fn_ansible_tower

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Release Notes

Release	Date	Notes
v1.0.4	8/2024	Rebuilt the app to server v40
v1.0.3	7/2021	Bug fix to handle results data
v1.0.2	2/2021	Bug fix for paged results from templates, jobs, etc.
v1.0.1	12/2020	App Host support
v1.0.0	2/2020	Initial release

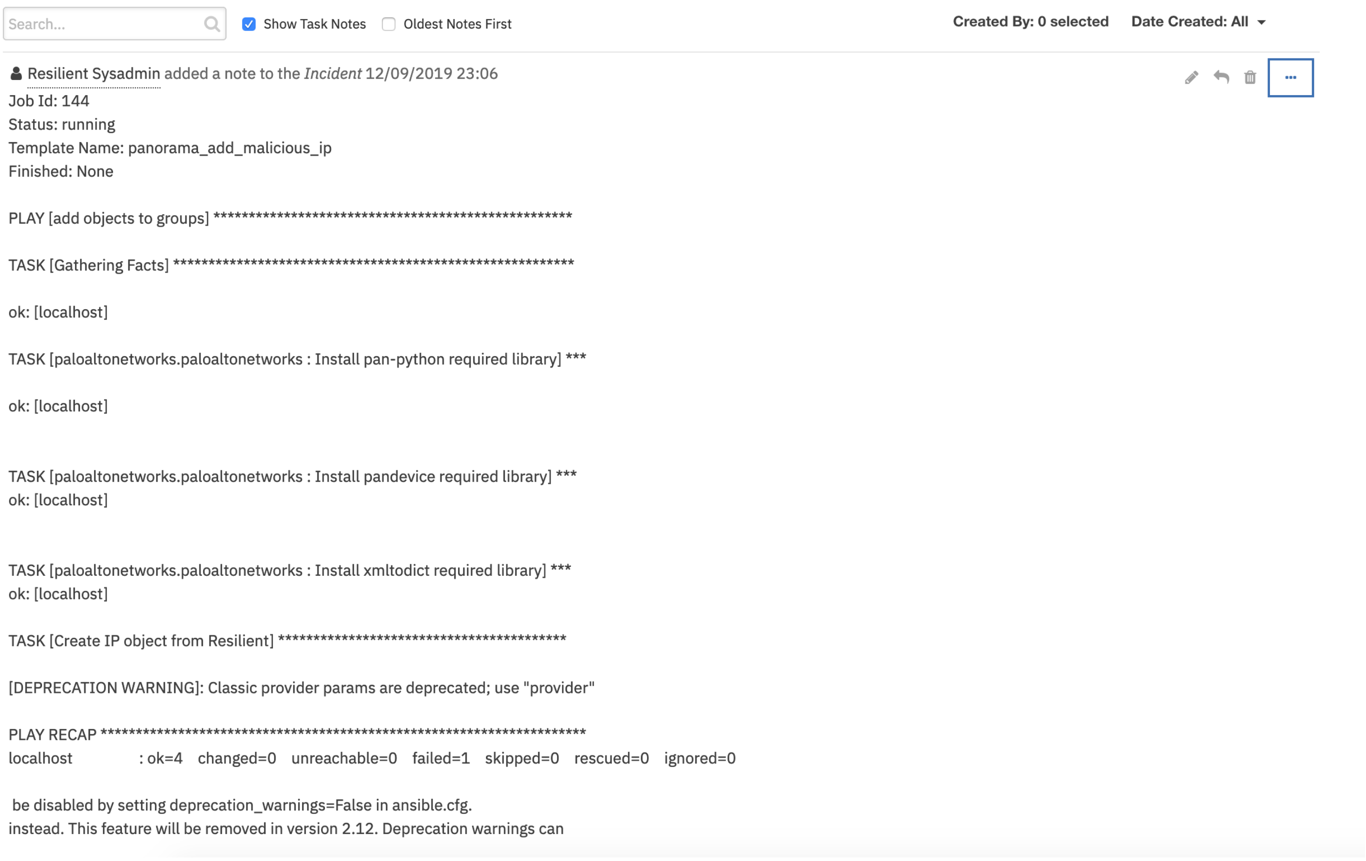
Overview

Resilient Circuits Components for 'fn_ansible_tower'

This integration provides the capability to execute jobs and return job results from Ansible Tower.

Specific features include:

- List Job Templates filtering by Project
- Execute Job Templates, specifying name/value pairs for job template substitution
- Execute ad-hoc Jobs, specifying name/value pairs for module parameters
- List Jobs run filtered by status or date
- Return Job run results



Resilient Sysadmin added a note to the *Incident* 12/09/2019 23:06

```
Job Id: 144
Status: running
Template Name: panorama_add_malicious_ip
Finished: None

PLAY [add objects to groups] ****************************************************

TASK [Gathering Facts] **********************************************************

ok: [localhost]

TASK [paloaltonetworks.paloaltonetworks : Install pan-python required library] ***

ok: [localhost]


TASK [paloaltonetworks.paloaltonetworks : Install pandevice required library] ***
ok: [localhost]


TASK [paloaltonetworks.paloaltonetworks : Install xmltodict required library] ***
ok: [localhost]

TASK [Create IP object from Resilient] ******************************************

[DEPRECATION WARNING]: Classic provider params are deprecated; use "provider"

PLAY RECAP **********************************************************************
localhost            : ok=4   changed=0   unreachable=0   failed=1   skipped=0   rescued=0   ignored=0

 be disabled by setting deprecation_warnings=False in ansible.cfg.
instead. This feature will be removed in version 2.12. Deprecation warnings can
```

Requirements

This app supports the IBM Security QRadar SOAR Platform and the IBM Security QRadar SOAR for IBM Cloud Pak for Security.

SOAR platform

The SOAR platform supports two app deployment mechanisms, Edge Gateway (also known as App Host) and integration server.

If deploying to a SOAR platform with an App Host, the requirements are:

- SOAR platform >= `40.0.6554`.
- The app is in a container-based format (available from the AppExchange as a `zip` file).

If deploying to a SOAR platform with an integration server, the requirements are:

- SOAR platform >= `40.0.6554`.
- The app is in the older integration format (available from the AppExchange as a `zip` file which contains a `tar.gz` file).
- Integration server is running `resilient_circuits>=30.0.0`.
- If using an API key account, make sure the account provides the following minimum permissions:

Name	Permissions
Org Data	Read
Function	Read

The following SOAR platform guides provide additional information:

- *Edge Gateway Deployment Guide* or *App Host Deployment Guide*: provides installation, configuration, and troubleshooting information, including proxy server settings.
- *Integration Server Guide*: provides installation, configuration, and troubleshooting information, including proxy server settings.
- *System Administrator Guide*: provides the procedure to install, configure and deploy apps.

The above guides are available on the IBM Documentation website at ibm.biz/soar-docs. On this web page, select your SOAR platform version. On the follow-on page, you can find the *Edge Gateway Deployment Guide*, *App Host Deployment Guide*, or *Integration Server Guide* by expanding **Apps** in the Table of Contents pane. The System Administrator Guide is available by expanding **System Administrator**.

Cloud Pak for Security

If you are deploying to IBM Cloud Pak for Security, the requirements are:

- IBM Cloud Pak for Security >= `1.10.15`.

- Cloud Pak is configured with an Edge Gateway.
- The app is in a container-based format (available from the AppExchange as a `zip` file).

The following Cloud Pak guides provide additional information:

- *Edge Gateway Deployment Guide* or *App Host Deployment Guide*: provides installation, configuration, and troubleshooting information, including proxy server settings. From the Table of Contents, select Case Management and Orchestration & Automation > **Orchestration and Automation Apps**.
- *System Administrator Guide*: provides information to install, configure, and deploy apps. From the IBM Cloud Pak for Security IBM Documentation table of contents, select Case Management and Orchestration & Automation > **System administrator**.

These guides are available on the IBM Documentation website at ibm.biz/cp4s-docs. From this web page, select your IBM Cloud Pak for Security version. From the version-specific IBM Documentation page, select Case Management and Orchestration & Automation.

Proxy Server

The app **does** support a proxy server.

Python Environment

Python 3.9, 3.11, and 3.12 are officially supported. When deployed as an app, the app runs on Python 3.11. Additional package dependencies may exist for each of these packages:

- resilient_circuits>=30.0.0
- resilient_lib>=34.0.195

Installation

Install

- To install or uninstall an App or Integration on the *SOAR platform*, see the documentation at ibm.biz/soar-docs.
- To install or uninstall an App on *IBM Cloud Pak for Security*, see the documentation at ibm.biz/cp4s-docs and follow the instructions above to navigate to Orchestration and Automation.

App Configuration

The following table provides the settings you need to configure the app. These settings are made in the app.config file. See the documentation discussed in the Requirements section for the procedure.

Config	Required	Example	Description
username	Yes	``	*User name for API access to Ansible Tower*
password	Yes	``	*Password for above user name*
url	Yes	``	*URL to Ansible Tower*
cafile	Yes	`False`	*False for no SSL certificate verification or path to certificate file*

Integration Server

- Download the `app-fn_ansible_tower-x.x.x.zip`.
- Copy the `.zip` to your Integration Server and SSH into it.
- **Unzip** the package:

```
$ unzip app-fn_ansible_tower-x.x.x.zip
```

- **Install** the package:

```
$ pip install fn_ansible_tower-x.x.x.tar.gz
```

- Import the **configurations** into your app.config file:

```
$ resilient-circuits config -u
```

- Import the fn_ansible_tower **customizations** into the Resilient platform:

```
$ resilient-circuits customize -y -l fn-ansible-tower
```

- Open the config file, scroll to the bottom and edit your fn_ansible_tower configurations:

```
$ nano ~/.resilient/app.config
```

Config	Required	Example	Description
username	Yes	``	*User name for API access to Ansible Tower*
password	Yes	``	*Password for above user name*
url	Yes	``	*URL to Ansible Tower*
cafile	Yes	`False`	*False for no SSL certificate verification or path to certificate file*

- **Save** and **Close** the app.config file.
- [Optional]: Run selftest to test the Integration you configured:

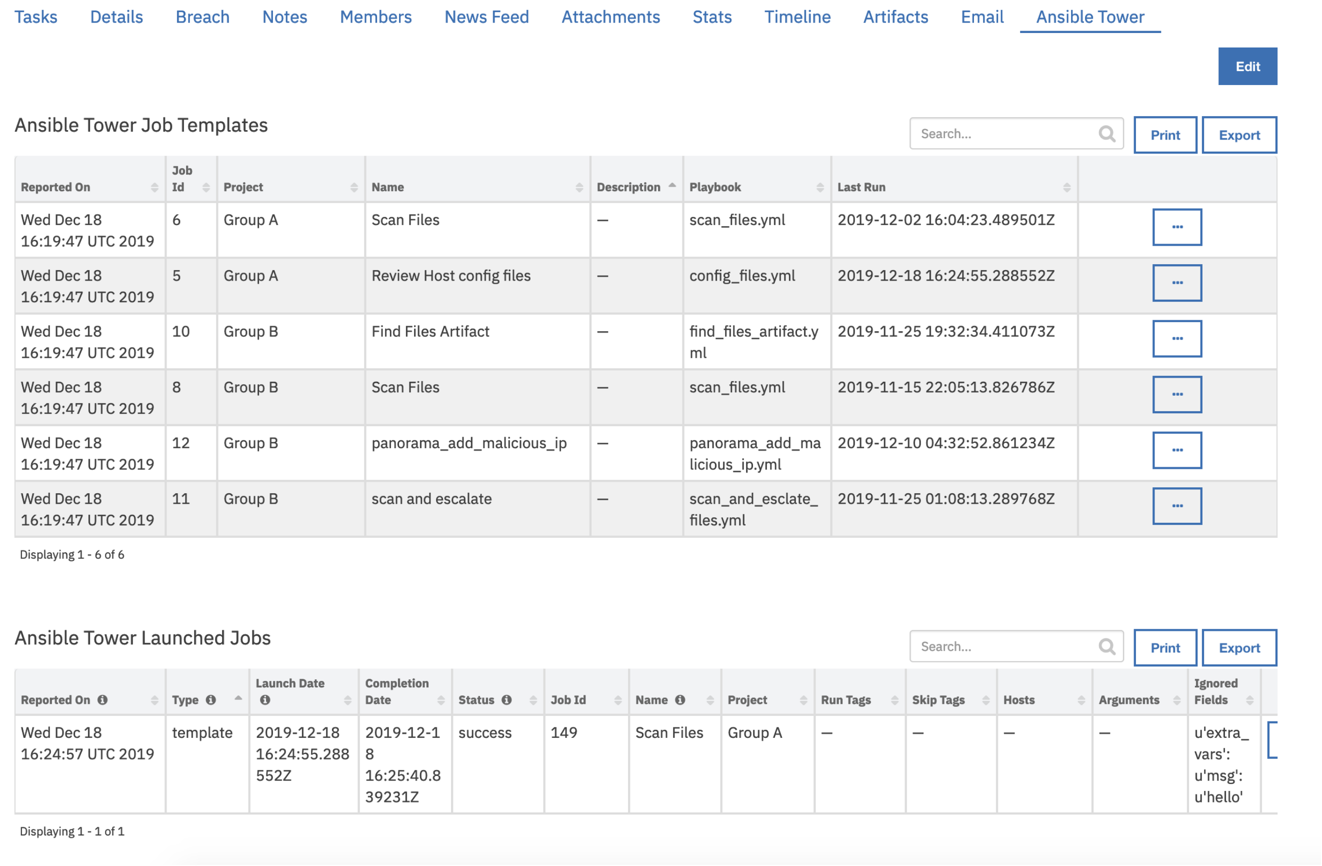
```
$ resilient-circuits selftest -l fn-ansible-tower
```

- **Run** resilient-circuits or restart the Service on Windows/Linux:

```
$ resilient-circuits run
```

Custom Layouts

- Import the Data Tables like the screenshot below:



Ansible Tower Job Templates

Reported On	Job Id	Project	Name	Description	Playbook	Last Run
Wed Dec 18 16:19:47 UTC 2019	6	Group A	Scan Files	—	scan_files.yml	2019-12-02 16:04:23.489501Z
Wed Dec 18 16:19:47 UTC 2019	5	Group A	Review Host config files	—	config_files.yml	2019-12-18 16:24:55.288552Z
Wed Dec 18 16:19:47 UTC 2019	10	Group B	Find Files Artifact	—	find_files_artifact.yml	2019-11-25 19:32:34.411073Z
Wed Dec 18 16:19:47 UTC 2019	8	Group B	Scan Files	—	scan_files.yml	2019-11-15 22:05:13.826786Z
Wed Dec 18 16:19:47 UTC 2019	12	Group B	panorama_add_malicious_ip	—	panorama_add_malicious_ip.yml	2019-12-10 04:32:52.861234Z
Wed Dec 18 16:19:47 UTC 2019	11	Group B	scan and escalate	—	scan_and_esclate_files.yml	2019-11-25 01:08:13.289768Z

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Ansible Tower Launched Jobs

Reported On	Type	Launch Date	Completion Date	Status	Job Id	Name	Project	Run Tags	Skip Tags	Hosts	Arguments	Ignored Fields
Wed Dec 18 16:24:57 UTC 2019	template	2019-12-18 16:24:55.288552Z	2019-12-18 16:25:40.839231Z	success	149	Scan Files	Group A	—	—	—	—	u'extra_vars': u'msg': u'hello'

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Uninstall

- SSH into your Integration Server.

- **Uninstall** the package:

```
$ pip uninstall fn-ansible-tower
```

- Open the config file, scroll to the [fn_ansible_tower] section and remove the section or prefix # to comment out the section.
- **Save** and **Close** the app.config file.

Function - Ansible Tower Get Ad Hoc Command Results

Return the results of an ad hoc command job

screenshot: fn-ansible-tower-get-ad-hoc-command-results

▶ Inputs:

Name	Type	Required	Example	Tooltip
`incident_id`	`number`	Yes	`-`	-
`tower_job_id`	`number`	Yes	`-`	Launched job Id for a job template
`tower_save_as`	`select`	Yes	`-`	-

▶ Outputs:

> **NOTE:** This example might be in JSON format, but `results` is a Python Dictionary on the SOAR platform.

```
results = {
    # TODO: Generate an example of the Function Output within this code block.
    # To get the output of a Function:
    #   1. Run resilient-circuits in DEBUG mode: $ resilient-circuits run --loglevel=DEBUG
    #   2. Invoke the Function in SOAR
    #   3. Gather the results using: $ resilient-sdk codegen -p fn_ansible_tower --gather-results
    #   4. Run docgen again: $ resilient-sdk docgen -p fn_ansible_tower
    # Or simply paste example outputs manually here. Be sure to remove any personal information
}
```

▶ Example Function Input Script:

```
inputs.tower_job_id = row['job_id']
inputs.tower_save_as = rule.properties.tower_save_as
inputs.incident_id = incident.id
```

▶ Example Function Post Process Script:

```
import re

if results.content:
  finished = results.content['summary']['finished'].replace('T', ' ') if results.content['summary']
['finished'] else None

  row['status'] = results.content['summary']['status']
  row['completion_date'] = finished

  note = u"Job Id: {}\nStatus: {}\nTemplate Name: {}\nFinished: {}".format(results.inputs['tower_job_id'],
results.content['summary']['status'],
                                                                           results.content['summary']['name'],
finished)
  if not results.inputs['tower_save_as_attachment']:
    note = note + u"\n".join(event.get("stdout") for event in results.content['events']['results'])
    incident.addNote(re.sub(r'[\x00-\x7f]\[[0-9;]*m', r'', note)) # remove color hilighting
  else:
    attachment_name = u"{}_{}.txt".format(results.content['summary']['name'].replace(" ", "_"),
results.inputs['tower_job_id'])
    note = note + u"\nAttachment Name: {}".format(attachment_name)
    incident.addNote(note)
```

Function - Ansible Tower Get Job Results

Get the results of a complete job

screenshot: fn-ansible-tower-get-job-results

▶ Inputs:

Name	Type	Required	Example	Tooltip
`incident_id`	`number`	Yes	`-`	-
`tower_job_id`	`number`	Yes	`-`	Launched job Id for a job template
`tower_save_as`	`select`	Yes	`-`	-

▶ Outputs:

> **NOTE:** This example might be in JSON format, but `results` is a Python Dictionary on the SOAR platform.

```
results = {
    # TODO: Generate an example of the Function Output within this code block.
    # To get the output of a Function:
    #   1. Run resilient-circuits in DEBUG mode: $ resilient-circuits run --loglevel=DEBUG
    #   2. Invoke the Function in SOAR
    #   3. Gather the results using: $ resilient-sdk codegen -p fn_ansible_tower --gather-results
    #   4. Run docgen again: $ resilient-sdk docgen -p fn_ansible_tower
    # Or simply paste example outputs manually here. Be sure to remove any personal information
}
```

▶ Example Function Input Script:

```
inputs.tower_job_id = row['job_id']
inputs.tower_save_as = rule.properties.tower_save_as
inputs.incident_id = incident.id
```

▶ Example Function Post Process Script:

```
import re

if results.content:
  finished = results.content['summary']['finished'].replace('T', ' ') if results.content['summary']
['finished'] else None

  row['status'] = results.content['summary']['status']
  row['completion_date'] = finished

  note = u"Job Id: {}\nStatus: {}\nTemplate Name: {}\nFinished: {}".format(results.inputs['tower_job_id'],
results.content['summary']['status'],
                                                                           results.content['summary']['name'],
finished)
  if not results.inputs['tower_save_as_attachment']:
    note = note + u"\n".join(event.get("stdout") for event in results.content['events']['results'])
    incident.addNote(re.sub(r'[\x00-\x7f]\[[0-9;]*m', r'', note)) # remove color hilighting
  else:
    attachment_name = u"{}_{}.txt".format(results.content['summary']['name'].replace(" ", "_"),
results.inputs['tower_job_id'])
    note = note + u"\nAttachment Name: {}".format(attachment_name)
    incident.addNote(note)
```

Function - Ansible Tower List Job Templates

List available job templates. * Wildcard can be used to filter project and template names

screenshot: fn-ansible-tower-list-job-templates

▶ Inputs:

Name	Type	Required	Example	Tooltip

Name	Type	Required	Example	Tooltip
`tower_project`	`text`	No	`-`	Optionally filter by project. Supports * wildcard
`tower_template_pattern`	`text`	No	`-`	Use * to use wildcard matches

▶ Outputs:

> **NOTE:** This example might be in JSON format, but `results` is a Python Dictionary on the SOAR platform.

```
results = {
    # TODO: Generate an example of the Function Output within this code block.
    # To get the output of a Function:
    #   1. Run resilient-circuits in DEBUG mode: $ resilient-circuits run --loglevel=DEBUG
    #   2. Invoke the Function in SOAR
    #   3. Gather the results using: $ resilient-sdk codegen -p fn_ansible_tower --gather-results
    #   4. Run docgen again: $ resilient-sdk docgen -p fn_ansible_tower
    # Or simply paste example outputs manually here. Be sure to remove any personal information
}
```

▶ Example Function Input Script:

```
inputs.tower_project = rule.properties.tower_project
inputs.tower_template_pattern = rule.properties.tower_template_pattern
```

▶ Example Function Post Process Script:

```
import java.util.Date as Date
if not results.content:
  row = incident.addRow("ansible_tower_job_templates")
  row['reported_on'] = str(Date())
  row['template_name'] = "-- No results returned --"
else:
  for template in results.content:
    row = incident.addRow("ansible_tower_job_templates")
    row['reported_on'] = str(Date())
    row['template_id'] = template['id']
    row['template_name'] = template['name']
    row['template_description'] = template['description']
    row['template_project'] = template['summary_fields']['project']['name']
    row['template_playbook'] = template['playbook']
    row['template_last_run'] = template['last_job_run'].replace('T', ' ') if template['last_job_run'] else None
```

Function - Ansible Tower List Jobs

List Ansible Tower jobs based on job status and last modified conditions

screenshot: fn-ansible-tower-list-jobs

▶ Inputs:

Name	Type	Required	Example	Tooltip
`tower_job_status`	`multiselect`	No	`-`	Leave empty for all status values
`tower_last_updated`	`select`	No	`-`	specify timeframe to filter returned jobs

▶ Outputs:

> **NOTE:** This example might be in JSON format, but `results` is a Python Dictionary on the SOAR platform.

```
results = {
    # TODO: Generate an example of the Function Output within this code block.
    # To get the output of a Function:
    #   1. Run resilient-circuits in DEBUG mode: $ resilient-circuits run --loglevel=DEBUG
    #   2. Invoke the Function in SOAR
    #   3. Gather the results using: $ resilient-sdk codegen -p fn_ansible_tower --gather-results
    #   4. Run docgen again: $ resilient-sdk docgen -p fn_ansible_tower
    # Or simply paste example outputs manually here. Be sure to remove any personal information
}
```

▶ Example Function Input Script:

```
inputs.tower_job_status = rule.properties.job_status
inputs.tower_last_updated = rule.properties.last_updated
```

▶ Example Function Post Process Script:

```
import java.util.Date as Date
for job in results.content:
  run_row = incident.addRow('ansible_tower_launched_jobs')

  run_row['reported_on'] = str(Date())
  run_row['type'] = 'template'
  run_row['launch_date'] = job['created'].replace('T', ' ')
  run_row['status'] = job['status']
  run_row['job_id'] = job['id']
  run_row['template_name'] = job['name']
  run_row['project'] = job['summary_fields']['project']['name']
  run_row['run_tags'] = job['job_tags']
  run_row['skip_tags'] = job['skip_tags']
  run_row['inventory'] = job['limit']
  run_row['arguments'] = job['extra_vars'].replace("{", "").replace("}", "")
  #run_row['ignored_fields'] = str(job['ignored_fields'])
```

Function - Ansible Tower Run an Ad Hoc Command

Run an ad hoc command through ansible tower

screenshot: fn-ansible-tower-run-an-ad-hoc-command

▶ Inputs:

Name	Type	Required	Example	Tooltip
`tower_arguments`	`text`	No	`name1=value;name2=value`	Semicolon separated name/value pairs
`tower_credential`	`number`	Yes	`-`	-
`tower_hosts`	`text`	No	`-`	comma separated list of hosts to limit
`tower_inventory`	`number`	No	`-`	-
`tower_module`	`select`	No	`-`	-

▶ Outputs:

> **NOTE:** This example might be in JSON format, but `results` is a Python Dictionary on the SOAR platform.

```
results = {
    # TODO: Generate an example of the Function Output within this code block.
    # To get the output of a Function:
    #   1. Run resilient-circuits in DEBUG mode: $ resilient-circuits run --loglevel=DEBUG
    #   2. Invoke the Function in SOAR
    #   3. Gather the results using: $ resilient-sdk codegen -p fn_ansible_tower --gather-results
    #   4. Run docgen again: $ resilient-sdk docgen -p fn_ansible_tower
    # Or simply paste example outputs manually here. Be sure to remove any personal information
}
```

▶ Example Function Input Script:

```
inputs.tower_module = rule.properties.ansible_tower_module
inputs.tower_arguments = rule.properties.ansible_tower_module_arguments
inputs.tower_hosts = rule.properties.ansible_tower_hosts

inventory = rule.properties.ansible_tower_inventory
if inventory.find('-') != -1:
  inv_split = inventory.split("-")
else:
  inv_split = inventory.split(" ")
inputs.tower_inventory = int(inv_split[0])

credential = rule.properties.ansible_tower_credential
if credential.find('-') != -1:
  cred_split = credential.split("-")
else:
  cred_split = credential.split(" ")
inputs.tower_credential = int(cred_split[0])
```

▶ Example Function Post Process Script:

```
import java.util.Date as Date

run_row = incident.addRow('ansible_tower_launched_jobs')

run_row["reported_on"] = str(Date())
run_row['type'] = 'ad hoc'
run_row['launch_date'] = results.content['created'].replace('T', ' ')
run_row['status'] = results.content['status']
run_row['job_id'] = results.content['id']
run_row['template_name'] = results.content['name']
run_row['inventory'] = results.content['limit']
run_row['arguments'] = str(results.content['module_args']).replace("{", "").replace("}", "")
```

Function - Ansible Tower Run Job

Execute a job for a given tower template

screenshot: fn-ansible-tower-run-job

▶ Inputs:

Name	Type	Required	Example	Tooltip
`tower_arguments`	`text`	No	`name1=value;name2=value`	Semicolon separated name/value pairs
`tower_hosts`	`text`	No	`-`	comma separated list of hosts to limit
`tower_run_tags`	`text`	No	`-`	Comma separated list of plays to run
`tower_skip_tags`	`text`	No	`-`	Comma separated list of plays to skip
`tower_template_id`	`number`	No	`-`	Job Template Id to launch
`tower_template_name`	`text`	No	`-`	Name of Job Template, optional to tower_template_id

▶ Outputs:

> **NOTE:** This example might be in JSON format, but `results` is a Python Dictionary on the SOAR platform.

```
results = {
    # TODO: Generate an example of the Function Output within this code block.
    # To get the output of a Function:
    #   1. Run resilient-circuits in DEBUG mode: $ resilient-circuits run --loglevel=DEBUG
    #   2. Invoke the Function in SOAR
    #   3. Gather the results using: $ resilient-sdk codegen -p fn_ansible_tower --gather-results
    #   4. Run docgen again: $ resilient-sdk docgen -p fn_ansible_tower
    # Or simply paste example outputs manually here. Be sure to remove any personal information
}
```

▶ Example Function Input Script:

```
inputs.tower_template_name = rule.properties.ansible_tower_job_name
inputs.tower_hosts = rule.properties.ansible_tower_hosts
artifact_data = "artifact_value={};artifact_type={}".format(artifact.value, artifact.type)
if rule.properties.ansible_tower_arguments:
  inputs.tower_arguments = ";".join((rule.properties.ansible_tower_arguments, artifact_data))
```

```
else:
  inputs.tower_arguments = artifact_data
inputs.tower_run_tags = rule.properties.ansible_tower_run_tags
inputs.tower_skip_tags = rule.properties.ansible_tower_skip_tags
```

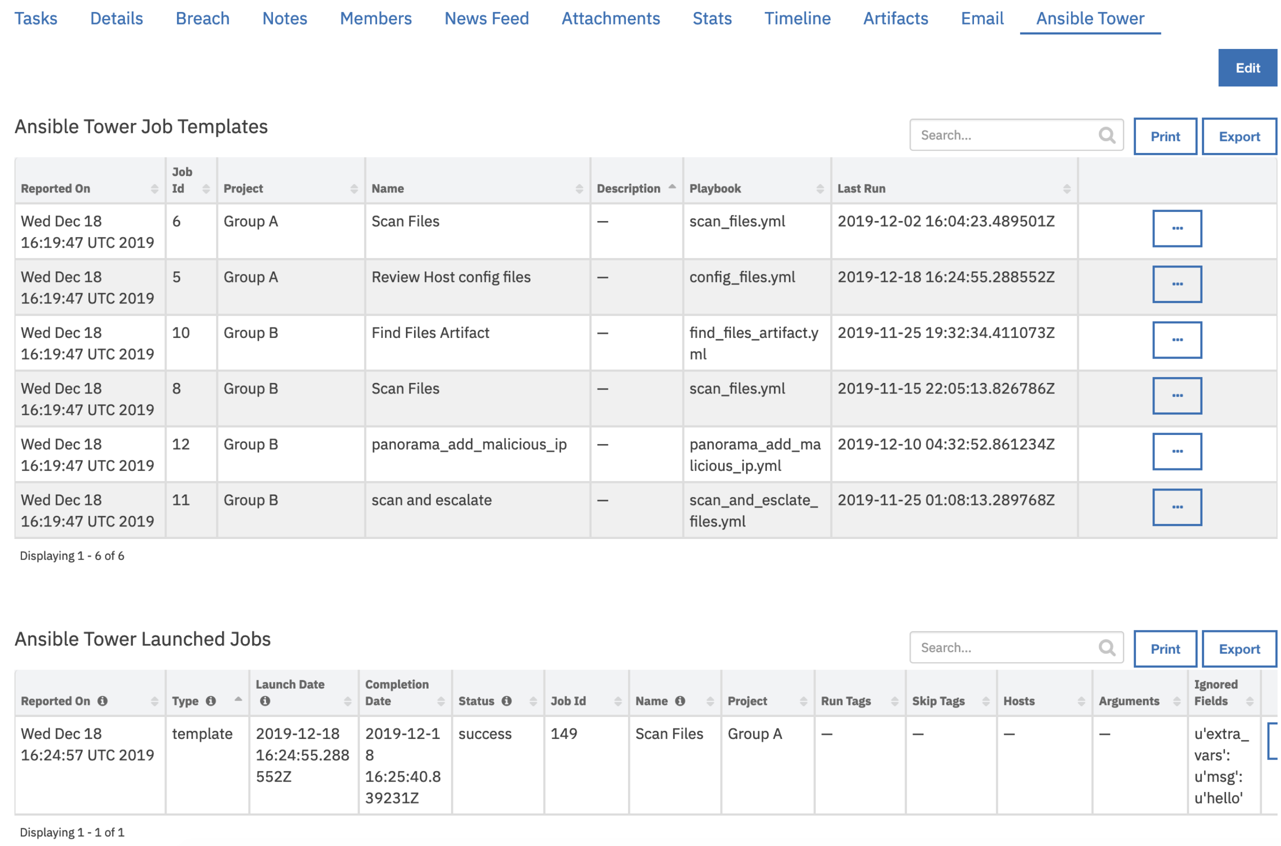
▶ Example Function Post Process Script:

```
import java.util.Date as Date
if not results.content['failed']:
  run_row = incident.addRow('ansible_tower_launched_jobs')

  run_row['reported_on'] = str(Date())
  run_row['type'] = 'template'
  run_row['launch_date'] = results.content['created'].replace('T', ' ')
  run_row['status'] = results.content['status']
  run_row['job_id'] = results.content['job']
  run_row['template_name'] = results.content['name']
  run_row['project'] = results.content['summary_fields']['project']['name']
  run_row['run_tags'] = results.content['job_tags']
  run_row['skip_tags'] = results.content['skip_tags']
  run_row['inventory'] = results.content['limit']
  run_row['arguments'] = str(results.content['extra_vars']).replace("{", "").replace("}", "")
  run_row['ignored_fields'] = str(results.content['ignored_fields']).replace("{", "").replace("}", "")
```

Custom Layouts

- Import the Data Tables and Custom Fields like the screenshot below:



Ansible Tower Job Templates

Reported On	Job Id	Project	Name	Description	Playbook	Last Run	
Wed Dec 18 16:19:47 UTC 2019	6	Group A	Scan Files	—	scan_files.yml	2019-12-02 16:04:23.489501Z	···
Wed Dec 18 16:19:47 UTC 2019	5	Group A	Review Host config files	—	config_files.yml	2019-12-18 16:24:55.288552Z	···
Wed Dec 18 16:19:47 UTC 2019	10	Group B	Find Files Artifact	—	find_files_artifact.yml	2019-11-25 19:32:34.411073Z	···
Wed Dec 18 16:19:47 UTC 2019	8	Group B	Scan Files	—	scan_files.yml	2019-11-15 22:05:13.826786Z	···
Wed Dec 18 16:19:47 UTC 2019	12	Group B	panorama_add_malicious_ip	—	panorama_add_malicious_ip.yml	2019-12-10 04:32:52.861234Z	···
Wed Dec 18 16:19:47 UTC 2019	11	Group B	scan and escalate	—	scan_and_esclate_files.yml	2019-11-25 01:08:13.289768Z	···

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Ansible Tower Launched Jobs

Reported On	Type	Launch Date	Completion Date	Status	Job Id	Name	Project	Run Tags	Skip Tags	Hosts	Arguments	Ignored Fields
Wed Dec 18 16:24:57 UTC 2019	template	2019-12-18 16:24:55.288552Z	2019-12-18 16:25:40.839231Z	success	149	Scan Files	Group A	—	—	—	—	u'extra_vars': u'msg': u'hello'

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Data Table - Ansible Tower Job Templates

screenshot: dt-ansible-tower-job-templates

API Name:

ansible_tower_job_templates

Columns:

Column Name	API Access Name	Type	Tooltip
Description	`template_description`	`text`	-
Job Id	`template_id`	`number`	-
Last Run	`template_last_run`	`text`	-
Name	`template_name`	`text`	-
Playbook	`template_playbook`	`text`	-
Project	`template_project`	`text`	-
Reported On	`reported_on`	`text`	-

Data Table - Ansible Tower Launched Jobs

screenshot: dt-ansible-tower-launched-jobs

API Name:

ansible_tower_launched_jobs

Columns:

Column Name	API Access Name	Type	Tooltip
Arguments	`arguments`	`text`	-
Completion Date	`completion_date`	`text`	-
Hosts	`inventory`	`text`	-
Ignored Fields	`ignored_fields`	`text`	-
Job Id	`job_id`	`number`	-
Launch Date	`launch_date`	`text`	Date Job was created
Name	`template_name`	`text`	Job Template Name
Project	`project`	`text`	-
Reported On	`reported_on`	`text`	Date row was added
Run Tags	`run_tags`	`text`	-
Skip Tags	`skip_tags`	`text`	-
Status	`status`	`text`	Status of Job
Type	`type`	`text`	'ad hoc', 'template'

Rules

Rule Name	Object	Workflow Triggered	Condition
Ansible Tower Get Ad Hoc Command Results	ansible_tower_launched_jobs	`ansible_tower_get_ad_hoc_command_results`	`ansible_tower_launched_jobs.type equals ad hoc`
Ansible Tower Get Job Results	ansible_tower_launched_jobs	`ansible_tower_get_job_results`	`ansible_tower_launched_jobs.type equals template`
Ansible Tower List Job Templates	incident	`ansible_tower_list_job_templates`	`-`

Rule Name	Object	Workflow Triggered	Condition
Ansible Tower List Jobs	incident	`ansible_tower_list_jobs`	`-`
Ansible Tower Run an Ad Hoc Command	incident	`ansible_tower_run_an_ad_hoc_command`	`-`
Ansible Tower Run Job	ansible_tower_job_templates	`ansible_tower_launch_job_template`	`ansible_tower_job_templates.template_id has_a_value`
Ansible Tower Run Job - Artifact	artifact	`ansible_tower_run_job__artifact`	`-`
Ansible Tower Run Job - Incident	incident	`ansible_tower_run_job__incident`	`-`

Troubleshooting & Support

Refer to the documentation listed in the Requirements section for troubleshooting information.

For Support

This is a IBM Community provided app. Please search the Community ibm.biz/soarsupport for assistance.