module),
108
taniumpy.object_types.xml_error (module), 109
tearDownClass() (test_pytan_valid_server_tests. ValidServerTests
class method), 88
test_app_port() (in module pytan.utils), 73
test_bad_chars_basetype_control()
(test_pytan_unit.TestDeserializeBadXML
method), 93
test_bad_chars_resultset_latin1()
(test_pytan_unit.TestDeserializeBadXML
method), 93
test_bad_chars_resultset_surrogate()
(test_pytan_unit.TestDeserializeBadXML
method), 94
test_build_group_obj() (test_pytan_unit.TestManualBuildObjectUtils
method), 94
test_build_manual_q() (test_pytan_unit.TestManualBuildObjectUtils
method), 94
test_build_selectlist_obj_invalid_filter()
(feet nytan jinit leetManjialRijild()hjeetHtile
(test_pytan_unit.TestManualBuildObjectUtils
method), 94
method), 94 test_build_selectlist_obj_missing_value()
method), 94 test_build_selectlist_obj_missing_value() (test_pytan_unit.TestManualBuildObjectUtils
method), 94 test_build_selectlist_obj_missing_value()     (test_pytan_unit.TestManualBuildObjectUtils     method), 95
method), 94  test_build_selectlist_obj_missing_value()

```
test_empty_obj()
                       (test pytan unit.TestGenericUtils test get obj map()
                                                                                 (test_pytan_unit.TestGenericUtils
                                                                   method), 94
         method), 94
test empty optionlist() (test pytan unit.TestDehumanizeQutestiont@ptiont@tithap() (test pytan unit.TestGenericUtils
         method), 93
                                                                   method), 94
test_empty_optionstr() (test_pytan_unit.TestDehumanizeQuestionOplidhUtilsst_pytan_unit.TestManualPackageDefValidateUtils
         method), 93
                                                                   method), 95
test extract filter invalid()
                                                         test invalid1()(test pytan unit.TestManualQuestionFilterDefValidateUtils
         (test pytan unit.TestDehumanizeExtractionUtils
                                                                   method), 95
         method), 92
                                                         test invalid1() (test pytan unit.TestManualSensorDefValidateUtils
test_extract_filter_nofilter()
                                                                   method), 96
         (test_pytan_unit.TestDehumanizeExtractionUtils test_invalid2() (test_pytan_unit.TestManualPackageDefValidateUtils
         method), 92
                                                                   method), 95
test_extract_filter_valid()
                                                         test_invalid2() (test_pytan_unit.TestManualSensorDefValidateUtils
         (test_pytan_unit.TestDehumanizeExtractionUtils
                                                                   method), 96
         method), 92
                                                         test_invalid3() (test_pytan_unit.TestManualSensorDefValidateUtils
test_extract_filter_valid_all()
                                                                   method), 96
         (test_pytan_unit.TestDehumanizeExtractionUtils_test_invalid4() (test_pytan_unit.TestManualSensorDefValidateUtils_
         method), 92
                                                                   method), 96
test extract options invalid option()
                                                         test invalid connect 1 bad username()
         (test pytan unit.TestDehumanizeExtractionUtils
                                                                   (test pytan invalid server tests.InvalidServerTests
         method), 92
                                                                   method), 92
test_extract_options_many()
                                                         test invalid connect 2 bad host and non ssl port()
         (test\_pytan\_unit.TestDehumanizeExtractionUtils
                                                                   (test_pytan_invalid_server_tests.InvalidServerTests
         method), 92
                                                                   method), 92
test_extract_options_missing_value_max_data_age()
                                                         test_invalid_connect_3_bad_password()
         (test pytan unit.TestDehumanizeExtractionUtils
                                                                   (test pytan invalid server tests.InvalidServerTests
         method), 92
                                                                   method), 92
test_extract_options_missing_value_value_type()
                                                         test_invalid_connect_4_bad_host_and_bad_port()
         (test\_pytan\_unit.TestDehumanizeExtractionUtils
                                                                   (test_pytan_invalid_server_tests.InvalidServerTests
         method), 92
                                                                   method), 92
test_extract_options_nooptions()
                                                         test_invalid_create_object_1_invalid_create_sensor()
         (test_pytan_unit.TestDehumanizeExtractionUtils
                                                                   (test_pytan_valid_server_tests.ValidServerTests
         method), 92
                                                                   method), 88
test_extract_options_single()
                                                         test_invalid_create_object_from_json_1_invalid_create_saved_action_from
                                                                   (test pytan valid server tests. ValidServerTests
         (test pytan unit.TestDehumanizeExtractionUtils
         method), 92
                                                                   method), 88
test extract params() (test pytan unit.TestDehumanizeExtractionWalks create object from json 2 invalid create client from json()
                                                                   (test_pytan_valid_server_tests.ValidServerTests
         method), 92
test_extract_params_missing_seperator()
                                                                   method), 88
         (test_pytan_unit.TestDehumanizeExtractionUtils test_invalid_create_object_from_json_3_invalid_create_userrole_from_json_3
                                                                   (test pytan valid server tests. ValidServerTests
         method), 92
                                                                   method), 88
test extract params multiparams()
         (test pytan unit.TestDehumanizeExtractionUtils test invalid create object from json 4 invalid create setting from json(
         method), 92
                                                                   (test_pytan_valid_server_tests.ValidServerTests
test_extract_params_noparams()
                                                                   method), 88
         (test_pytan_unit.TestDehumanizeExtractionUtils test_invalid_deploy_action_1_invalid_deploy_action_run_false()
         method), 92
                                                                   (test_pytan_valid_server_tests.ValidServerTests
test_extract_selector() (test_pytan_unit.TestDehumanizeExtractionUtihaethod), 88
                                                         test_invalid_deploy_action_2_invalid_deploy_action_package_help()
         method), 92
test_extract_selector_use_name_if_noselector()
                                                                   (test_pytan_valid_server_tests.ValidServerTests
         (test_pytan_unit.TestDehumanizeExtractionUtils
                                                                   method), 88
         method), 92
                                                         test_invalid_deploy_action_3_invalid_deploy_action_package()
                      (test pytan unit.TestGenericUtils
                                                                   (test pytan valid server tests. ValidServerTests
test_get_now()
         method), 94
                                                                   method), 88
```

```
test_invalid_deploy_action_4_invalid_deploy_action_optiontsesheilm(alid_get_object_1_invalid_get_action_single_by_name()
          (test pytan valid server tests. ValidServerTests
                                                                     (test pytan valid server tests. ValidServerTests
         method), 88
                                                                     method), 88
test_invalid_deploy_action_5_invalid_deploy_action_emptyteptackandtid_get_object_2_invalid_get_question_by_name()
          (test pytan valid server tests. ValidServerTests
                                                                     (test pytan valid server tests. ValidServerTests
         method), 88
                                                                     method), 88
test invalid deploy action 6 invalid deploy action filtersteatlp@valid option1() (test pytan unit.TestDehumanizeQuestionOptionUti
         (test pytan valid server tests. ValidServerTests
                                                                     method), 93
          method), 88
                                                           test invalid option2() (test pytan unit.TestDehumanizeQuestionOptionUti
test_invalid_deploy_action_7_invalid_deploy_action_missing_parameters(pd), 93
          (test_pytan_valid_server_tests.ValidServerTests test_invalid_port()
                                                                                  (test_pytan_unit.TestGenericUtils
         method), 88
                                                                     method), 94
test_invalid_export_basetype_1_invalid_export_basetype_cstestbadvabid_cale_stype()l_invalid_ask_manual_question_sensor_help()
         (test_pytan_valid_server_tests.ValidServerTests
                                                                     (test_pytan_valid_server_tests.ValidServerTests
          method), 88
                                                                     method), 88
test_invalid_export_basetype_2_invalid_export_basetype_cstestbadysbirt_qubstirype_(2_invalid_ask_manual_question_bad_filter()
                                                                     (test_pytan_valid_server_tests.ValidServerTests
          (test_pytan_valid_server_tests.ValidServerTests
          method), 88
                                                                     method), 88
test invalid export basetype 3 invalid export basetype cstestbardvalid typos(j)on 3 invalid ask manual question filter help()
          (test pytan valid server tests. ValidServerTests
                                                                     (test pytan valid server tests. ValidServerTests
         method), 88
                                                                     method), 88
test_invalid_export_basetype_4_invalid_export_basetype_xtektbiatvalhidp.iqmaktitype()_invalid_ask_manual_question_bad_option()
         (test\_pytan\_valid\_server\_tests.ValidServerTests
                                                                     (test_pytan_valid_server_tests.ValidServerTests
                                                                     method), 88
test_invalid_export_basetype_5_invalid_export_basetype_jstost_biandralind_lqude_stigne(5_invalid_ask_manual_question_missing_parameter_
         (test pytan valid server tests. ValidServerTests
                                                                     (test pytan valid server tests. ValidServerTests
         method), 88
                                                                     method), 89
test_invalid_export_basetype_6_invalid_export_basetype_jsterst_biandralextplequlesttippe_6_invalid_ask_manual_question_option_help()
         (test_pytan_valid_server_tests.ValidServerTests
                                                                     (test_pytan_valid_server_tests.ValidServerTests
          method), 88
                                                                     method), 89
test_invalid_export_basetype_7_invalid_export_basetype_backstforwalti()_question_7_invalid_ask_parsed_question_no_picker()
          (test_pytan_valid_server_tests.ValidServerTests
                                                                     (test pytan valid server tests. ValidServerTests
          method), 88
                                                                     method), 89
test_invalid_export_resultset_1_invalid_export_resultset_cstestainvsaliti_squbesttypn()8_invalid_ask_manual_question_too_many_parameter
                                                                     (test pytan valid server tests. ValidServerTests
          (test pytan valid server tests. ValidServerTests
         method), 88
                                                                     method), 89
test invalid export resultset 2 invalid export resultset cstestachtsacht type(t)ion 9 invalid ask manual question bad sensorname()
         (test\_pytan\_valid\_server\_tests.ValidServerTests
                                                                     (test_pytan_valid_server_tests.ValidServerTests
          method), 88
                                                                     method), 89
test_invalid_export_resultset_3_invalid_export_resultset_cstestiaits_edipt()d(texpeg())tan_unit.TestGenericUtils_method),
         (test pytan valid server tests. ValidServerTests
         method), 88
                                                           test_is_list() (test_pytan_unit.TestGenericUtils method),
test invalid export resultset 4 invalid export resultset csv bad ser\u00e4\u00f3rs sub type()
         (test_pytan_valid_server_tests.ValidServerTests test_is_not_dict()
                                                                                  (test_pytan_unit.TestGenericUtils
                                                                     method), 94
test_invalid_export_resultset_5_invalid_export_resultset_batesforsnat()_list()
                                                                                  (test_pytan_unit.TestGenericUtils
          (test pytan valid server tests. ValidServerTests
                                                                     method), 94
          method), 88
                                                           test_is_not_num()
                                                                                  (test_pytan_unit.TestGenericUtils
test_invalid_filter1() (test_pytan_unit.TestDehumanizeQuestionFilterUtiethod), 94
          method), 93
                                                           test_is_not_str()
                                                                                  (test_pytan_unit.TestGenericUtils
test_invalid_filter2() (test_pytan_unit.TestDehumanizeQuestionFilterUtieshod), 94
         method), 93
                                                           test is num() (test pytan unit.TestGenericUtils method),
test invalid filter3() (test pytan unit.TestDehumanizeQuestionFilterUtals
         method), 93
```

```
test_is_str() (test_pytan_unit.TestGenericUtils method), test_parse_emptystr() (test_pytan_unit.TestManualQuestionOptionDefParse
                                                                                                       method), 95
test jsonify() (test pytan unit.TestGenericUtils method),
                                                                                        test parse emptystr() (test pytan unit.TestManualSensorDefParseUtils
                                                                                                       method), 96
test_load_param_file_invalid_file()
                                                                                        test\_parse\_list() (test\_pytan\_unit.TestManualQuestionOptionDefParseUtils
               (test pytan unit.TestGenericUtils
                                                                       method),
                                                                                                       method), 95
                                                                                        test parse multi filter() (test pytan unit. TestManualQuestionFilterDefPars
test_load_param_file_invalid_json()
                                                                                                       method), 95
               (test pytan unit.TestGenericUtils
                                                                       method),
                                                                                        test parse noargs() (test pytan unit.TestManualQuestionFilterDefParseUti
                                                                                                       method), 95
test_load_param_file_valid()
                                                                                        test_parse_noargs() (test_pytan_unit.TestManualQuestionOptionDefParseU
              (test_pytan_unit.TestGenericUtils
                                                                                                       method), 95
                                                                       method),
                                                                                        test_parse_noargs() (test_pytan_unit.TestManualSensorDefParseUtils
test_load_taniumpy_file_invalid_file()
                                                                                                       method), 96
               (test_pytan_unit.TestGenericUtils
                                                                       method),
                                                                                        test_parse_none() (test_pytan_unit.TestManualQuestionFilterDefParseUtils
               94
                                                                                                       method), 95
test_load_taniumpy_file_invalid_json()
                                                                                        test_parse_none() (test_pytan_unit.TestManualQuestionOptionDefParseUti
               (test_pytan_unit.TestGenericUtils
                                                                       method),
                                                                                                       method), 96
                                                                                        test_parse_none() (test_pytan_unit.TestManualSensorDefParseUtils
test multi filter list() (test pytan unit.TestDehumanizeQuestionFilterbathod), 96
               method), 93
                                                                                        test_parse_options_dict()
test_multi_list_complex()
                                                                                                       (test_pytan_unit.TestManualQuestionOptionDefParseUtils
              (test_pytan_unit.TestDehumanizeSensorUtils
                                                                                                       method), 96
               method), 93
                                                                                        test parse single filter() (test pytan unit.TestManualQuestionFilterDefPar
test option list many() (test pytan unit.TestDehumanizeQuestionOptiontlibidity 95
               method), 93
                                                                                        test parse str() (test pytan unit.TestManualQuestionFilterDefParseUtils
test_option_list_multi() (test_pytan_unit.TestDehumanizeQuestionOptionthbid), 95
               method), 93
                                                                                        test\_parse\_str() \ (test\_pytan\_unit. TestManual Question Option Def Parse Utils
test_option_list_single() (test_pytan_unit.TestDehumanizeQuestionOptiotHdtl)s 96
               method), 93
                                                                                        test_parse_str1() (test_pytan_unit.TestManualSensorDefParseUtils
test_option_str() (test_pytan_unit.TestDehumanizeQuestionOptionUtilsnethod), 96
                                                                                        test_pytan_invalid_server_tests (module), 92
               method), 93
test_parse_complex() (test_pytan_unit.TestManualSensorDettPstrxpsUtatils_unit (module), 92
               method), 96
                                                                                        test_pytan_valid_server_tests (module), 87
test parse dict hash() (test pytan unit.TestManualSensorDæsRasinbleilsfilter list() (test pytan unit.TestDehumanizeOuestionFilterUtils
                                                                                                       method), 93
              method), 96
test parse dict id() (test pytan unit.TestManualSensorDefRassetJnitse filter str() (test pytan unit.TestDehumanizeQuestionFilterUtils
               method), 96
                                                                                                       method), 93
test_parse_dict_name() (test_pytan_unit.TestManualSensorIDestParineUtilstr() (test_pytan_unit.TestDehumanizeSensorUtils
              method), 96
                                                                                                       method), 93
test parse emptydict() (test pytan unit.TestManualQuestion ExilteriDed Partse Etithplex 1()
                                                                                                       (test pytan unit.TestDehumanizeSensorUtils
              method), 95
test\_parse\_emptydict() \ (test\_pytan\_unit. TestManual Question Option Defi Pthroe ID, tfl 3 \ )
              method), 95
                                                                                        test_single_str_complex2()
test\_parse\_emptydict() \ (test\_pytan\_unit. TestManual Sensor Def Parse \ U \ (it lest\_pytan\_unit. TestDehumanize Sensor \ Util Sensor \ Util
                                                                                                       method), 93
               method), 96
test_parse_emptylist() (test_pytan_unit.TestManualQuestiontEilterIDefPaste_Wills_filter()
               method), 95
                                                                                                       (test_pytan_unit.TestDehumanizeSensorUtils
test_parse_emptylist() (test_pytan_unit.TestManualQuestionOptionDefiPethodUtil93
               method), 95
                                                                                        test_valid1() (test_pytan_unit.TestManualPackageDefValidateUtils
test_parse_emptylist() (test_pytan_unit.TestManualSensorDefParseUtilsethod), 95
              method), 96
                                                                                        test\_valid1() \ (test\_pytan\_unit. TestManual Question Filter Def Validate Utils
test parse emptystr() (test pytan unit.TestManualQuestionFilterDefParstHottl) $95
               method), 95
```

(test pytan valid server tests. ValidServerTests method), 96 test valid2() (test pytan unit.TestManualPackageDefValidateUtils method), 89 method), 95 test\_valid\_deploy\_action\_4\_deploy\_action\_simple() test valid2() (test pytan unit.TestManualQuestionFilterDefValidateU(test pytan valid server tests.ValidServerTests method), 95 method), 89 test valid2() (test pytan unit.TestManualSensorDefValidateExtilsvalid export basetype 10 export basetype xml default options() method), 96 (test pytan valid server tests. ValidServerTests test valid3() (test pytan unit.TestManualSensorDefValidateUtils method), 89 method), 96 test\_valid\_export\_basetype\_11\_export\_basetype\_csv\_with\_explode\_true() (test\_pytan\_valid\_server\_tests.ValidServerTests test\_valid4() (test\_pytan\_unit.TestManualSensorDefValidateUtils method), 96 method), 89 test\_valid\_create\_object\_1\_create\_user() test\_valid\_export\_basetype\_12\_export\_basetype\_json\_explode\_false() (test\_pytan\_valid\_server\_tests.ValidServerTests (test\_pytan\_valid\_server\_tests.ValidServerTests method), 89 method), 89 test\_valid\_create\_object\_2\_create\_package() test\_valid\_export\_basetype\_13\_export\_basetype\_json\_type\_false() (test\_pytan\_valid\_server\_tests.ValidServerTests  $(test\_pytan\_valid\_server\_tests. ValidServerTests$ method), 89 method), 89 test valid create object 3 create group() test valid export basetype 14 export basetype json default options() (test pytan valid server tests. ValidServerTests (test pytan valid server tests. ValidServerTests method), 89 method), 89 test\_valid\_create\_object\_4\_create\_whitelisted\_url() test\_valid\_export\_basetype\_1\_export\_basetype\_csv\_with\_sort\_list()  $(test\_pytan\_valid\_server\_tests.ValidServerTests$ (test\_pytan\_valid\_server\_tests.ValidServerTests method), 89 method), 89 test\_valid\_create\_object\_from\_json\_1\_create\_package\_frontesison(lid\_export\_basetype\_2\_export\_basetype\_csv\_with\_explode\_false() (test pytan valid server tests. ValidServerTests (test pytan valid server tests. ValidServerTests method), 89 method), 89 test\_valid\_create\_object\_from\_json\_2\_create\_user\_from\_jstant() valid\_export\_basetype\_3\_export\_basetype\_json\_type\_true() (test\_pytan\_valid\_server\_tests.ValidServerTests (test\_pytan\_valid\_server\_tests.ValidServerTests method), 89 method), 89 test\_valid\_create\_object\_from\_json\_3\_create\_saved\_questionestfroathidjscrap(ort\_basetype\_4\_export\_basetype\_xml\_minimal\_false() (test\_pytan\_valid\_server\_tests.ValidServerTests (test\_pytan\_valid\_server\_tests.ValidServerTests method), 89 method), 89 test\_valid\_create\_object\_from\_json\_4\_create\_action\_from\_jsstn\_()alid\_export\_basetype\_5\_export\_basetype\_xml\_minimal\_true() (test pytan valid server tests. ValidServerTests (test pytan valid server tests. ValidServerTests method), 89 method), 89 test valid create object from json 5 create sensor from texto(valid export basetype 6 export basetype csv with sort empty list( (test\_pytan\_valid\_server\_tests.ValidServerTests (test\_pytan\_valid\_server\_tests.ValidServerTests method), 89 method), 89 test\_valid\_create\_object\_from\_json\_6\_create\_question\_frontestsona(jd\_export\_basetype\_7\_export\_basetype\_csv\_default\_options() (test pytan valid server tests. ValidServerTests (test pytan valid server tests. ValidServerTests method), 89 method), 89 test\_valid\_create\_object\_from\_json\_7\_create\_whitelisted\_undsort\_basetype\_8\_export\_basetype\_json\_explode\_true() (test\_pytan\_valid\_server\_tests.ValidServerTests (test\_pytan\_valid\_server\_tests.ValidServerTests method), 89 test\_valid\_create\_object\_from\_json\_8\_create\_group\_from\_json()valid\_export\_basetype\_9\_export\_basetype\_csv\_with\_sort\_true() (test\_pytan\_valid\_server\_tests.ValidServerTests (test\_pytan\_valid\_server\_tests.ValidServerTests method), 89 method), 89 test\_valid\_deploy\_action\_1\_deploy\_action\_simple\_against\_twitedtawkid\_exappatatess()ltset\_10\_export\_resultset\_csv\_default\_options() (test\_pytan\_valid\_server\_tests.ValidServerTests (test\_pytan\_valid\_server\_tests.ValidServerTests

test valid1() (test pytan unit. TestManual Sensor Def Validata Extils valid deploy action 3 deploy action with params against windows

Index 961

test\_valid\_deploy\_action\_2\_deploy\_action\_simple\_without\_trans\_valta()d\_export\_resultset\_11\_export\_resultset\_csv\_type\_true()

method), 89

method), 90

(test pytan valid server tests. ValidServerTests

method), 89

method), 89

(test pytan valid server tests. ValidServerTests

- test\_valid\_export\_resultset\_12\_export\_resultset\_csv\_all\_optixsts@alid\_get\_object\_17\_get\_sensor\_by\_mixed() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90 (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_export\_resultset\_13\_export\_resultset\_csv\_sort\_fatbset()valid\_get\_object\_18\_get\_whitelisted\_url\_by\_id() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90 (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90

- test\_valid\_export\_resultset\_3\_export\_resultset\_csv\_type\_fal**ses()** valid\_get\_object\_20\_get\_all\_whitelisted\_urls() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90 (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_export\_resultset\_4\_export\_resultset\_csv\_expand\_tfalse@lid\_get\_object\_21\_get\_sensor\_by\_hash() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90 (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_export\_resultset\_6\_export\_resultset\_csv\_sort\_trute(st\_valid\_get\_object\_23\_get\_all\_clients() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90 (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- $\label{lem:condition} \begin{array}{lll} test\_valid\_export\_resultset\_8\_export\_resultset\_csv\_sensor\_ \textit{fastse}() \\ (test\_pytan\_valid\_server\_tests. ValidServerTests \\ method), 90 \\ \end{array} \\ \begin{array}{lll} (test\_pytan\_valid\_server\_tests. ValidServerTests \\ method), 90 \\ \end{array} \\ \begin{array}{lll} (test\_pytan\_valid\_server\_tests. ValidServerTests) \\ (test\_pytan\_valid\_server\_tests) \\ (test\_pytan\_valid\_server$
- test\_valid\_export\_resultset\_9\_export\_resultset\_csv\_expand\_terste@alid\_get\_object\_26\_get\_saved\_question\_by\_name() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90 (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_get\_object\_10\_get\_all\_saved\_questions() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_get\_object\_11\_get\_user\_by\_name()
  (test\_pytan\_valid\_server\_tests.ValidServerTests
  method), 90
- test\_valid\_get\_object\_12\_get\_all\_userroless() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_get\_object\_13\_get\_all\_questions()
  (test\_pytan\_valid\_server\_tests.ValidServerTests
  method), 90
- test\_valid\_get\_object\_14\_get\_sensor\_by\_id()
  (test\_pytan\_valid\_server\_tests.ValidServerTests
  method), 90

- test\_valid\_get\_object\_27\_get\_all\_actions()
  (test\_pytan\_valid\_server\_tests.ValidServerTests
  method), 90
- test\_valid\_get\_object\_29\_get\_sensor\_by\_name() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_get\_object\_2\_get\_action\_by\_id() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_get\_object\_30\_get\_saved\_action\_by\_name() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_get\_object\_3\_get\_question\_by\_id() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 90
- test\_valid\_get\_object\_4\_get\_saved\_question\_by\_names() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 91

test valid question 4 ask manual question simple multiple sensors()

test\_valid\_question\_5\_ask\_manual\_question\_simple\_single\_sensor\_sse()

test valid question 6 ask manual question sensor without parameters a

test\_valid\_question\_8\_ask\_manual\_question\_sensor\_with\_filter\_and\_2\_op (test\_pytan\_valid\_server\_tests.ValidServerTests

(test pytan valid server tests. ValidServerTests

(test pytan valid server tests. ValidServerTests

(test pytan valid server tests. ValidServerTests

test\_valid\_question\_7\_ask\_parsed\_question\_pick\_first\_no\_results()

(test\_pytan\_valid\_server\_tests.ValidServerTests

(test\_pytan\_valid\_server\_tests.ValidServerTests

(test pytan valid server tests. ValidServerTests

(test\_pytan\_valid\_server\_tests.ValidServerTests

(test pytan valid server tests. ValidServerTests

test valid saved question 1 ask saved question refresh data()

method), 91

- test valid get object 5 get userrole by id() (test pytan valid server tests. ValidServerTests method), 91 test\_valid\_get\_object\_6\_get\_all\_saved\_actions() (test pytan valid server tests. ValidServerTests
- method), 91 test valid get object 7 get leader clients()
- (test pytan valid server tests. ValidServerTests method), 91
- test\_valid\_get\_object\_8\_get\_all\_settings() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 91
- test\_valid\_get\_object\_9\_get\_setting\_by\_name() (test\_pytan\_valid\_server\_tests.ValidServerTests method), 91
- test\_valid\_question\_10\_ask\_manual\_question\_sensor\_with tpstrayabtersquestiofilt@r(ask\_parsed\_question\_pick\_first\_sse()) (test\_pytan\_valid\_server\_tests.ValidServerTests method), 91
- test valid question 11 ask parsed question pick first() (test pytan valid server tests. ValidServerTests method), 91
- test\_valid\_question\_12\_\_ask\_manual\_question\_sensor\_contpletx()alid\_saved\_question\_2\_ask\_saved\_question\_by\_name\_sse()  $(test\_pytan\_valid\_server\_tests.ValidServerTests$ method), 91
- test\_valid\_question\_13\_ask\_manual\_question\_simple\_singltestenvsdird) saved\_question\_3\_ask\_saved\_question\_by\_name() (test pytan valid server tests. ValidServerTests method), 91
- test\_valid\_question\_14\_ask\_manual\_question\_sensor\_with\_tfister(alid\_saved\_question\_4\_ask\_saved\_question\_by\_name\_in\_list() (test\_pytan\_valid\_server\_tests.ValidServerTests (test\_pytan\_valid\_server\_tests.ValidServerTests method), 91 method), 91
- test\_valid\_question\_15\_ask\_manual\_question\_multiple\_sentconts vialled tistingley list(m)ctest\_pytan\_unit.TestDehumanizeSensorUtils (test\_pytan\_valid\_server\_tests.ValidServerTests method), 93 method), 91 test\_valid\_simple\_str\_hash\_selector()
- test\_valid\_question\_16\_ask\_manual\_question\_sensor\_with\_paramete(sestnotylidensite) test\_valid\_question\_16\_ask\_manual\_question\_sensor\_with\_paramete(sestnotylidensite) test\_valid\_question\_16\_ask\_manual\_question\_sensor\_with\_paramete(sestnotylidensite) test\_valid\_question\_16\_ask\_manual\_question\_sensor\_with\_paramete(sestnotylidensite) test\_valid\_question\_sensor\_with\_paramete(sestnotylidensite) test\_valid\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramete(sest\_question\_sensor\_with\_paramet (test pytan valid server tests. ValidServerTests method), 93 method), 91 test valid simple str id selector()
- test valid question 17 ask manual question sensor with filter and (testo providers (unit. Test Dehumanize Sensor Utils (test\_pytan\_valid\_server\_tests.ValidServerTests method), 93 method), 91 test valid simple str name selector()
- test\_valid\_question\_18\_ask\_manual\_question\_complex\_query2() (test\_pytan\_unit.TestDehumanizeSensorUtils (test pytan valid server tests. ValidServerTests method), 93 method), 91 test version higher() (test pytan unit.TestGenericUtils
- test valid question 19 ask manual question complex query1() method), 94 (test\_pytan\_valid\_server\_tests.ValidServerTests test\_version\_lower() (test\_pytan\_unit.TestGenericUtils method), 94
- test\_valid\_question\_1\_ask\_manual\_question\_sensor\_with\_parameters manike Forture timp little parameters as the parameters as the content of th in (test\_pytan\_valid\_server\_tests.ValidServerTests test\_pytan\_unit), 92 method), 91 Test Dehumanize Question Filter Utils(class in
- test\_valid\_question\_2\_ask\_manual\_question\_multiple\_sensors\_with\_testanyetens\_unid)\_some\_supplied\_parameters() (test\_pytan\_valid\_server\_tests.ValidServerTests TestDehumanizeQuestionOptionUtils method), 91 test\_pytan\_unit), 93
- test\_valid\_question\_3\_ask\_manual\_question\_simple\_single\_testNorthunanixuRs(nsorUtils (class in test\_pytan\_unit), 93 (test pytan valid server tests. ValidServerTests TestDeserializeBadXML (class in test pytan unit), 93 method), 91 TestGenericUtils (class in test pytan unit), 94

TestManualBuildObjectUtils (class in test_pytan_unit),	UserRoleList (class in tani- umpy.object_types.user_role_list), 108
	unipy.object_types.user_fole_fist), fos
TestManualPackageDefValidateUtils (class in	V
test_pytan_unit), 95	V
TestManualQuestionFilterDefParseUtils (class in	val_package_def() (in module pytan.utils), 73
test_pytan_unit), 95	val_q_filter_defs() (in module pytan.utils), 73
TestManualQuestionFilterDefValidateUtils (class in	val_sensor_defs() (in module pytan.utils), 73
test_pytan_unit), 95	ValidServerTests (class in test_pytan_valid_server_tests),
TestManualQuestionOptionDefParseUtils (class in	88
test_pytan_unit), 95	version_check() (in module pytan.binsupport), 84
TestManualSensorDefParseUtils (class in	VersionAggregate (class in tani-
test_pytan_unit), 96	umpy.object_types.version_aggregate), 108
TestManualSensorDefValidateUtils (class in	VersionAggregateList (class in tani-
test_pytan_unit), 96	umpy.object_types.version_aggregate_list),
threaded_http (module), 109	108
threaded_http() (in module threaded_http), 110	VersionMismatchError, 85
ThreadedHTTPServer (class in threaded_http), 110	VersionParseError, 85
TIME_FORMAT (in module pytan.constants), 61	vig_decode() (in module pytan.utils), 73
TIMEOUT_SECS_DEFAULT (pytan.pollers.SSEPoller	vig_encode() (in module pytan.utils), 74
attribute), 58	vig_encode() (iii inodule pytaii.utils), 74
TimeoutException, 85	W
timestr_to_datetime() (in module pytan.utils), 73	
to_flat_dict() (taniumpy.object_types.base.BaseType	WhiteListedUrl (class in tani-
method), 98	umpy.object_types.white_listed_url), 108
	WhiteListedUrlList (class in tani-
to_flat_dict_explode_json() (tani-	umpy.object_types.white_listed_url_list),
umpy.object_types.base.BaseType method), 98	108
to_json() (taniumpy.object_types.base.BaseType static	write_csv() (taniumpy.object_types.base.BaseType static
method), 98	method), 98
to_json() (taniumpy.object_types.result_set.ResultSet	write_csv() (taniumpy.object_types.result_set.ResultSet
static method), 105	static method), 105
to_jsonable() (taniumpy.object_types.base.BaseType	write_history() (pytan.binsupport.HistoryConsole
method), 98	method), 75
	write_pytan_user_config() (pytan.handler.Handler
to_jsonable() (taniumpy.object_types.result_set.ResultSet	method), 35
method), 105	V/
toSOAPBody() (taniumpy.object_types.base.BaseType	X
method), 98	XML_1_0_RESTRICTED_HEX (in module py-
toSOAPElement() (tani-	tan.xml_clean), 86
umpy.object_types.base.BaseType method),	XML_1_0_VALID_HEX (in module pytan.xml_clean),
98	86
U	xml_cleaner() (in module pytan.xml_clean), 87
U	xml_pretty() (in module pytan.utils), 74
unpack() (in module ddt), 112	xml_pretty_resultobj() (in module pytan.utils), 74
unparse() (in module xmltodict), 111	xml_pretty_resultxml() (in module pytan.utils), 74
UnsupportedVersionError, 85	
UploadFile (class in taniumpy.object_types.upload_file),	xml_to_result_set_obj() (pytan.handler.Handler method),
107	
UploadFileList (class in tani-	XmlError (class in taniumpy.object_types.xml_error),
umpy.object_types.upload_file_list), 107	109 VMI NS (nutan asserions Session attribute) 28
UploadFileStatus (class in tani-	XMLNS (pytan.sessions.Session attribute), 38
umpy.object_types.upload_file_status), 108	xmltodict (module), 110
User (class in taniumpy.object_types.user), 108	
UserList (class in taniumpy.object_types.user_list), 108	
UserRole (class in taniumpy.object_types.user_role), 108	