PyTan Documentation

Release 2.1.6

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CONTENTS

1	Table of Contents						
	1.1	PyTan Introduction	1				
	1.2	PyTan Package	3				
		PyTan Tests					
	1.4	TaniumPy Package	97				
	1.5	Other Packages	109				
	1.6	PyTan API Validation Tests	113				
	1.7	PyTan Command Line Help	115				
	1.8	PyTan API Examples	116				
	1.9	SOAP API Examples	344				
2	Indices and tables						
Py	Python Module Index						
Inc	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__ = '2.1.6'
    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()
         force_server_version: str, optional
            •default: "
            •use this to override the server_version detection
See also:
pytan.constants.LOG_LEVEL_MAPS maps a given loglevel to respective logger names and their logger
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()
force_passed_done_count : int, optional
 •when this number of systems have passed the right hand side of the question, consider the
  question complete
```

•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 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

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 initial 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
        Parametersobj :
                              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
        Parametersobj
            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
            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
         Parametersse_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
             \mathbf{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
              •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
                                             one
                                                     of
                                                           the
                                                                   following
                                                                                 depending
                                                                                                on
               qtype:
                                   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

17

```
•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()
       force_passed_done_count : int, optional
         •when this number of systems have passed the right hand side of the question, consider the
          question complete
         •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 cre-
    ate 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:

```
>>> r = handler.ask_manual(sensors=['Computer Name', 'IP Route Details'], question_filters=
```

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 referred to as any number of things:

- •sensors
- •left hand side
- column selects

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 re-
     sult info.estimated total, use this number
     •This is passed through to pytan.pollers.QuestionPoller()
   force_passed_done_count : int, optional
     •when this number of systems have passed the right hand side of the question, consider the
     question complete
     •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 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
     •parse_results: taniumpy.object_types.parse_result_group_list.ParseResultGroupLis
     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()
             force_passed_done_count : int, optional
              •when this number of systems have passed the right hand side of the question, consider the
               question complete
              •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
              •question_results: taniumpy.object_types.result_set.ResultSet, the re-
               sults for question_object
              •poller_object
                                                       refresh_data
                                                                                        elsewise
                                        None
                                                 if
                                                                             False,
               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
     id or name must be supplied
create_dashboard(name, text='', group='', public_flag=True, **kwargs)
     Calls pytan.handler.Handler.run_pluqin() 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
```

Notes

```
•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
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=[],
                     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
          \textbf{Raises pytan. exceptions.} Handler \textbf{Error}: \texttt{pytan.utils.pytan. exceptions.} Handler \textbf{Error}
       Warning: Not currently supported, too complicated to add. Use <code>create_from_json()</code> 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
- ${}^{\bullet}action_info: taniumpy.object_types.result_info.ResultInfo, the initial GetResultInfo call done before getting results$
- •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
        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
         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 sup-
         ported for each
     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
         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

Notes

```
•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.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_MAPmaps 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
                       sse_format
                                       is
                                              xml_obj,
                                                                               will
                                                                                         be
                                                              export_data
                                                                                                 a
               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_MAP maps 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
```

```
Returnsparse_job_results: 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:TaniumSOA
The 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
                                                      created
                                                                 from
                                                                          the
                                                                                  string.template
                                 request
                                            body
               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
         {\bf Parameters response\_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, optional
               default: self.port
               •port 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 cur-
     rently 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 invalid/restricted matches

•False: When XML cleaning the response_body, disable logging messages about invalid/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

_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 invalid/restricted matches
- •False: When XML cleaning the response_body, disable logging messages about invalid/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 responses

_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 to authenticate with, this will be used in favor of username/password if all 3 are

session_id: str, optional

•default: None

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: "
- •help string to add to self.LAST_REQUESTS_RESPONSE.pytan_help

Notes

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

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
                                       thread,
                                                  which
                                                           will
                                                                  print
                                                                                  the
                                                                                         re-
    sults
                 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
                   which
                             checks
                                        self.STATS LOOP ENABLED
                                                                          before
                                                                                     running
        pytan.sessions.Session.get_server_stats()
enable_stats_loop(sleep=None)
    Enables
               the
                      stats
                              loop
                                                           will
                                      thread,
                                                 which
                                                                  print
                                                                           out
                                                                                         re-
    sults
                of
                           pytan.sessions.Session.get server stats()
                                                                                       every
    pytan.sessions.Session.STATS_LOOP_SLEEP_SEC
        Parameterssleep: int, optional
             •when enabling the stats loop, update pytan.sessions.Session.STATS_LOOP_SLEEP_SEC
             with sleep
    See also:
    pytan.sessions.Session._stats_loop() method
                                                                started
                                                                               as
                                                                                          а
                   which
                              checks
                                         self.STATS_LOOP_ENABLED
                                                                          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
force_server_version = ''
    In the case where the user wants to have pytan act as if the server is a specific version, regardless of what
    server_version is.
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
             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 re-
         ceived 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_TARGETSlist 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, optionaldefault: 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.force_server_version is greater than or equal to 6.5
              •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

- Any callback can choose get data from session calling pytan.poller.QuestionPoller.get_result_data() new info by calling or 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.
- •Any callbacks can call pytan.poller.QuestionPoller.setPercentCompleteThreshold() to change what "done" means on the fly

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

```
{\bf class} \ {\tt pytan.pollers.QuestionPoller} \ ({\it 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

Parametershandler: pytan.handler.Handler

•PyTan handler to use for GetResultInfo calls

```
obj: taniumpy.object_types.question.Question
```

•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: 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

force_passed_done_count : int, optional

•when this number of systems have passed the right hand side of the question, consider the question complete

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

ulletNumber 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()
- •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

```
run_callback (callbacks, callback, pct, **kwargs)
```

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

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.

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': 'User
     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
```

pytan.constants.DEBUG_FORMAT = '[%(lineno)-5d - %(filename)20s:%(funcName)s()] %(asctime)s\n%(levelname)-8s %

•str, description of this loglevel

pytan.constants.SSE_CRASH_MAP = ['6.5.314.4300']

Mapping of versions to watch out for crashes/handle bugs for server side export

Mapping of human friendly strings to API integers for server side export

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 = '(?<!\\\),'</pre> 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: 'IPAG Maps a Result type from the Tanium SOAP API from an int to a string

1.2. PyTan Package 61

pytan.constants.SSE_FORMAT_MAP = [('csv', '0', 0), ('xml', '1', 1), ('xml_obj', '1', 1), ('cef', '2', 2)]

```
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,
                                                                    delim='',
                                                                                  derive_def=False,
                                                   user_params,
                                          empty_ok=False)
     Creates a ParameterList object from user_params
          Parametersobj: taniumpy.object_types.base.BaseType
                 •TaniumPy object to verify parameters against
              user_params: dict
                 •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
                           If user did not supply a value for a given parameter,
                                                                                           throw a
                  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
                 •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
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:
                                 sensors
                                             is
                                                   not
                                                           allowed
                                                                                     empty,
                                                                                                 throw
                  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

               keys: 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
pytan.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
          Parameters_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
pytan.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
class pytan.binsupport.CustomArgFormat(prog, indent_increment=2, max_help_position=24,
                                                 width=None)
     \textbf{Bases:} \texttt{argparse.ArgumentDefaultsHelpFormatter}, \texttt{argparse.RawDescriptionHelpFormatter}
     Multiple inheritance Formatter class for argparse. ArgumentParser.
     If a argparse. ArgumentParser 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
     >>> HistoryConsole()
     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 json 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 json 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_qet_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.

$\verb|pytan.binsupport.setup_create_sensor_argparser| (doc)$

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.

$\verb|pytan.binsupport.setup_create_whitelisted_url_argparser| (doc)$

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

$\boldsymbol{exception} \; \texttt{pytan.exceptions.HumanParserError}$

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
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-
          #x9FFFF], [#xAFFFE-#xAFFFF], [#xBFFFE-#xBFFFF], [#xCFFFE-#xCFFFF], [#xDFFFE-#xDFFFF],
          [#xEFFFE-#xEFFFF], [#xFFFFE-#xFFFFF], [#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()
```

1.3. PyTan Tests 89

```
test_valid_create_object_from_json_7_create_whitelisted_url_from_json()
test_valid_create_object_from_json_8_create_group_from_json()
{\tt 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 guestions()
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()
```

1.3. PyTan Tests 91

```
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
    {\tt 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
```

1.3. PyTan Tests 93

```
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()
test_valid_simple_str_name_selector()
test_valid_simple_str_name_selector()
test_valid_simple_str_name_selector()
test_valid_simple_str_name_selector()
```

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_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()
```

1.3. PyTan Tests 95

```
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_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

```
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
{\bf class} \ {\tt taniumpy.object\_types.archived\_question.} {\bf ArchivedQuestion}
     Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.archived_question_list module
class taniumpy.object_types.archived_question_list.ArchivedQuestionList
     Bases: taniumpy.object_types.base.BaseType
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_jsonable(explode_json_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 json. If so, flatten it out into a dict
     static to_json (jsonable, **kwargs)
          Convert to a json string.
          isonable 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-
                                                                          tual)
     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 fromSOAPElement (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.pluqin argument.PluqinArgument 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
class taniumpy.object_types.plugin_command_list.PluginCommandList
    Bases: taniumpy.object_types.base.BaseType
taniumpy.object_types.plugin_list module
class taniumpy.object_types.plugin_list.PluginList
    Bases: taniumpy.object_types.base.BaseType
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
class taniumpy.object_types.plugin_schedule_list.PluginScheduleList
    Bases: taniumpy.object_types.base.BaseType
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 from SOAPElement (el)Deserialize a ResultSet from a result_set SOAPElement static to_json (jsonable, **kwargs) Convert to a json string. jsonable 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

taniumpy.object_types.version_aggregate_list module

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 http://python-requests.org>.

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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:

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
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
27
   # import pytan
   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
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)
   handler = pytan.Handler(**handler_args)
   # print out the handler string
55
  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
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)
   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
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
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
58
   # setup the arguments for the handler.delete() method
   delete_kwargs = {}
59
   delete_kwargs["objtype"] = u'user'
60
   delete_kwarqs["name"] = u'API Test User'
61
62
   # setup the arguments for the handler() class
63
   kwargs = \{\}
   kwarqs["rolename"] = u'Administrator'
   kwargs["name"] = u'API Test User'
66
   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
71
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
72
   try:
       handler.delete(**delete_kwargs)
73
   except Exception as e:
74
       print "...EXCEPTION: {}".format(e)
75
76
   print "...CALLING: handler.create_user() with args: {}".format(kwargs)
   response = handler.create_user(**kwargs)
   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
   export_kwargs = {}
```

```
export_kwargs['obj'] = response
   export_kwargs['export_format'] = 'json'
87
   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
91
   if len(out.splitlines()) > 15:
92
       out = out.splitlines()[0:15]
93
       out.append('..trimmed for brevity..')
94
       out = '\n'.join(out)
   print "...OUTPUT: print the objects returned in JSON format:"
   print out
98
   # delete the object, we are done with it now
100
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
101
   delete_response = handler.delete(**delete_kwargs)
102
103
   print "...OUTPUT: print the delete response"
104
   print delete_response
105
```

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
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 = "~/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
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"
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
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
58
   # setup the arguments for the handler.delete() method
   delete_kwargs = {}
59
   delete_kwargs["objtype"] = u'package'
60
   delete_kwargs["name"] = u'package49'
61
62
   # setup the arguments for the handler() class
63
   kwarqs = {}
   kwargs["expire_seconds"] = 1500
   kwargs["display_name"] = u'package49 API test'
66
   kwargs["name"] = u'package49'
67
   kwargs["parameters_json_file"] = u'../doc/example_of_all_package_parameters.json'
68
   kwargs["verify_expire_seconds"] = 3600
   kwargs["command"] = u'package49 $1 $2 $3 $4 $5 $6 $7 $8'
   kwargs["file_urls"] = [u'3600::testing.vbs||https://content.tanium.com/files/initialcontent/bundles/
71
72.
   kwarqs["verify_filter_options"] = [u'and']
   kwarqs["verify_filters"] = [u'Custom Tags, that contains:tag']
73
   kwargs["command_timeout_seconds"] = 9999
74
75
   # delete the object in case it already exists
76
   # catch and print the exception error if it does not exist
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
79
       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)
   response = handler.create_package(**kwargs)
```

```
86
87
   print "...OUTPUT: Type of response: ", type(response)
   print "...OUTPUT: print of response:"
   print response
   # call the export_obj() method to convert response to JSON and store it in out
91
   export_kwarqs = {}
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:
99
       out = out.splitlines()[0:15]
100
       out.append('..trimmed for brevity..')
101
       out = '\n'.join(out)
103
   print "...OUTPUT: print the objects returned in JSON format:"
104
   print out
105
106
107
   # delete the object, we are done with it now
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
   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
   import tempfile
4
   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 = "~/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])
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.delete() method
   delete_kwargs = {}
59
   delete_kwarqs["objtype"] = u'group'
60
   delete_kwarqs["name"] = u'All Windows Computers API Test'
61
62
   # setup the arguments for the handler() class
63
   kwarqs = {}
   kwarqs["groupname"] = u'All Windows Computers API Test'
65
   kwarqs["filters"] = [u'Operating System, that contains:Windows']
66
   kwargs["filter_options"] = [u'and']
67
68
   # delete the object in case it already exists
69
   # catch and print the exception error if it does not exist
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
72
       handler.delete(**delete_kwargs)
73
   except Exception as e:
74
       print "...EXCEPTION: {}".format(e)
75
76
   print "...CALLING: handler.create_group() with args: {}".format(kwargs)
   response = handler.create_group(**kwargs)
```

```
print "...OUTPUT: Type of response: ", type(response)
80
   print "...OUTPUT: print of response:"
81
   print response
83
   # call the export_obj() method to convert response to JSON and store it in out
84
   export_kwarqs = {}
85
   export_kwargs['obj'] = response
86
   export_kwargs['export_format'] = 'json'
87
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
89
   out = handler.export_obj(**export_kwargs)
   # 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
   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
   import sys
   import tempfile
4
   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 = "~/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])
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!"
   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.delete() method
   delete_kwargs = {}
59
   delete_kwargs["objtype"] = u'whitelisted_url'
60
   delete_kwarqs["url_regex"] = u'regex:http://test.com/.*API_Test.*URL'
61
62
   # setup the arguments for the handler() class
63
   kwarqs = \{\}
   kwargs["url"] = u'http://test.com/.*API_Test.*URL'
65
   kwarqs["regex"] = True
66
   kwargs["properties"] = [[u'property1', u'value1']]
67
   kwargs["download_seconds"] = 3600
68
   # delete the object in case it already exists
   # catch and print the exception error if it does not exist
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
72
   try:
73
       handler.delete(**delete_kwargs)
74
   except Exception as e:
75
       print "...EXCEPTION: {}".format(e)
76
   print "...CALLING: handler.create_whitelisted_url() with args: {}".format(kwargs)
```

```
response = handler.create_whitelisted_url(**kwargs)
80
   print "...OUTPUT: Type of response: ", type(response)
81
   print "...OUTPUT: print of response:"
82
   print response
83
84
   # call the export_obj() method to convert response to JSON and store it in out
85
   export_kwargs = {}
86
   export_kwargs['obj'] = response
87
   export_kwargs['export_format'] = 'json'
   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]
94
       out.append('..trimmed for brevity..')
95
       out = '\n'.join(out)
96
97
   print "...OUTPUT: print the objects returned in JSON format:"
   print out
100
   # delete the object, we are done with it now
101
   print "...CALLING: handler.delete() with args: {}".format(delete_kwargs)
   delete_response = handler.delete(**delete_kwargs)
103
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
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
   # 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
   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!"
   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
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
   # 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.get() method
58
   get_kwargs = {}
59
   get_kwargs["objtype"] = u'package'
60
   get_kwargs["id"] = 31
61
   # get objects to use as an export to JSON file
   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
72
    # modify the orig_objs to add attr_value to attr_name
    for x in orig_objs:
73
        new_attr = getattr(x, attr_name)
        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
80
        del_kwargs[attr_name] = new_attr
81
        del_kwargs['objtype'] = u'package'
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
84
       try:
            handler.delete(**del_kwargs)
85
        except Exception as e:
            print "...EXCEPTION: {}".format(e)
87
88
    # export orig objs to a json file
89
   export kwargs = {}
90
   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)
95
    ison file, results = handler.export to report file(**export kwargs)
96
    # create the object from the exported JSON file
98
   create_kwargs = {}
   create_kwargs['objtype'] = u'package'
   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)
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 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
   import os
   import sys
   import tempfile
   import pprint
   import traceback
   # 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"
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)
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
   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
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
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)
   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'user'
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)
   # 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
   # modify the orig_objs to add attr_value to attr_name
72
73
   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
       del_kwarqs = {}
       del_kwargs[attr_name] = new_attr
80
       del_kwargs['objtype'] = u'user'
81
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
84
       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 = {}
90
   export_kwarqs['obj'] = orig_objs
   export_kwargs['export_format'] = 'json'
   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_kwargs = {}
   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)
   print "...OUTPUT: Type of response: ", type(response)
106
```

```
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_kwargs['obj'] = response
113
   export_kwargs['export_format'] = 'json'
114
115
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   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
125
   print "...OUTPUT: print the objects returned in JSON format:"
   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
2
   import sys
3
   import tempfile
4
   import pprint
5
   import traceback
6
   # 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
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
   # 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.get() method
58
   get_kwarqs = {}
59
   get_kwargs["objtype"] = u'saved_question'
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)
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 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
80
       del_kwargs['objtype'] = u'saved_question'
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'saved_question'
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 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
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
   # 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.get() method
58
   get_kwargs = {}
59
   get_kwargs["objtype"] = u'action'
   get_kwargs["id"] = 1
```

```
# 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)
65
   # export orig_objs to a json file
67
   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)
73
   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'action'
78
   create_kwargs['json_file'] = json_file
79
80
   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)
84
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 = {}
90
   export_kwargs['obj'] = response
91
   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
96
   # trim the output if it is more than 15 lines long
97
   if len(out.splitlines()) > 15:
98
       out = out.splitlines()[0:15]
       out.append('..trimmed for brevity..')
100
       out = '\n'.join(out)
101
102
   print "...OUTPUT: print the objects returned in JSON format:"
103
   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
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.get() method
58
   get_kwargs = {}
   get_kwargs["objtype"] = u'sensor'
   get_kwargs["id"] = 381
```

```
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'
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'sensor'
81
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
84
        trv:
            handler.delete(**del_kwargs)
85
86
        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'
92
   export_kwargs['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_kwarqs['objtype'] = u'sensor'
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
112
   export_kwargs = {}
   export_kwarqs['obj'] = response
113
   export_kwargs['export_format'] = 'json'
114
115
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
   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 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
   import os
2
   import sys
   import tempfile
   import pprint
   import traceback
   # 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
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'question'
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'
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)
7.4
75
   # create the object from the exported JSON file
   create_kwargs = {}
77
   create_kwargs['objtype'] = u'question'
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
91
   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 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
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/pvtan"
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
34
   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_kwargs["objtype"] = u'whitelisted_url'
   get_kwarqs["url_regex"] = u'test1'
   # 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'url_regex'
   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'whitelisted_url'
81
82
       print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
       trv:
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 = {}
   create_kwargs['objtype'] = u'whitelisted_url'
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
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
120
   if len(out.splitlines()) > 15:
        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 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
   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"
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)
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'group'
60
   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)
   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'name'
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'group'
81
82
        print "...CALLING: handler.delete() with args: {}".format(del_kwargs)
83
            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'group'
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
   # 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
```

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
   import sys
   import tempfile
   import pprint
   import traceback
   # 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"
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)
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
   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
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
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)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
59
   kwarqs = \{\}
   kwargs["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)
   response = handler.deploy_action(**kwargs)
   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
73
   print response['action_object']
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']
       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:
           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 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
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["get_results"] = False
   kwarqs["run"] = True
   kwarqs["package"] = u'Distribute Tanium Standard Utilities'
```

```
63
   print "...CALLING: handler.deploy_action with args: {}".format(kwargs)
   response = handler.deploy_action(**kwargs)
   print "...OUTPUT: Type of response: ", type(response)
67
68
   print "...OUTPUT: Pretty print of response:"
69
   print pprint.pformat(response)
71
72
   print "...OUTPUT: Print of action object: "
73
   print response['action_object']
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_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
89
       print "...OUTPUT: CSV Results of response: "
90
       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
2
   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
```

```
# 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
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["run"] = True
60
   kwargs["action_filters"] = u'Operating System, that contains:Windows'
   kwarqs["package"] = u'Distribute Tanium Standard Utilities'
63
   print "...CALLING: handler.deploy_action with args: {}".format(kwargs)
64
   response = handler.deploy_action(**kwargs)
65
66
   print "...OUTPUT: Type of response: ", type(response)
67
   print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
71
   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):
   if response['action_results']:
```

```
# 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']
       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]
           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
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')
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]
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["run"] = True
   kwarqs["action filters"] = u'Operating System, that contains:Windows'
61
   kwarqs["package"] = u'Custom Tagging - Add Tags{$1=tag_should_be_added,$2=tag_should_be_ignore}'
62
63
   print "...CALLING: handler.deploy_action with args: {}".format(kwargs)
64
   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
71
   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 = {}
78
       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
       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
```

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
9
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/'
   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
   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
```

```
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
   kwargs = \{\}
59
   kwargs["export_format"] = u'csv'
60
   # 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',
69
70
   # get the objects that will provide the basetype that we want to export
71
   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
   kwarqs['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)
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
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"] = 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
68
       'objtype': 'sensor',
69
70
71
   # get the objects that will provide the basetype that we want to export
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
   # (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
   # 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 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
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"
   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"
   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
55
   # print out the handler string
56
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwarqs["export_format"] = u'json'
   kwargs["explode_json_string_values"] = False
   # 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)
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
87
       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 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
   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
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)
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
   # 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["export_format"] = u'json'
60
   kwargs["explode_json_string_values"] = True
61
   # 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 export
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
   # (we could just as easily export to a file using export_to_report_file)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**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 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
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
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!"
   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
   # 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'xml'
60
61
   # setup the arguments for handler.get()
62
   get_kwargs = {
63
       'name': [
           "Computer Name", "IP Route Details", "IP Address",
65
           'Folder Contents',
66
67
       'objtype': 'sensor',
68
70
   # get the objects that will provide the basetype that we want to export
71
   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
   # 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)
80
   out = handler.export_obj(**kwargs)
81
82
   # trim the output if it is more than 15 lines long
83
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: print the export_str returned from export_obj():"
  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
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
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
   # setup the arguments for the handler() class
   kwargs = \{\}
   kwargs["export_format"] = u'xml'
60
   kwargs["minimal"] = 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
68
       'objtype': 'sensor',
69
70
71
   # get the objects that will provide the basetype that we want to export
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
   # (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
   # trim the output if it is more than 15 lines long
84
   if len(out.splitlines()) > 15:
85
86
       out = out.splitlines()[0:15]
       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 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
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
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'xml'
   kwargs["minimal"] = True
   # 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
74
   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
   # (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
87
       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 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
   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
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)
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["export_format"] = u'csv'
60
   kwargs["explode_json_string_values"] = False
61
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
            'Folder Contents',
67
68
69
       '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
   # 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)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**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 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
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
   # add pytan_loc and lib_dir to the PYTHONPATH variable
24
   path_adds = [lib_dir, pytan_static_path]
2.5
   [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
```

```
# 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
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"] = True
61
62
   # setup the arguments for handler.get()
   get_kwargs = {
       '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 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
   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)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
81
   out = handler.export_obj(**kwargs)
82
84
   # trim the output if it is more than 15 lines long
   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():"
```

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
   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
   kwargs["header_sort"] = []
61
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
       'name': [
65
           "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
   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
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
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'
   kwargs["header_sort"] = True
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
```

```
'objtype': 'sensor',
69
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
   # (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 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
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
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
   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
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
   kwargs["header_sort"] = [u'name', u'description']
   # 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 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)
80
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
   out = handler.export_obj(**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 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
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
   # 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
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
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
   kwargs["export_format"] = u'json'
60
   # 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',
69
70
   # get the objects that will provide the basetype that we want to export
71
   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
   kwarqs['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
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
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)
   # print out the handler string
```

```
print "...OUTPUT: handler string: {}".format(handler)
56
   # setup the arguments for the handler() class
   kwargs = \{\}
   kwargs["export_format"] = u'json'
   kwargs["include_type"] = 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',
69
70
71
   # get the objects that will provide the basetype that we want to export
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
   # (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
   # 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
```

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
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
61
   # setup the arguments for handler.ask()
62
   ask_kwargs = {
63
       'qtype': 'manual',
```

```
'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
74
   # store the resultset object as the obj we want to export into kwargs
75
   kwargs['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)
   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
  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
   # 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
   # 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["expand_grouped_columns"] = False
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
       ],
69
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
   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)
   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():"
```

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
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])
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]
   [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!"
   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
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
58
   kwargs = {}
   kwargs["export_format"] = u'csv'
   kwarqs["expand_grouped_columns"] = 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
       ],
69
70
71
   # 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)
74
75
   # store the resultset object as the obj we want to export into kwargs
76
   kwargs['obj'] = response['question_results']
77
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:
85
86
       out = out.splitlines()[0:15]
       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
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
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)
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
38
39
   # optional, level 0 is no output except warnings/errors
   # 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
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)
   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
   kwarqs = \{\}
   kwargs["header_sort"] = True
60
   kwarqs["export_format"] = u'csv'
61
   kwarqs["header_add_type"] = True
62
   kwargs["expand_grouped_columns"] = True
63
   kwargs["header_add_sensor"] = True
   # setup the arguments for handler.ask()
   ask_kwargs = {
67
       'qtype': 'manual',
68
       'sensors': [
69
            "Computer Name", "IP Route Details", "IP Address",
70
            'Folder Contents{folderPath=C:\Program Files}',
71
72
       ],
73
74
   # 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 kwarqs
   kwargs['obj'] = response['question_results']
80
81
   # 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)
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..')
90
       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
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 = \{\}
   kwarqs["export_format"] = u'json'
```

```
61
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
       'qtype': 'manual',
       'sensors': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
            'Folder Contents{folderPath=C:\Program Files}',
67
68
       ],
69
71
   # ask the question that will provide the resultset that we want to use
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
72
   response = handler.ask(**ask_kwarqs)
73
74
   # store the resultset object as the obj we want to export into kwargs
75
   kwargs['obj'] = response['question_results']
   # 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)
80
   out = handler.export_obj(**kwargs)
81
82
   # trim the output if it is more than 15 lines long
83
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: print the export_str returned from export_obj():"
  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
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')
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)
   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
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"
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
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
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)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
   kwargs["export_format"] = u'csv'
   kwargs["header_sort"] = []
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
       ],
69
70
71
   # 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)
```

```
# store the resultset object as the obj we want to export into kwargs
   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():"
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
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/'
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]
27
   # import pytan
28
   import pytan
29
30
   # 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"
   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
   # 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
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
   kwargs = {}
59
   kwargs["export_format"] = u'csv'
60
   kwargs["header_sort"] = True
61
   # setup the arguments for handler.ask()
63
   ask_kwarqs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
67
           'Folder Contents{folderPath=C:\Program Files}',
       ],
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
74
   response = handler.ask(**ask_kwargs)
   # 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)
   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)
```

```
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
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)
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
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
```

```
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
   kwargs["header_sort"] = 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)
80
   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..')
87
       out = '\n'.join(out)
   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
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!"
   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 = {}
   kwargs["export_format"] = u'csv'
   kwargs["header_sort"] = [u'Computer Name', u'IP Address']
   # 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}',
       ],
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
   # 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
   out = handler.export_obj(**kwargs)
   # 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 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
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
```

```
# 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
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
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
   # 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
59
   kwargs = \{\}
   kwarqs["export_format"] = u'csv'
60
   kwargs["header_add_type"] = False
61
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
       'sensors': [
66
            "Computer Name", "IP Route Details", "IP Address",
67
            'Folder Contents{folderPath=C:\Program Files}',
68
       ],
69
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)
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
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 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
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'csv'
60
   kwargs["header_add_type"] = True
61
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
       'qtype': 'manual',
       'sensors': [
66
           "Computer Name", "IP Route Details", "IP Address",
67
           'Folder Contents{folderPath=C:\Program Files}',
68
       ],
69
70
   # ask the question that will provide the resultset that we want to use
73
   print "...CALLING: handler.ask() with args {}".format(ask_kwargs)
   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
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 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
   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'csv'
60
   kwarqs["header add sensor"] = False
61
62
   # setup the arguments for handler.ask()
63
   ask_kwarqs = {
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
   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
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 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
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'
   kwargs["header_add_sensor"] = True
61
62
   # setup the arguments for handler.ask()
63
   ask_kwargs = {
64
       'qtype': 'manual',
65
       'sensors': [
           "Computer Name", "IP Route Details", "IP Address",
           'Folder Contents{folderPath=C:\Program Files}',
       ],
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)
   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
```

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
   # change me to the path of pytan if this script is not running from EXAMPLES/PYTAN_API
11
   pytan_loc = "~/gh/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/'
   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
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
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 = \{\}
   kwarqs["objtype"] = u'action'
60
   kwarqs["id"] = 1
61
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
   print "...OUTPUT: Type of response: ", type(response)
```

```
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
76
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
77
   out = handler.export_obj(**export_kwargs)
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..')
       out = '\n'.join(out)
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
   # 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
```

```
# 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
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
58
   # setup the arguments for the handler() class
   kwargs = {}
59
   kwargs["objtype"] = u'question'
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
72
   export_kwargs = {}
   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
   print "...OUTPUT: print the objects returned in JSON format:"
```

```
6 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
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/'
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
   # 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
   kwarqs = \{\}
59
   kwarqs["objtype"] = u'saved_question'
60
   kwargs["name"] = [u'Installed Applications', u'Computer Name']
61
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
64
   response = handler.get(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
68
   print response
   # call the export_obj() method to convert response to JSON and store it in out
   export_kwarqs = {}
72
   export_kwargs['obj'] = response
73
   export_kwargs['export_format'] = 'json'
74
75
   print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
77
   out = handler.export_obj(**export_kwargs)
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)
   print "...OUTPUT: print the objects returned in JSON format:"
85
   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
12
   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])
   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
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!"
   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
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
   # setup the arguments for the handler() class
   kwarqs = {}
   kwargs["objtype"] = u'userrole'
60
   kwarqs["id"] = 1
61
62.
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
```

```
print "...OUTPUT: Type of response: ", type(response)
   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
   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
83
       out = '\n'.join(out)
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
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]
   [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!"
   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
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["objtype"] = u'client'
60
   kwarqs["status"] = u'Leader'
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_kwarqs = {}
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
```

```
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
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)
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]
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
   # 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
   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'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:"
   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 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
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'user'
60
   kwargs["name"] = u'Administrator'
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' \cdot 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
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
   # 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'sensor'
60
   kwargs["id"] = 1
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:"
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
       out.append('..trimmed for brevity..')
       out = ' \ n'. join (out)
```

```
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"
   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
   # 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'sensor'
60
   kwargs["hash"] = [u'322086833']
61
62
   kwargs["name"] = [u'Computer Name']
   kwargs["id"] = [1, 2]
63
   print "...CALLING: handler.get with args: {}".format(kwargs)
65
   response = handler.get(**kwargs)
67
   print "...OUTPUT: Type of response: ", type(response)
   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
73
   export_kwargs = {}
74
   export_kwargs['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
80
   # trim the output if it is more than 15 lines long
81
   if len(out.splitlines()) > 15:
82
       out = out.splitlines()[0:15]
83
       out.append('..trimmed for brevity..')
84
       out = '\n'.join(out)
85
86
   print "...OUTPUT: print the objects returned in JSON format:"
87
   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
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() class
58
   kwarqs = {}
   kwargs["objtype"] = u'whitelisted_url'
   kwarqs["id"] = 1
```

```
62.
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
64
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
68
   print response
69
70
71
   # call the export_obj() method to convert response to JSON and store it in out
72.
   export_kwargs = {}
   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
   # 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
   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
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
   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
   kwargs = \{\}
59
   kwarqs["objtype"] = u'group'
60
   kwargs["name"] = u'All Computers'
61
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
   print "...OUTPUT: Type of response: ", type(response)
67
   print "...OUTPUT: print of response:"
68
   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'
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
   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 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
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
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
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
59
   kwarqs = \{\}
   kwarqs["objtype"] = u'sensor'
60
   kwargs["hash"] = u'322086833"
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
   # call the export_obj() method to convert response to JSON and store it in out
71
72
   export_kwargs = {}
   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
   # 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
85
   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
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
   # 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'package'
```

```
kwargs["name"] = u'Distribute Tanium Standard Utilities'
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwargs)
65
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
68
   print response
   # call the export_obj() method to convert response to JSON and store it in out
71
   export_kwargs = {}
   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
  print "...OUTPUT: print the objects returned in JSON format:"
  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
   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)
```

```
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
2.7
   # 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!"
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 = \{\}
   kwargs["objtype"] = u'sensor'
60
   kwargs["name"] = [u'Computer Name', u'Action Statuses']
61
62
   print "...CALLING: handler.get with args: {}".format(kwargs)
63
   response = handler.get(**kwarqs)
64
   print "...OUTPUT: Type of response: ", type(response)
66
67
   print "...OUTPUT: print of response:"
68
   print response
69
   # call the export_obj() method to convert response to JSON and store it in out
   export_kwarqs = {}
   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
   # 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 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
   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])
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)
   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)
   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'
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
72
   export_kwargs = {}
   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
83
       out = '\n'.join(out)
84
   print "...OUTPUT: print the objects returned in JSON format:"
85
   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
   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'user'
60
   kwargs["id"] = 1
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 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
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])
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'sensor'
60
   kwargs["name"] = u'Computer Name'
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 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
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!"
  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'saved_action'
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_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 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
   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'user'
   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
   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 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
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
   # 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
   kwargs["objtype"] = u'saved_action'
60
61
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
62
   response = handler.get_all(**kwargs)
63
65
   print "...OUTPUT: Type of response: ", type(response)
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 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
   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])
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
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)
   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
   kwargs = \{\}
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)
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
71
   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
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 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 = "~/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'saved_question'
```

```
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 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
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]
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 = {}
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
   kwargs = \{\}
59
   kwarqs["objtype"] = u'userrole'
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 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
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
   # 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'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)
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 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
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() class
58
   kwargs = {}
59
   kwarqs["objtype"] = u'group'
   print "...CALLING: handler.get_all with args: {}".format(kwargs)
```

```
response = handler.get_all(**kwargs)
63
   print "...OUTPUT: Type of response: ", type(response)
65
   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_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]
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
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
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["objtype"] = u'sensor'
   print "...CALLING: handler.get_all with args: {}".format(kwarqs)
   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 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
   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/'
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]
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
   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'whitelisted_url'
60
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 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..')
       out = '\n'.join(out)
83
   print "...OUTPUT: print the objects returned in JSON format:"
84
  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
   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
   # 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'client'
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:"
   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]
80
       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 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
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]
   [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!"
   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
55
   print "...OUTPUT: handler string: {}".format(handler)
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwarqs["objtype"] = u'package'
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_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:"
```

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
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
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
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
   kwarqs["objtype"] = u'action'
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_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:"
  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
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 = \{\}
   kwarqs["get_results"] = False
```

```
kwargs["picker"] = 1
   kwargs["question_text"] = u'computer name and ip route details'
62
   kwargs["qtype"] = u'parsed'
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
65
   response = handler.ask(**kwargs)
66
67
   print "...OUTPUT: Type of response: ", type(response)
68
   print "...OUTPUT: Pretty print of response:"
70
   print pprint.pformat(response)
71
   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
78
       export_kwargs = {}
       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)
89
91
       print "...OUTPUT: CSV Results of response: "
       print out
```

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
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"
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])
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
   # 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
   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
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
59
   kwargs = \{\}
   kwarqs["picker"] = 1
60
   kwarqs["sse"] = True
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:"
70
   print pprint.pformat(response)
```

```
print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
   print response['question_object'].query_text
74
75
   if response['question_results']:
76
77
       # 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)
89
       print "...OUTPUT: CSV Results of response: "
91
       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
2
   import sys
3
   import tempfile
4
   import pprint
   import traceback
6
   # 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
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]
```

```
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
   # 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["picker"] = 1
60
   kwarqs["question_text"] = u'computer name and ip route details'
61
   kwargs["qtype"] = u'parsed'
   print "...CALLING: handler.ask with args: {}".format(kwargs)
64
   response = handler.ask(**kwargs)
65
66
   print "...OUTPUT: Type of response: ", type(response)
67
   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
```

```
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 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
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 = "~/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)
   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
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"
```

```
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["get_results"] = False
   kwarqs["sensors"] = u'Computer Name'
   kwargs["qtype"] = u'manual'
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
64
   response = handler.ask(**kwargs)
65
66
   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
   if response['question_results']:
       # 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
81
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
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]
86
           out.append('..trimmed for brevity..')
           out = ' \ n'.join(out)
89
       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
5
   import traceback
6
   # 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])
   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
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
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() class
58
   kwargs = {}
   kwargs["sensors"] = [u'Computer Name', u'Installed Applications']
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)
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]
           out.append('..trimmed for brevity..')
86
           out = ' \ n'. join (out)
87
88
       print "...OUTPUT: CSV Results of response: "
89
       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
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
   kwarqs["sse"] = True
   kwargs["sensors"] = u'Computer Name'
   kwargs["qtype"] = u'manual'
```

```
63
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
   print "...OUTPUT: Type of response: ", type(response)
67
68
   print "...OUTPUT: Pretty print of response:"
69
   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
   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']
       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
89
       print "...OUTPUT: CSV Results of response: "
90
       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
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
16
   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)
   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
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"
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
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
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)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
   kwargs["sensors"] = u'Computer Name'
   kwarqs["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)
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
```

```
export_kwargs = {}
76
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
       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)
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
   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')
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 '../../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
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
```

```
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'name:Computer Name', u'name:Installed Applications']
   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 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
   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
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)
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
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
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["sensors"] = u'Folder Contents{folderPath=C:\\Program Files}'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   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)
69
71
   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
       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
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
```

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
5
   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
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
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)
```

```
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
   kwarqs = {}
59
   kwargs["sensors"] = [u'Folder Contents{folderPath=C:\\Program Files}', u'Computer Name'
60
   kwargs["qtype"] = u'manual'
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   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)
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 = {}
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
       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
       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: "
       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
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])
   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"
   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
   kwarqs["sensors"] = u'Computer Name{fake=Dweedle}'
60
   kwargs["qtype"] = u'manual'
61
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
```

```
65
   print "...OUTPUT: Type of response: ", type(response)
66
   print "...OUTPUT: Pretty print of response:"
   print pprint.pformat(response)
69
   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_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)
       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 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
   import sys
   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
   # Determine our script name, script dir
   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)
   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
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"
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
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
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)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
   kwargs["sensors"] = u'Folder Contents{folderPath=C:\\Program Files}, that regex match:.*Shared.*'
   kwarqs["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)
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
```

```
export_kwargs = {}
76
       export_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
       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 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
2
   import sys
   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)
   # 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]
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
   # 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
   kwarqs = {}
59
   kwargs["sensors"] = u'Operating System, that contains:Windows, opt:max_data_age:3600, opt:value_type
60
   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:"
   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
       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
       out = handler.export_obj(**export_kwargs)
81
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 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
   import sys
3
   import tempfile
   import pprint
   import traceback
6
   # 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
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)
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
28
   # import pytan
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!"
```

```
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
   # 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'Operating System, that contains:Windows'
   kwargs["qtype"] = u'manual'
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
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
   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
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
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..')
           out = ' \ n'.join(out)
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
   import pprint
5
   import traceback
6
   # disable python from generating a .pyc file
8
   sys.dont_write_bytecode = True
Q
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
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
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"
   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
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["sensors"] = u'Folder Contents{folderPath=C:\\Program Files}, that regex match:.*Shared.*, opi
   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)
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_kwargs['obj'] = response['question_results']
77
       export_kwargs['export_format'] = 'csv'
78
       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 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
   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
   kwarqs = \{\}
59
   kwargs["sensors"] = u'Operating System, that contains:Windows, opt:match_all_values, opt:ignore_case
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
   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: "
71
72
   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
       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: "
       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 = "~/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["question_filters"] = [u'Operating System, that contains:Windows',
```

```
u'Operating System, that does not contain: Windows']
61
   kwargs["sensors"] = [u'Computer Name',
62
   u'Folder Contents{folderPath=C:\\Program Files, invalidparam=test}, that regex match:.*Shared.*, opt
63
   kwargs["question_options"] = [u'ignore_case', u'or']
   kwargs["qtype"] = u'manual'
65
66
   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
   print pprint.pformat(response)
73
74
   print "...OUTPUT: Equivalent Question if it were to be asked in the Tanium Console: "
75
   print response['question_object'].query_text
76
77
78
   if response['question_results']:
       # 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
83
       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 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
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["question_filters"] = [u'Installed Applications, that regex match:.*Google.*']
   kwargs["sensors"] = [u'Computer Name',
   u'Last Logged In User',
   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)
```

```
print "...OUTPUT: Type of response: ", type(response)
70
   print "...OUTPUT: Pretty print of response:"
72
   print pprint.pformat(response)
73
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
       export_kwargs = {}
80
       export_kwargs['obj'] = response['question_results']
81
       export_kwarqs['export_format'] = 'csv'
82
83
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
84
       out = handler.export_obj(**export_kwargs)
85
86
87
       # trim the output if it is more than 15 lines long
       if len(out.splitlines()) > 15:
88
           out = out.splitlines()[0:15]
89
           out.append('..trimmed for brevity..')
90
           out = '\n'.join(out)
91
       print "...OUTPUT: CSV Results of response: "
       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
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
   # 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
   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
   kwargs["question_filter_defs"] = [{u'filter': {u'not_flag': 0,
60
                 u'operator': u'RegexMatch',
61
                  u'value': u'.*Windows.*'},
62
     u'name': u'Operating System'}]
   kwargs["sensor_defs"] = [u'Computer Name',
64
   {u'filter': {u'not flag': 0,
65
                 u'operator': u'RegexMatch',
66
                 u'value': u'.*Shared.*'},
67
     u'name': u'Folder Contents',
68
     u'options': {u'ignore_case_flag': 0,
                  u'max_age_seconds': 3600,
```

```
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
   print "...OUTPUT: Type of response: ", type(response)
   print "...OUTPUT: Pretty print of response:"
   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
       if len(out.splitlines()) > 15:
           out = out.splitlines()[0:15]
98
           out.append('..trimmed for brevity..')
           out = ' \ n'.join(out)
100
101
       print "...OUTPUT: CSV Results of response: "
102
       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
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 '../../li\rlap/'
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]
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
   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
   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)
   print "...OUTPUT: Type of response: ", type(response)
```

```
68
   print "...OUTPUT: Pretty print of response:"
69
   print pprint.pformat(response)
   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
77
       export_kwarqs = {}
       export_kwarqs['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
       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
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
   # 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]
   [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 = {}
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["sse"] = True
60
   kwarqs["qtype"] = u'saved'
61
   kwargs["name"] = u'Installed Applications'
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
   response = handler.ask(**kwargs)
   print "...OUTPUT: Type of response: ", type(response)
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: "
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'
```

```
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 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
   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 = "~/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]
   [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 = {}
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["qtype"] = u'saved'
   kwargs["name"] = u'Installed Applications'
62
   print "...CALLING: handler.ask with args: {}".format(kwargs)
63
   response = handler.ask(**kwargs)
64
65
   print "...OUTPUT: Type of response: ", type(response)
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
   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
80
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
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..')
           out = ' \ n'.join(out)
88
       print "...OUTPUT: CSV Results of response: "
89
       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
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)
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = {}
   kwargs["qtype"] = u'saved'
   kwargs["name"] = [u'Installed Applications']
   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']:
       # 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']
       export_kwargs['export_format'] = 'csv'
78
       print "...CALLING: handler.export_obj() with args {}".format(export_kwargs)
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..')
           out = ' \ n'. join (out)
       print "...OUTPUT: CSV Results of response: "
89
       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 = "~/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["unsupported"] = True
```

```
print "...CALLING: handler.create_sensor() with args: {}".format(kwargs)

try:
    handler.create_sensor(**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)
```

1.8.11 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
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)
   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 = {}
```

```
# establish our connection info for the Tanium Server
   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
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.get() method
   get_kwarqs = {}
59
   get_kwargs["objtype"] = u'saved_action'
60
   get_kwargs["name"] = u'Distribute Tanium Standard Utilities'
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()
   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
77
   create_kwarqs = {}
78
   create_kwargs['objtype'] = u'saved_action'
   create_kwarqs['json_file'] = json_file
79
80
   # 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
   try:
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)
```

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
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.get() method
58
   get_kwargs = {}
   get_kwargs["objtype"] = u'client'
   get_kwargs["status"] = u'Leader'
   # 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
67
   export_kwargs = {}
68
   export_kwarqs['obj'] = orig_objs
69
   export_kwargs['export_format'] = 'json'
70
   export_kwargs['report_dir'] = tempfile.gettempdir()
71
   print "...CALLING: handler.export_to_report_file() with args: {}".format(export_kwargs)
73
   json_file, results = handler.export_to_report_file(**export_kwargs)
   # create the object from the exported JSON file
76
   create kwarqs = {}
   create_kwargs['objtype'] = u'client'
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
   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
       # 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
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.get() method
   get_kwarqs = {}
   get_kwargs["objtype"] = u'userrole'
60
   get_kwarqs["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)
   orig_objs = handler.get(**get_kwargs)
```

```
# export orig_objs to a json file
67
   export_kwargs = {}
   export_kwargs['obj'] = orig_objs
   export_kwargs['export_format'] = 'json'
71
   export_kwargs['report_dir'] = tempfile.gettempdir()
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 = {}
   create_kwargs['objtype'] = u'userrole'
   create_kwarqs['json_file'] = json_file
79
80
   # 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
   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
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')
   # 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"
   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.get() method
58
   get_kwargs = {}
59
   get_kwargs["objtype"] = u'setting'
   get_kwargs["id"] = 1
   # 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)
65
   # export orig_objs to a json file
67
68
   export_kwargs = {}
   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)
73
   json_file, results = handler.export_to_report_file(**export_kwargs)
   # create the object from the exported JSON file
76
   create kwargs = {}
77
   create_kwargs['objtype'] = u'setting'
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)
```

```
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)
```

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
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')
   # 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]
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
   # 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 = \{\}
   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
65
   except Exception as e:
       print "...EXCEPTION: {}".format(e)
66
       # this should throw an exception of type: pytan.exceptions.RunFalse
67
       # uncomment to see full exception
68
       # 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

# 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
   # 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
   kwargs["package_help"] = True
60
61
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
62
   trv:
       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
68
       # 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
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["run"] = True
   kwargs["package"] = u'Invalid Package'
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
63
   try:
64
       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)
70
```

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
   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 = "~/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
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"
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
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
58
   # setup the arguments for the handler() class
   kwargs = {}
59
   kwargs["options_help"] = True
60
61
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
62
   try:
63
       handler.deploy_action(**kwargs)
   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
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
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
   kwarqs["run"] = True
   kwarqs["package"] = u''
   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.HumanParserError

# uncomment to see full exception
# 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])
   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
   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)
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)
   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
   kwargs = \{\}
59
   kwarqs["filters_help"] = True
60
61
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
62
   try:
63
       handler.deploy_action(**kwargs)
   except Exception as e:
       print "...EXCEPTION: {}".format(e)
66
       # this should throw an exception of type: pytan.exceptions.PytanHelp
67
       # uncomment to see full exception
68
       # 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
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
   # 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
   kwargs = {}
59
   kwargs["run"] = True
60
   kwargs["package"] = u'Custom Tagging - Add Tags'
61
63
   print "...CALLING: handler.deploy_action() with args: {}".format(kwargs)
   try:
64
       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
       # 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 ison 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
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
   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["explode_json_string_values"] = u'bad'
   # 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
   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
   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 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
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
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'
   kwargs["header_sort"] = [[]]
62
   # setup the arguments for handler.get()
63
   get_kwargs = {
64
       'name': [
65
           "Computer Name", "IP Route Details", "IP Address",
66
           'Folder Contents',
```

```
'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
76
   kwargs['obj'] = response
77
78
   # 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 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
   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])
   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'csv'
60
   kwargs["header_sort"] = u'bad'
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 use
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)
       # 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
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
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
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
   kwarqs = \{\}
59
   kwargs["export_format"] = u'xml'
60
   kwarqs["minimal"] = u'bad'
61
62
   # setup the arguments for handler.get()
63
64
   get_kwargs = {
       '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 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
77
   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:
       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)
```

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
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'json'
60
   kwargs["include_type"] = u'bad'
61
   # setup the arguments for handler.get()
   get_kwargs = {
```

```
'name': [
65
            "Computer Name", "IP Route Details", "IP Address",
66
            'Folder Contents',
67
        '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)
   # 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
   try:
81
82
       handler.export_obj(**kwargs)
   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 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
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
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"
   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
   kwarqs = {}
59
   kwargs["export_format"] = u'json'
   kwargs["explode_json_string_values"] = u'bad'
   # 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
   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
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
80
   try:
82
       handler.export_obj(**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 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
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
   # 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 = {}
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
```

```
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
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'bad'
60
61
   # setup the arguments for handler.get()
62
   get_kwargs = {
63
       'name': [
64
           "Computer Name", "IP Route Details", "IP Address",
           'Folder Contents',
66
67
       1,
       'objtype': 'sensor',
68
69
70
   # get the objects that will provide the basetype that we want to use
71
   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
   kwarqs['obj'] = response
76
77
   # export the object to a string
   print "...CALLING: handler.export_obj() with args {}".format(kwargs)
79
   try:
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
       # uncomment to see full exception
       # 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
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'
   kwargs["header_sort"] = [[]]
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
   response = handler.ask(**ask_kwargs)
73
75
   # 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
       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
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
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!"
   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
54
   # 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.ask()
   ask_kwarqs = {
64
       'qtype': 'manual',
65
       'sensors': [
66
           "Computer Name"
67
       ],
   # 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
74
   # store the resultset object as the obj we want to export
   kwarqs['obj'] = response['question_results']
```

```
# export the object to a string
print "...CALLING: handler.export_obj() with args {}".format(kwargs)

try:
    handler.export_obj(**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 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
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/
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 = {}
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
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["export_format"] = u'csv'
   kwargs["expand_grouped_columns"] = u'bad'
   # 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)
72
   response = handler.ask(**ask_kwargs)
73
   # 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
   try:
80
81
       handler.export_obj(**kwargs)
82
   except Exception as e:
       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
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/'
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
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
   # 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
   kwarqs = {}
59
   kwargs["export_format"] = u'csv'
60
   kwarqs["sensors"] = [[]]
61
   kwargs["header_add_sensor"] = True
62
63
   # setup the arguments for handler.ask()
64
   ask_kwargs = {
65
       'qtype': 'manual',
66
       'sensors': [
67
           "Computer Name"
       ],
   }
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
   # 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)
   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
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)
```

```
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
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"
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
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
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)
54
   # print out the handler string
55
   print "...OUTPUT: handler string: {}".format(handler)
56
57
   # setup the arguments for the handler() class
58
   kwargs = \{\}
   kwargs["export_format"] = u'bad'
61
   # setup the arguments for handler.ask()
62
   ask_kwargs = {
63
       'qtype': 'manual',
64
       'sensors': [
65
            "Computer Name"
       ],
67
68
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)
   # store the resultset object as the obj we want to export
   kwargs['obj'] = response['question_results']
```

```
# export the object to a string
print "...CALLING: handler.export_obj() with args {}".format(kwargs)
try:
    handler.export_obj(**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)
```

1.8.15 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
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
   # 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 = {}
```

```
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
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
   kwarqs = \{\}
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
       # uncomment to see full exception
69
       # 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"
   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["objtype"] = u'question'
60
   kwargs["name"] = u'dweedle'
61
62
   print "...CALLING: handler.get() with args: {}".format(kwargs)
63
   try:
64
       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
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
25
   path_adds = [lib_dir, pytan_static_path]
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
   # 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)
56
57
   # setup the arguments for the handler() class
58
   kwarqs = \{\}
59
   kwargs["qtype"] = u'manual'
60
   kwargs["sensors_help"] = True
61
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
   try:
       handler.ask(**kwargs)
65
   except Exception as e:
66
       print "...EXCEPTION: {}".format(e)
67
       # this should throw an exception of type: pytan.exceptions.PytanHelp
68
       # 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
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)
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
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
   kwargs["filters_help"] = True
60
61
   kwarqs["qtype"] = u'manual'
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   trv:
64
       handler.ask(**kwargs)
65
   except Exception as e:
       print "...EXCEPTION: {}".format(e)
       # this should throw an exception of type: pytan.exceptions.PytanHelp
68
       # uncomment to see full exception
69
       # 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
   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
   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
59
   kwargs = {}
   kwargs["options_help"] = True
   kwargs["qtype"] = u'manual'
   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
68
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
70
```

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
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 = "~/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
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
58
   # setup the arguments for the handler() class
59
   kwargs = {}
   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
       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
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
   kwarqs["question_text"] = u'Computer Name'
   kwargs["qtype"] = u'parsed'
61
62.
```

```
print "...CALLING: handler.ask() with args: {}".format(kwargs)

try:
    handler.ask(**kwargs)

except Exception as e:
    print "...EXCEPTION: {}".format(e)

# this should throw an exception of type: pytan.exceptions.PickerError

# uncomment to see full exception
# 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
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["sensors"] = u'Dweedle Dee and Dum'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
       handler.ask(**kwarqs)
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 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
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 '../../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
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
   # 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
   kwarqs = {}
59
60
   kwarqs["sensors"] = u'Folder Name Search with RegEx Match{dirname=Program Files,regex=.*}}}}
61
   kwarqs["qtype"] = u'manual'
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
   trv:
64
       handler.ask(**kwargs)
65
   except Exception as e:
       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)
```

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
   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
   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
59
   kwarqs = \{\}
   kwargs["sensors"] = u'Operating system, opt:bad'
   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
68
       # uncomment to see full exception
69
       # traceback.print_exc(file=sys.stdout)
70
```

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
   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 = "~/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
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
   # 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
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
57
   # setup the arguments for the handler() class
58
   kwargs = {}
59
   kwarqs["sensors"] = u'Computer Name{Dweedle}'
60
   kwargs["qtype"] = u'manual'
61
62
   print "...CALLING: handler.ask() with args: {}".format(kwargs)
63
       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)
```

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"

) }
```

• Response Headers:

```
"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:

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: 0:00:00.000979
- 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": "25-1572-c6bd07bca7257b861bd60f60e9a779ded9a318f63e2975aa2bf5e73d27d2e066d691300d19396d3
```

• Response Headers:

```
"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"
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:

```
"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-c6bd07bca7257b861bd60f60e9a779ded9a318f63e2975aa2bf5e73d27d2e066d691300d19396d39
```

• Response 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:

• 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1792",
"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-c6bd07bca7257b861bd60f60e9a779ded9a318f63e2975aa2bf5e73d27d2e066d691300d19396d39
```

· Response Headers:

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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2858",
"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-c6bd07bca7257b861bd60f60e9a779ded9a318f63e2975aa2bf5e73d27d2e066d691300d19396d39]
```

• 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"
]
```

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:

```
"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-c6bd07bca7257b861bd60f60e9a779ded9a318f63e2975aa2bf5e73d27d2e066d691300d19396d39]
```

• 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2807",
"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-c6bd07bca7257b861bd60f60e9a779ded9a318f63e2975aa2bf5e73d27d2e066d691300d19396d39]
```

• Response 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:

```
1 {
2    "connection": "Keep-Alive",
3    "content-encoding": "gzip",
4    "content-length": "107",
5    "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-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd1150e88")
```

• 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: 0:00:00.004148
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

• 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
}
```

• Response Headers:

```
"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:

```
1 {
2    "connection": "Keep-Alive",
3    "content-encoding": "gzip",
4    "content-length": "521",
5    "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:

```
"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": "25-1573-cc38da0002c5aeb50eee28c34b2f3975ec6a427d81af63e8d8ef6ed8ccbc21c28ff1e16dfd1150.99]
```

• 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:

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
| }
```

```
"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:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "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:

• 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": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e769]
```

```
"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:

```
"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"

}
```

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:

· 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": "25-1574-854987d52dfc698c19c7eb908699f2050d5583e66750476283ad2d3edd8731dc9a0ee66e0f10e769")
}
```

```
"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

}
```

```
"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",
```

```
"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": "25-1575-121611b2fcfa63c76e1768fadafeb89ee8b14713f480e998b79d782e3d8ee11b6b96bb57542f498999866
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "4534",
"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 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:

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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1062",
"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: 0:00:00.010231
- 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1985",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1576-27755dcd26250a2df8e29a9b5526496e84ee8a0559538ba98221c467ba9076bffb39321ba3d5adlegetes)
}
```

```
"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:

```
"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: 0:00:00.006752
- 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": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0abgellength
```

```
"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": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0ase9)
```

· 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:

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": "25-1577-7b202ebc700cbe5e78ebd7418cb8c9dc86f2b63a3ce9d9597fbf010b60077e442a05c60a481d0ase9)
}
```

```
"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:

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:

```
"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": "25-1578-3c95cd89ee6258b9a9a3b854b0b095e77f6fe10a8d6ffc4f1818d11c877c962f98229c32291ad5:
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1516",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:30 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:

```
"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": "25-1578-3c95cd89ee6258b9a9a3b854b0b095e77f6fe10a8d6ffc4f1818d11c877c962f98229c32291ad5:9]
```

· 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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "1493",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:31 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: 0:00:00.008732
- 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1579-c3e9663caa8e9ff60830dcee019b2a9215c7cb384670bc811a587de8da859f84f8a05ae481f2d3677
```

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:

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-c3e9663caa8e9ff60830dcee019b2a9215c7cb384670bc811a587de8da859f84f8a05ae481f2d369]
```

• 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:

```
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: 0:00:00.037185
- 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: 0:00:00.004745
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

```
"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:

```
"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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "16026",
"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": "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.]
```

```
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: 0:00:00.014175
- 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "964",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1581-115ac44c7a744c828e045a143da19d0f96b745f0031d069b1743813dfa1278151175c58b85ab2c39
}
```

• 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:

• 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:

• 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "536",
"Content-Type": "text/xml; charset=utf-8",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1582-70044f8f41fe3f24601d82eefda2d1f1d0a1860b576018dbb8e79b3191b59c6e8 28d2452b04b7
```

```
"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-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995cf7]
```

• 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:

• 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-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995cs9]
```

```
"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",
```

```
8    "session": "25-1583-e1a3113be152a3f6a70a136f464f9a9d32b41f7923f1ca136dd92f402a60776e0310f7cc9c995cs
9    }
```

```
"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=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: 0:00:00.007811
- Step 7 Request Body
- Step 7 Response Body
- · Request Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "508",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:19:33 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: 0:00:00.301418

• 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:

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"

"]
```

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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "755",
"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",
"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: 0:00:00.190842
- Step 6 Request Body
- Step 6 Response Body
- Request Headers:

```
"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:

• 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:

```
{
    "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": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469
}
```

```
"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:

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:

```
"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:

· 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",
```

```
"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:

```
"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",
```

```
"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",
```

```
"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",
```

```
"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",
```

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": "25-1584-9bfb5bcf68d7315a9bc02e204a835becb5f70bc7d0dbccf056d6177d58f27626d5bc307f3d38a469]
```

```
"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=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",
2
     "content-encoding": "gzip",
3
     "content-length": "110",
4
     "content-type": "text/plain; charset=us-ascii",
     "date": "Sat, 05 Sep 2015 05:20:00 GMT",
6
     "keep-alive": "timeout=5, max=100",
     "server": "Apache",
     "strict-transport-security": "max-age=15768000",
     "vary": "Accept-Encoding",
     "x-frame-options": "SAMEORIGIN"
11
12
```

Step 2 - Get the server version via /info.json

- URL: https://172.16.31.128:443/info.json
- HTTP Method: GET
- Elapsed Time: 0:00:00.001370
- 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"

"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: 0:00:00.004924
- 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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2199",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 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: 0:00:00.006641
- 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",
]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2199",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:00 GMT",
"keep-alive": "timeout=5, max=93",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

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:

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:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
4    "Connection": "keep-alive",
5    "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:

```
"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": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae4
9 }
```

• 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-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8aeage
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:

```
"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:

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:

```
"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-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8aeage
9 }
```

```
"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",
```

```
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
"session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
```

```
"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:

```
"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",
```

```
s "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9 }
```

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:

```
"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",
```

```
s "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:

```
"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=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",
```

```
s "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",
```

```
s "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9 }
```

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:

```
"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-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae49
}
```

```
"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:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "902",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:20:26 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",
```

```
s "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",
```

```
s "session": "25-1586-defc933eca4c058dab3d47103fe2105f9b34742be90d18d3975932bad186e936d08ed4ba83f8ae-
9 }
```

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
    }
}
```

```
"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": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
}
```

```
"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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2394",
"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"]
```

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:

```
"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": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
9 }
```

· 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",
```

```
8    "session": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
9  }
```

```
"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:

• 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:

· 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:

```
"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 05:20:46 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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "758",
"content-type": "text/xml;charset=UTF-8",
```

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:

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:

```
"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": "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.
```

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.

"Bession": "25-1587-541f296010fd894d720284af1625dec02300d8810d56a2fc913dbba97c6781aa0bead1ae5dadf5.
```

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:

```
"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: 0:00:00.013774
- 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"

"]
```

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:

```
1
     "connection": "Keep-Alive",
2
     "content-encoding": "gzip",
3
     "content-length": "109",
4
     "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",
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: 0:00:00.001024
- 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
]
```

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:

```
"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": "25-1617-f81eba2e2339b96e1f3217ef94a107ee6ffb9682713299e0897cfeeb56ecb3f3f0bceab2cc04c008
}
```

• 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-dd023086f7c2828245d858f2d9fba6a52105415f6635962b36335879115b51937a798eee5a5f2338"]
```

• 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"]
```

• 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:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "Connection": "keep-alive",
5    "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"

}
```

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:

```
"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": "25-1621-a8ec93e348606ba5cc87591ce8885156c45e93f3f540d6acba1a4bc55db1e83312259e6759961degent)
"January Property Property
```

• 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:

```
"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",
```

```
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: 0:00:00.287009
- 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:

```
"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;
"]
```

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:

```
"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": "25-1623-9b67ecce414047ee2cc549e037c92b7e8b8c26bb9a6eb56ea25fc6e50c9166ea149aa481503068.
"Bession": "25-1623-9b67ecce414047ee2cc549e037c92b7e8b8c26bb9a6eb56ea25fc6e50c9166ea149aa481503068.
```

```
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: 0:00:00.082861
- 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:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip, deflate",
4    "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:

• 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:

```
"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.
```

```
"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:

```
"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: 0:00:00.006468
- 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."]
```

• 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:

```
"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": "25-1626-506a2c6a3f62dbb803e6601a6eeae2d01c657aedbf7b766fe977bc193044efd52369746b016708.5.0.)
"Session": "25-1626-506a2c6a3f62dbb803e6601a6eeae2d01c657aedbf7b766fe977bc193044efd52369746b016708.5.0.)
```

• 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:

```
"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": "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:

```
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": "25-1629-99be0ac0413ac60a29d912dc02d989f3b2e763494c12f13626a00ecf2e89e2eaad3604a1dc0e3cd",
]
```

```
"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:

```
"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": "25-1629-99be0ac0413ac60a29d912dc02d989f3b2e763494c12f13626a00ecf2e89e2eaad3604aldc0e3cd9]
```

```
"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:

```
"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": "25-1630-a9c56c17e2b93a7ab1567912291acc88b008113bdc79457ae64afc1abb41492f9563ce66e840fe88]
```

```
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:

· 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"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": "25-1631-20c0ed3da9dbb0e304d201f459cad7a07fd23160642882d53fad0202657e67f1889dd6c520eb55.8"]
```

```
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:

• 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")
```

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:

```
"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": "25-1633-2f60810b5f0aee60c9ebae92b3a1d6b6cfa2e735251ef84372dff8bb75ae613581faa8ed88c00788]
```

• 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:

• 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:

```
"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: 0:00:00.005389
- 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": "25-1635-70385e26372792dbcd7a047f890d005ab3d008699e8a5b5d79acaae4b63aa58b3e5b419054bc936
}
```

• 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:

```
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: 0:00:00.006085
- 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": "25-1636-49d69ff644958a7bbc2e40db3b85c9c0465558a4230283b4ba349cbea9lee8934a0e19e05c94c168]
```

• 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:

```
"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]
```

```
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: 0:00:00.003139
- Step 4 Request Body
- Step 4 Response Body
- · Request Headers:

· 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:

```
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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "18765",
"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"

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-fec4a3e52228486f0208b82f64c72a67eef66b32074bf7cbc1294a91e513f5f3c14cb360b9faeff7"
}
```

```
"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:

• 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:

• 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:

```
"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": "25-1641-46720e2b9e299d799638816cb81844b5d605b40be364ab22f66388fd485fb17646b6ba0b3628cee8
}
```

· 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": "25-1641-46720e2b9e299d799638816cb81844b5d605b40be364ab22f66388fd485fb17646b6ba0b3628ce69 }
```

```
"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-c52763b98bedd410480f9e276234e3d3419a6e7175f09475cdee498d4b257f76451575ff5ca6f6677"]
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:26 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: 0:00:00.005876
- 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"]
```

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:

```
"content-length": "11010",
"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:

· 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:

```
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-c041496fdaff8c6b8a1b6fa20882bc6300c21fb9ce7d0a8e3e8fc1ca089683a3533cef2d235d12
```

```
"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:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:28 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: 0:00:00.006023
- 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]
```

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:

```
"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": "25-1646-68e77d0bc1b53b61427b4cf68f23c275535ae149849e162b6d5b9327e153aef18bc530ca61828869]
```

```
"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
}
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:36:43 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: 0:00:00.014372
- 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": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042da88"]
```

• 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": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042daggerent"; "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
```

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"

12 }
```

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:

```
"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": "25-1647-2bc8b8ac45c72b79b674e7e181baba6fec6db84ab55ee4e68da61c924f0515e36f2a49d131042daggerel
```

· 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:

```
"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": "25-1648-0adef5537109d23ce3f2522a10b7cc2bb3bc8a4862de7f27a536cf4e9a143a2447503e5801003b
}
```

```
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": "25-1648-0adef5537109d23ce3f2522a10b7cc2bb3bc8a4862de7f27a536cf4e9a143a2447503e5801003b29]
```

· 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]
```

```
"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",
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "716",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:36:58 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: 0:00:00.003539
- 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:

· Response Headers:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "863",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:03 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 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:

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;
"]
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:37:14 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: 0:00:00.012345
- 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;
"}
```

· 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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "5500",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:37:14 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: 0:00:00.002682
- 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:

```
"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;
"January Properties of the properties of
```

```
"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:

```
"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",
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 content
```

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:

```
"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.g
```

```
"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",
```

```
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: 0:00:00.012727
- 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:

```
"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": "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"]
```

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:

```
"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:

```
"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 05:38:25 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:

```
"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 05:38:35 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:

```
"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:

```
1 {
2    "connection": "Keep-Alive",
3    "content-encoding": "gzip",
4    "content-length": "705",
5    "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:

```
"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 05:38:55 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: 0:00:00.003346
- Step 21 Request Body
- Step 21 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 05:39:00 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:

```
"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-f06bac1f2233670ad8b9a0e5baf80705d75a746a0ea8129e9dccfcbe2c68d0cff1440afcfcadc0eggy)
```

```
"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:

```
"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": "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:

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",
```

```
"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:

```
"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": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cda99]
```

```
"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": "25-1653-6a92fb679450a16afb192e9adffc75ab2ae9a10279bcc2a29b4f4953a50d27650544ce16d3a5cd
9 }
```

```
1 {
2    "connection": "Keep-Alive",
3    "content-encoding": "gzip",
4    "content-length": "716",
5    "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:

```
"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
]
```

· 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:

```
"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:

```
"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
}
```

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:

```
"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:

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:

```
"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": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"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"

"1]
```

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]
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "703",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:42:31 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: 0:00:00.004357
- 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": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

```
"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:

· 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]
"January Properties of the properties of
```

```
"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:

```
"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 05:43:01 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:

• 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:

```
"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 05:43:11 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:

```
"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]
"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]
```

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:

```
"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:

```
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]
```

```
"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]
"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 05:43:46 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:

```
"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 05:43:51 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:

```
"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]

"Bession": "25-1654-94a80067fafd857c77fb770837506f0f3cbc30649785e6556cf513e0d92b0fcf532eac20784d05]

"Temporal Content of the Content o
```

• 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:

```
"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:

```
"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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4centagent"
}
```

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:44:12 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: 0:00:00.014527
- 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": "25-1655-681b6d4024f800bade723163607a09d597b79d1edbe1ddad522bababbbea596df8b3f1782edf4cd9]
```

• 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)
```

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:

```
"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:

```
"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": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3beta.
```

· 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"

"]
```

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",
10
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": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3berger)
"Bession": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3berger)
```

```
"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:

```
"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)
"Temperature of the content of the
```

· 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:

```
"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)
"Session": "25-1656-57741f70782af807aea8725a29cda52d777bf9f48d80d06b1705dc80587d960075c461a2f2d3berger)
```

```
"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",
"Session": "25-1657-090ffe354a3d7839364ab480954ccf79e1c35f82060ce64e7eeeb7c8701136be716f3e5d6e9c4777...")
```

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:

• 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:

• 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:

```
"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 05:44:37 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:

```
"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": "25-1657-090ffe354a3d7839364ab480954ccf79e1c35f82060ce64e7eeeb7c8701136be716f3e5d6e9c4799"]
"In the second content of the second conte
```

```
"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:

```
| {
| "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.
| }
```

· 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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "2485",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:45:02 GMT",
"keep-alive": "timeout=5, max=89",
"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
```

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:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:45:02 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: 0:00:00.014047
- 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": "25-1658-91ba3767a240aa2418dc6ce4c06461a50f6e4cd0fdddecff3f01da9c49b0c85412e634c7f3a20339]
```

• 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:

```
"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": "25-1658-91ba3767a240aa2418dc6ce4c06461a50f6e4cd0fdddecff3f01da9c49b0c85412e634c7f3a203.9"]
```

```
"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:

```
"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": "25-1658-91ba3767a240aa2418dc6ce4c06461a50f6e4cd0fdddecff3f01da9c49b0c85412e634c7f3a203.9")
```

```
"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:

```
"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:

· 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:

```
"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"

11 }
```

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": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f56289]
```

· 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": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629]
```

```
"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=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:

```
"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:

```
"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": "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:

```
"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:

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "719",
"content-type": "text/xml;charset=UTF-8",
```

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": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f5629
}
```

· 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": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f56209)
```

```
"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": "25-1659-2f5460ed159093841032e0dcd88809892f6796789ffd7071f01304c8ff455e2ed7e5426088f56209)
}
```

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."
]
```

```
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:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "571",
    "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)
}
```

• 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:

```
"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": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeed.
```

```
"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:

```
"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": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeed.
```

```
"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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1174",
"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)

}
```

• 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": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeget)
"Session": "25-1660-0108a586cba30ddaced24c35bcdcbc09593318a09d4c6f93f6e683cd2f6a23e06dc94de0bbcafbeget)
```

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:

```
1 {
2    "Accept": "*/*",
3    "Accept-Encoding": "gzip",
4    "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:

```
"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

9 }
```

```
"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-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f425969)
```

```
"keep-alive": "timeout=5, max=97",

"server": "Apache",
"strict-transport-security": "max-age=15768000",
"x-frame-options": "SAMEORIGIN"
"]
```

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-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f425969

9 }
```

• 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-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f42596
}
```

```
"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:

```
"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": "25-1662-f64ef8a82f6c3e6365a81cbf872e10fa89b4a08b84f4c344c6fa2cf3b2487cdaa00554f27f425969

}
```

· 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf1]
"Baccept": "*/*",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf1]
```

```
"connection": "Keep-Alive",
"content-length": "207",

"content-type": "text/html; charset=iso-8859-1",

"date": "Sat, 05 Sep 2015 05:46:35 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: 0:00:00.010842
- 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": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf1]
"Bession": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf1]
```

• 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": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf18

"Bession": "25-1663-5164fda326574a577f666412eefbade66f3c9c95dc6d825363ae34381bb272a6db7b43c0984bf18
```

```
"connection": "Keep-Alive",
"content-encoding": "gzip",
"content-length": "7002",
"content-type": "text/xml; charset=UTF-8",
"date": "Sat, 05 Sep 2015 05:46:35 GMT",
```

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"
```

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:

```
"connection": "Keep-Alive",
"content-length": "207",
"content-type": "text/html; charset=iso-8859-1",
"date": "Sat, 05 Sep 2015 05:46:35 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: 0:00:00.005538
- 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:

```
"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": "25-1664-99d4384ab4846ff2d202859e22656efa6e79cf6b8277bd52d4817fea70e66a343abaa3b0e3e0f1.

"Bession": "25-1664-99d4384ab4846ff2d202859e22656efa6e79cf6b8277bd52d4817fea70e66a343abaa3b0e3e0f1.
"Temperature of the content of th
```

• 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:

```
"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-bf782776cd0ff216acd619ea90ea7616a5faa8c11066cb99a239638d716e70d6fcd1f9fd271c903fleegy)
}
```

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:

```
"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-bf782776cd0ff216acd619ea90ea7616a5faa8c11066cb99a239638d716e70d6fcd1f9fd271c903fleepole.
```

• 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:

· 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:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

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:

```
"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 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:

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:

```
"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": "1-609-160bb2e4709ab569d127ea1bca868a734acea52a1b545ccff6fb59bb2bca090370e7fa2c81a275ddd
9 }
```

```
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:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "5943",
    "Content-Type": "text/xml; charset=utf-8",
    "User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
    "session": "1-609-160bb2e4709ab569d127ea1bca868a734acea52a1b545ccff6fb59bb2bca090370e7fa2c81a275ddegenter
}
```

· Response Headers:

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-e8f4a6a0cf03d4e5aa660f9155b4f55bc8990fa8a6cb966aa8866a0eb8733ace37327eaaf3cedd30.9
```

```
1 {
2     "connection": "keep-alive",
3     "content-length": "664",
4     "content-type": "text/xml; charset=UTF-8"
5 }
```

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:

```
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 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
]
```

```
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: 0:00:00.264540
- 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 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:

```
"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-e8f4a6a0cf03d4e5aa660f9155b4f55bc8990fa8a6cb966aa8866a0eb8733ace37327eaaf3cedd30.9
]
```

```
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 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:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
"Accept": "*/*",
"Accept=Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-611-275a13394bf5c20daa898559d19e2388ea12601e887e9f31e516a3e864e5d709eb5fe87b933fd000d7
```

```
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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "698",
"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 }
```

```
"connection": "keep-alive",
"content-length": "1016",
"content-type": "text/xml; charset=UTF-8"
""s }
```

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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "735",
"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]
```

• 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]
```

```
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: 0:00:00.054816
- 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": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd519]
"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": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd519]
```

· 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": "1-612-930ea4352e276505467b116514f0f27afb0106d522a64d07ef6a5c70dc48710c0e743b6fd91acfd589"]
```

```
"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]
}
```

• 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:

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:

```
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: 0:00:00.003519
- 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 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:

· 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": "1-613-6752ac971c0b9286acdb297f4f8ba7e537cc970d5042fddcc5eleaa32134d7e95588980d0dc72fbeeleasagent";
"Jense State Content Cont
```

```
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 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": "1-614-48eb82387220130c7c27652700900120850043c88b3968975115cdbd53ed3716e09a5ac3b16fa16207.")
```

• 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": "1-614-48eb82387220130c7c27652700900120850043c88b3968975115cdbd53ed3716e09a5ac3b16fa162099)
"Temperature of the content of the
```

```
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:

• Response Headers:

```
"connection": "keep-alive",
"content-length": "830",
"content-type": "text/xml;charset=UTF-8"
""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:

```
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:

```
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 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)
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-616-2e870e86903255e8cd2e8870adaald3c093967722ae49700020aaa6f30576677f269793b7d65b3cdcf7"
}
```

```
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: 0:00:00.003914
- Step 3 Request Body
- Step 3 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": "1-616-2e870e86903255e8cd2e8870adaa1d3c093967722ae49700020aaa6f30576677f269793b7d65b3cde9
}
```

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:

```
"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: 0:00:00.275634
- 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": "1-617-7b399a9919f1e20d7e1adae0efad9bea67861ce4cba879745ef64a7a3bc9457e6b7a9a5951d16ca1
```

```
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:

```
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: 0:00:00.015562
- 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:

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:

```
1 {
2    "connection": "keep-alive",
3    "content-length": "950",
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: 0:00:00.009301
- 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-f573d43c4fa5f4dd8134a1c3f8cbd8c28e6e2be54428f252099a6b66fb7b88dc9de60c5b17a4e71f3

9 }
```

```
"connection": "keep-alive",
"content-length": "862",
"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: 0:00:00.003909

• Step 7 Request Body

- Step 7 Response Body
- Request Headers:

• Response Headers:

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:

```
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
"Bession": "1-619-labf7bb04651784ffcb76d9e03fa3e9f5c4a83b94fb07bfc2a9b5b2a04b82802cd320785f785a024
```

```
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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
"Bession": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
```

• 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-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc326339
```

```
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:

```
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 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-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc326339]
```

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:

```
"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:

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:

```
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:

```
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: 0:00:00.004959
- Step 12 Request Body
- Step 12 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": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc326339")
"Jession": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263399")
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

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:

```
"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": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6ald14fc3263.9
}
```

• 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 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:

```
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:

```
{
    "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-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
}
```

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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.

| "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": "1-620-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:

```
"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-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
9 }
```

· 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:

```
"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.

"Bession": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6ald14fc3263.

"Temporal Content of the Content of
```

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.

| "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": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc3263.
```

• 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",
```

```
"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:

```
{
    "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:

```
"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:

```
"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]
```

```
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 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:

· 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:

· 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 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:

```
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": "1-620-b187339c6ad8ecf5280734d6a81af6cba91b4dcc1c1c09d28b2bee3fd05b95bbac3f6a1d14fc326339]
```

```
"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:

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:

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:

```
"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: 0:00:00.035296
- 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": "1-621-afb1d46105ffaaab5496cad137052128d03cb870720f6c9bad352dflecac743870c7fd897d5bef53."
}
```

· 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:

```
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:

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:

```
"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": "1-621-afb1d46105ffaaab5496cad137052128d03cb870720f6c9bad352dflecac743870c7fd897d5bef539]
```

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]
```

```
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 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:

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:

```
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 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": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6-9
```

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": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69]
```

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",
"Bession": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69",
"In the content of th
```

```
"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:

```
"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:

```
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:

```
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 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:

```
"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": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6-9]
```

· 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:

```
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: 0:00:00.110539
- 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": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b699")
```

```
"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:

• 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": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69]
```

• 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": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6-9
}
```

• Response Headers:

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]
```

```
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 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:

```
"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 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:

```
"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: 0:00:00.005525
- Step 23 Request Body
- Step 23 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]
```

```
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:

```
"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": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69",
"Bession": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b69",
"In the content of th
```

```
"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]
```

```
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 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": "1-622-6eb3cc08a054104d45ce22051218b6125b034ddf0b2ff434de00794bde0e9da84c187596a64635b6-9
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "2644",
"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.

"session": "1-623-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.
```

• Response Headers:

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.
```

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:

· 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: 0:00:00.017676
- 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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip",
"Connection": "keep-alive",
"Content-Length": "1144",
"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-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-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.9"
}
```

```
"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:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

• 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:

```
"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:

```
"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:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

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-bd9f4ea333ba6f18289ee21afe20dd92e3b59f007651dbdc059dee4599af628861263483bcdd59c3.
9 }
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
"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:

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:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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.
```

```
"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
]
```

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml; charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

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:

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:

```
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: 0:00:00.046667
- Step 2 Request Body
- Step 2 Response Body
- · Request Headers:

```
"session": "1-656-62109f92058c624b852f9db7a1c6d8377231d65e4753b4118ca9c9ed5fab9677262dee80d4541779
```

```
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:

```
"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": "1-656-62109f92058c624b852f9db7a1c6d8377231d65e4753b4118ca9c9ed5fab9677262dee80d454177939
```

· Response Headers:

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:

```
"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": "1-657-b539377aac4fed0c03b60b96f6c94baf0d89424425fca3c05002d2f5e36d65da0ffd901c7c150777;
]
```

```
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:

```
"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: 0:00:00.013129
- 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": "1-658-fbef3bb8462edcc8965e961ad50032487f2190188c9093d25f90e908bc122179716453b27a9017b0.
]
```

· 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:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "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:

```
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:

```
"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": "1-659-84c6937246fd3be6a92edd34b2c2747a10f8ddc25b9995e2dca040d54afb1aae10a080015cb57f229

}
```

· 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:

```
"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: 0:00:00.027766
- 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
}
```

```
"connection": "keep-alive",
"content-length": "940",
"content-type": "text/xml; charset=UTF-8"
""content-type": "text/xml; charset=UTF-8"
```

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:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
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:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
"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: 0:00:00.008172
- 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:

```
1 {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

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:

```
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:

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": "1-674-537548be2dd18c88ced54f2b76676b6a973f176c687fce257056e0085020fba210a275db7d930a3e3

"]
```

• 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:

```
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."
}
```

```
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: 0:00:00.359207
- 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 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:

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:

• Response Headers:

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
"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": "1-681-6cd9aebd109c6af36faa009d4636e38b90926c64690cf812bcfc3957b591da119a94af41ae115992"
]
```

```
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:

• 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: 0:00:00.015624

- 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:

```
1 {
2   "connection": "keep-alive",
3   "content-length": "134",
```

```
"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: 0:00:00.057523
- 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:

```
"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": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fce8)
}
```

```
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",
```

```
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fce899"]
```

```
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:

• Response Headers:

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:

```
"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": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fces.
"Bession": "1-682-cf5be7a273cdd8f47e6946fc15781ccf6fedbc0e3dac4cd43075bb5b815e4f0a5323a5e2f84d6fces.
```

```
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:

```
1 {
2     "content-length": "27",
3     "content-type": "application/octet-stream"
4  }
```

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:

```
{
    "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": "1-683-7ba21d3c150d1800371119b1fd267928d6581e6a71ee9149d745c136fe051b20c07d283a8ae385769
}
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml;charset=UTF-8",
```

```
"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": "1-683-7ba21d3c150d1800371119b1fd267928d6581e6a71ee9149d745c136fe051b20c07d283a8ae385769]
```

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:

```
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:

```
"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",
"]
```

```
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:

```
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: 0:00:00.014226
- 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:

```
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: 0:00:00.008809
- 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:

· 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",
```

```
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677da
"session": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677da
```

```
"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:

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")
```

```
"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:

· Response Headers:

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": "1-685-7f6bf3c54ea3f7e1bf73584af90643b6d64168a24f3b57da4e2aaae4980e154ad63fd4a69b5d677ds
```

```
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 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-e3a7d7eebdd64d851b738f6be2ffd5f52a869a1eae15bd756d92c00c65eb269284b788acb904193d",
}
```

```
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-e3a7d7eebdd64d851b738f6be2ffd5f52a869aleae15bd756d92c00c65eb269284b788acb904193d7
    }
}
```

· 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:

```
"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: 0:00:00.033041
- 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",
]
```

```
"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: 0:00:00.210846
- Step 7 Request Body
- Step 7 Response Body
- Request 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: 0:00:00.161301
- 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": "1-686-e3a7d7eebdd64d851b738f6be2ffd5f52a869aleae15bd756d92c00c65eb269284b788acb904193d
]
```

· 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:

```
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:

```
1 {
2     "content-length": "27",
3     "content-type": "application/octet-stream"
4  }
```

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:

```
"Accept": "*/*",
"Accept-Encoding": "gzip, deflate",
```

```
"Connection": "keep-alive",
"User-Agent": "python-requests/2.7.0 CPython/2.7.10 Darwin/14.5.0",
"session": "1-687-994742215820b4a8d4a6d90dc1d0bbea6ab30fda6b1acf7f6e18fd6c00b0e7c6d48041d004e69fa27]
```

```
"connection": "keep-alive",
"content-length": "20907",
"content-type": "application/json"
""state of the content of the c
```

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:

```
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: 0:00:00.042187

- 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: 0:00:00.238864
- 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": "1-687-994742215820b4a8d4a6d90dc1d0bbea6ab30fda6b1acf7f6e18fd6c00b0e7c6d48041d004e69fa29)
| }
```

· Response Headers:

```
"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: 0:00:00.035674

- 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:

```
"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: 0:00:00.005323
- 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 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": "1-689-2a03816e698477276b936587ef80b2c3696518452227d8e8f1747447823783356f9e029f79978f95-7
```

• 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:

```
{
    "Accept": "*/*",
    "Accept-Encoding": "gzip",
    "Connection": "keep-alive",
    "Content-Length": "758",
    "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.
}
```

• Response 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: 0:00:00.066723

- 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 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:

```
"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:

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-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb002ba01b1fee4.
```

```
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:
"Bession": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4:
"Temple of the content of th
```

```
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:

```
"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: 0:00:00.044419
- 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 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:
"Bession": "1-690-aca01e9daeadf9306aa409bf425fda9269b6325f7c5dc87de878dd8216f93a13a1bb02ba01b1fee4:
"Incomparison of the content of the content
```

· 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",
```

```
"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:

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:

```
"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: 0:00:00.015883
- 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:

```
"connection": "keep-alive",
"content-length": "21209",
"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: 0:00:00.008740
- Step 3 Request Body
- Step 3 Response Body
- · Request Headers:

Step 4 - Issue an AddObject to add a Question object

- URL: https://10.0.1.240:443/soap
- HTTP Method: POST
- Elapsed Time: 0:00:00.052536
- 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:

```
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: 0:00:00.210575
- 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:

```
"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": "1-692-39cedd0ba8f7255c8d68bfb02b1ad433001a9587e6062777f412cf4ef1cc0aa3b69ebb408b0c0ea7egelength
```

```
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": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9alalfd62c9789a5f0aa295a4789]
```

```
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: 0:00:00.261710
- 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": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9alalfd62c9789a5f0aa295a4789)
}
```

```
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": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9ala1fd62c9789a5f0aa295a47899]
```

· Response Headers:

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": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9a1a1fd62c9789a5f0aa295a47899 }
```

```
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: 0:00:00.226356
- 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": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9alalfd62c9789a5f0aa295a4739
}
```

• 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": "1-693-630fad73b2fac417ed2d8cdadc68957d67456274a2bbe8c856cb7e9ala1fd62c9789a5f0aa295a4789]
```

```
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:

```
{
    "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": "1-694-22928c0af0fc1d91eed7dc4424a21a38b53a000acce5dbe534e2d43494597b3e70067b61e5affe71:
    }
}
```

```
"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: 0:00:00.033677
- 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": "1-694-22928c0af0fc1d91eed7dc4424a21a38b53a000acce5dbe534e2d43494597b3e70067b61e5affe71:9]
```

· 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: 0:00:01.335918
- 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": "1-694-22928c0af0fc1d91eed7dc4424a21a38b53a000acce5dbe534e2d43494597b3e70067b61e5affe71:
9 }
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
{
    "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": "1-694-22928c0af0fc1d91eed7dc4424a21a38b53a000acce5dbe534e2d43494597b3e70067b61e5affe71:
}
```

• 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:
    }
}
```

```
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: 0:00:00.027400

• 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."
"Journal of the content of th
```

```
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": "1-696-558c4caa82406b81f9e1358af1173f779441ce0ad59ec6f7f628c7bd85a6b5f6c19c45514a2ee39869]
```

```
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:

```
"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": "1-696-558c4caa82406b81f9e1358af1173f779441ce0ad59ec6f7f628c7bd85a6b5f6c19c45514a2ee398c9)
```

· Response Headers:

```
1 {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6 }
```

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")
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
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: 0:00:00.309269
- 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:

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:

```
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 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-ee21df9ffaec0f970ae4e5ca91047ec3cbd6c37ec88eaeb16852e671d08183b6cf11649dc8ebe5e36
}
```

· 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:

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]
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

• 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:

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]
```

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-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 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")
```

```
"connection": "keep-alive",
"content-encoding": "gzip",
"content-type": "text/xml; charset=UTF-8",
"transfer-encoding": "chunked"
}
```

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:

```
"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": "1-697-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  }
```

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
}
```

```
"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: 0:00:00.005201
- 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
}
```

```
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: 0:00:00.057502
- 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": "1-698-457dcc4ba72ab687aa4f742e528b30f1aa521a9579572ecfcc7812b22edf5aac5fcbaa37a1e5d205-9
```

• Response Headers:

```
1  {
2    "connection": "keep-alive",
3    "content-encoding": "gzip",
4    "content-type": "text/xml;charset=UTF-8",
5    "transfer-encoding": "chunked"
6  }
```

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:

· Response 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:

```
"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": "1-700-6994c0aafc5acfe93d8e0597690acddb0b9aa30f1c467bda22e98ef8201f85870f813597f07d5aebd9 }
```

· 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": "1-700-6994c0aafc5acfe93d8e0597690acddb0b9aa30f1c467bda22e98ef8201f85870f813597f07d5aebd9
```

• Response Headers:

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:

```
"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": "1-700-6994c0aafc5acfe93d8e0597690acddb0b9aa30f1c467bda22e98ef8201f85870f813597f07d5aebc99]
```

• 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:

```
"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": "1-700-6994c0aafc5acfe93d8e0597690acddb0b9aa30f1c467bda22e98ef8201f85870f813597f07d5aebc99 }
```

```
"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:

• 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: 0:00:00.011412

- 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 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:

```
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:

```
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 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": "1-701-29b97782e68278725322ab84aafb73c07c061edb94c7a92b4c41f6242974fd25eec5231da64b31a0.9
]
```

· 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 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:

```
"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": "1-701-29b97782e68278725322ab84aafb73c07c061edb94c7a92b4c41f6242974fd25eec5231da64b31a0499"]
```

```
"connection": "keep-alive",
"content-length": "874",
"content-type": "text/xml; charset=UTF-8"
}
```

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:

• 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
}
```

```
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:

```
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-a5ae5e2e6cd9f876accd2af071c861f83f6bfdd5e6759f9a167a39d542184a684434c8ecc39a9ad089
```

```
"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:

• 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:

```
1  {
2     "connection": "keep-alive",
3     "content-encoding": "gzip",
4     "content-type": "text/xml;charset=UTF-8",
5     "transfer-encoding": "chunked"
6  }
```

CHAPTER

TWO

INDICES AND TABLES

- genindex
- modindex
- search

PYTHON MODULE INDEX

d	taniumpy.object_types.computer_group,
ddt, 112	taniumpy.object_types.computer_group_list,
<pre>p pytan, 3 pytan.binsupport, 75</pre>	taniumpy.object_types.computer_group_spec, 100
pytan.constants, 59 pytan.exceptions, 85	taniumpy.object_types.computer_spec_list, 100
<pre>pytan.handler, 3 pytan.pollers, 53</pre>	taniumpy.object_types.error_list, 100 taniumpy.object_types.filter, 101
pytan.sessions, 36 pytan.utils, 62	taniumpy.object_types.filter_list, 101 taniumpy.object_types.group, 101
pytan.xml_clean,86	taniumpy.object_types.group_list, 101 taniumpy.object_types.metadata_item, 101
r	taniumpy.object_types.metadata_list,101 taniumpy.object_types.object_list,101
requests, 109	<pre>taniumpy.object_types.object_list_types,</pre>
taniumpy,97 taniumpy.object_types,97 taniumpy.object_types.action,97 taniumpy.object_types.action_list,97 taniumpy.object_types.action_list_info, 97 taniumpy.object_types.action_stop,98 taniumpy.object_types.action_stop_list, 98 taniumpy.object_types.all_objects,98 taniumpy.object_types.archived_question, 98 taniumpy.object_types.archived_question, 98 taniumpy.object_types.archived_question, 98 taniumpy.object_types.archived_question	taniumny object types nackage spec 102
<pre>taniumpy.object_types.base, 98 taniumpy.object_types.cache_filter, 99 taniumpy.object_types.cache_filter_list,</pre>	taniumpy.object_types.parameter_list,

```
taniumpy.object_types.parse_result_grouptainstmpy.object_types.sensor_types, 107
                                          taniumpy.object_types.soap_error, 107
       103
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,
                                                 108
                                          taniumpy.object_types.system_status_list,
taniumpy.object_types.plugin_command_list,
                                                108
                                          taniumpy.object_types.upload_file, 108
taniumpy.object_types.plugin_list, 104
                                          taniumpy.object_types.upload_file_list,
taniumpy.object_types.plugin_schedule,
       104
                                          taniumpy.object_types.upload_file_status,
                                                108
taniumpy.object_types.plugin_schedule_list,
       104
                                          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,105 taniumpy.object_types.version_aggregate_list,
taniumpy.object_types.question_list_info,
       105
                                          taniumpy.object_types.white_listed_url,
taniumpy.object_types.result_info,105
taniumpy.object_types.result_set, 105
                                          taniumpy.object_types.white_listed_url_list,
taniumpy.object_types.row, 105
                                                109
taniumpy.object_types.saved_action, 106
                                         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, 88
                                          threaded http, 110
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, 107
taniumpy.object_types.sensor_list, 107
taniumpy.object_types.sensor_query, 107
taniumpy.object_types.sensor_query_list,
       107
taniumpy.object_types.sensor_subcolumn,
taniumpy.object_types.sensor_subcolumn_list,
       107
```

950 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), 57
reclise (in module pytan), 3version (in module pytan), 3add() (pytan.handler.Handler method), 7	_derive_package_spec() (pytan.pollers.ActionPoller method), 54
_ask_manual() (pytan.handler.Handler method), 7	_derive_result_map() (pytan.pollers.ActionPoller method), 54
_build_body() (pytan.sessions.Session method), 38 _check_auth() (pytan.sessions.Session method), 39 _check_sse_crash_prevention() (pytan.handler.Handler method), 9	_derive_status() (pytan.pollers.ActionPoller method), 54 _derive_stopped_flag() (pytan.pollers.ActionPoller method), 54 _derive_target_group() (pytan.pollers.ActionPoller
_check_sse_empty_rs() (pytan.handler.Handler method), 9	method), 54
_check_sse_format_support() (pytan.handler.Handler method), 10	_derive_verify_enabled() (pytan.pollers.ActionPoller method), 55
_check_sse_timing() (pytan.handler.Handler method), 10	_export_class_BaseType() (pytan.handler.Handler method), 13
_check_sse_version() (pytan.handler.Handler method),	_export_class_ResultSet() (pytan.handler.Handler method), 13
_clean_headers() (pytan.sessions.Session method), 39 _create_add_object_body() (pytan.sessions.Session	_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), 40	_extract_resultxml() (pytan.sessions.Session method), 40 _find() (pytan.handler.Handler method), 14
_create_get_result_info_body() (pytan.sessions.Session method), 40	_find_stat_target() (pytan.sessions.Session method), 41 _fix_group() (pytan.pollers.ActionPoller method), 55
_create_run_plugin_object_body() (py-tan.sessions.Session method), 40	_flatten_server_info() (pytan.sessions.Session method), 41
_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), 57	_get_package_def() (pytan.handler.Handler method), 14 _get_percentage() (pytan.sessions.Session method), 41 _get_response() (pytan.sessions.Session method), 42
_debug_locals() (pytan.sessions.Session method), 40	_get_sensor_defs() (pytan.handler.Handler method), 14 _get_single() (pytan.handler.Handler method), 14
_deploy_action() (pytan.handler.Handler method), 10 _derive_attribute() (pytan.pollers.QuestionPoller	get_snigle() (pytan.nandiei.Frandiei method), 14 _http_get() (pytan.sessions.Session method), 42
method), 57	_http_post() (pytan.sessions.Session method), 44
_derive_expiration() (pytan.pollers.QuestionPoller method), 57	_invalid_server_version() (pytan.sessions.Session method), 45

_post_init() (pytan.pollers.ActionPoller method), 55 _post_init() (pytan.pollers.QuestionPoller method), 57 _post_init() (pytan.pollers.SSEPoller method), 59	ask_saved() (pytan.handler.Handler method), 21 AuditData (class in taniumpy.object_types.audit_data), 98
_refetch_obj() (pytan.pollers.QuestionPoller method), 57	AUTH_CONNECT_TIMEOUT_SEC (py-
_regex_body_for_element() (pytan.sessions.Session	tan.sessions.Session attribute), 37
method), 45	AUTH_FAIL_CODES (pytan.sessions.Session attribute),
_replace_auth() (pytan.sessions.Session method), 45	37
_resolve_sse_format() (pytan.handler.Handler method), 14	AUTH_RES (pytan.sessions.Session attribute), 37 AUTH_RESPONSE_TIMEOUT_SEC (py-
_resolve_stat_target() (pytan.sessions.Session method),	tan.sessions.Session attribute), 37
46	authenticate() (pytan.sessions.Session method), 46
_single_find() (pytan.handler.Handler method), 14	AuthorizationError, 85
_start_stats_thread() (pytan.sessions.Session method), 46	В
_stats_loop() (pytan.sessions.Session method), 46	
_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 attribute), 37
Α	BadResponseError, 85
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), 62
tribute), 54	build_manual_q() (in module pytan.utils), 62
ActionList (class in taniumpy.object_types.action_list),	build_metadatalist_obj() (in module pytan.utils), 63
97	build_param_obj() (in module pytan.utils), 63
ActionListInfo (class in tani-	build_param_objlist() (in module pytan.utils), 63
umpy.object_types.action_list_info), 97	build_selectlist_obj() (in module pytan.utils), 64
ActionPoller (class in pytan.pollers), 53	C
ActionStop (class in taniumpy.object_types.action_stop),	C
98	CacheFilter (class in taniumpy.object_types.cache_filter),
ActionStopList (class in tani-	99
umpy.object_types.action_stop_list), 98 add() (pytan.sessions.Session method), 46	CacheFilterList (class in tani-
add_ask_report_argparser() (in module py-	umpy.object_types.cache_filter_list), 99 CacheInfo (class in taniumpy.object_types.cache_info),
tan.binsupport), 76	99
add_file_log() (in module pytan.binsupport), 76	calc_percent() (in module pytan.utils), 64
add_get_object_report_argparser() (in module pytan.binsupport), 76	calculate_question_start_time() (in module pytan.utils),
add_report_file_options() (in module pytan.binsupport),	change_console_format() (in module pytan.utils), 64
76	check_dictkey() (in module pytan.utils), 64
ALL_REQUESTS_RESPONSES (py-	check_for_help() (in module pytan.utils), 64
tan.sessions.Session attribute), 37	chew_csv() (in module test_pytan_valid_server_tests), 92
append() (taniumpy.object_types.base.BaseType	chk_def_key() (in module pytan.utils), 65
method), 98 apply_options_obj() (in module pytan.utils), 62	clean_kwargs() (in module pytan.utils), 65
approve_saved_action() (pytan.handler.Handler method),	ClientCount (class in tani- umpy.object_types.client_count), 100
15	ClientStatus (class in tani-
ArchivedQuestion (class in tani-	umpy.object_types.client_status), 100
umpy.object_types.archived_question), 98	Column (class in taniumpy.object_types.column), 100
ArchivedQuestionList (class in tani-	ColumnSet (class in taniumpy.object_types.column_set),
umpy.object_types.archived_question_list),	100
98	COMPLETE_PCT_DEFAULT (py-
ask() (pytan.handler.Handler method), 15	tan.pollers.ActionPoller attribute), 54
ask_manual() (pytan.handler.Handler method), 16	COMPLETE_PCT_DEFAULT (py-
ask_parsed() (pytan.handler.Handler method), 19	tan.pollers.QuestionPoller attribute), 56

ComputerGroup	(class	in	tani-	E	
	_types.compute	er_group), 100)	ELEMENT_RE_TXT (pytan.sessions.Session attribut	te),
ComputerGroupList	(class	in	tani-	37	
	_types.compute	r_group_list)	,	emit() (pytan.utils.SplitStreamHandler method), 62	
100				empty_obj() (in module pytan.utils), 67	
ComputerGroupSpec	(class	in	tani-	ENABLE_LOGGING (threaded_http.CustomHTTPHa	andler
	_types.compute	r_group_spe	c),	attribute), 110	
100	/ 1			enable_stats_loop() (pytan.sessions.Session method), 4	
ComputerSpecList	(class	in	tani-	error() (pytan.binsupport.CustomArgParse method), 75	
	_types.compute	er_spec_list),		ErrorList (class in taniumpy.object_types.error_list), 10	00
100	mutan utila) 65	•		eval_timing() (in module pytan.utils), 67	
copy_obj() (in module			ntila)	_ 1,1	at-
copy_package_obj_for	_action() (iii ii	nodule pytan	.uuis),	tribute), 54	
create_dashboard() (py	itan handler Ha	ndler method) 22	EXPIRATION_ATTR (pytan.pollers.QuestionPoller	at-
create_from_json() (py				tribute), 56	
create_group() (pytan.					py-
create_package() (pytan.				tan.pollers.QuestionPoller attribute), 56	
create_report_file() (py				explode_json() (taniumpy.object_types.base.BaseTy	ype
create_sensor() (pytan				method), 98	
create_user() (pytan.ha				export_id (pytan.pollers.SSEPoller attribute), 59 EXPORT_MAPS (in module pytan.constants), 60	
create_whitelisted_url			ethod),	export_obj() (pytan.handler.Handler method), 30	
26	V 47		,,	export_to_report_file() (pytan.handler.Handler metho	d)
csvdictwriter() (in mod	dule pytan.binsu	apport), 76		31	α),
CustomArgFormat (cla				extract_filter() (in module pytan.utils), 67	
CustomArgParse (clas	s in pytan.binsu	pport), 75		extract_options() (in module pytan.utils), 67	
CustomHTTPHandler	(class in thread	ed_http), 110)	extract_params() (in module pytan.utils), 67	
D				extract_selector() (in module pytan.utils), 68	
D					
data() (in module ddt),				F	
datetime_to_timestr()	(in module pyta	ın.utils), 66		file_data() (in module ddt), 112	
ddt (module), 112				Filter (class in taniumpy.object_types.filter), 101	
ddt() (in module ddt),				filter_filename() (in module pytan.binsupport), 76	
DEBUG_FORMAT (in			9	FILTER_MAPS (in module pytan.constants), 60	
debug_list() (in modul				FILTER_RE (in module pytan.constants), 60	
debug_obj() (in modul				filter_sensors() (in module pytan.binsupport), 76	
DEFAULT_REPLACE		module	ру-	filter_sourced_sensors() (in module pytan.binsupport),	
tan.xml_clea	* *			FilterList (class in taniumpy.object_types.filter_list), 10	01
DefinitionParserError,		ton utila) 66		find() (pytan.sessions.Session method), 48	
dehumanize_package(dehumanize_question_			(la) 66	finished_eq_passed_loop() (pytan.pollers.ActionPol	ller
dehumanize_question_				method), 55	
66	_options() (iii i	nodule pytan	.ums),	flatten_jsonable() (taniumpy.object_types.base.BaseTy	pe
dehumanize_sensors()	(in module pyt	an utils) 66		method), 98	. `
delete() (pytan.handler				force_server_version (pytan.sessions.Session attribut	te),
delete() (pytan.session				48	
delete_dashboard() (py		* *). 27	from_jsonable() (taniumpy.object_types.base.BaseTy	pe
deploy_action() (pytan				static method), 98 fromSOAPBody() (ta	ıni-
derive_param_default(• •	ass
disable_stats_loop() (p			d), 48	method), 98	ass
	readed_http.Cu				ıni-
method), 110				· ·	
	J			ilmny object, types base Base Lype - cla	488
do_POST() (th	o nreaded_http.Cu	ıstomHTTPH	andler	umpy.object_types.base.BaseType clamethod), 98	ass

fromSOAPElement() (ta	ani-	H	
umpy.object_types.column.Column cl	lass	Handler (class in pytan.handler), 3	
method), 100		handler (pytan.pollers.QuestionPoller attribute), 57	
· · ·	ani-	HANDLER_ARG_DEFAULTS (in module	ру-
umpy.object_types.column_set.ColumnSet		tan.constants), 60	
class method), 100		HandlerError, 85	
*		HistoryConsole (class in pytan.binsupport), 76	
umpy.object_types.result_info.ResultInfo		host (pytan.sessions.Session attribute), 50	
class method), 105		HTTP_AUTH_RETRY (pytan.sessions.Session	at-
	ani-	tribute), 37	
		HTTP_DEBUG (pytan.sessions.Session attribute), 37	
method), 105		http_get() (pytan.sessions.Session method), 50	
fromSOAPElement() (taniumpy.object_types.row.R		http_post() (pytan.sessions.Session method), 51	
class method), 105		HTTP_RETRY_COUNT (pytan.sessions.Session	at-
func_timing() (in module pytan.utils), 68		tribute), 37	
G		HttpError, 85	
		human_time() (in module pytan.utils), 70	
get() (pytan.handler.Handler method), 33		HumanParserError, 85	
get_all() (pytan.handler.Handler method), 33		1	
get_all_headers() (in module pytan.binsupport), 76		1	
get_all_loggers() (in module pytan.utils), 68		import_readline() (pytan.binsupport.HistoryCons	ole
get_all_pytan_loggers() (in module pytan.utils), 68		method), 76	
get_dashboards() (pytan.handler.Handler method), 33		IncorrectTypeException, 99	
get_dict_list_len() (in module pytan.utils), 68			ру-
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), 69		INFO_RES (pytan.sessions.Session attribute), 37	
get_now() (in module pytan.utils), 69 GET_OPL_MAP (in module pytan constants), 60			ру-
GET_OBJ_MAP (in module pytan.constants), 60 get_obj_map() (in module pytan.utils), 69		tan.sessions.Session attribute), 37	
get_obj_params() (in module pytan.utils), 69		input_prompts() (in module pytan.binsupport), 77	
get_percentage() (in module pytan.utils), 69		introspect() (in module pytan.binsupport), 77	
get_q_obj_map() (in module pytan.utils), 69		INVALID_UNICODE_RAW_RE (in module tan.xml_clean), 86	ру-
get_result_data() (pytan.handler.Handler method), 34		INVALID_UNICODE_RE (in module pytan.xml_clea	an)
get_result_data() (pytan.pollers.QuestionPoller method); 54		86	ш),
57		InvalidServerTests (class	in
get_result_data() (pytan.sessions.Session method), 48		test_pytan_invalid_server_tests), 92	111
get_result_data_sse() (pytan.handler.Handler method),	34	is_auth (pytan.sessions.Session attribute), 52	
get_result_data_sse() (pytan.sessions.Session metho		is_dict() (in module pytan.utils), 70	
49		is_hash_randomized() (in module ddt), 112	
<pre>get_result_info() (pytan.handler.Handler method), 35</pre>		is_list() (in module pytan.utils), 70	
get_result_info() (pytan.pollers.QuestionPoller metho		is_num() (in module pytan.utils), 70	
57		is_str() (in module pytan.utils), 70	
get_result_info() (pytan.sessions.Session method), 49		_	
get_server_info() (pytan.sessions.Session method), 49		J	
get_server_stats() (pytan.sessions.Session method), 49)	jsonify() (in module pytan.utils), 70	
get_server_version() (pytan.handler.Handler method),	35	jsomiy() (iii module pytamatis), 70	
$get_server_version()\ (pytan.sessions. Session\ method),$	50	L	
get_sse_data() (pytan.pollers.SSEPoller method), 59		LAST_REQUESTS_RESPONSE (ру-
$get_sse_status() \ (pytan.pollers.SSEPoller \ method), \ 59$		tan.sessions.Session attribute), 37	L)
get_taniumpy_obj() (in module pytan.utils), 70		LAST_RESPONSE_INFO (pytan.sessions.Session	at-
Group (class in taniumpy.object_types.group), 101		tribute), 38	uı
GroupList (class in taniumpy.object_types.group_li	ist),	load_param_json_file() (in module pytan.utils), 70	
101			

load_taniumpy_from_json() (in module pytan.utils), 70 LOG_LEVEL_MAPS (in module pytan.constants), 60 log_message() (threaded_http.CustomHTTPHandler method), 110	PackageSpecList (class in tani- umpy.object_types.package_spec_list), 102 PARAM_DELIM (in module pytan.constants), 61 PARAM_KEY_SPLIT (in module pytan.constants), 61
log_session_communication() (in module pytan.utils), 71 logout() (pytan.sessions.Session method), 52	PARAM_RE (in module pytan.constants), 61 PARAM_SPLIT_RE (in module pytan.constants), 61
M	Parameter (class in taniumpy.object_types.parameter), 102
map_filter() (in module pytan.utils), 71 map_option() (in module pytan.utils), 71 map_options() (in module pytan.utils), 71 MetadataItem (class in taniumpy.object_types.metadata_item), 101 MetadataList (class in tani-	ParameterList (class in taniumpy.object_types.parameter_list), 102 parse() (in module xmltodict), 110 parse_defs() (in module pytan.utils), 71 parse_query() (pytan.handler.Handler method), 35 parse_sensor_platforms() (in module pytan.binsupport),
umpy.object_types.metadata_list), 101	77
mk_test_name() (in module ddt), 112	parse_versioning() (in module pytan.utils), 72 ParseJob (class in taniumpy.object_types.parse_job), 103 ParseJobList (class in tani-
NotFoundError, 85	umpy.object_types.parse_job_list), 103
Not ounderfor, 83	ParseResult (class in tani-
0	umpy.object_types.parse_result), 103
obj (pytan.pollers.QuestionPoller attribute), 58 OBJECT_TYPE (pytan.pollers.ActionPoller attribute), 54	ParseResultGroup (class in tani- umpy.object_types.parse_result_group), 103
OBJECT_TYPE (pytan.pollers.QuestionPoller attribute), 56	ParseResultGroupList (class in tani- umpy.object_types.parse_result_group_list), 103
ObjectList (class in taniumpy.object_types.object_list),	ParseResultList (class in tani-
OPTION_MAPS (in module pytan.constants), 61 OPTION_RE (in module pytan.constants), 61	umpy.object_types.parse_result_list), 103 passed_eq_est_total_loop() (pytan.pollers.QuestionPoller method), 58
Options (class in taniumpy.object_types.options), 101 OVERRIDE_TIMEOUT_SECS_DEFAULT (py-tan.pollers.QuestionPoller attribute), 56	PermissionList (class in taniumpy.object_types.permission_list), 103
P	PickerError, 85 platform_is_6_5() (pytan.sessions.Session method), 52
PackageFile (class in tani-	Plugin (class in taniumpy.object_types.plugin), 103
umpy.object_types.package_file), 101	plugin_zip() (in module pytan.utils), 72 PluginArgument (class in tani-
PackageFileList (class in tani-	umpy.object_types.plugin_argument), 103
umpy.object_types.package_file_list), 102 PackageFileStatus (class in tani- umpy.object_types.package_file_status),	PluginArgumentList (class in tani- umpy.object_types.plugin_argument_list), 104
102	PluginCommandList (class in tani-
PackageFileStatusList (class in tani- umpy.object_types.package_file_status_list),	umpy.object_types.plugin_command_list), 104
102 PackageFileTemplate (class in tani-	PluginList (class in taniumpy.object_types.plugin_list), 104
umpy.object_types.package_file_template), 102	PluginSchedule (class in tani-
PackageFileTemplateList (class in tani-	umpy.object_types.plugin_schedule), 104
umpy.object_types.package_file_template_list), 102	PluginScheduleList (class in tani- umpy.object_types.plugin_schedule_list), 104
PackageSpec (class in tani- umpy.object_types.package_spec), 102	PluginSql (class in taniumpy.object_types.plugin_sql), 104

PluginSqlColumn umpy.object	(class t_types.plugin_sq	in l_column),	tani-	process_stop_action_args() (in module pytan.binsupport), 82
104				process_tsat_args() (in module pytan.binsupport), 82
PluginSqlResult	(class	in	tani-	process_write_pytan_user_config_args() (in module py-
umpy.object	t_types.plugin_sq	l_result), 104	4	tan.binsupport), 82
POLLING_SECS_DE		_	(py-	pytan (module), 3
	QuestionPoller att	ribute), 57	4.5	pytan.binsupport (module), 75
POLLING_SECS_DE		pollers.SSE	Poller	pytan.constants (module), 59
attribute), 5		.ponoro.cc	. 01101	pytan.exceptions (module), 85
PollingError, 85				pytan.handler (module), 3
port (pytan.sessions.S	ession attribute)	53		pytan.pollers (module), 53
port_check() (in modu				pytan.sessions (module), 36
print_help() (pytan.bir			thod)	pytan.utils (module), 62
76	isupport. Custom?	arse me	mou),	pytan.xml_clean (module), 86
print_log_levels() (in	module pytan util	e) 72		PYTAN_KEY (in module pytan.constants), 61
print_log_levels() (in module				PYTAN_USER_CONFIG (in module pytan.constants),
process_approve_save				61
tan.binsupp		(III IIIOdule	e py-	V -
1.1	* *	madula		PytanHelp, 86
process_ask_manual_ tan.binsupp	ort), 77	module	ру-	Q
process_ask_parsed_a	rgs() (in module	pytan.binsup	port),	Q_OBJ_MAP (in module pytan.constants), 61
77				Question (class in taniumpy.object_types.question), 104
process_ask_saved_ar	gs() (in module	pytan.binsup	port),	QuestionList (class in tani-
78				umpy.object_types.question_list), 105
process_create_group	-	module	py-	QuestionListInfo (class in tani-
tan.binsupp				umpy.object_types.question_list_info), 105
process_create_json_c tan.binsuppe		n module	ру-	QuestionPoller (class in pytan.pollers), 56
process_create_packa	ge_args() (in	module	ру-	R
tan.binsupp	ort), 78			read_history() (pytan.binsupport.HistoryConsole
process_create_sensor tan.binsuppe	-	module	ру-	method), 76
process_create_user_a		ovtan.binsur	port).	read_pytan_user_config() (pytan.handler.Handler
79	<i>8</i> -0 (Ι //	method), 36
process_create_whitel	listed url args()	(in module	e nv-	RECORD_ALL_REQUESTS (pytan.sessions.Session at-
tan.binsupp		(111 1110 0 0 0 11	PJ	tribute), 38
process_delete_object		module	ру-	remove_file_log() (in module pytan.binsupport), 83
tan.binsupp	-	module	PJ	remove_logging_handler() (in module pytan.utils), 72
process_deploy_action		module	ру-	replace_invalid_unicode() (in module pytan.xml_clean),
tan.binsupp		module	PJ	87
process_get_object_ar		nytan binsur	nort)	replace_restricted_unicode() (in module py-
80	igs() (iii iiioddic	pytan.omsup	port),	tan.xml_clean), 87
process_get_results_a	ras() (in module	nutan hinaur	mort)	REQ_KWARGS (in module pytan.constants), 61
80	igs() (iii iiiodule	pytan.omsup	pport),	REQUEST_BODY_BASE (pytan.sessions.Session at-
	restion history of	mag() (im m	adula	tribute), 38
process_get_saved_qu	-	rgs() (III III	iodule	requests (module), 109
pytan.binsu	• •	1.1	() O1	REQUESTS_SESSION (pytan.sessions.Session at-
process_handler_args				tribute), 38
process_print_sensors tan.binsuppe		module	ру-	RESTRICTED_UNICODE_RAW_RE (in module pytan.xml_clean), 86
process_print_server_		module	ру-	DEGERALGEER LANGORE DE //
tan.binsupp	_		-	tan.xml_clean), 86
process_pytan_shell_a		pytan.binsup	port),	result_info (pytan.pollers.QuestionPoller attribute), 58
82				ResultInfo (class in taniumpy.object_types.result_info),
				105

ResultSet (class in taniumpy.object_types.result_set), 105	ServerSideExportError, 86
Row (class in taniumpy.object_types.row), 105	Session (class in pytan.sessions), 36
run() (pytan.pollers.ActionPoller method), 55	session_id (pytan.sessions.Session attribute), 53
run() (pytan.pollers.QuestionPoller method), 58	set_all_loglevels() (in module pytan.utils), 73
run() (pytan.pollers.SSEPoller method), 59	set_complect_pct() (pytan.pollers.QuestionPoller
run_callback() (pytan.pollers.QuestionPoller method), 58	method), 58
run_plugin() (pytan.handler.Handler method), 36	set_log_levels() (in module pytan.utils), 73
run_plugin() (pytan.sessions.Session method), 53	setup_approve_saved_action_argparser() (in module py-
RunFalse, 86	tan.binsupport), 83
RUNNING_STATUSES (pytan.pollers.ActionPoller at-	setup_ask_manual_argparser() (in module py-
tribute), 54	tan.binsupport), 83
C	setup_ask_parsed_argparser() (in module py-
S	tan.binsupport), 83
save() (pytan.sessions.Session method), 53	setup_ask_saved_argparser() (in module py-
SavedAction (class in tani-	tan.binsupport), 83
umpy.object_types.saved_action), 106	setup_atexit_write_history() (py-
SavedActionApproval (class in tani-	tan.binsupport.HistoryConsole method),
umpy.object_types.saved_action_approval),	76
106	setup_autocomplete() (pytan.binsupport.HistoryConsole
SavedActionList (class in tani-	method), 76
umpy.object_types.saved_action_list), 106	setup_console_logging() (in module pytan.utils), 73
SavedActionPolicy (class in tani-	setup_create_group_argparser() (in module py-
umpy.object_types.saved_action_policy),	tan.binsupport), 83
106	setup_create_json_object_argparser() (in module py-
SavedActionRowIdList (class in tani-	tan.binsupport), 83
umpy.object_types.saved_action_row_id_list), 106	setup_create_package_argparser() (in module py-tan.binsupport), 83
SavedQuestion (class in tani- umpy.object_types.saved_question), 106	setup_create_sensor_argparser() (in module py-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), 84
106	setup_get_object_argparser() (in module py-
SELECTORS (in module pytan.constants), 61	tan.binsupport), 84
Sensor (class in taniumpy.object_types.sensor), 107	setup_get_results_argparser() (in module py-
SENSOR_TYPE_MAP (in module pytan.constants), 61	tan.binsupport), 84
SensorList (class in taniumpy.object_types.sensor_list),	setup_get_saved_question_history_argparser() (in mod-
107	ule pytan.binsupport), 84
SensorQuery (class in tani-	setup_logging() (pytan.pollers.QuestionPoller method),
umpy.object_types.sensor_query), 107	58
SensorQueryList (class in tani-	setup_logging() (pytan.sessions.Session method), 53
umpy.object_types.sensor_query_list), 107	setup_parent_parser() (in module pytan.binsupport), 84
SensorSubcolumn (class in tani-	setup_parser() (in module pytan.binsupport), 84
umpy.object_types.sensor_subcolumn), 107	setup_print_sensors_argparser() (in module py-
SensorSubcolumnList (class in tani-	tan.binsupport), 84
umpy.object_types.sensor_subcolumn_list),	setup_print_server_info_argparser() (in module pytan.binsupport), 84
server_version (pytan.sessions.Session attribute), 53	setup_pytan_shell_argparser() (in module py-
ServerParseError, 86	tan.binsupport), 84

setup_stop_action_argparser() (in module py- tan.binsupport), 84	SystemStatusList (class in tani- umpy.object_types.system_status_list), 108
setup_test() (test_pytan_valid_server_tests.ValidServerTests	
method), 88	I
setup_tsat_argparser() (in module pytan.binsupport), 84	taniumpy (module), 97
setup_write_pytan_user_config_argparser() (in module	taniumpy.object_types (module), 97
pytan.binsupport), 85	taniumpy.object_types.action (module), 97
setUpClass() (test_pytan_invalid_server_tests.InvalidServ	er Tantumpy.object_types.action_list (module), 97
class method), 92	taniumpy.object_types.action_list_info (module), 97
setUpClass() (test_pytan_unit.TestManualBuildObjectUti	s taniumpy.object_types.action_stop (module), 98
class method), 95	taniumpy.object types.action stop list (module), 98
setUpClass() (test_pytan_valid_server_tests.ValidServerTe	esteaniumpy.object_types.all_objects (module), 98
class method), 88	taniumpy.object_types.archived_question (module), 98
shrink_obj() (in module pytan.utils), 73	taniumpy.object_types.archived_question_list (module),
SOAP_CONNECT_TIMEOUT_SEC (py-	98
tan.sessions.Session attribute), 38	taniumpy.object_types.audit_data (module), 98
SOAP_REQUEST_HEADERS (pytan.sessions.Session	taniumpy.object_types.base (module), 98
attribute), 38	taniumpy.object_types.cache_filter (module), 99
SOAP_RES (pytan.sessions.Session attribute), 38	taniumpy.object_types.cache_filter_list (module), 99
SOAP_RESPONSE_TIMEOUT_SEC (py-	taniumpy.object_types.cache_info (module), 99
tan.sessions.Session attribute), 38	taniumpy.object_types.client_count (module), 100
SoapError (class in taniumpy.object_types.soap_error),	taniumpy.object_types.client_status (module), 100
107	taniumpy.object_types.column (module), 100
spew() (in module pytan.utils), 73	taniumpy.object_types.column_set (module), 100
spew() (in module test_pytan_invalid_server_tests), 92	taniumpy.object_types.computer_group (module), 100
spew() (in module test_pytan_valid_server_tests), 92	taniumpy.object_types.computer_group_list (module),
SplitStreamHandler (class in pytan.utils), 62	100 tainumpy.object_types.computer_group_fist (module),
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	100
sse_status_has_completed_loop() (py-	taniumpy.object_types.computer_spec_list (module), 100
tan.pollers.SSEPoller method), 59	taniumpy.object_types.error_list (module), 100
SSEPoller (class in pytan.pollers), 59	taniumpy.object_types.filter (module), 101
STATS_LOOP_ENABLED (pytan.sessions.Session at-	taniumpy.object_types.filter_list (module), 101
tribute), 38	taniumpy.object_types.group (module), 101
STATS_LOOP_SLEEP_SEC (pytan.sessions.Session at-	taniumpy.object_types.group_list (module), 101
tribute), 38	taniumpy.object_types.metadata_item (module), 101
STATS_LOOP_TARGETS (pytan.sessions.Session at-	taniumpy.object_types.metadata_list (module), 101
tribute), 38	taniumpy.object_types.object_list (module), 101
	taniumpy.object_types.object_list_types (module), 101
stop() (pytan.pollers.QuestionPoller method), 58	taniumpy.object_types.options (module), 101
stop_action() (pytan.handler.Handler method), 36	taniumpy.object_types.package_file (module), 101
STR_ATTRS (pytan.pollers.QuestionPoller attribute), 57	taniumpy.object_types.package_file_list (module), 102
STR_ATTRS (pytan.pollers.SSEPoller attribute), 59	taniumpy.object_types.package_file_status (module), 102
StringHintList (class in tani- umpy.object_types.string_hint_list), 107	taniumpy.object_types.package_file_status_list (module), 102
SystemSetting (class in tani-	taniumpy.object_types.package_file_template (module),
umpy.object_types.system_setting), 107	102
SystemSettingList (class in tani-	taniumpy.object_types.package_file_template_list (mod-
umpy.object_types.system_setting_list), 108	ule), 102
SystemStatusAggregate (class in tani-	taniumpy.object_types.package_spec (module), 102
umpy.object_types.system_status_aggregate),	taniumpy.object_types.package_spec_list (module), 102
108	taniumpy.object_types.parameter (module), 102
100	taniumpy.object_types.parameter_list (module), 102 taniumpy.object_types.parse_job (module), 103
	tannumby.object_types.barse_top (module), 103

taniumpy.object_types.parse_job_list (module), 103	taniumpy.object_types.upload_file_list (module), 108
taniumpy.object_types.parse_result (module), 103	taniumpy.object_types.upload_file_status (module), 108
taniumpy.object_types.parse_result_group (module), 103	taniumpy.object_types.user (module), 108
taniumpy.object_types.parse_result_group_list (module),	taniumpy.object_types.user_list (module), 108
103	taniumpy.object_types.user_role (module), 108
taniumpy.object_types.parse_result_list (module), 103	taniumpy.object_types.user_role_list (module), 109
taniumpy.object_types.permission_list (module), 103	taniumpy.object_types.version_aggregate (module), 109
taniumpy.object_types.plugin (module), 103	taniumpy.object_types.version_aggregate_list (module),
taniumpy.object_types.plugin_argument (module), 103	109
taniumpy.object_types.plugin_argument_list (module),	taniumpy.object_types.white_listed_url (module), 109
104	taniumpy.object_types.white_listed_url_list (module),
taniumpy.object_types.plugin_command_list (module),	109
104	taniumpy.object_types.xml_error (module), 109
taniumpy.object_types.plugin_list (module), 104	tearDownClass() (test_pytan_valid_server_tests.ValidServerTests
taniumpy.object_types.plugin_schedule (module), 104	class method), 88
taniumpy.object_types.plugin_schedule_list (module),	test_app_port() (in module pytan.utils), 73
104	test_bad_chars_basetype_control()
taniumpy.object_types.plugin_sql (module), 104	(test_pytan_unit.TestDeserializeBadXML
taniumpy.object_types.plugin_sql_column (module), 104	method), 94
taniumpy.object_types.plugin_sql_result (module), 104	test_bad_chars_resultset_latin1()
taniumpy.object_types.question (module), 104	(test_pytan_unit.TestDeserializeBadXML
taniumpy.object_types.question_list (module), 105	method), 94
taniumpy.object_types.question_list_info (module), 105	test_bad_chars_resultset_surrogate()
taniumpy.object_types.result_info (module), 105	(test_pytan_unit.TestDeserializeBadXML
taniumpy.object_types.result_set (module), 105	method), 94
taniumpy.object_types.row (module), 105	test_build_group_obj() (test_pytan_unit.TestManualBuildObjectUtil method), 95
taniumpy.object_types.saved_action (module), 106 taniumpy.object_types.saved_action_approval (module),	test_build_manual_q() (test_pytan_unit.TestManualBuildObjectUtils
106	method), 95
taniumpy.object_types.saved_action_list (module), 106	test_build_selectlist_obj_invalid_filter()
taniumpy.object_types.saved_action_policy (module),	(test_pytan_unit.TestManualBuildObjectUtils
106	method), 95
taniumpy.object_types.saved_action_row_id_list (mod-	test_build_selectlist_obj_missing_value() (test_pytan_unit.TestManualBuildObjectUtils
ule), 106	· — · ·
taniumpy.object_types.saved_question (module), 106 taniumpy.object_types.saved_question_list (module), 106	method), 95 test_build_selectlist_obj_noparamssensorobj_noparams()
taniumpy.object_types.saved_question_fist (module), 106	(test_pytan_unit.TestManualBuildObjectUtils
taniumpy.object_types.select_list (module), 106	method), 95
taniumpy.object_types.sensor (module), 100 taniumpy.object_types.sensor (module), 107	test_build_selectlist_obj_noparamssensorobj_withparams()
taniumpy.object_types.sensor_list (module), 107	(test_pytan_unit.TestManualBuildObjectUtils
taniumpy.object_types.sensor_query (module), 107	method), 95
taniumpy.object_types.sensor_query_list (module), 107	test_build_selectlist_obj_withparamssensorobj_noparams()
taniumpy.object_types.sensor_subcolumn (module), 107	(test_pytan_unit.TestManualBuildObjectUtils
taniumpy.object_types.sensor_subcolumn_list (module),	method), 95
107	test_build_selectlist_obj_withparamssensorobj_withparams()
taniumpy.object_types.sensor_types (module), 107	(test_pytan_unit.TestManualBuildObjectUtils
taniumpy.object_types.soap_error (module), 107	method), 95
taniumpy.object_types.string_hint_list (module), 107	test_empty_args_dict() (test_pytan_unit.TestDehumanizeSensorUtils
taniumpy.object_types.system_setting (module), 107	method), 93
taniumpy.object_types.system_setting_list (module), 108	test_empty_args_list() (test_pytan_unit.TestDehumanizeSensorUtils
taniumpy.object_types.system_status_aggregate (mod-	method), 94
ule), 108	test_empty_args_str() (test_pytan_unit.TestDehumanizeSensorUtils
taniumpy.object_types.system_status_list (module), 108	method), 94

taniumpy.object_types.upload_file (module), 108

```
test empty filterlist() (test pytan unit.TestDehumanizeQuesteistnEiltradUtskelector use name if noselector()
                                                                   (test pytan unit.TestDehumanizeExtractionUtils
         method), 93
test empty filterstr() (test pytan unit.TestDehumanizeQuestionFilterbreithod), 93
         method), 93
                                                                                 (test_pytan_unit.TestGenericUtils
                                                          test get now()
test_empty_obj()
                       (test pytan unit.TestGenericUtils
                                                                   method), 94
         method), 94
                                                          test get obj map()
                                                                                 (test pytan unit.TestGenericUtils
test empty optionlist() (test pytan unit.TestDehumanizeQuestionOptinoeriblioid), 94
                                                          test_get_q_obj_map() (test_pytan_unit.TestGenericUtils
         method), 93
test_empty_optionstr() (test_pytan_unit.TestDehumanizeQuestionOptioneUhiols), 94
         method), 93
                                                          test_invalid1()(test_pytan_unit.TestManualPackageDefValidateUtils
test_extract_filter_invalid()
                                                                   method), 95
         (test_pytan_unit.TestDehumanizeExtractionUtils_test_invalid1() (test_pytan_unit.TestManualQuestionFilterDefValidateUtils_
         method), 92
                                                                   method), 96
test_extract_filter_nofilter()
                                                          test_invalid1() (test_pytan_unit.TestManualSensorDefValidateUtils
         (test\_pytan\_unit.TestDehumanizeExtractionUtils
                                                                   method), 97
         method), 92
                                                          test_invalid2() (test_pytan_unit.TestManualPackageDefValidateUtils
test_extract_filter_valid()
                                                                   method), 95
         (test pytan unit.TestDehumanizeExtractionUtils test invalid2() (test pytan unit.TestManualSensorDefValidateUtils
         method), 93
                                                                   method), 97
test extract filter valid all()
                                                          test invalid3() (test pytan unit.TestManualSensorDefValidateUtils
         (test pytan unit.TestDehumanizeExtractionUtils
                                                                    method), 97
         method), 93
                                                          test invalid4()(test pytan unit.TestManualSensorDefValidateUtils
test_extract_options_invalid_option()
                                                                    method), 97
         (test pytan unit.TestDehumanizeExtractionUtils test invalid connect 1 bad username()
         method), 93
                                                                   (test pytan invalid server tests.InvalidServerTests
test_extract_options_many()
                                                                   method), 92
         (test_pytan_unit.TestDehumanizeExtractionUtils test_invalid_connect_2_bad_host_and_non_ssl_port()
         method), 93
                                                                    (test_pytan_invalid_server_tests.InvalidServerTests
test_extract_options_missing_value_max_data_age()
                                                                   method), 92
         (test_pytan_unit.TestDehumanizeExtractionUtils test_invalid_connect_3_bad_password()
                                                                    (test_pytan_invalid_server_tests.InvalidServerTests
         method), 93
test_extract_options_missing_value_value_type()
                                                                    method), 92
         (test_pytan_unit.TestDehumanizeExtractionUtils test_invalid_connect_4_bad_host_and_bad_port()
                                                                    (test_pytan_invalid_server_tests.InvalidServerTests
         method), 93
test extract options nooptions()
                                                                   method), 92
         (test pytan unit.TestDehumanizeExtractionUtils test invalid create object 1 invalid create sensor()
         method), 93
                                                                   (test pytan valid server tests. ValidServerTests
test_extract_options_single()
                                                                   method), 88
         (test pytan unit.TestDehumanizeExtractionUtils test invalid create object from json 1 invalid create saved action from
         method), 93
                                                                    (test_pytan_valid_server_tests.ValidServerTests
test extract params() (test pytan unit.TestDehumanizeExtractionUtilmethod), 88
                                                          test invalid create object from json 2 invalid create client from json()
         method), 93
test extract params missing seperator()
                                                                    (test pytan valid server tests. ValidServerTests
         (test_pytan_unit.TestDehumanizeExtractionUtils
                                                                   method), 88
         method), 93
                                                          test_invalid_create_object_from_json_3_invalid_create_userrole_from_json
                                                                    (test_pytan_valid_server_tests.ValidServerTests
test_extract_params_multiparams()
         (test_pytan_unit.TestDehumanizeExtractionUtils
                                                                   method), 88
         method), 93
                                                          test_invalid_create_object_from_json_4_invalid_create_setting_from_json(
                                                                   (test_pytan_valid_server_tests.ValidServerTests
test_extract_params_noparams()
         (test_pytan_unit.TestDehumanizeExtractionUtils
                                                                   method), 88
         method), 93
                                                          test_invalid_deploy_action_1_invalid_deploy_action_run_false()
test extract selector() (test pytan unit.TestDehumanizeExtractionUti[sest pytan valid server tests.ValidServerTests
                                                                   method), 88
         method), 93
```

```
test invalid deploy action 2 invalid deploy action packatesthelpedid filter1() (test pytan unit.TestDehumanizeOuestionFilterUtils
          (test pytan valid server tests. ValidServerTests
                                                                    method), 93
         method), 88
                                                          test invalid filter2() (test pytan unit.TestDehumanizeQuestionFilterUtils
test_invalid_deploy_action_3_invalid_deploy_action_package()
                                                                    method), 93
          (test pytan valid server tests. ValidServerTests test invalid filter3() (test pytan unit.TestDehumanizeQuestionFilterUtils
         method), 88
                                                                    method), 93
test invalid deploy action 4 invalid deploy action options shell walld get object 1 invalid get action single by name()
         (test pytan valid server tests. ValidServerTests
                                                                    (test pytan valid server tests. ValidServerTests
          method), 88
                                                                     method), 89
test_invalid_deploy_action_5_invalid_deploy_action_emptyteptacknaddd_get_object_2_invalid_get_question_by_name()
          (test_pytan_valid_server_tests.ValidServerTests
                                                                    (test_pytan_valid_server_tests.ValidServerTests
         method), 88
                                                                    method), 89
test_invalid_deploy_action_6_invalid_deploy_action_filterstent[invalid_option1() (test_pytan_unit.TestDehumanizeQuestionOptionUti
         (test_pytan_valid_server_tests.ValidServerTests
                                                                    method), 93
          method), 89
                                                          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), 89
                                                                     method), 94
test invalid export basetype 1 invalid export basetype cstestbadvehiplogleestrope() invalid ask manual question sensor help()
          (test pytan valid server tests. ValidServerTests
                                                                    (test pytan valid server tests. ValidServerTests
         method), 89
                                                                    method), 89
test_invalid_export_basetype_2_invalid_export_basetype_cstvs_badvshirt_qubs_ttiypne(2_invalid_ask_manual_question_bad_filter()
         (test\_pytan\_valid\_server\_tests.ValidServerTests
                                                                    (test_pytan_valid_server_tests.ValidServerTests
          method), 89
                                                                    method), 89
test_invalid_export_basetype_3_invalid_export_basetype_cstvstbaddyabid_typos())on_3_invalid_ask_manual_question_filter_help()
         (test pytan valid server tests. ValidServerTests
                                                                    (test pytan valid server tests. ValidServerTests
         method), 89
                                                                    method), 89
test_invalid_export_basetype_4_invalid_export_basetype_xtektbintvalhidpiquakttype@_invalid_ask_manual_question_bad_option()
         (test_pytan_valid_server_tests.ValidServerTests
                                                                    (test_pytan_valid_server_tests.ValidServerTests
          method), 89
                                                                     method), 89
test_invalid_export_basetype_5_invalid_export_basetype_jstorst_biandvalind_loade_stixpre(5_invalid_ask_manual_question_missing_parameter_
          (test_pytan_valid_server_tests.ValidServerTests
                                                                     (test_pytan_valid_server_tests.ValidServerTests
          method), 89
                                                                     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), 89
                                                                    method), 89
test_invalid_export_basetype_7_invalid_export_basetype_backstforwalf()_question_7_invalid_ask_parsed_question_no_picker()
         (test\_pytan\_valid\_server\_tests.ValidServerTests
                                                                    (test_pytan_valid_server_tests.ValidServerTests
          method), 89
                                                                     method), 89
test_invalid_export_resultset_1_invalid_export_resultset_cstestainvsdirt1_suphresttypn()8_invalid_ask_manual_question_too_many_parameter
         (test pytan valid server tests. ValidServerTests
                                                                    (test pytan valid server tests. ValidServerTests
         method), 89
                                                                    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), 89
test_invalid_export_resultset_3_invalid_export_resultset_cstestais_exipt()d(texpen)ytan_unit.TestGenericUtils_method),
          (test_pytan_valid_server_tests.ValidServerTests
          method), 89
                                                          test_is_list() (test_pytan_unit.TestGenericUtils method),
test_invalid_export_resultset_4_invalid_export_resultset_csv_bad_serfsers_sub_type()
          (test_pytan_valid_server_tests.ValidServerTests test_is_not_dict()
                                                                                  (test_pytan_unit.TestGenericUtils
          method), 89
                                                                     method), 94
test_invalid_export_resultset_5_invalid_export_resultset_batesfoirsnat()_list()
                                                                                  (test_pytan_unit.TestGenericUtils
         (test pytan valid server tests. ValidServerTests
                                                                    method), 94
         method), 89
```

```
test_is_not_num()
                                                                       (test pytan unit.TestGenericUtils test parse emptylist() (test pytan unit.TestManualQuestionOptionDefPars
                              method), 94
                                                                                                                                                                                                                method), 96
                                                                      (test pytan unit.TestGenericUtils
                                                                                                                                                                                  test parse emptylist() (test pytan unit.TestManualSensorDefParseUtils
test_is_not_str()
                                                                                                                                                                                                                method), 96
                              method), 95
test_is_num() (test_pytan_unit.TestGenericUtils method),
                                                                                                                                                                                  test\_parse\_emptystr() (test\_pytan\_unit.TestManualQuestionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterDefParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParseUptractionFilterParse
                                                                                                                                                                                                                method), 95
test is str() (test pytan unit.TestGenericUtils method),
                                                                                                                                                                                  test parse emptystr() (test pytan unit.TestManualQuestionOptionDefParse
                                                                                                                                                                                                                 method), 96
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), 96
                                                                                                                                                                                  test parse multi filter() (test pytan unit.TestManualQuestionFilterDefPars
test_load_param_file_invalid_json()
                                                                                                                                                                                                                method), 96
                              (test_pytan_unit.TestGenericUtils
                                                                                                                                                method),
                                                                                                                                                                                  test_parse_noargs()(test_pytan_unit.TestManualQuestionFilterDefParseUti
                              95
                                                                                                                                                                                                                method), 96
test_load_param_file_valid()
                                                                                                                                                                                  test_parse_noargs() (test_pytan_unit.TestManualQuestionOptionDefParseU
                              (test_pytan_unit.TestGenericUtils
                                                                                                                                                method),
                                                                                                                                                                                                                method), 96
                                                                                                                                                                                  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
                                                                                                                                                                                                                method), 96
test_load_taniumpy_file_invalid_json()
                                                                                                                                                                                  test\_parse\_none() \ (test\_pytan\_unit. TestManual Question Option Def Parse Utilities the particular of the particular option optio
                              (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), 94
                                                                                                                                                                                  test_parse_single_filter() (test_pytan_unit.TestManualQuestionFilterDefPar
test_option_list_many() (test_pytan_unit.TestDehumanizeQuestionOptiontNutill); 96
                              method), 93
                                                                                                                                                                                  test\_parse\_str() \ (test\_pytan\_unit. TestManual Question Filter Def Parse Utils
test_option_list_multi() (test_pytan_unit.TestDehumanizeQuestionOptionthbid), 96
                              method), 93
                                                                                                                                                                                  test\_parse\_str() \ (test\_pytan\_unit. TestManual Question Option Def Parse Utils
test option list single() (test pytan unit.TestDehumanizeQuestionOptiotHotlls 96
                             method), 93
                                                                                                                                                                                  test_parse_str1() (test_pytan_unit.TestManualSensorDefParseUtils
test option str() (test pytan unit.TestDehumanizeQuestionOptionUtilsnethod), 97
                             method), 93
                                                                                                                                                                                  test_pytan_invalid_server_tests (module), 92
test_parse_complex() (test_pytan_unit.TestManualSensorDettRarsettailsunit (module), 92
                              method), 96
                                                                                                                                                                                  test_pytan_valid_server_tests (module), 88
test parse dict hash() (test pytan unit.TestManualSensorDæsRasinEltisliter list() (test pytan unit.TestDehumanizeQuestionFilterUtils
                             method), 96
                                                                                                                                                                                                                method), 93
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. TestManual Sensor \textit{DesfPaisegllti_lstr}() \ (test\_pytan\_unit. TestDehumanize Sensor Utils \ (test\_pytan\_unit. TestDehumanize Sen
                                                                                                                                                                                                                 method), 94
                              method), 96
test_parse_emptydict() (test_pytan_unit.TestManualQuestionEilteringelPastseEttihplex1()
                              method), 95
                                                                                                                                                                                                                (test_pytan_unit.TestDehumanizeSensorUtils
test_parse_emptydict() (test_pytan_unit.TestManualQuestionOptionDentPthrsetNttl4
                              method), 96
                                                                                                                                                                                  test_single_str_complex2()
test\_parse\_emptydict() \ (test\_pytan\_unit. TestManual Sensor Def Parse \ U \textit{(ids} st\_pytan\_unit. TestDehumanize Sensor Utils) \ (test\_pytan\_unit. TestDehumanize Sensor Utils) \ (tes
                                                                                                                                                                                                                method), 94
                             method), 96
test parse emptylist() (test pytan unit.TestManualQuestiontEilttesIDefPasteUvilla filter()
                              method), 95
                                                                                                                                                                                                                (test pytan unit.TestDehumanizeSensorUtils
```

```
method), 94
                                                                                   test valid deploy_action_1_deploy_action_simple_against_windows_comp
test_valid1() (test_pytan_unit.TestManualPackageDefValidateUtils
                                                                                                 (test pytan valid server tests. ValidServerTests
                                                                                                 method), 90
              method), 95
test_valid1() (test_pytan_unit.TestManualQuestionFilterDef\( \) test_bytan_unit.TestManualQuestionFilterDef\( \) test_bytan_unit.TestMa
                                                                                                 (test pytan valid server tests. ValidServerTests
              method), 96
test valid1() (test pytan unit.TestManualSensorDefValidateUtils
                                                                                                 method), 90
             method), 97
                                                                                   test valid deploy action 3 deploy action with params against windows
test valid2() (test pytan unit.TestManualPackageDefValidateUtils
                                                                                                 (test pytan valid server tests. ValidServerTests
              method), 95
                                                                                                 method), 90
test_valid2() (test_pytan_unit.TestManualQuestionFilterDeflexlickatidsploy_action_4_deploy_action_simple()
              method), 96
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
test valid2() (test pytan unit.TestManualSensorDefValidateUtils
                                                                                                 method), 90
              method), 97
                                                                                   test_valid_export_basetype_10_export_basetype_xml_default_options()
test\_valid3() \ (test\_pytan\_unit. TestManual Sensor Def Validate Utils
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
              method), 97
                                                                                                 method), 90
test_valid4() (test_pytan_unit.TestManualSensorDefValidateExt[svalid_export_basetype_11_export_basetype_csv_with_explode_true()
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
              method), 97
                                                                                                 method), 90
test_valid_create_object_1_create_user()
             (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_12_export_basetype_json_explode_false()
                                                                                                 (test pytan valid server tests. ValidServerTests
             method), 89
test_valid_create_object_2_create_package()
                                                                                                 method), 90
             (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_13_export_basetype_json_type_false()
              method), 89
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
test valid create object 3 create group()
                                                                                                 method), 90
              (test_pytan_valid_server_tests. ValidServerTests test_valid_export_basetype_14_export_basetype_json_default_options()
             method), 89
                                                                                                 (test pytan valid server tests. ValidServerTests
                                                                                                 method), 90
test_valid_create_object_4_create_whitelisted_url()
              (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_1_export_basetype_csv_with_sort_list()
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
              method), 89
test_valid_create_object_from_json_1_create_package_from_json() method), 90
              (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_2_export_basetype_csv_with_explode_false()
              method), 89
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
test_valid_create_object_from_json_2_create_user_from_json()
                                                                                                 method), 90
              (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_3_export_basetype_json_type_true()
                                                                                                 (test pytan valid server tests. ValidServerTests
              method), 89
test_valid_create_object_from_json_3_create_saved_question_from_jnort()od), 90
             (test pytan valid server tests. ValidServerTests test valid export basetype 4 export basetype xml minimal false()
              method), 89
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
test_valid_create_object_from_json_4_create_action_from_json()
                                                                                                 method), 90
             (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_5_export_basetype_xml_minimal_true()
                                                                                                 (test pytan valid server tests. ValidServerTests
              method), 89
test_valid_create_object_from_json_5_create_sensor_from_json()
                                                                                                 method), 90
              (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_6_export_basetype_csv_with_sort_empty_list(
              method), 89
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
test_valid_create_object_from_json_6_create_question_from_json() method), 90
             (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_7_export_basetype_csv_default_options()
              method), 89
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
test_valid_create_object_from_json_7_create_whitelisted_url_from_jsnet(hod), 90
              (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_8_export_basetype_json_explode_true()
              method), 89
                                                                                                 (test_pytan_valid_server_tests.ValidServerTests
test_valid_create_object_from_json_8_create_group_from_json()
                                                                                                 method), 90
             (test_pytan_valid_server_tests.ValidServerTests test_valid_export_basetype_9_export_basetype_csv_with_sort_true()
              method), 90
                                                                                                 (test pytan valid server tests. ValidServerTests
                                                                                                 method), 90
```

- test_valid_export_resultset_10_export_resultset_csv_defaultest_tvalist()get_object_15_get_all_groups() (test_pytan_valid_server_tests.ValidServerTests method), 90 (test_pytan_valid_server_tests.ValidServerTests method), 91
- test_valid_export_resultset_12_export_resultset_csv_all_opticxts@alid_get_object_17_get_sensor_by_mixed() (test_pytan_valid_server_tests.ValidServerTests method), 90 (test_pytan_valid_server_tests.ValidServerTests method), 91
- 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), 91
- test_valid_export_resultset_2_export_resultset_csv_sensor_texe()valid_get_object_1_get_all_users() (test_pytan_valid_server_tests.ValidServerTests method), 90 (test_pytan_valid_server_tests.ValidServerTests method), 91
- test_valid_export_resultset_3_export_resultset_csv_type_fal**ss()**_valid_get_object_20_get_all_whitelisted_urls() (test_pytan_valid_server_tests.ValidServerTests method), 90 (test_pytan_valid_server_tests.ValidServerTests method), 91

- 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), 91
- test_valid_export_resultset_8_export_resultset_csv_sensor_faste@alid_get_object_25_get_all_packages() (test_pytan_valid_server_tests.ValidServerTests method), 90 (test_pytan_valid_server_tests.ValidServerTests method), 91
- 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), 91
- 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_27_get_all_actions() (test_pytan_valid_server_tests.ValidServerTests method), 91
- test_valid_get_object_29_get_sensor_by_name() (test_pytan_valid_server_tests.ValidServerTests method), 91
- test_valid_get_object_2_get_action_by_id() (test_pytan_valid_server_tests.ValidServerTests method), 91
- test_valid_get_object_30_get_saved_action_by_name() (test_pytan_valid_server_tests.ValidServerTests method), 91

- test_valid_get_object_3_get_question_by_id() (test pytan valid server tests. ValidServerTests method), 91
- test_valid_get_object_4_get_saved_question_by_names() (test pytan valid server tests. ValidServerTests 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 tpstrawabtersquestiofilt@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_pytan_valid_server_tests.ValidServerTests method), 91
- (test pytan valid server tests. ValidServerTests method), 91
- (test_pytan_valid_server_tests.ValidServerTests method), 91
- test_valid_question_16_ask_manual_question_sensor_with_paramete(sestn\physidterunitd\(\text{contDehs}(\text{m})\)anizeSensorUtils (test pytan valid server tests. ValidServerTests method), 91
- test_valid_question_17_ask_manual_question_sensor_with_filter_and(test_options()unit.TestDehumanizeSensorUtils (test_pytan_valid_server_tests.ValidServerTests
- test_valid_question_18_ask_manual_question_complex_query2() (test_pytan_valid_server_tests.ValidServerTests method), 91
- test_valid_question_19_ask_manual_question_complex_query1()
- method), 92

- test valid question 2 ask manual question multiple sensors with paran (test pytan valid server tests. ValidServerTests method), 92
- test_valid_question_3_ask_manual_question_simple_single_sensor_no_res (test pytan valid server tests. ValidServerTests method), 92
- test valid question 4 ask manual question simple multiple sensors() (test pytan valid server tests. ValidServerTests method), 92
- test_valid_question_5_ask_manual_question_simple_single_sensor_sse() (test_pytan_valid_server_tests.ValidServerTests method), 92
- test_valid_question_6_ask_manual_question_sensor_without_parameters_a (test_pytan_valid_server_tests.ValidServerTests method), 92
- test_valid_question_7_ask_parsed_question_pick_first_no_results() $(test_pytan_valid_server_tests. ValidServerTests$ method), 92
- test_valid_question_8_ask_manual_question_sensor_with_filter_and_2_op (test pytan valid server tests. ValidServerTests method), 92
- (test_pytan_valid_server_tests.ValidServerTests method), 92 test_valid_saved_question_1_ask_saved_question_refresh_data()
- (test pytan valid server tests. ValidServerTests method), 92
- method), 92 test_valid_question_13_ask_manual_question_simple_single_stervadin() saved_question_3_ask_saved_question_by_name() (test_pytan_valid_server_tests.ValidServerTests

(test_pytan_valid_server_tests.ValidServerTests

- test_valid_question_14_ask_manual_question_sensor_with_t6stem(alid_saved_question_4_ask_saved_question_by_name_in_list() (test pytan valid server tests. ValidServerTests method), 92
- test valid question 15 ask manual question multiple senteents vialled tissient by lint(in) (test pytan unit. Test Dehumanize Sensor Utils method), 94 test_valid_simple_str_hash_selector()

method), 92

- method), 94 test_valid_simple_str_id_selector()
- method), 94 test_valid_simple_str_name_selector()
 - (test_pytan_unit.TestDehumanizeSensorUtils method), 94
- test_version_higher() (test_pytan_unit.TestGenericUtils method), 95
- (test_pytan_valid_server_tests. ValidServerTests test_version_lower() (test_pytan_unit.TestGenericUtils method), 91 method), 95
- test_valid_question_1_ask_manual_question_sensor_with_parameters_manikestowner_stimpUtids_parameters_six in (test pytan valid server tests. ValidServerTests test pytan unit), 92

TestDehumanizeQuestionFilterUtils	(class	in	UploadFileList (class in tani-
test_pytan_unit), 93			umpy.object_types.upload_file_list), 108
TestDehumanizeQuestionOptionUtils	(class	in	UploadFileStatus (class in tani-
test_pytan_unit), 93			umpy.object_types.upload_file_status), 108
TestDehumanizeSensorUtils (class in test_			User (class in taniumpy.object_types.user), 108
TestDeserializeBadXML (class in test_py		94	UserList (class in taniumpy.object_types.user_list), 108
TestGenericUtils (class in test_pytan_unit			UserRole (class in taniumpy.object_types.user_role), 108
TestManualBuildObjectUtils (class in te	est_pytan_i	unit),	UserRoleList (class in tani-
95			umpy.object_types.user_role_list), 109
TestManualPackageDefValidateUtils	(class	in	V
test_pytan_unit), 95			V
TestManualQuestionFilterDefParseUtils	(class	in	val_package_def() (in module pytan.utils), 74
test_pytan_unit), 95			val_q_filter_defs() (in module pytan.utils), 74
TestManualQuestionFilterDefValidateUtil	s (class	in	val_sensor_defs() (in module pytan.utils), 74
test_pytan_unit), 96			ValidServerTests (class in test_pytan_valid_server_tests),
TestManualQuestionOptionDefParseUtils	(class	in	88
test_pytan_unit), 96			version_check() (in module pytan.binsupport), 85
	class	in	VersionAggregate (class in tani-
test_pytan_unit), 96			umpy.object_types.version_aggregate), 109
TestManualSensorDefValidateUtils	(class	in	VersionAggregateList (class in tani-
test_pytan_unit), 97			umpy.object_types.version_aggregate_list),
hreaded_http (module), 110	110		109
hreaded_http() (in module threaded_http)			VersionMismatchError, 86
ThreadedHTTPServer (class in threaded_l	-		VersionParseError, 86
FIME_FORMAT (in module pytan.consta		v . 11	vig_decode() (in module pytan.utils), 74
TIMEOUT_SECS_DEFAULT (pytan.po	oners.SSEF	oner	vig_encode() (in module pytan.utils), 74
attribute), 59			W
FimeoutException, 86	ila) 72		
imestr_to_datetime() (in module pytan.ut		Tuna	WhiteListedUrl (class in tani-
o_flat_dict() (taniumpy.object_types method), 99	.base.base	Type	umpy.object_types.white_listed_url), 109
o_flat_dict_explode_json()	,	tani-	WhiteListedUrlList (class in tani-
o_nat_dict_explode_json() umpy.object_types.base.BaseTy		hod),	umpy.object_types.white_listed_url_list),
99	pe men	nou),	109
o_json() (taniumpy.object_types.base.B	aceType (etatic	write_csv() (taniumpy.object_types.base.BaseType static
method), 99	ascrypc	static	method), 99
**			<pre>write_csv() (taniumpy.object_types.result_set.ResultSet</pre>
o ison() (taniumny object types resu	It set Resu	ltSet	
o_json() (taniumpy.object_types.resu	lt_set.Resu	ltSet	static method), 105
static method), 105			static method), 105 write_history() (pytan.binsupport.HistoryConsole
static method), 105 o_jsonable() (taniumpy.object_types			static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76
static method), 105 o_jsonable() (taniumpy.object_types method), 99	.base.Base	Туре	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu	.base.Base	Туре	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105	.base.Base	Type iltSet	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types	.base.Base	Type iltSet	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99	.base.Base lt_set.Resu .base.Base	Type IltSet Type	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module py-
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99 oSOAPElement()	.base.Base lt_set.Resu .base.Base	Type IltSet Type (tani-	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module pytan.xml_clean), 86
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99	.base.Base lt_set.Resu .base.Base	Type IltSet Type	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module pytan.xml_clean), 86 XML_1_0_VALID_HEX (in module pytan.xml_clean),
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99 oSOAPElement() umpy.object_types.base.BaseTy	.base.Base lt_set.Resu .base.Base	Type IltSet Type (tani-	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module pytan.xml_clean), 86 XML_1_0_VALID_HEX (in module pytan.xml_clean), 87
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99 oSOAPElement() umpy.object_types.base.BaseTy	.base.Base lt_set.Resu .base.Base	Type IltSet Type (tani-	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module pytan.xml_clean), 86 XML_1_0_VALID_HEX (in module pytan.xml_clean), 87 xml_cleaner() (in module pytan.xml_clean), 87
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99 oSOAPElement() umpy.object_types.base.BaseTy	.base.Base lt_set.Resu .base.Base	Type IltSet Type (tani-	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module pytan.xml_clean), 86 XML_1_0_VALID_HEX (in module pytan.xml_clean), 87 xml_cleaner() (in module pytan.xml_clean), 87 xml_pretty() (in module pytan.utils), 75
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99 oSOAPElement() umpy.object_types.base.BaseTy 99	.base.Base lt_set.Resu .base.Base	Type IltSet Type (tani-	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module pytan.xml_clean), 86 XML_1_0_VALID_HEX (in module pytan.xml_clean), 87 xml_cleaner() (in module pytan.xml_clean), 87 xml_pretty() (in module pytan.utils), 75 xml_pretty_resultobj() (in module pytan.utils), 75
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99 oSOAPElement() umpy.object_types.base.BaseTy 99 J unpack() (in module ddt), 113	.base.Base lt_set.Resu .base.Base	Type IltSet Type (tani-	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module pytan.xml_clean), 86 XML_1_0_VALID_HEX (in module pytan.xml_clean), 87 xml_cleaner() (in module pytan.xml_clean), 87 xml_pretty() (in module pytan.utils), 75 xml_pretty_resultobj() (in module pytan.utils), 75 xml_pretty_resultxml() (in module pytan.utils), 75
static method), 105 o_jsonable() (taniumpy.object_types method), 99 o_jsonable() (taniumpy.object_types.resu method), 105 oSOAPBody() (taniumpy.object_types method), 99 oSOAPElement() umpy.object_types.base.BaseTy 99 J unpack() (in module ddt), 113 unparse() (in module xmltodict), 112	.base.Base It_set.Resu .base.Base (pe meti	Type IltSet Type (tani-hod),	static method), 105 write_history() (pytan.binsupport.HistoryConsole method), 76 write_pytan_user_config() (pytan.handler.Handler method), 36 X XML_1_0_RESTRICTED_HEX (in module pytan.xml_clean), 86 XML_1_0_VALID_HEX (in module pytan.xml_clean), 87 xml_cleaner() (in module pytan.xml_clean), 87 xml_pretty() (in module pytan.utils), 75 xml_pretty_resultobj() (in module pytan.utils), 75

 $\begin{array}{cccc} XmlError & (class & in & taniumpy.object_types.xml_error), \\ & 109 & \end{array}$

XMLNS (pytan.sessions.Session attribute), 38 xmltodict (module), 110