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# **Robottelo Documentation**

***Release 0.0.1***

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Robottelo is a test suite which exercises [The Foreman](#). All tests are automated, suited for use in a continuous integration environment, and [data driven](#). There are three types of tests:

- UI tests, which rely on Selenium's [WebDriver](#).
- CLI tests, which rely on [Paramiko](#).
- API tests, which rely on [Requests](#).

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## QUICKSTART

The following is only a brief setup guide for Robottelo. The section on *Running the Tests* provides a more comprehensive guide to using Robottelo.

Robottelo requires SSH access to the Satellite 6 system under test, and this SSH access is implemented by Paramiko. Install the headers for the following to ensure that Paramiko's dependencies build correctly:

- OpenSSL
- Python development headers
- libffi

Recommendation: Create a virtual python environment for the following setup.

Create virtual environment for python 3.x:: \$ python3 -m venv <venv\_name> To activate virtual environment: \$ source <venv\_name>/bin/activate To end the session: \$ deactivate

On Fedora, you can install these with the following command:

For python3.x:

```
dnf install -y gcc git libffi-devel openssl-devel python38-devel redhat-rpm-config libcurl-devel libxml2-devel
```

On Red Hat Enterprise Linux 7, you can install these with the following command:

```
yum install -y gcc git libffi-devel openssl-devel python38-devel redhat-rpm-config libcurl-devel libxml2-devel
```

For more information, see [Paramiko: Installing](#).

Get the source code and install dependencies:

```
$ git clone git://github.com/SatelliteQE/robottelo.git
$ export PYCURL_SSL_LIBRARY=<ssl library>
$ pip install -r requirements.txt
```

**Notes:** \* To determine ssl library, check <http://pycurl.io/docs/latest/install.html#ssl>

That's it! You can now go ahead and start testing The Foreman. However, there are a few other things you may wish to do before continuing:

1. You may want to install development tools (such as gcc) for your OS. If running Fedora or Red Hat Enterprise Linux, execute `yum groupinstall "Development Tools"`. Make sure to use `dnf` instead of `yum` if `dnf` is available on your system.
2. You may wish to install the optional dependencies listed in `requirements-optional.txt`. (Use `pip`, as shown above.) They are required for tasks like working with certificates, running the internal robottelo test suite and checking code quality with pre-commit.

## 1.1 Robottelo on Docker

Robottelo is also available on [dockerhub](#).:

```
$ docker pull satelliteqe/robottelo
```

It also can be built locally using the Dockerfile, in the main directory.:

```
$ docker build -t robottelo .
```

In order to run tests, you will need to mount your robottelo.properties file.:

```
$ docker run -v {path to robottelo dir}/robottelo.properties:/robottelo/robottelo.  
--properties satelliteqe/robottelo <test command>
```

You can also mount the entire robottelo directory to include the properties file and any new tests you have written.:

```
$ docker run -it -v {path to robottelo dir}:/robottelo satelliteqe/robottelo /bin/bash
```

### Notes:

- CLI tests run easiest if you include the root credentials in server.yaml
- UI tests should be configured to run through your SauceLabs account.

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CHAPTER  
TWO

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## RUNNING THE TESTS

Before running any tests, you must create a configuration file:

```
$ cp virtwho.properties.sample ./virtwho.properties
$ vi virtwho.properties
$ cd conf
$ cp broker.yaml.template ./broker.yaml
$ vi broker.yaml
$ cp robottelo.yaml.template ./robottelo.yaml
$ vi robottelo.yaml
$ cp server.yaml.template ./server.yaml
$ vi server.yaml
```

That done, you can run tests using `make`:

```
$ make test-robottelo
$ make test-docstrings
$ make test-foreman-api
$ make test-foreman-cli
$ make test-foreman-ui
$ make test-foreman-smoke
```

Robottelo provides two test suites, one for testing Robottelo itself and another for testing Foreman/Satellite 6. Robottelo's tests are under the `tests/robottelo` directory and the Foreman/Satellite 6 tests are under the `tests/foreman` directory.

If you want to run tests without the aid of `make`, you can do that with either `pytest` , `unittest` or `nose`. Just specify the path for the test suite you want to run:

```
$ pytest tests/robottelo
$ pytest tests/foreman
$ python -m unittest discover -s tests/robottelo -t .
$ python -m unittest discover -s tests/foreman -t .
$ nosetests tests/robottelo
$ nosetests tests/foreman
```

The following sections discuss, in detail, how to update the configuration file and run tests directly.

## 2.1 Initial Configuration

To configure Robottelo, multiple template yaml files are present to execute different test cases in Robottelo.

- server.yaml : Populate server.yaml with ssh credentials and ssh key path. Then, edit the configuration file so that at least the following attributes are set:

```
HOSTNAMES=[LIST OF FULLY QUALIFIED DOMAIN NAMES OR IP ADDRESSES] SSH_USERNAME=[SSH USERNAME] SSH_PASSWORD=[SSH PASSWORD] / SSH_KEY=[PATH TO YOUR SSH KEY] / SSH_KEY_STRING =[SSH KEY AS STRING]
```

Note that you only need to configure the SSH key if you want to run CLI tests. There are other settings to configure what web browser to use for UI tests and even configuration to run the automation using [SauceLabs](#). For more information about what web browsers you can use, check Selenium's [WebDriver](#) documentation.

### 2.1.1 Using environment variables

Each of the sections in the `robottelo.properties` file can be mapped to an environment variable prefixed with `ROBOTTELO_` so for example if you want to override the `server.hostname` without changing the properties file you can do:

```
$ export ROBOTTELO_SERVER_HOSTNAME=other.hostname.com
```

The envvars follows the format `ROBOTTELO_{SECTION}_{VALUE}` all uppercase, more examples:

```
$ export ROBOTTELO_SERVER_SSH_KEY=path/to/your/key  
$ export ROBOTTELO_BUGZILLA_API_KEY=sdfsdg654g8df4gdf6g4df8g468dfg
```

## 2.2 Running the UI Tests in headless mode

You can run browser for UI tests in headless mode by setting browser option in `robottelo.properties` file. Currently it is supported only for chrome

`browseroptions=headless`

## 2.3 Testing With Pytest

To run all tests:

```
$ pytest
```

It is possible to run a specific subset of tests:

```
$ pytest test_case.py  
$ pytest test_case.py::TestClass  
$ pytest test_case.py::TestClass::test_case_name
```

To get more verbose output, or run multiple tests:

```
$ pytest tests/ -v  
$ pytest tests/robottelo/test_decorators.py \
```

tests/robottelo/test\_cli.py

To test The Foreman's API, CLI or UI, use the following commands respectively:

```
$ pytest tests/foreman/api/
$ pytest tests/foreman/cli/
$ pytest tests/foreman/ui/
```

To collect from three directories in one run:

```
$ pytest tests/foreman/{cli,api,ui}/test_host.py
```

To search in testcase names, in this case it will run just negative tests:

```
$ pytest tests/foreman/cli/test_host.py -k negative
```

To run tests in several threads, in this case 4:

```
$ pytest tests/foreman/cli/test_host.py -n 4
```

For more information about Python's `pytest` module, read the documentation.

## 2.4 Testing With Unittest

To run all tests:

```
$ python -m unittest discover \
```

`-start-directory` tests/ `-top-level-directory` .

It is possible to run a specific subset of tests:

```
$ python -m unittest tests.robottelo.test_decorators
$ python -m unittest tests.robottelo.test_decorators.DataDecoratorTestCase
$ python -m unittest tests.robottelo.test_decorators.DataDecoratorTestCase.test_data_
  ↵decorator_smoke
```

To get more verbose output, or run multiple tests:

```
$ python -m unittest discover -s tests/ -t . -v
$ python -m unittest \
```

tests.robottelo.test\_decorators tests.robottelo.test\_cli

To test The Foreman's API, CLI or UI, use the following commands respectively:

```
$ python -m unittest discover -s tests/foreman/api/
$ python -m unittest discover -s tests/foreman/cli/
$ python -m unittest discover -s tests/foreman/ui/
```

For more information about Python's `unittest` module, read the documentation.

## 2.5 Testing With Nose

You must have `nose` installed to execute the `nosetests` command.

To run all tests:

```
$ nosetests
```

It is possible to run a specific subset of tests:

```
$ nosetests tests.robottelo.test_decorators
$ nosetests tests.robottelo.test_decorators:DataDecoratorTestCase
$ nosetests tests.robottelo.test_decorators:DataDecoratorTestCase.test_data_decorator_
˓→smoke
```

To get more verbose output, or run multiple tests:

```
$ nosetests -v
$ nosetests tests.robottelo.test_decorators tests.robottelo.test_cli
```

To test The Foreman's API, CLI or UI, use the following commands respectively:

```
$ nosetests tests.foreman.api
$ nosetests tests.foreman.cli
$ nosetests tests.foreman.ui
```

Many of the existing tests use `subTest` to allow for a more data-driven methodology. In order to run a specific test you need to override the way `nosetests` discovers test names. For instance, if you wanted to run only the `test_positive_create_1` data-driven tests for the `foreman.cli.test_org` module:

```
$ nosetests -m test_positive_create_1 tests.foreman.cli.test_org
```

## 2.6 Running UI Tests On a Docker Browser

It is possible to run UI tests within a docker container. To do this:

- Install docker. It is provided by the `docker` package on Fedora and Red Hat. Be aware that the package may call `docker-io` on old OS releases. \* Make sure that docker is up and running and the user that will run robottelo has permission to run docker commands. For more information check the docker installation guide <https://docs.docker.com/engine/installation/>. \* Pull the `selenium/standalone-firefox` image \* Set `browser=docker` at the `[robottelo]` section in the configuration file `robottelo.properties`.

Once you've performed these steps, UI tests will no longer launch a web browser on your system. Instead, UI tests launch a web browser within a docker container.

## 2.7 Running UI Tests On SauceLabs

It is possible to run UI tests on SauceLabs. To do this:

- Set browser=saucelabs at the [robottelo] section in the configuration

file robottelo.properties. \* Select the browser type by setting webdriver at the [robottelo] section in the configuration file. Valid values are firefox, chrome and ie. \* Fill saucelabs\_user and saucelabs\_key at the [robottelo] section in the configuration file with your Sauce OnDemand credentials. \* If the machine where Satellite 6 is installed is on a VPN or behind a firewall make sure to have SauceConnect running.



## MISCELLANY

### 3.1 API Reference

This page contains auto-generated API reference documentation<sup>1</sup>.

#### 3.1.1 robottelo

This module contains helper code used by `tests.foreman` module.

This module is subservient to `tests.foreman`, and exists solely for the sake of helping that module get its work done. For example, `tests.foreman.cli` relies upon `robottelo.cli`. More generally: code in `tests` calls code in `robottelo`, but not the other way around.

#### Subpackages

`robottelo.api`

#### Submodules

`robottelo.api.utils`

Module containing convenience functions for working with the API.

#### Module Contents

##### Classes

---

`templateupdate`

Context Manager to unlock lock template for updating

---

<sup>1</sup> Created with `sphinx-autoapi`

## Functions

<code>call_entity_method_with_timeout(entity_callable, timeout=300, **kwargs)</code>	Call Entity callable with a custom timeout
<code>enable_rhrepo_and_fetchid(base_search, product, repo, reposet, releasever)</code>	Enable a RedHat Repository and fetches it's Id.
<code>promote(content_view_version, environment_id, force=False)</code>	Call <code>content_view_version.promote(...)</code> .
<code>upload_manifest(organization_id, manifest)</code>	Call <code>nailgun.entities.Subscription.upload</code> .
<code>publish_puppet_module(puppet_modules, repo_url, organization_id=None)</code>	Creates puppet repo, sync it via provided url and publish using
<code>delete_puppet_class(puppetclass_name, puppet_module=None, proxy_hostname=None, environment_name=None)</code>	Removes puppet class entity and uninstall puppet module from Capsule if
<code>create_sync_custom_repo(org_id=None, product_name=None, repo_name=None, repo_url=None, repo_type=None, repo_unprotected=True, docker_upstream_name=None)</code>	Create product/repo, sync it and returns repo_id
<code>enable_sync_redhat_repo(rh_repo, org_id, timeout=1500)</code>	Enable the RedHat repo, sync it and returns repo_id
<code>cv_publish_promote(name=None, env_name=None, repo_id=None, org_id=None)</code>	Create, publish and promote CV to selected environment
<code>one_to_one_names(name)</code>	Generate the names Satellite might use for a one to one field.
<code>one_to_many_names(name)</code>	Generate the names Satellite might use for a one to many field.
<code>configure_provisioning(org=None, loc=None, compute=False, os=None)</code>	Create and configure org, loc, product, repo, cv, env. Update proxy,
<code>create_role_permissions(role, permissions_types_names, search=None)</code>	Create role permissions found in dict <code>permissions_types_names</code> .
<code>wait_for_tasks(search_query, search_rate=1, max_tries=10, poll_rate=None, poll_timeout=None)</code>	Search for tasks by specified search query and poll them to ensure that
<code>wait_for_syncplan_tasks(repo_backend_id=None, timeout=10, repo_name=None)</code>	Search the pulp tasks and identify repositories sync tasks with
<code>wait_for_errata_applicability_task(host_id, from_when, search_rate=1, max_tries=10, poll_rate=None, poll_timeout=15)</code>	Search the generate applicability task for given host and make sure it finishes
<code>create_discovered_host(name=None, ip_address=None, mac_address=None, options=None)</code>	Creates a discovered host.
<code>update_vm_host_location(vm_client, location_id)</code>	Update vm client host location.
<code>check_create_os_with_title(os_title)</code>	Check if the OS is present, if not create the required OS
<code>attach_custom_product_subscription(prod_name=None, host_name=None)</code>	Attach custom product subscription to client host
<code>update_provisioning_template(name=None, old=None, new=None)</code>	Update provisioning template content
<code>apply_package_filter(content_view, repo, package, inclusion=True)</code>	Apply package filter on content view
<code>create_org_admin_role(orgs, locs, name=None)</code>	Helper function to create org admin role for particular
<code>create_org_admin_user(orgs, locs)</code>	Helper function to create an Org Admin user by assigning org admin role and assign

continues on next page

Table 2 – continued from previous page

<code>skip_yum_update_during_provisioning(template=None)</code>	Hides the yum update command with echo text
<code>reverse=False)</code>	
<code>set_hammer_api_timeout(timeout=-1, reverse=False)</code>	re- Set hammer API request timeout on Satellite
<code>update_rhsso_settings_in_satellite(revert=False)</code>	Update or Revert the RH-SSO settings in satellite

`robottelo.api.utils.call_entity_method_with_timeout(entity_callable, timeout=300, **kwargs)`

Call Entity callable with a custom timeout

:param entity\_callable, the entity method object to call :param timeout: the time to wait for the method call to finish :param kwargs: the kwargs to pass to the entity callable

#### Usage:

```
call_entity_method_with_timeout( entities.Repository(id=repo_id).sync, timeout=1500)
```

`robottelo.api.utils.enable_rhrepo_and_fetchid(basearch, org_id, product, repo, reposet, releasever)`

Enable a RedHat Repository and fetches it's Id.

#### Parameters

- **org\_id (str)** – The organization Id.
- **product (str)** – The product name in which repository exists.
- **reposet (str)** – The reposet name in which repository exists.
- **repo (str)** – The repository name who's Id is to be fetched.
- **basearch (str)** – The architecture of the repository.
- **optional releasever (str)** – The releasever of the repository.

**Returns** Returns the repository Id.

**Return type** str

`robottelo.api.utils.promote(content_view_version, environment_id, force=False)`

Call content\_view\_version.promote(...).

#### Parameters

- **content\_view\_version** – A nailgun.entities.ContentViewVersion object.
- **environment\_id** – An environment ID.
- **force** – Whether to force the promotion or not. Only needed if promoting to a lifecycle environment that is not the next in order of sequence.

**Returns** Whatever nailgun.entities.ContentViewVersion.promote returns.

`robottelo.api.utils.upload_manifest(organization_id, manifest)`

Call nailgun.entities.Subscription.upload.

#### Parameters

- **organization\_id** – An organization ID.
- **manifest** – A file object referencing a Red Hat Satellite 6 manifest.

**Returns** Whatever nailgun.entities.Subscription.upload returns.

`robottelo.api.utils.publish_puppet_module(puppet_modules, repo_url, organization_id=None)`

Creates puppet repo, sync it via provided url and publish using Content View publishing mechanism. It makes puppet class available via Puppet Environment created by Content View and returns Content View entity.

### Parameters

- **puppet\_modules** – List of dictionaries with module ‘author’ and module ‘name’ fields.
- **repo\_url (str)** – Url of the repo that can be synced using pulp: pulp repo or puppet forge.
- **organization\_id** – Organization id that is shared between created entities.

**Returns** *nailgun.entities.ContentView* entity.

```
robottelo.api.utils.delete_puppet_class(puppetclass_name, puppet_module=None,
                                         proxy_hostname=None, environment_name=None)
```

Removes puppet class entity and uninstall puppet module from Capsule if puppet module name and Capsule details provided.

### Parameters

- **puppetclass\_name (str)** – Name of the puppet class entity that should be removed.
- **puppet\_module (str)** – Name of the module that should be uninstalled via puppet.
- **proxy\_hostname (str)** – Hostname of the Capsule from which puppet module should be removed.
- **environment\_name (str)** – Name of environment where puppet module was imported.

```
robottelo.api.utils.create_sync_custom_repo(org_id=None, product_name=None, repo_name=None,
                                             repo_url=None, repo_type=None, repo_unprotected=True,
                                             docker_upstream_name=None)
```

Create product/repo, sync it and returns repo\_id

```
robottelo.api.utils.enable_sync_redhat_repo(rh_repo, org_id, timeout=1500)
```

Enable the RedHat repo, sync it and returns repo\_id

```
robottelo.api.utils.cv_publish_promote(name=None, env_name=None, repo_id=None, org_id=None)
```

Create, publish and promote CV to selected environment

```
robottelo.api.utils.one_to_one_names(name)
```

Generate the names Satellite might use for a one to one field.

Example of usage:

```
>>> one_to_many_names('person') == {'person_name', 'person_id'}
True
```

**Parameters** **name** – A field name.

**Returns** A set including both name and variations on name.

```
robottelo.api.utils.one_to_many_names(name)
```

Generate the names Satellite might use for a one to many field.

Example of usage:

```
>>> one_to_many_names('person') == {'person', 'person_ids', 'people'}
True
```

**Parameters** **name** – A field name.

**Returns** A set including both name and variations on name.

**robottelo.api.utils.configure\_provisioning(*org=None, loc=None, compute=False, os=None*)**

Create and configure org, loc, product, repo, cv, env. Update proxy, domain, subnet, compute resource, provision templates and medium with previously created entities and create a hostgroup using all mentioned entities.

**Parameters**

- **org (str)** – Default Organization that should be used in both host discovering and host provisioning procedures
- **loc (str)** – Default Location that should be used in both host discovering and host provisioning procedures
- **compute (bool)** – If False creates a default Libvirt compute resource
- **os (str)** – Specify the os to be used while provisioning and to associate related entities to the specified os.

**Returns** List of created entities that can be re-used further in provisioning or validation procedure (e.g. hostgroup or domain)

**robottelo.api.utils.create\_role\_permissions(*role, permissions\_types\_names, search=None*)**

Create role permissions found in dict permissions\_types\_names.

**Parameters**

- **role** – nailgun.entities.Role
- **permissions\_types\_names** – a dict containing resource types and permission names to add to the role.
- **search** – string that contains search criteria that should be applied to the filter

example usage:

```
permissions_types_names = {
    None: ['access_dashboard'],
    'Organization': ['view_organizations'],
    'Location': ['view_locations'],
    'Katello::KTEnvironment': [
        'view.lifecycle_environments',
        'edit.lifecycle_environments',
        'promote_or_remove_content_views_to_environments'
    ]
}
role = entities.Role(name='example_role_name').create()
create_role_permissions(
    role,
    permissions_types_names,
    'name = {0}'.format(lce.name)
)
```

**robottelo.api.utils.wait\_for\_tasks(*search\_query, search\_rate=1, max\_tries=10, poll\_rate=None, poll\_timeout=None*)**

Search for tasks by specified search query and poll them to ensure that task has finished.

**Parameters**

- **search\_query** – Search query that will be passed to API call.
- **search\_rate** – Delay between searches.
- **max\_tries** – How many times search should be executed.

- **poll\_rate** – Delay between the end of one task check-up and the start of the next check-up. Parameter for `nailgun.entities.ForemanTask.poll()` method.
- **poll\_timeout** – Maximum number of seconds to wait until timing out. Parameter for `nailgun.entities.ForemanTask.poll()` method.

**Returns** List of `nailgun.entities.ForemanTasks` entities.

**Raises** `AssertionError`. If not tasks were found until timeout.

`robottelo.api.utils.wait_for_syncplan_tasks(repo_backend_id=None, timeout=10, repo_name=None)`  
Search the pulp tasks and identify repositories sync tasks with specified name or backend\_identifier

#### Parameters

- **repo\_backend\_id** – The Backend ID for the repository to identify the repo in Pulp environment
- **timeout** – Value to decided how long to check for the Sync task
- **repo\_name** – If `repo_backend_id` can not be passed, pass the `repo_name`

`robottelo.api.utils.wait_for_errata_applicability_task(host_id, from_when, search_rate=1, max_tries=10, poll_rate=None, poll_timeout=15)`

Search the generate applicability task for given host and make sure it finishes

#### Parameters

- **host\_id** (`int`) – Content host ID of the host where we are regenerating applicability.
- **from\_when** (`int`) – Timestamp (in UTC) to limit number of returned tasks to investigate.
- **search\_rate** (`int`) – Delay between searches.
- **max\_tries** (`int`) – How many times search should be executed.
- **poll\_rate** (`int`) – Delay between the end of one task check-up and the start of the next check-up. Parameter for `nailgun.entities.ForemanTask.poll()` method.
- **poll\_timeout** (`int`) – Maximum number of seconds to wait until timing out. Parameter for `nailgun.entities.ForemanTask.poll()` method.

**Returns** Relevant errata applicability task.

**Raises** `AssertionError`. If not tasks were found for given host until timeout.

`robottelo.api.utils.create_discovered_host(name=None, ip_address=None, mac_address=None, options=None)`

Creates a discovered host.

#### Parameters

- **name** (`str`) – Name of discovered host.
- **ip\_address** (`str`) – A valid ip address.
- **mac\_address** (`str`) – A valid mac address.
- **options** (`dict`) – additional facts to add to discovered host

**Returns** dict of `entities.DiscoveredHost` facts.

`robottelo.api.utils.update_vm_host_location(vm_client, location_id)`  
Update vm client host location.

#### Parameters

- **vm\_client** – A subscribed Virtual Machine client instance.
- **location\_id** – The location id to update the vm\_client host with.

`robottelo.api.utils.check_create_os_with_title(os_title)`

Check if the OS is present, if not create the required OS

**Parameters** `os_title` – OS title to check, and create (like: RedHat 7.5)

**Returns** Created or found OS

`robottelo.api.utils.attach_custom_product_subscription(prod_name=None, host_name=None)`

Attach custom product subscription to client host :param str prod\_name: custom product name :param str host\_name: client host name

`class robottelo.api.utils.templateupdate(temp)`

Context Manager to unlock lock template for updating

`__enter__(self)`

Unlocks template for update

`__exit__(self, exc_type, exc_val, exc_tb)`

Locks template after update

`robottelo.api.utils.update_provisioning_template(name=None, old=None, new=None)`

Update provisioning template content

**Parameters**

- **name** (`str`) – template provisioning name
- **old** (`str`) – current content
- **new** (`str`) – replace content

**Return bool** True/False

`robottelo.api.utils.apply_package_filter(content_view, repo, package, inclusion=True)`

Apply package filter on content view

**Parameters**

- **content\_view** – entity content view
- **repo** – entity repository
- **package** (`str`) – package name to filter
- **inclusion** (`bool`) – True/False based on include or exclude filter

:return list : list of content view versions

`robottelo.api.utils.create_org_admin_role(orgs, locs, name=None)`

Helper function to create org admin role for particular organizations and locations by cloning ‘Organization admin’ role.

**Parameters**

- **orgs** (`list`) – The list of organizations for which the org admin is being created
- **locs** (`list`) – The list of locations for which the org admin is being created
- **name** (`str`) – The name of cloned Org Admin role, autogenerates if None provided

**Return dict** The object of `nailgun.Role` of Org Admin role.

`robottelo.api.utils.create_org_admin_user(orgs, locs)`

Helper function to create an Org Admin user by assigning org admin role and assign taxonomies to Role and User

The taxonomies for role and user will be assigned based on parameters of this function

**Return User** Returns the `nailgun.entities.User` object with passwd attr

`robottelo.api.utils.skip_yum_update_during_provisioning(template=None, reverse=False)`

Hides the yum update command with echo text

#### Parameters

- **template** (*str*) – The template name where the yum update will be hidden
- **reverse** (*bool*) – Reverses the echo text to yum update

**Returns** Boolean True on success else exception

`robottelo.api.utils.set_hammer_api_timeout(timeout=-1, reverse=False)`

Set hammer API request timeout on Satellite

#### Parameters

- **timeout** (*int*) – request timeout in seconds
- **reverse** (*bool*) – Reverses the request timeout

**Returns** ssh.command

`robottelo.api.utils.update_rhsso_settings_in_satellite(revert=False)`

Update or Revert the RH-SSO settings in satellite

## robottelo.cli

### Submodules

#### robottelo.cli.activationkey

Usage:

```
hammer activation-key [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add-host-collection	Associate a resource
add-subscription	Add subscription
content-override	Override product content defaults
copy	Copy an activation key
create	Create an activation key
delete	Destroy an activation key
host-collections	List associated host collections
info	Show an activation key
list	List activation keys

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product-content	List associated products
remove-host-collection	Disassociate a resource
remove-subscription	Remove subscription
subscriptions	List associated subscriptions
update	Update an activation key

## Module Contents

### Classes

<code>ActivationKey</code>	Manipulates Katello's activation-key.
<pre><code>class robottelo.cli.activationkey.ActivationKey     Bases: robottelo.cli.base.Base      Manipulates Katello's activation-key.      command_base = activation-key      classmethod add_host_collection(cls, options=None)         Associate a resource      classmethod add_subscription(cls, options=None)         Add subscription      classmethod content_override(cls, options=None)         Override product content defaults      classmethod copy(cls, options=None)         Copy an activation key      classmethod host_collection(cls, options=None)         List associated host collections      classmethod product_content(cls, options=None)         List associated products      classmethod remove_host_collection(cls, options=None)         Remove the associated resource      classmethod remove_repository(cls, options=None)         Disassociate a resource      classmethod remove_subscription(cls, options=None)         Remove subscription      classmethod subscriptions(cls, options=None, output_format=None)         List associated subscriptions</code></pre>	

## robottelo.cli.admin

**Usage:** hammer admin [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters:** SUBCOMMAND Subcommand [ARG] ... Subcommand arguments

**Subcommands:** logging Logging verbosity level setup

**Options:**

**-h, --help** Print help

## Module Contents

### Classes

---

<a href="#">Admin</a>	Administrative server-side tasks
-----------------------	----------------------------------

---

```
class robottelo.cli.admin.Admin
Bases: robottelo.cli.base.Base

Administrative server-side tasks

command_base = admin

@classmethod
def logging(cls, options=None)
    Logging verbosity level setup
```

## robottelo.cli.ansible

**Usage:** ansible [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters:** SUBCOMMAND Subcommand [ARG] ... Subcommand arguments

**Subcommands:** roles Manage ansible roles variables Manage ansible variables

## Module Contents

### Classes

---

<a href="#">Ansible</a>	Manipulates Ansible Variables and roles.
-------------------------	--

---

```
class robottelo.cli.ansible.An Ansible
Bases: robottelo.cli.base.Base

Manipulates Ansible Variables and roles.

command_base = ansible

@classmethod
def roles_import(cls, options=None)
    Import ansible roles

@classmethod
def variables_import(cls, options=None)
    Import ansible variables
```

---

```
classmethod roles_list(cls, options=None)
    List ansible roles
```

## robottelo.cli.architecture

Usage:

hammer architecture [OPTIONS] SUBCOMMAND [ARG] ...
--

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add_operatingsystem	Associate a resource
create	Create an architecture.
delete	Delete an architecture.
info	Show an architecture.
list	List all architectures.
remove_operatingsystem	Disassociate a resource
update	Update an architecture.

## Module Contents

### Classes

---

<a href="#">Architecture</a>	Manipulates Foreman's architecture.
------------------------------	-------------------------------------

---

```
class robottelo.cli.architecture.Architecture
    Bases: robottelo.cli.base.Base

    Manipulates Foreman's architecture.

    command_base = architecture
```

## robottelo.cli.arfreport

Usage:

arf-report [OPTIONS] SUBCOMMAND [ARG] ...
---

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

**Subcommands::** delete Delete an ARF Report download Download bzipped ARF report download-html Download ARF report in HTML info Show an ARF report list List ARF reports

## Module Contents

### Classes

<a href="#">Arfreport</a>	Manipulates Satellite's arf-report.
---------------------------	-------------------------------------

**class** `robottelo.cli.arfreport.Arfreport`

Bases: `robottelo.cli.base.Base`

Manipulates Satellite's arf-report.

**command\_base = arf-report**

**classmethod** `list(cls, options=None)`

Search arp host reports

Usage:

```
hammer arp-report list [OPTIONS]
```

Options:

--location LOCATION_NAME	Location name
--location-id LOCATION_ID	
--location-title LOCATION_TITLE	Location title
--order ORDER	Sort field and order, eg. 'id DESC'
--organization ORGANIZATION_NAME	Organization name
--organization-id ORGANIZATION_ID	Organization ID
--organization-title ORGANIZATION_TITLE	Organization title
--page PAGE	Paginate results
--per-page PER_PAGE	Number of entries per request
--search SEARCH	Filter results
-h, --help	Print help

### robottelo.cli.auth

**Usage::** hammer auth [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters::** SUBCOMMAND subcommand [ARG] ... subcommand arguments

**Subcommands::** login Set credentials logout Wipe your credentials status Information about current connections

## Module Contents

### Classes

<a href="#">Auth</a>	Authenticates Foreman users
<a href="#">AuthLogin</a>	Auth Login for Foreman CLI

**class** `robottelo.cli.auth.Auth`

Bases: `robottelo.cli.base.Base`

Authenticates Foreman users

```
command_base = auth

classmethod login(cls, options=None)
    Set credentials

classmethod logout(cls, options=None)
    Wipe credentials

classmethod status(cls, options=None)
    Show login status
```

**class robottelo.cli.auth.AuthLogin**  
Bases: *robottelo.cli.base.Base*

Auth Login for Foreman CLI

```
command_base = auth login

classmethod basic(cls, options=None)
    Provide username and password

classmethod oauth(cls, options=None)
    Supports for both with/without 2fa
```

## robottelo.cli.base

Generic base class for cli hammer commands.

### Module Contents

#### Classes

---

<i>Base</i>	@param command_base: base command of hammer.
-------------	--

---

##### **exception robottelo.cli.base.CLIError**

Bases: *Exception*

Indicates that a CLI command could not be run.

##### **exception robottelo.cli.base.CLIBaseError**(return\_code, stderr, msg)

Bases: *Exception*

Indicates that a CLI command has finished with return code different from zero.

#### Parameters

- **return\_code** – CLI command return code
- **stderr** – contents of the stderr
- **msg** – explanation of the error

#### **\_\_str\_\_(self)**

Include class name, return\_code, stderr and msg to string repr so assertRaisesRegexp can be used to assert error present on any attribute

```
__repr__(self)
    Include class name return_code, stderr and msg to improve logging

exception robottelo.cli.base.CLIReturnCodeError(return_code, stderr, msg)
    Bases: CLIBaseError

    Error to be raised when an error occurs due to some validation error when execution hammer cli. See: https://github.com/SatelliteQE/robottelo/issues/3790 for more details

exception robottelo.cli.base.CLIDataBaseError(return_code, stderr, msg)
    Bases: CLIBaseError

    Error to be raised when an error occurs due to some missing parameter which cause a data base error on hammer
    See: https://github.com/SatelliteQE/robottelo/issues/3790 for more details

class robottelo.cli.base.Base
    @param command_base: base command of hammer. See Subcommands section in hammer -help output on
    your Satellite.

        command_base
        command_sub
        command_requires_org = False
        hostname
        logger
        _db_error_regex

        classmethod _handle_response(cls, response, ignore_stderr=None)
            Verify return_code of the CLI command.

            Check for a non-zero return code or any stderr contents.

            Parameters
            • response – a SSHCommandResult object, returned by robottelo.ssh.command.
            • ignore_stderr – indicates whether to throw a warning in logs if stderr is not empty.

            Returns contents of stdout.

            Raises robottelo.cli.base.CLIReturnCodeError – If return code is different from zero.

        classmethod add_operating_system(cls, options=None)
            Adds OS to record.

        classmethod create(cls, options=None, timeout=None)
            Creates a new record using the arguments passed via dictionary.

        classmethod delete(cls, options=None, timeout=None)
            Deletes existing record.

        classmethod delete_parameter(cls, options=None)
            Deletes parameter from record.

        classmethod dump(cls, options=None)
            Displays the content for existing partition table.

        classmethod _get_username_password(cls, username=None, password=None)
            Lookup for the username and password for cli command in following order:
            1. user or password parameters
            2. foreman_admin_username or foreman_admin_password attributes
```

3. foreman.admin.username or foreman.admin.password configuration

**Returns** A tuple with the username and password found

**Return type** tuple

**classmethod execute**(*cls, command, hostname=None, user=None, password=None, output\_format=None, timeout=None, ignore\_stderr=None, return\_raw\_response=None, connection\_timeout=None*)

Executes the cli `command` on the server via ssh

**classmethod exists**(*cls, options=None, search=None*)

Search for an entity using the query `search[0] = "search[1]"`

Will be used the `list` command with the `--search` option to do the search.

If `options` argument already have a search key, then the `search` argument will not be evaluated. Which allows different search query.

**classmethod info**(*cls, options=None, output\_format=None, return\_raw\_response=None*)

Reads the entity information.

**classmethod list**(*cls, options=None, per\_page=True, output\_format='csv'*)

List information. @param options: ID (sometimes name works as well) to retrieve info.

**classmethod puppetclasses**(*cls, options=None*)

Lists all puppet classes.

**classmethod remove\_operating\_system**(*cls, options=None*)

Removes OS from record.

**classmethod sc\_params**(*cls, options=None*)

Lists all smart class parameters.

**classmethod set\_parameter**(*cls, options=None*)

Creates or updates parameter for a record.

**classmethod update**(*cls, options=None, return\_raw\_response=None*)

Updates existing record.

**classmethod with\_user**(*cls, username=None, password=None*)

Context Manager for credentials

**classmethod \_construct\_command**(*cls, options=None*)

Build a hammer cli command based on the options passed

## robottelo.cli.capsule

Usage:

```
hammer capsule [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

content	Manage the capsule content
create	Create a capsule
delete	Delete a capsule
import-classes	Import puppet classes <code>from puppet</code> Capsule.
info	Show a capsule
list	List <code>all</code> capsules
refresh-features	Refresh capsule features
update	Update a capsule

## Module Contents

### Classes

<a href="#"><code>Capsule</code></a>	Manipulates Foreman's capsule.
<hr/>	
<code>class robottelo.cli.capsule.Capsule</code>	
Bases: <code>robottelo.cli.base.Base</code>	
Manipulates Foreman's capsule.	
<code>command_base = capsule</code>	
<code>classmethod content_add_lifecycle_environment(cls, options)</code>	
Add lifecycle environments to the capsule.	
<code>classmethod content_available_lifecycle_environments(cls, options)</code>	
List the lifecycle environments not attached to the capsule.	
<code>classmethod content_info(cls, options)</code>	
Get current capsule synchronization status.	
<code>classmethod content_lifecycle_environments(cls, options)</code>	
List the lifecycle environments attached to the capsule.	
<code>classmethod content_remove_lifecycle_environment(cls, options)</code>	
Remove lifecycle environments from the capsule.	
<code>classmethod content_synchronization_status(cls, options)</code>	
Get current capsule synchronization status.	
<code>classmethod content_synchronize(cls, options, return_raw_response=None, timeout=3600)</code>	
Synchronize the content to the capsule.	
<code>classmethod import_classes(cls, options)</code>	
Import puppet classes from puppet Capsule.	
<code>classmethod refresh_features(cls, options)</code>	
Refresh capsule features.	

**robottelo.cli.computeprofile**

**Usage:** hammer compute-profile [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters:** SUBCOMMAND Subcommand [ARG] ... Subcommand arguments

**Subcommands:** create Create a compute profile delete Delete a compute profile info Show a compute profile list List of compute profiles update Update a compute profile values Create update and delete Compute profile values

**Options:**

<b>-h, --help</b>	Print help Update a compute resource.
-------------------	---------------------------------------

**Module Contents****Classes**

<i>ComputeProfile</i>	Manipulates Foreman's compute-profile.
-----------------------	--

**class robottelo.cli.computeprofile.ComputeProfile**

Bases: *robottelo.cli.base.Base*

Manipulates Foreman's compute-profile.

**command\_base = compute-profile**

**classmethod values\_create(cls, options=None)**

Create Compute profile values

**robottelo.cli.computeresource**

Usage:

hammer compute-resource [OPTIONS] SUBCOMMAND [ARG] ...
--

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a compute resource.
delete	Delete a compute resource.
image	View and manage compute resource's images
info	Show an compute resource.
list	List all compute resources.
update	Update a compute resource.

## Module Contents

### Classes

<code>ComputeResource</code>	Manipulates Foreman's compute resources.
------------------------------	--

```
class robottelo.cli.computeresource.ComputeResource
```

Bases: `robottelo.cli.base.Base`

Manipulates Foreman's compute resources.

```
command_base = compute-resource
```

```
classmethod image_create(cls, options)
```

Create an image

```
classmethod image_info(cls, options)
```

Show an image

```
classmethod image_available(cls, options)
```

Show images available for addition

```
classmethod image_delete(cls, options)
```

delete an image

```
classmethod image_list(cls, options)
```

Show the list of images

```
classmethod image_update(cls, options)
```

update an image

```
classmethod networks(cls, options)
```

List available networks for a compute resource

### robottelo.cli.content\_credentials

Usage:

```
hammer content-credential [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a content credential
delete	Destroy a content credential
info	Show a content credential
list	List content credentials
update	Update a content credential

## Module Contents

### Classes

<code>ContentCredential</code>	Manipulates Foreman's content credentials.
--------------------------------	--

`class robottelo.cli.content_credentials.ContentCredential`

Bases: `robottelo.cli.base.Base`

Manipulates Foreman's content credentials.

`command_base = content-credential`

`command_requires_org = True`

`classmethod info(cls, options=None)`

Gets information for a content credential

### robottelo.cli.contentview

Usage:

```
hammer content-view [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

<code>add-repository</code>	Associate a resource
<code>add-version</code>	Update a content view
<code>component</code>	View and manage components
<code>copy</code>	Copy a content view
<code>create</code>	Create a content view
<code>delete</code>	Delete a content view
<code>filter</code>	View and manage filters
<code>info</code>	Show a content view
<code>list</code>	List content views
<code>publish</code>	Publish a content view
<code>puppet-module</code>	View and manage puppet modules
<code>remove</code>	Remove versions and/or environments from a content view and reassign systems and keys
<code>remove-from-environment</code>	Remove a content view from an environment
<code>remove-repository</code>	Disassociate a resource
<code>remove-version</code>	Remove a content view version from a composite view
<code>update</code>	Update a content view
<code>version</code>	View and manage content view versions

Options:

```
-h, --help          print help
```

## Module Contents

### Classes

<code>ContentViewFilterRule</code>	Manipulates content view filter rules.
<code>ContentViewFilter</code>	Manipulates content view filters.
<code>ContentView</code>	Manipulates Foreman's content view.

```
class robottelo.cli.contentview.ContentViewFilterRule
Bases: robottelo.cli.base.Base

Manipulates content view filter rules.

command_base = content-view filter rule

classmethod create(cls, options=None)
    Create a content-view filter rule

class robottelo.cli.contentview.ContentViewFilter
Bases: robottelo.cli.base.Base

Manipulates content view filters.

command_base = content-view filter

rule

class robottelo.cli.contentview.ContentView
Bases: robottelo.cli.base.Base

Manipulates Foreman's content view.

command_base = content-view

filter

classmethod add_repository(cls, options)
    Associate repository to a selected CV.

classmethod add_version(cls, options)
    Associate version to a selected CV.

classmethod copy(cls, options)
    Copy existing content-view to a new one

classmethod publish(cls, options, timeout=1500)
    Publishes a new version of content-view.

classmethod version_info(cls, options, output_format=None)
    Provides version info related to content-view's version.

classmethod version_incremental_update(cls, options)
    Performs incremental update of the content-view's version

classmethod puppet_module_add(cls, options)
    Associate puppet_module to selected CV
```

---

```

classmethod puppet_module_list(cls, options)
    List content view puppet modules

classmethod puppet_module_remove(cls, options)
    Remove a puppet module from the content view

classmethod version_list(cls, options)
    Lists content-view's versions.

classmethod version_promote(cls, options, timeout=600)
    Promotes content-view version to next env.

classmethod version_export(cls, options, timeout=300)
    Exports content-view version in given directory

classmethod version_import(cls, options, timeout=300)
    Imports content-view version from a given directory

classmethod version_delete(cls, options)
    Removes content-view version.

classmethod remove_from_environment(cls, options=None)
    Remove content-view from an environment

classmethod remove(cls, options=None)
    Remove versions and/or environments from a content view and reassign content hosts and keys

classmethod remove_version(cls, options=None)
    Remove a content view version from a composite view

classmethod remove_repository(cls, options)
    Remove repository from content view

classmethod component_add(cls, options=None)
    Add components to the content view

classmethod component_list(cls, options=None)
    List components attached to the content view

```

## robottelo.cli.defaults

Usage:

<code>hammer defaults [OPTIONS] SUBCOMMAND [ARG] ...</code>
---

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add	Add a default parameter to config
delete	Delete a default param
list	List all the default parameters
providers	List all the providers

## Module Contents

### Classes

<i>Defaults</i>	Manipulates Defaults entity						
<pre>class robottelo.cli.defaults.Defaults     Bases: robottelo.cli.base.Base      Manipulates Defaults entity      command_base = defaults      classmethod add(cls, options=None)         Add parameter to config Usage:          hammer defaults add [OPTIONS]</pre>							
Options:							
<table><tr><td>--param-name OPTION_NAME</td><td>The name of the default option (e.g. organization_id).</td></tr><tr><td>--param-value OPTION_VALUE</td><td>The value for the default option</td></tr><tr><td>--provider OPTION_PROVIDER</td><td>The name of the provider providing the value. For list available providers see `hammer defaults providers`.</td></tr></table>		--param-name OPTION_NAME	The name of the default option (e.g. organization_id).	--param-value OPTION_VALUE	The value for the default option	--provider OPTION_PROVIDER	The name of the provider providing the value. For list available providers see `hammer defaults providers`.
--param-name OPTION_NAME	The name of the default option (e.g. organization_id).						
--param-value OPTION_VALUE	The value for the default option						
--provider OPTION_PROVIDER	The name of the provider providing the value. For list available providers see `hammer defaults providers`.						
<pre>classmethod delete(cls, options=None)     Delete parameter from config Usage:      hammer defaults delete [OPTIONS]</pre>							
Options:							
<table><tr><td>--param-name OPTION_NAME</td><td>The name of the default option</td></tr></table>		--param-name OPTION_NAME	The name of the default option				
--param-name OPTION_NAME	The name of the default option						
<b>robottelo.cli.discoveredhost</b>							
Usage:							
<pre>hammer discovery [OPTIONS] SUBCOMMAND [ARG] ...</pre>							
Parameters:							
<table><tr><td>SUBCOMMAND [ARG] ...</td><td>subcommand subcommand arguments</td></tr></table>		SUBCOMMAND [ARG] ...	subcommand subcommand arguments				
SUBCOMMAND [ARG] ...	subcommand subcommand arguments						
Subcommands:							
<table><tr><td>auto-provision</td><td>Auto provision a host</td></tr><tr><td>delete</td><td>Delete a discovered host</td></tr><tr><td>facts</td><td>Show a discovered host</td></tr></table>		auto-provision	Auto provision a host	delete	Delete a discovered host	facts	Show a discovered host
auto-provision	Auto provision a host						
delete	Delete a discovered host						
facts	Show a discovered host						

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<code>info</code>	Show a discovered host
<code>list</code>	List <code>all</code> discovered hosts
<code>provision</code>	Provision a discovered host
<code>reboot</code>	Reboot a host
<code>refresh-facts</code>	Refresh the facts of a host

## Module Contents

### Classes

<code>DiscoveredHost</code>	Manipulates Discovery Hosts
<code>class robottelo.cli.discoveredhost.DiscoveredHost</code>	
Bases: <code>robottelo.cli.base.Base</code>	
Manipulates Discovery Hosts	
<code>command_base = discovery</code>	
<code>classmethod provision(cls, options=None)</code>	
Manually provision discovered host	
<code>classmethod facts(cls, options=None)</code>	
Get all the facts associated with discovered host	
 <code>robottelo.cli.discoveryrule</code>	
Usage:	
<code>hammer discovery-rule [OPTIONS] SUBCOMMAND [ARG] ...</code>	
Parameters:	
<code>SUBCOMMAND</code>	subcommand
<code>[ARG] ...</code>	subcommand arguments
Subcommands:	
<code>create</code>	Create a discovery rule
<code>delete</code>	Delete a rule
<code>info</code>	Show a discovery rule
<code>list</code>	List <code>all</code> discovery rules
<code>update</code>	Update a rule

## Module Contents

### Classes

<code>DiscoveryRule</code>	Manipulates Discovery Rules
----------------------------	-----------------------------

```
class robottelo.cli.discoveryrule.DiscoveryRule
```

Bases: `robottelo.cli.base.Base`

Manipulates Discovery Rules

```
command_base = discovery-rule
```

## `robottelo.cli.docker`

Docker related hammer commands

## Module Contents

### Classes

<code>DockerManifest</code>	Manipulates Docker manifests
<code>DockerTag</code>	Manipulates Docker tags
<code>Docker</code>	Manipulates Docker manifests and tags

```
class robottelo.cli.docker.DockerManifest
```

Bases: `robottelo.cli.base.Base`

Manipulates Docker manifests

Usage:

```
hammer docker manifest [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

<code>SUBCOMMAND</code>	subcommand
<code>[ARG] ...</code>	subcommand arguments

Subcommands:

<code>info</code>	Show a docker manifest
<code>list</code>	List docker_manifests

```
command_base = docker manifest
```

```
classmethod info(cls, options=None)
```

Gets information about docker manifests

Usage:

```
hammer docker manifest info [OPTIONS]
```

Options:

--id ID	a docker manifest identifier
--name NAME	Name to search by
--repository REPOSITORY_NAME	Repository name to search by
--repository-id REPOSITORY_ID	repository ID

```
classmethod list(cls, options=None, per_page=True)
```

List docker manifests

Usage:

```
hammer docker manifest list [OPTIONS]
```

Options:

--by BY	Field to sort the results on
--content-view CONTENT_VIEW_NAME	Content view name
--content-view-filter CONTENT_VIEW_FILTER_NAME	Name to search by
--content-view-filter-id CONTENT_VIEW_FILTER_ID	filter identifier
--content-view-id CONTENT_VIEW_ID	content view numeric identifier
--content-view-version CONTENT_VIEW_VERSION_VERSION	Content view version number
--content-view-version-id CONTENT_VIEW_VERSION_ID	Content view version identifier
--full-results FULL_RESULTS	Whether <b>or not</b> to show <b>all</b> results One of true/false, yes/no, 1/0.
--ids IDS	ids to filter content by Comma separated list of values.
--lifecycle-environment LIFECYCLE_ENVIRONMENT_NAME	Name to search by
--lifecycle-environment-id LIFECYCLE_ENVIRONMENT_ID	
--order ORDER	Sort field <b>and</b> order, eg. <b>"name DESC"</b>
--organization ORGANIZATION_NAME	Organization name to search by
--organization-id ORGANIZATION_ID	organization ID
--organization-label ORGANIZATION_LABEL	Organization label to search by
--page PAGE	Page number, starting at 1
--per-page PER_PAGE	Number of results per page to <b>return</b>
--product PRODUCT_NAME	Product name to search by
--product-id PRODUCT_ID	product numeric

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--repository REPOSITORY_NAME	identifier Repository name to search by
--repository-id REPOSITORY_ID	repository ID
--search SEARCH	Search string

**class robottelo.cli.docker.DockerTag**Bases: *robottelo.cli.base.Base*

Manipulates Docker tags

Usage:

`hammer docker tag [OPTIONS] SUBCOMMAND [ARG] ...`

Parameters:

SUBCOMMAND	subcommand
[ARG] ...	subcommand arguments

Subcommands:

info	Show a docker tag
list	List docker_tags

**command\_base = docker tag****classmethod info(*cls*, *options=None*)**

Gets information about docker tags

Usage:

`hammer docker tag info [OPTIONS]`

Options:

--id ID	a docker tag identifier
--name NAME	Name to search by
--repository REPOSITORY_NAME	Repository name to search by
--repository-id REPOSITORY_ID	repository ID

**classmethod list(*cls*, *options=None*, *per\_page=True*)**

List docker tags

Usage:

`hammer docker tag list [OPTIONS]`

Options:

--content-view CONTENT_VIEW_NAME	Content view name
--content-view-filter CONTENT_VIEW_FILTER_NAME	Name to search by
--content-view-filter-id CONTENT_VIEW_FILTER_ID	filter identifier

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--content-view-id	CONTENT_VIEW_ID	content view numeric identifier
--content-view-version	CONTENT_VIEW_VERSION_VERSION	Content view version number
--content-view-version-id	CONTENT_VIEW_VERSION_ID	Content view version identifier
--environment	ENVIRONMENT_NAME	Name to search by
--environment-id	ENVIRONMENT_ID	Organization name to search by
--organization	ORGANIZATION_NAME	organization ID
--organization-id	ORGANIZATION_ID	Organization label to search by
--organization-label	ORGANIZATION_LABEL	Product name to search by
--product	PRODUCT_NAME	product numeric identifier
--product-id	PRODUCT_ID	Repository name to search by
--repository	REPOSITORY_NAME	repository ID
--repository-id	REPOSITORY_ID	

**class robottelo.cli.docker.Docker**Bases: *robottelo.cli.base.Base*

Manipulates Docker manifests and tags

Usage:

`hammer docker [OPTIONS] SUBCOMMAND [ARG] ...`

Parameters:

SUBCOMMAND	subcommand
[ARG] ...	subcommand arguments

Subcommands:

container	Manage docker containers
manifest	Manage docker manifests
registry	Manage docker registries
tag	Manage docker tags

```
command_base = docker
manifest
tag
```

## robottelo.cli.domain

Usage:

```
hammer domain [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a domain.
delete	Delete a domain.
delete_parameter	Delete parameter <b>for</b> a domain.
info	Show a domain.
list	List of domains
set_parameter	Create <b>or</b> update parameter <b>for</b> a domain.
update	Update a domain.

## Module Contents

### Classes

---

<a href="#">Domain</a>	Manipulates Foreman's domains.
------------------------	--------------------------------

---

```
class robottelo.cli.domain.Domain
    Bases: robottelo.cli.base.Base

    Manipulates Foreman's domains.

    command_base = domain
```

## robottelo.cli.environment

Usage:

```
hammer environment [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create an environment
delete	Delete an environment
info	Show an environment
list	List <b>all</b> environments

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<code>sc-params</code>	List all smart <b>class parameters</b>
<code>update</code>	Update an environment

## Module Contents

### Classes

---

#### `Environment`

Manipulates Foreman's environments.

---

#### `class robottelo.cli.environment.Environment`

Bases: `robottelo.cli.base.Base`

Manipulates Foreman's environments.

##### `command_base = environment`

##### `classmethod sc_params(cls, options=None)`

List all smart class parameters.

---

#### `robottelo.cli.erratum`

Usage:

```
hammer erratum [OPTIONS] SUBCOMMAND [ARG] ...
```

---

Parameters:

<code>SUBCOMMAND</code>	subcommand
<code>[ARG] ...</code>	subcommand arguments

Subcommands:

<code>info</code>	Show an erratum
<code>list</code>	List errata

## Module Contents

### Classes

---

#### `Erratum`

Manipulates Foreman's erratum.

---

#### `class robottelo.cli.erratum.Erratum`

Bases: `robottelo.cli.base.Base`

Manipulates Foreman's erratum.

##### `command_base = erratum`

## robottelo.cli.fact

Usage:

```
hammer fact [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

list	List all fact values.
------	-----------------------

## Module Contents

### Classes

<code>Fact</code>	Searches Foreman's facts.
<code>class robottelo.cli.fact.Fact</code> Bases: <code>robottelo.cli.base.Base</code>	
Searches Foreman's facts.  <code>command_base = fact</code>	

### robottelo.cli.factory

Factory object creation for all CLI methods

## Module Contents

### Functions

<code>create_object(cli_object, options, values)</code>	Creates <object> with dictionary of arguments.
<code>_entity_with_credentials(credentials, cli_entity_cls)</code>	Create entity class using credentials. If credentials is None will
<code>make_activation_key(options=None)</code>	Creates an Activation Key
<code>make_architecture(options=None)</code>	Creates an Architecture
<code>make_content_view(options=None)</code>	Creates a Content View
<code>make_content_view_with_credentials(options=None, credentials=None)</code>	Helper function to create CV with credentials
<code>make_content_view_filter(options=None)</code>	Creates a Content View Filter
<code>make_content_view_filter_rule(options=None)</code>	Creates a Content View Filter Rule
<code>make_discoveryrule(options=None)</code>	Creates a Discovery Rule
<code>make_gpg_key(options=None)</code>	Creates a GPG Key

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<code>make_content_credential(options=None)</code>	Creates a content credential.
<code>make_location(options=None)</code>	Creates a Location
<code>make_model(options=None)</code>	Creates a Hardware Model
<code>make_partition_table(options=None)</code>	Creates a Partition Table
<code>make_product(options=None)</code>	Creates a Product
<code>make_product_with_credentials(options=None, credentials=None)</code>	Helper function to create product with credentials
<code>make_product_wait(options=None, wait_for=5)</code>	Wrapper function for make_product to make it wait before erroring out.
<code>make_proxy(options=None)</code>	Creates a Proxy
<code>make_repository(options=None)</code>	Creates a Repository
<code>make_repository_with_credentials(options=None, credentials=None)</code>	Helper function to create Repository with credentials
<code>make_role(options=None)</code>	Creates a Role
<code>make_filter(options=None)</code>	Creates a Role Filter
<code>make_scap_policy(options=None)</code>	Creates a Scap Policy
<code>make_subnet(options=None)</code>	Creates a Subnet
<code>make_sync_plan(options=None)</code>	Creates a Sync Plan
<code>make_host(options=None)</code>	Creates a Host
<code>make_fake_host(options=None)</code>	Wrapper function for make_host to pass all required options for creation
<code>make_host_collection(options=None)</code>	Creates a Host Collection
<code>make_job_invocation(options=None)</code>	Creates a Job Invocation
<code>make_job_template(options=None)</code>	Creates a Job Template
<code>make_user(options=None)</code>	Creates a User
<code>make_usergroup(options=None)</code>	Creates a User Group
<code>make_usergroup_external(options=None)</code>	Creates an External User Group
<code>make_ldap_auth_source(options=None)</code>	Creates an LDAP Auth Source
<code>make_compute_resource(options=None)</code>	Creates a Compute Resource
<code>make_org(options=None)</code>	Creates an Organization
<code>make_org_with_credentials(options=None, credentials=None)</code>	Helper function to create organization with credentials
<code>make_realm(options=None)</code>	Creates a REALM
<code>make_report_template(options=None)</code>	Creates a Report Template
<code>make_os(options=None)</code>	Creates an Operating System
<code>make_scapcontent(options=None)</code>	Creates Scap Content
<code>make_domain(options=None)</code>	Creates a Domain
<code>make_hostgroup(options=None)</code>	Creates a Hostgroup
<code>make_medium(options=None)</code>	Creates a Medium
<code>make_environment(options=None)</code>	Creates a Puppet Environment
<code>make_lifecycle_environment(options=None)</code>	Creates a Lifecycle Environment
<code>make_tailoringfile(options=None)</code>	Creates a tailoring File
<code>make_template(options=None)</code>	Creates a Template
<code>make_template_input(options=None)</code>	Creates Template Input
<code>make_virt_who_config(options=None)</code>	Creates a Virt Who Configuration
<code>activationkey_add_subscription_to_repo(options=None)</code>	Helper function that adds subscription to an activation key
<code>setup_org_for_a_custom_repo(options=None)</code>	Sets up Org for the given custom repo by:
<code>_setup_org_for_a_rh_repo(options=None)</code>	Sets up Org for the given Red Hat repository by:

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Table 23 – continued from previous page

<code>setup_org_for_a_rh_repo(options=None, force_manifest_upload=False, force_use_cdn=False)</code>	Wrapper above <code>_setup_org_for_a_rh_repo</code> to use custom downstream repo
<code>configure_env_for_provision(org=None, loc=None)</code>	Create and configure org, loc, product, repo, env. Update proxy,
<code>publish_puppet_module(puppet_modules, repo_url, organization_id=None)</code>	Creates puppet repo, sync it via provided url and publish using
<code>setup_virtual_machine(vm, org_label, rh_repos_id=None, repos_label=None, product_label=None, lce=None, activation_key=None, patch_os_release_distro=None, install_katello_agent=True)</code>	Setup a Virtual machine with basic components and tasks.
<code>_get_capsule_vm_distro_repos(distro)</code>	Return the right RH repos info for the capsule setup
<code>add_role_permissions(role_id, source_permissions)</code>	Create role permissions found in resource permissions dict
<code>setup_cdn_and_custom_repositories(org_id, repos, download_policy='on_demand', synchronize=True)</code>	Setup cdn and custom repositories
<code>setup_cdn_and_custom_repos_content(org_id, lce_id=None, repos=None, upload_manifest=True, download_policy='on_demand', rh_subscriptions=None, default_cv=False)</code>	Setup cdn and custom repositories, content view and activations key
<code>vm_setup_ssh_config(vm, ssh_key_name, host, user=None)</code>	Create host entry in vm ssh config and know_hosts files to allow vm
<code>vm_upload_ssh_key(vm, source_key_path, destination_key_name)</code>	Copy ssh key to virtual machine ssh path and ensure proper permission is
<code>virt_who_hypervisor_config(config_id, virt_who_vm, org_id=None, lce_id=None, hypervisor_hostname=None, configure_ssh=False, hypervisor_user=None, subscription_name=None, exec_one_shot=False, upload_manifest=True, extra_repos=None)</code>	Configure virtual machine as hypervisor virt-who service
<code>make_http_proxy(options=None)</code>	Creates a HTTP Proxy

## Attributes

---

`logger`

---

`ORG_KEYS`

---

`CONTENT_VIEW_KEYS`

---

`LIFECYCLE_KEYS`

---

`robottelo.cli.factory.logger`

`robottelo.cli.factory.ORG_KEYS = ['organization', 'organization-id', 'organization-label']`

`robottelo.cli.factory.CONTENT_VIEW_KEYS = ['content-view', 'content-view-id']`

---

```
robottelo.cli.factory.LIFECYCLE_KEYS = ['lifecycle-environment',
'lifecycle-environment-id']
```

**exception** robottelo.cli.factory.CLIFactoryError

Bases: Exception

Indicates an error occurred while creating an entity using hammer

```
robottelo.cli.factory.create_object(cli_object, options, values)
```

Creates <object> with dictionary of arguments.

#### Parameters

- **cli\_object** – A valid CLI object.
- **options** (*dict*) – The default options accepted by the cli\_object create
- **values** (*dict*) – Custom values to override default ones.

**Raises** `robottelo.cli.factory.CLIFactoryError` – Raise an exception if object cannot be created.

**Return type** dict

**Returns** A dictionary representing the newly created resource.

```
robottelo.cli.factory._entity_with_credentials(credentials, cli_entity_cls)
```

Create entity class using credentials. If credentials is None will return cli\_entity\_cls itself

#### Parameters

- **credentials** – tuple (login, password)
- **cli\_entity\_cls** – Cli Entity Class

**Returns** Cli Entity Class

```
robottelo.cli.factory.make_activation_key(options=None)
```

Creates an Activation Key

**Parameters** **options** – Check options using *hammer activation-key create -help* on satellite.

:returns ActivationKey object

```
robottelo.cli.factory.make_architecture(options=None)
```

Creates an Architecture

**Parameters** **options** – Check options using *hammer architecture create -help* on satellite.

:returns Architecture object

```
robottelo.cli.factory.make_content_view(options=None)
```

Creates a Content View

**Parameters** **options** – Check options using *hammer content-view create -help* on satellite.

:returns ContentView object

```
robottelo.cli.factory.make_content_view_with_credentials(options=None, credentials=None)
```

Helper function to create CV with credentials

If credentials is None, the default credentials in robottelo.properties will be used.

```
robottelo.cli.factory.make_content_view_filter(options=None)
```

Creates a Content View Filter

**Parameters** **options** – Check options using *hammer content-view filter create -help* on satellite.

:returns ContentViewFilter object

`robottelo.cli.factory.make_content_view_filter_rule(options=None)`

Creates a Content View Filter Rule

**Parameters options** – Check options using *hammer content-view filter rule create –help* on satellite.

:returns ContentViewFilterRule object

`robottelo.cli.factory.make_discoveryrule(options=None)`

Creates a Discovery Rule

**Parameters options** – Check options using *hammer discovery-rule create –help* on satellite.

:returns DiscoveryRule object

`robottelo.cli.factory.make_gpg_key(options=None)`

Creates a GPG Key

**Parameters options** – Check options using *hammer gpg create –help* on satellite.

:returns GPGKey object

`robottelo.cli.factory.make_content_credential(options=None)`

Creates a content credential.

In Satellite 6.8, only gpg\_key option is supported.

**Parameters options** – Check options using *hammer content-credential create –help* on satellite.

:returns ContentCredential object

`robottelo.cli.factory.make_location(options=None)`

Creates a Location

**Parameters options** – Check options using *hammer location create –help* on satellite.

:returns Location object

`robottelo.cli.factory.make_model(options=None)`

Creates a Hardware Model

**Parameters options** – Check options using *hammer model create –help* on satellite.

:returns Model object

`robottelo.cli.factory.make_partition_table(options=None)`

Creates a Partition Table

**Parameters options** – Check options using *hammer partition-table create –help* on satellite.

:returns PartitionTable object

`robottelo.cli.factory.make_product(options=None)`

Creates a Product

**Parameters options** – Check options using *hammer product create –help* on satellite.

:returns Product object

`robottelo.cli.factory.make_product_with_credentials(options=None, credentials=None)`

Helper function to create product with credentials

`robottelo.cli.factory.make_product_wait(options=None, wait_for=5)`

Wrapper function for make\_product to make it wait before erroring out.

This is a temporary workaround for BZ#1332650: Sometimes cli product create errors for no reason when there are multiple product creation requests at the sametime although the product entities are created. This workaround will attempt to wait for 5 seconds and query the product again to make sure it is actually created. If it is not found, it will fail and stop.

Note: This wrapper method is created instead of patching `make_product` because this issue does not happen for all entities and this workaround should be removed once the root cause is identified/fixed.

`robottelo.cli.factory.make_proxy(options=None)`

Creates a Proxy

**Parameters options** – Check options using `hammer proxy create --help` on satellite.

:returns Proxy object

`robottelo.cli.factory.make_repository(options=None)`

Creates a Repository

**Parameters options** – Check options using `hammer repository create --help` on satellite.

:returns Repository object

`robottelo.cli.factory.make_repository_with_credentials(options=None, credentials=None)`

Helper function to create Repository with credentials

`robottelo.cli.factory.make_role(options=None)`

Creates a Role

**Parameters options** – Check options using `hammer role create --help` on satellite.

:returns Role object

`robottelo.cli.factory.make_filter(options=None)`

Creates a Role Filter

**Parameters options** – Check options using `hammer filter create --help` on satellite.

:returns Role object

`robottelo.cli.factory.make_scap_policy(options=None)`

Creates a Scap Policy

**Parameters options** – Check options using `hammer policy create --help` on satellite.

:returns Scappolicy object

`robottelo.cli.factory.make_subnet(options=None)`

Creates a Subnet

**Parameters options** – Check options using `hammer subnet create --help` on satellite.

:returns Subnet object

`robottelo.cli.factory.make_sync_plan(options=None)`

Creates a Sync Plan

**Parameters options** – Check options using `hammer sync-plan create --help` on satellite.

:returns SyncPlan object

`robottelo.cli.factory.make_host(options=None)`

Creates a Host

**Parameters options** – Check options using `hammer host create --help` on satellite.

:returns Host object

`robottelo.cli.factory.make_fake_host(options=None)`

Wrapper function for make\_host to pass all required options for creation of a fake host

`robottelo.cli.factory.make_host_collection(options=None)`

Creates a Host Collection

**Parameters options** – Check options using *hammer host-collection create –help* on satellite.

:returns HostCollection object

`robottelo.cli.factory.make_job_invocation(options=None)`

Creates a Job Invocation

**Parameters options** – Check options using *hammer job-invocation create –help* on satellite.

:returns JobInvocation object

`robottelo.cli.factory.make_job_template(options=None)`

Creates a Job Template

**Parameters options** – Check options using *hammer job-template create –help* on satellite.

:returns JobTemplate object

`robottelo.cli.factory.make_user(options=None)`

Creates a User

**Parameters options** – Check options using *hammer user create –help* on satellite.

:returns User object

`robottelo.cli.factory.make_usergroup(options=None)`

Creates a User Group

**Parameters options** – Check options using *hammer user-group create –help* on satellite.

:returns UserGroup object

`robottelo.cli.factory.make_usergroup_external(options=None)`

Creates an External User Group

**Parameters options** – Check options using *hammer user-group external create –help* on satellite.

:returns UserGroupExternal object

`robottelo.cli.factory.make_ldap_auth_source(options=None)`

Creates an LDAP Auth Source

**Parameters options** – Check options using *hammer auth-source ldap create –help* on satellite.

:returns LDAPAuthSource object

`robottelo.cli.factory.make_compute_resource(options=None)`

Creates a Compute Resource

**Parameters options** – Check options using *hammer compute-resource create –help* on satellite.

:returns ComputeResource object

`robottelo.cli.factory.make_org(options=None)`

Creates an Organization

**Parameters options** – Check options using *hammer organization create –help* on satellite.

:returns Organization object

`robottelo.cli.factory.make_org_with_credentials(options=None, credentials=None)`

Helper function to create organization with credentials

`robottelo.cli.factory.make_realm(options=None)`

Creates a REALM

**Parameters options** – Check options using *hammer realm create –help* on satellite.

:returns Realm object

`robottelo.cli.factory.make_report_template(options=None)`

Creates a Report Template

**Parameters options** – Check options using *hammer report-template create –help* on satellite.

:returns ReportTemplate object

`robottelo.cli.factory.make_os(options=None)`

Creates an Operating System

**Parameters options** – Check options using *hammer os create –help* on satellite.

:returns OperatingSys object

`robottelo.cli.factory.make_scapcontent(options=None)`

Creates Scap Content

**Parameters options** – Check options using *hammer scap-content create –help* on satellite.

:returns ScapContent object

`robottelo.cli.factory.make_domain(options=None)`

Creates a Domain

**Parameters options** – Check options using *hammer domain create –help* on satellite.

:returns Domain object

`robottelo.cli.factory.make_hostgroup(options=None)`

Creates a Hostgroup

**Parameters options** – Check options using *hammer hostgroup create –help* on satellite.

:returns Hostgroup object

`robottelo.cli.factory.make_medium(options=None)`

Creates a Medium

**Parameters options** – Check options using *hammer medium create –help* on satellite.

:returns Medium object

`robottelo.cli.factory.make_environment(options=None)`

Creates a Puppet Environment

**Parameters options** – Check options using *hammer environment create –help* on satellite.

:returns Environment object

`robottelo.cli.factory.make_lifecycle_environment(options=None)`

Creates a Lifecycle Environment

**Parameters options** – Check options using *hammer lifecycle-environment create –help* on satellite.

:returns LifecycleEnvironment object

`robottelo.cli.factory.make_tailoringfile(options=None)`

Creates a tailoring File

**Parameters options** – Check options using *hammer tailoring-file create –help* on satellite.

:returns TailoringFile object

`robottelo.cli.factory.make_template(options=None)`

Creates a Template

**Parameters options** – Check options using *hammer template create -help* on satellite.

:returns Template object

`robottelo.cli.factory.make_template_input(options=None)`

Creates Template Input

**Parameters options** – Check options using *hammer template-input create -help* on satellite.

:returns TemplateInput object

`robottelo.cli.factory.make_virt_who_config(options=None)`

Creates a Virt Who Configuration

**Parameters options** – Check options using *hammer virt-who-config create -help* on satellite.

:returns VirtWhoConfig object

`robottelo.cli.factory.activationkey_add_subscription_to_repo(options=None)`

Helper function that adds subscription to an activation key

`robottelo.cli.factory.setup_org_for_a_custom_repo(options=None)`

Sets up Org for the given custom repo by:

1. **Checks if organization and lifecycle environment were given, otherwise creates new ones.**
2. Creates a new product with the custom repo. Synchronizes the repo.
3. **Checks if content view was given, otherwise creates a new one and**
  - adds the RH repo
  - publishes
  - promotes to the lifecycle environment
4. **Checks if activation key was given, otherwise creates a new one and** associates it with the content view.
5. Adds the custom repo subscription to the activation key

**Returns** A dictionary with the entity ids of Activation key, Content view, Lifecycle Environment, Organization, Product and Repository

`robottelo.cli.factory._setup_org_for_a_rh_repo(options=None)`

Sets up Org for the given Red Hat repository by:

1. **Checks if organization and lifecycle environment were given, otherwise creates new ones.**
2. Clones and uploads manifest.
3. Enables RH repo and synchronizes it.
4. **Checks if content view was given, otherwise creates a new one and**
  - adds the RH repo
  - publishes
  - promotes to the lifecycle environment

5. Checks if activation key was given, otherwise creates a new one and associates it with the content view.
6. Adds the RH repo subscription to the activation key

Note that in most cases you should use `setup_org_for_a_rh_repo` instead as it's more flexible.

**Returns** A dictionary with the entity ids of Activation key, Content view, Lifecycle Environment, Organization and Repository

```
robottelo.cli.factory.setup_org_for_a_rh_repo(options=None, force_manifest_upload=False,  
force_use_cdn=False)
```

Wrapper above `_setup_org_for_a_rh_repo` to use custom downstream repo instead of CDN's 'Satellite Capsule', 'Satellite Tools' and base OS repos if `settings.cdn == 0` and URL for custom repositories is set in properties.

#### Parameters

- **options** – a dict with options to pass to function `_setup_org_for_a_rh_repo`. See its docstring for more details
- **force\_use\_cdn** – bool flag whether to use CDN even if there's downstream repo available and `settings.cdn == 0`.
- **force\_manifest\_upload** – bool flag whether to upload a manifest to organization even if downstream custom repo is used instead of CDN. Useful when test relies on organization with manifest (e.g. uses some other RH repo afterwards). Defaults to False.

**Returns** a dict with entity ids (see `_setup_org_for_a_rh_repo` and `setup_org_for_a_custom_repo`).

```
robottelo.cli.factory.configure_env_for_provision(org=None, loc=None)
```

Create and configure org, loc, product, repo, env. Update proxy, domain, subnet, compute resource, provision templates and medium with previously created entities and create a hostgroup using all mentioned entities.

#### Parameters

- **org** – Default Organization that should be used in both host discovering and host provisioning procedures
- **loc** – Default Location that should be used in both host discovering and host provisioning procedures

**Returns** List of created entities that can be re-used further in provisioning or validation procedure (e.g. hostgroup or subnet)

```
robottelo.cli.factory.publish_puppet_module(puppet_modules, repo_url, organization_id=None)
```

Creates puppet repo, sync it via provided url and publish using Content View publishing mechanism. It makes puppet class available via Puppet Environment created by Content View and returns Content View entity.

#### Parameters

- **puppet\_modules** – List of dictionaries with module 'author' and module 'name' fields.
- **repo\_url** (str) – Url of the repo that can be synced using pulp: pulp repo or puppet forge.
- **organization\_id** – Organization id that is shared between created entities.

**Returns** Content View entity.

```
robottelo.cli.factory.setup_virtual_machine(vm, org_label, rh_repos_id=None, repos_label=None,
                                             product_label=None, lce=None, activation_key=None,
                                             patch_os_release_distro=None,
                                             install_katello_agent=True)
```

Setup a Virtual machine with basic components and tasks.

#### Parameters

- **vm** (`robottelo.vm.VirtualMachine`) – The Virtual machine to setup.
- **org\_label** (`str`) – The Organization label.
- **rh\_repos\_id** (`list`) – a list of RH repositories ids to enable.
- **repos\_label** (`list`) – a list of custom repositories labels to enable.
- **product\_label** (`str`) – product label if repos\_label is applicable.
- **lce** (`str`) – Lifecycle environment label if applicable.
- **activation\_key** (`str`) – Activation key name if applicable.
- **patch\_os\_release\_distro** (`str`) – distro name, to patch the VM with os version.
- **install\_katello\_agent** (`bool`) – whether to install katello agent.

```
robottelo.cli.factory._get_capsule_vm_distro_repos(distro)
```

Return the right RH repos info for the capsule setup

```
robottelo.cli.factory.add_role_permissions(role_id, resource_permissions)
```

Create role permissions found in resource permissions dict

#### Parameters

- **role\_id** – The role id
- **resource\_permissions** – a dict containing resources with permission names and other Filter options

Usage:

```
role = make_role({'organization-id': org['id']})
resource_permissions = {
    'Katello::ActivationKey': {
        'permissions': [
            'view_activation_keys',
            'create_activation_keys',
            'edit_activation_keys',
            'destroy_activation_keys'
        ],
        'search': "name ~ {}".format(ak_name_like)
    },
}
add_role_permissions(role['id'], resource_permissions)
```

```
robottelo.cli.factory.setup_cdn_and_custom_repositories(org_id, repos,
                                                       download_policy='on_demand',
                                                       synchronize=True)
```

Setup cdn and custom repositories

#### Parameters

- **org\_id** (`int`) – The organization id

- **repos** (*list*) – a list of dict repositories options
- **download\_policy** (*str*) – update the repositories with this download policy
- **synchronize** (*bool*) – Whether to synchronize the repositories.

**Returns** a dict containing the content view and repos info

```
robottelo.cli.factory.setup_cdn_and_custom_repos_content(org_id, lce_id=None, repos=None,  
                                                       upload_manifest=True,  
                                                       download_policy='on_demand',  
                                                       rh_subscriptions=None,  
                                                       default_cv=False)
```

Setup cdn and custom repositories, content view and activations key

#### Parameters

- **org\_id** (*int*) – The organization id
- **lce\_id** (*int*) – the lifecycle environment id
- **repos** (*list*) – a list of dict repositories options
- **default\_cv** (*bool*) – whether to use the Default Organization CV
- **upload\_manifest** (*bool*) – whether to upload the organization manifest
- **download\_policy** (*str*) – update the repositories with this download policy
- **rh\_subscriptions** (*list*) – a list of RH subscription to attach to activation key

**Returns** a dict containing the activation key, content view and repos info

```
robottelo.cli.factory.vm_setup_ssh_config(vm, ssh_key_name, host, user=None)
```

Create host entry in vm ssh config and know\_hosts files to allow vm to access host via ssh without password prompt

#### Parameters

- **vm** ([robottelo.vm.VirtualMachine](#)) – Virtual machine instance
- **ssh\_key\_name** (*str*) – The ssh key file name to use to access host, the file must already exist in /root/.ssh directory
- **host** (*str*) – the hostname to setup that will be accessed from vm
- **user** (*str*) – the user that will access the host

```
robottelo.cli.factory.vm_upload_ssh_key(vm, source_key_path, destination_key_name)
```

Copy ssh key to virtual machine ssh path and ensure proper permission is set

#### Parameters

- **vm** ([robottelo.vm.VirtualMachine](#)) – Virtual machine instance
- **source\_key\_path** – The ssh key file path to copy to vm
- **destination\_key\_name** – The ssh key file name when copied to vm

```
robottelo.cli.factory.virt_who_hypervisor_config(config_id, virt_who_vm, org_id=None,  
                                                lce_id=None, hypervisor_hostname=None,  
                                                configure_ssh=False, hypervisor_user=None,  
                                                subscription_name=None, exec_one_shot=False,  
                                                upload_manifest=True, extra_repos=None)
```

Configure virtual machine as hypervisor virt-who service

#### Parameters

- **config\_id** (*int*) – virt-who config id
- **virt\_who\_vm** (*robottelo.vm.VirtualMachine*) – the Virtual machine instance to use for configuration
- **org\_id** (*int*) – the organization id
- **lce\_id** (*int*) – the lifecycle environment id to use
- **hypervisor\_hostname** (*str*) – the hypervisor hostname
- **hypervisor\_user** (*str*) – hypervisor user that connect with the ssh key
- **configure\_ssh** (*bool*) – whether to configure the ssh key to allow this virtual machine to connect to hypervisor
- **subscription\_name** (*str*) – the subscription name to assign to virt-who hypervisor guests
- **exec\_one\_shot** (*bool*) – whether to run the virt-who one-shot command after startup
- **upload\_manifest** (*bool*) – whether to upload the organization manifest
- **extra\_repos** (*list*) – (Optional) a list of repositories dict options to setup additionally.

`robottelo.cli.factory.make_http_proxy(options=None)`

Creates a HTTP Proxy

**Parameters** `options` – Check options using *hammer http-proxy create --help* on satellite.

:returns `HttpProxy` object

## `robottelo.cli.file`

Usage:

```
hammer file [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

info	Show a file
list	List files

## Module Contents

### Classes

---

#### `File`

Manipulates files command.

---

`class robottelo.cli.file.File`

Bases: `robottelo.cli.base.Base`

Manipulates files command.

```
command_base = file

robottelo.cli.filter
```

**Usage::** hammer filter [OPTIONS] SUBCOMMAND [ARG] ...

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

available-permissions	List <a href="#">all</a> permissions
available-resources	List available resource types.
create	Create a <a href="#">filter</a>
delete	Delete a <a href="#">filter</a>
info	Show a <a href="#">filter</a>
<a href="#">list</a>	List <a href="#">all</a> filters
update	Update a <a href="#">filter</a>

## Module Contents

### Classes

---

<a href="#"><i>Filter</i></a>	Manipulates Katello's filter command.
-------------------------------	---------------------------------------

---

```
class robottelo.cli.filter.Filter
    Bases: robottelo.cli.base.Base

    Manipulates Katello's filter command.

    command_base = filter

    classmethod available_permissions(cls, options=None)
```

## robottelo.cli.globalparam

Usage:

hammer <a href="#">global</a> -parameter [OPTIONS] SUBCOMMAND [ARG] ...
---

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

delete	Delete a <a href="#">common_parameter</a>
<a href="#">list</a>	List <a href="#">all</a> common parameters.
set	Set a <a href="#">global</a> parameter.

## Module Contents

### Classes

---

<code>GlobalParameter</code>	Manipulates Foreman's global parameters.
------------------------------	--

---

```
class robottelo.cli.globalparam.GlobalParameter
Bases: robottelo.cli.base.Base
```

Manipulates Foreman's global parameters.

```
command_base = global-parameter
```

```
classmethod set(cls, options=None)
```

Set global parameter

`robottelo.cli.gpgkey`

Usage:

```
hammer gpg [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a GPG Key
delete	Destroy a GPG Key
info	Show a GPG key
list	List GPG Keys
update	Update a GPG Key

## Module Contents

### Classes

---

<code>GPGKey</code>	Manipulates Foreman's GPG Keys.
---------------------	---------------------------------

---

```
class robottelo.cli.gpgkey.GPGKey
Bases: robottelo.cli.base.Base
```

Manipulates Foreman's GPG Keys.

```
command_base = gpg
```

```
command_requires_org = True
```

```
classmethod info(cls, options=None)
```

Gets information for GPG Key

**robottelo.cli.hammer**

Helpers to interact with hammer command line utility.

**Module Contents****Functions**

<code>_csv_reader(output)</code>	An unicode CSV reader which processes unicode strings and return unicode
<code>_normalize(header)</code>	Replace empty spaces with ‘-’ and lower all chars
<code>parse_json(stdout)</code>	Parse JSON output from Hammer CLI and convert it to python dictionary
<code>_normalize_obj(obj)</code>	Normalize all dict’s keys replacing empty spaces with “-” and lowering
<code>parse_csv(output)</code>	Parse CSV output from Hammer CLI and convert it to python dictionary.
<code>parse_help(output)</code>	Parse the help output from a hammer command and return a dictionary
<code>get_line_indentation_spaces(line, tab_spaces=4)</code>	Return the number of spaces chars the line begin with
<code>get_line_indentation_level(line, tab_spaces=4, indentation_spaces=4)</code>	Return the indentation level
<code>parse_info(output)</code>	Parse the info output and returns a dict mapping the values.

**robottelo.cli.hammer.\_csv\_reader(*output*)**

An unicode CSV reader which processes unicode strings and return unicode strings data.

This is needed because the builtin module does not support unicode strings, from Python 2 docs:

Note: This version of the csv module doesn’t support Unicode input.  
Also, there are currently some issues regarding ASCII NUL characters.  
Accordingly, all input should be UTF-8 or printable ASCII to be safe;"

On Python 3 this generator is not needed because the default string type is unicode.

**Parameters** **output** – can be any object which supports the iterator protocol and returns a unicode string each time its next() method is called.

**Returns** generator that will yield a list of unicode string values.

**robottelo.cli.hammer.\_normalize(*header*)**

Replace empty spaces with ‘-’ and lower all chars

**robottelo.cli.hammer.parse\_json(*stdout*)**

Parse JSON output from Hammer CLI and convert it to python dictionary while normalizing keys.

**robottelo.cli.hammer.\_normalize\_obj(*obj*)**

Normalize all dict’s keys replacing empty spaces with “-” and lowering chars

**robottelo.cli.hammer.parse\_csv(*output*)**

Parse CSV output from Hammer CLI and convert it to python dictionary.

**robottelo.cli.hammer.parse\_help(*output*)**

Parse the help output from a hammer command and return a dictionary mapping the subcommands and options

accepted by that command.

`robottelo.cli.hammer.get_line_indentation_spaces(line, tab_spaces=4)`

Return the number of spaces chars the line begin with

#### Parameters

- **line** (*str*) – the line string to parse
- **tab\_spaces** (*int*) – The tab char is represent how many spaces

`robottelo.cli.hammer.get_line_indentation_level(line, tab_spaces=4, indentation_spaces=4)`

Return the indentation level

#### Parameters

- **line** (*str*) – the line string to parse
- **tab\_spaces** (*int*) – The tab char is represent how many spaces
- **indentation\_spaces** – how much spaces represent an indentation level

Note:

```
suppose we have the following lines:  
"  
    level 0  
        level 1  
            level 2  
"  
  
assert get_line_indentation_level('level 0') == 0  
assert get_line_indentation_level('    level 1') == 1  
assert get_line_indentation_level('        level 2') == 2
```

`robottelo.cli.hammer.parse_info(output)`

Parse the info output and returns a dict mapping the values.

## robottelo.cli.host

**Usage::** hammer host [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters::** SUBCOMMAND Subcommand [ARG] ... Subcommand arguments

**Subcommands::** ansible-roles Manage Ansible roles on a host boot Boot host from specified device config-reports List all reports create Create a host deb-package Manage deb packages on your hosts delete Delete a host delete-parameter Delete parameter for a host disassociate Disassociate a host enc-dump Dump host's ENC YAML errata Manage errata on your hosts facts List all fact values info Show a host interface View and manage host's network interfaces list List all hosts package Manage packages on your hosts package-group Manage package-groups on your hosts policies-enc View policies ENC for host puppet-classes List all Puppet classes reboot Reboot a host rebuild-config Rebuild orchestration related configurations for host reports List all reports reset Reset a host sc-params List all smart class parameters set-parameter Create or append a parameter for a host start Power a host on status Get status of host stop Power a host off subscription Manage subscription information on your hosts traces List traces on your hosts update Update a host

## Module Contents

### Classes

<code>Host</code>	Manipulates Foreman's hosts.
<code>HostInterface</code>	Manages interface functionality for hosts.

**class** `robottelo.cli.host.Host`  
Bases: `robottelo.cli.base.Base`

Manipulates Foreman's hosts.

**command\_base** = host

**classmethod** `ansible_roles_play(cls, options)`

Plays the associated ansible-roles

**classmethod** `enc_dump(cls, options)`

Dump host's ENC YAML.

Usage:

```
hammer host enc-dump [OPTIONS]
```

Options:

<code>--id</code> ID	
<code>--location</code> LOCATION_NAME	Location name
<code>--location-id</code> LOCATION_ID	
<code>--location-title</code> LOCATION_TITLE	Location title
<code>--name</code> NAME	Host name
<code>--organization</code> ORGANIZATION_NAME	Organization name
<code>--organization-id</code> ORGANIZATION_ID	Organization ID
<code>--organization-title</code> ORGANIZATION_TITLE	Organization title
<code>-h, --help</code>	Print help

**classmethod** `errata_apply(cls, options)`

Schedule errata for installation

**classmethod** `errata_info(cls, options)`

Retrieve a single errata for a system

**classmethod** `errata_list(cls, options)`

List errata available for the content host.

**classmethod** `facts(cls, options=None)`

List all fact values.

Usage:

```
hammer host facts [OPTIONS]
```

Options:

<code>--id</code> ID	resource id
<code>--name</code> NAME	resource name
<code>--order</code> ORDER	sort results

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--page PAGE	paginate results
--per-page PER_PAGE	number of entries per request
--search SEARCH	filter results
-h, --help	print help

**classmethod package\_install(*cls, options*)**

Install packages remotely.

**classmethod package\_list(*cls, options*)**

List packages installed on the host.

**classmethod package\_remove(*cls, options*)**

Uninstall packages remotely.

**classmethod package\_upgrade(*cls, options*)**

Update packages remotely.

**classmethod package\_upgrade\_all(*cls, options*)**

Update all packages remotely.

**classmethod package\_group\_install(*cls, options*)**

Install package groups remotely.

**classmethod package\_group\_remove(*cls, options*)**

Uninstall package groups remotely.

**classmethod reboot(*cls, options=None*)**

Reboot a host

Usage:

```
hammer host reboot [OPTIONS]
```

Options:

--id ID	resource id
--name NAME	resource name
-h, --help	print help

**classmethod reports(*cls, options=None*)**

List all reports.

Usage:

```
hammer host reports [OPTIONS]
```

Options:

--id ID	resource id
--name NAME	resource name
--order ORDER	sort results
--page PAGE	paginate results
--per-page PER_PAGE	number of entries per request
--search SEARCH	filter results
-h, --help	print help

**classmethod start(*cls, options=None*)**

Power a host on

Usage:

```
hammer host start [OPTIONS]
```

Options:

--id ID	resource id
--name NAME	resource name
-h, --help	print help

#### **classmethod status(*cls*, *options=None*)**

Get status of host

Usage:

```
hammer host status [OPTIONS]
```

Options:

--id ID	resource id
--name NAME	resource name
-h, --help	print help

#### **classmethod stop(*cls*, *options=None*)**

Power a host off

Usage:

```
hammer host stop [OPTIONS]
```

Options:

--force	Force turning off a host
--id ID	resource id
--name NAME	resource name
-h, --help	print help

#### **classmethod subscription\_register(*cls*, *options=None*)**

Register a host with subscription and information.

Usage:

```
hammer host subscription register [OPTIONS]
```

Options:

--content-view CONTENT_VIEW_NAME	Content view name to search by
--content-view-id CONTENT_VIEW_ID	content view numeric identifier
--hypervisor-guest-uuids HYPERVISOR_GUEST_UUIDS	UUIDs of the virtual guests <b>from the</b> host's

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--lifecycle-environment	LIFECYCLE_ENVIRONMENT_NAME	hypervisor Comma separated <i>list</i> of values. Lifecycle environment name to search by
--lifecycle-environment-id	LIFECYCLE_ENVIRONMENT_ID	ID of the environment
--name	NAME	Name of the host
--organization	ORGANIZATION_NAME	Organization name to search by
--organization-id	ORGANIZATION_ID	organization ID
--organization-label	ORGANIZATION_LABEL	Organization label to search by
--release-version	RELEASE_VERSION	Release version of the content host
--service-level	SERVICE_LEVEL	A service level <b>for</b> auto-healing process, e.g. SELF-SUPPORT
--uuid	UUID	UUID to use <b>for</b> registered host, random uuid <b>is</b> generated <b>if</b> <b>not</b> provided

**classmethod subscription\_unregister(*cls*, *options=None*)**

Unregister the host as a subscription consumer.

Usage:

hammer host subscription unregister [OPTIONS]

Options:

--host HOST_NAME	Name to search by
--host-id HOST_ID	Host ID

**classmethod subscription\_attach(*cls*, *options=None*)**

Attach a subscription to host

Usage:

hammer host subscription attach [OPTIONS]

Options:

--host HOST_NAME	Name to search by
--host-id HOST_ID	Host ID
--quantity Quantity	Quantity of this subscriptions to
	add. Defaults to 1
--subscription-id SUBSCRIPTION_ID	ID of subscription

**classmethod subscription\_remove(*cls*, *options=None*)**

Remove a subscription from host

Usage:

```
hammer host subscription remove [OPTIONS]
```

Options:

--host HOST_NAME	Name to search by
--host-id HOST_ID	
--quantity Quantity	Remove the first instance of a subscription <b>with</b> matching <b>id</b> <b>and</b> quantity
--subscription-id SUBSCRIPTION_ID	ID of subscription

**classmethod subscription\_auto\_attach(*cls*, *options=None*)**

Auto attach subscription to host

Usage:

```
hammer host subscription auto-attach [OPTIONS]
```

Options:

--host HOST_NAME	Name to search by
--host-id HOST_ID	
-h, --help	<b>print</b> help

**classmethod sc\_params(*cls*, *options=None*)**

List all smart class parameters

Usage:

```
hammer host sc-params [OPTIONS]
```

Options:

--host HOST_NAME	Host name
--host-id HOST_ID	
--order ORDER	sort results
--page PAGE	paginate results
--per-page PER_PAGE	number of entries per request
--search SEARCH	<b>filter</b> results

**class robottelo.cli.host.HostInterface**

Bases: *robottelo.cli.base.Base*

Manages interface functionality for hosts.

**Usage::** hammer host interface [OPTIONS] SUBCOMMAND [ARG] ...

**Subcommands::** create Create an interface on a host delete Delete a host's interface info Show an interface for host list List all interfaces for host update Update a host's interface

**command\_base = host interface**

**classmethod create(cls, options=None)**

Create new network interface for host

## robottelo.cli.hostcollection

Usage:

```
hammer host-collection [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add-host	Add host to the host collection
copy	Make copy of a host collection
create	Create a host collection
delete	Destroy a host collection
erratum	Manipulate errata <b>for</b> a host collection
hosts	List <b>all</b> hosts
info	Show a host collection
list	List host collections
package	Manipulate packages <b>for</b> a host collection
package-group	Manipulate package-groups <b>for</b> a host collection
remove-host	Remove hosts <b>from</b> <b>the</b> host collection
update	Update a host collection

## Module Contents

### Classes

#### *HostCollection*

Manipulates Katello engine's host-collection command.

**class robottelo.cli.hostcollection.HostCollection**

Bases: *robottelo.cli.base.Base*

Manipulates Katello engine's host-collection command.

**command\_base = host-collection**

**classmethod add\_host(cls, options=None)**

Add host to the host collection

**classmethod remove\_host(cls, options=None)**

Remove hosts from the host collection

**classmethod hosts(*cls, options=None*)**

List hosts added to the host collection

Usage:

```
hammer host-collection hosts [OPTIONS]
```

Options:

--environment ENVIRONMENT_NAME	Name to search by
--environment-id ENVIRONMENT_ID	
--hostgroup HOSTGROUP_NAME	Name to search by
--hostgroup-id HOSTGROUP_ID	
--id HOST_COLLECTION_ID	Host Collection ID
--location LOCATION_NAME	Name to search by
--location-id LOCATION_ID	
--name HOST_COLLECTION_NAME	Host Collection Name
--order ORDER	sort results
--organization ORGANIZATION_NAME	Organization name to search by
--organization-id ORGANIZATION_ID	organization ID
--organization-label ORGANIZATION_LABEL	Organization label to search by
--page PAGE	paginate results
--per-page PER_PAGE	number of entries per request
--search SEARCH	filter results
-h, --help	print help

**classmethod erratum\_install(*cls, options*)**

Schedule errata for installation

**classmethod package\_install(*cls, options*)**

Schedule package for installation

**classmethod copy(*cls, options*)**

Clone existing host collection

**robottelo.cli.hostgroup**

Usage:

```
hammer hostgroup [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND	subcommand
[ARG] ...	subcommand arguments

Subcommands:

ansible-roles	Manage Ansible roles on a hostgroup
create	Create a host group
delete	Delete a host group
delete-parameter	Delete parameter <b>for</b> a hostgroup

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<code>info</code>	Show a host group
<code>list</code>	List <code>all</code> host groups
<code>puppet-classes</code>	List <code>all</code> Puppet classes
<code>rebuild-config</code>	Rebuild orchestration config
<code>sc-params</code>	List <code>all</code> smart <code>class parameters</code>
<code>set-parameter</code>	Create <code>or</code> update parameter <code>for</code> a hostgroup
<code>update</code>	Update a host group

## Module Contents

### Classes

<code>HostGroup</code>	Manipulates Foreman's hostgroups.
------------------------	-----------------------------------

#### `class robottelo.cli.hostgroup.HostGroup`

Bases: `robottelo.cli.base.Base`

Manipulates Foreman's hostgroups.

`command_base = hostgroup`

`classmethod sc_params(cls, options=None)`

List all smart class parameters

Usage:

```
hammer hostgroup sc-params [OPTIONS]
```

Options:

<code>--hostgroup HOSTGROUP_NAME</code>	Hostgroup name
<code>--hostgroup-id HOSTGROUP_ID</code>	
<code>--hostgroup-title HOSTGROUP_TITLE</code>	Hostgroup title
<code>--order ORDER</code>	sort results
<code>--page PAGE</code>	paginate results
<code>--per-page PER_PAGE</code>	number of entries per request
<code>--search SEARCH</code>	filter results

#### `robottelo.cli.http_proxy`

**Usage:** `http-proxy [OPTIONS] SUBCOMMAND [ARG] ...`

**Parameters:** SUBCOMMAND Subcommand [ARG] ... Subcommand arguments

**Subcommands:** `create` Create an HTTP Proxy `delete` Delete an HTTP Proxy `info` Show an HTTP Proxy `list` List of HTTP Proxies `update` Update an HTTP Proxy

**Options:**

<code>-h, --help</code>	Print help
-------------------------	------------

## Module Contents

### Classes

---

<code>HttpProxy</code>	Manipulates http-proxy command.
------------------------	---------------------------------

---

```
class robottelo.cli.http_proxy.HttpProxy
    Bases: robottelo.cli.base.Base

    Manipulates http-proxy command.

    command_base = http-proxy
```

### `robottelo.cli.job_invocation`

**Usage:** hammer job-invocation [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters:** SUBCOMMAND subcommand [ARG] ... subcommand arguments

Subcommands:

create	Create a job invocation info	Show job invocation list	List job invocations	output	View the output for a host
--------	------------------------------	--------------------------	----------------------	--------	----------------------------

## Module Contents

### Classes

---

<code>JobInvocation</code>	Run remote jobs.
----------------------------	------------------

---

```
class robottelo.cli.job_invocation.JobInvocation
    Bases: robottelo.cli.base.Base

    Run remote jobs.

    command_base = job-invocation

    classmethod get_output(cls, options)
        Get output of the job invocation
```

### `robottelo.cli.job_template`

**Usage:** hammer job-template [OPTIONS] SUBCOMMAND [ARG] ...

Parameters:

SUBCOMMAND	subcommand [ARG] ...	subcommand arguments
------------	----------------------	----------------------

Subcommands:

create	Create a job template	delete	Delete a job template	dump	View job template content	info	Show job template details
list	List job templates	update	Update a job template				

## Module Contents

### Classes

<code>JobTemplate</code>	Manipulate job templates.
--------------------------	---------------------------

```
class robottelo.cli.job_template.JobTemplate
Bases: robottelo.cli.base.Base

Manipulate job templates.

command_base = job-template
```

### `robottelo.cli.ldapauthsource`

Usage:

```
hammer auth-source ldap [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

**Subcommands::** create Create an LDAP authentication source delete Delete an LDAP authentication source info Show an LDAP authentication source list List all LDAP authentication sources update Update an LDAP authentication source

## Module Contents

### Classes

<code>LDAPAuthSource</code>	Manipulates LDAP auth source
<code>ExternalAuthSource</code>	Manipulates External auth source

```
class robottelo.cli.ldapauthsource.LDAPAuthSource
Bases: robottelo.cli.base.Base
```

Manipulates LDAP auth source

```
command_base = auth-source ldap
```

```
class robottelo.cli.ldapauthsource.ExternalAuthSource
Bases: robottelo.cli.base.Base
```

Manipulates External auth source

**Usage:** hammer auth-source external [OPTIONS] SUBCOMMAND [ARG] ...

**Subcommands:** info Show an external user group for user group list List all external user groups for user group update Update external user group

```
command_base = auth-source external
```

**robottelo.cli.lifecycleenvironment**

Usage:

```
hammer lifecycle-environment [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

<code>list</code>	List environments <b>in</b> an organization
<code>update</code>	Update an environment
<code>create</code>	Create an environment
<code>delete</code>	Destroy an environment
<code>info</code>	Show an environment

**Module Contents****Classes**

<code>LifecycleEnvironment</code>	Manipulates Katello engine's lifecycle-environment command.
-----------------------------------	---

`class robottelo.cli.lifecycleenvironment.LifecycleEnvironment`

Bases: `robottelo.cli.base.Base`

Manipulates Katello engine's lifecycle-environment command.

`command_base = lifecycle-environment`

`command_requires_org = True`

`classmethod list(cls, options=None, per_page=False)`

List information. @param options: ID (sometimes name works as well) to retrieve info.

`classmethod paths(cls, options=None)`

**robottelo.cli.location**

Usage:

```
hammer location [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add-compute-resource	Associate a compute resource
add-domain	Associate a domain
add-environment	Associate an environment
add-hostgroup	Associate a hostgroup
add-medium	Associate a medium
add-organization	Associate an organization
add-provisioning-template	Associate provisioning templates
add-smart-proxy	Associate a smart proxy
add-subnet	Associate a subnet
add-user	Associate an user
create	Create a location
delete	Delete a location
info	Show a location
list	List all locations
remove-compute-resource	Disassociate a compute resource
remove-domain	Disassociate a domain
remove-environment	Disassociate an environment
remove-hostgroup	Disassociate a hostgroup
remove-medium	Disassociate a medium
remove-organization	Disassociate an organization
remove-provisioning-template	Disassociate provisioning templates
remove-smart-proxy	Disassociate a smart proxy
remove-subnet	Disassociate a subnet
remove-user	Disassociate an user
update	Update a location

## Module Contents

### Classes

<i>Location</i>	Manipulates Foreman's Locations
<pre>class robottelo.cli.location.Location     Bases: robottelo.cli.base.Base      Manipulates Foreman's Locations      command_base = location      classmethod add_compute_resource(cls, options=None)         Associate a compute resource      classmethod add_domain(cls, options=None)         Associate a domain      classmethod add_environment(cls, options=None)         Associate an environment      classmethod add_hostgroup(cls, options=None)         Associate a hostgroup      classmethod add_medium(cls, options=None)         Associate a medium</pre>	

---

```

classmethod add_organization(cls, options=None)
    Associate an organization

classmethod add_provisioning_template(cls, options=None)
    Associate a provisioning template

classmethod add_smart_proxy(cls, options=None)
    Associate a smart proxy

classmethod add_subnet(cls, options=None)
    Associate a subnet

classmethod add_user(cls, options=None)
    Associate a user

classmethod remove_compute_resource(cls, options=None)
    Disassociate a compute resource

classmethod remove_domain(cls, options=None)
    Disassociate a domain

classmethod remove_environment(cls, options=None)
    Disassociate an environment

classmethod remove_hostgroup(cls, options=None)
    Disassociate a hostgroup

classmethod remove_medium(cls, options=None)
    Disassociate a medium

classmethod remove_organization(cls, options=None)
    Disassociate an organization

classmethod remove_provisioning_template(cls, options=None)
    Disassociate a provisioning template

classmethod remove_smart_proxy(cls, options=None)
    Disassociate a smart proxy

classmethod remove_subnet(cls, options=None)
    Disassociate a subnet

classmethod remove_user(cls, options=None)
    Disassociate a user

```

## **robottelo.cli.medium**

Usage:

hammer medium [OPTIONS] SUBCOMMAND [ARG] ...
--

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add_operatingsystem	Associate a resource.
create	Create a medium.
delete	Delete a medium.
info	Show a medium.
list	List all media.
remove_operatingsystem	Disassociate a resource.
update	Update a medium.

## Module Contents

### Classes

<i>Medium</i>	Manipulates Foreman's installation media.
---------------	---

```
class robottelo.cli.medium.Medium
Bases: robottelo.cli.base.Base

Manipulates Foreman's installation media.

command_base = medium
```

### robottelo.cli.model

Usage:

```
hammer model [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND	subcommand
[ARG] ...	subcommand arguments

Subcommands:

create	Create a model.
delete	Delete a model.
info	Show a model.
list	List all models.
update	Update a model.

## Module Contents

### Classes

<i>Model</i>	Manipulates Foreman's hardware model.
--------------	---------------------------------------

```
class robottelo.cli.model.Model
Bases: robottelo.cli.base.Base
```

Manipulates Foreman's hardware model.

```
command_base = model
```

### `robottelo.cli.module_stream`

Usage:

```
hammer module-stream [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

info	Show a module-stream
list	List module-streams

## Module Contents

### Classes

<code>ModuleStream</code>	Manipulates module-stream command.
---------------------------	------------------------------------

```
class robottelo.cli.module_stream.ModuleStream
```

Bases: `robottelo.cli.base.Base`

Manipulates module-stream command.

```
command_base = module-stream
```

### `robottelo.cli.operatingsys`

Usage:

```
hammer os [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add-architecture	Associate a resource
add-provisioning-template	Associate provisioning templates
add-ptable	Associate a resource
create	Create an OS.
delete	Delete an OS.

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<code>delete-default-template</code>	
<code>delete-parameter</code>	Delete parameter <b>for</b> an operating system.
<code>info</code>	Show an OS.
<code>list</code>	List <b>all</b> operating systems.
<code>remove-architecture</code>	Disassociate a resource
<code>remove-provisioning-template</code>	Disassociate provisioning templates
<code>remove-ptable</code>	Disassociate a resource
<code>set-default-template</code>	
<code>set-parameter</code>	Create <b>or</b> update parameter <b>for</b> an operating system.
<code>update</code>	Update an OS.

## Module Contents

### Classes

<i>OperatingSys</i>	Manipulates Foreman's operating systems.
---------------------	--

```
class robottelo.cli.operatingsys.OperatingSys
Bases: robottelo.cli.base.Base

Manipulates Foreman's operating systems.

command_base = os

classmethod add_architecture(cls, options=None)
    Adds existing architecture to OS.

classmethod add_provisioning_template(cls, options=None)
    Adds existing template to OS.

classmethod add_ptable(cls, options=None)
    Adds existing partitioning table to OS.

classmethod remove_architecture(cls, options=None)
    Removes architecture from OS.

classmethod remove_provisioning_template(cls, options=None)
    Removes template from OS.

classmethod remove_ptable(cls, options=None)
    Removes partitioning table from OS.
```

### robottelo.cli.org

Usage:

<code>hammer organization [OPTIONS] SUBCOMMAND [ARG] ...</code>
---

Parameters:

<code>SUBCOMMAND</code>	<code>subcommand</code>
<code>[ARG] ...</code>	<code>subcommand arguments</code>

Subcommands:

add-computeresource	Associate a resource
add-domain	Associate a resource
add-environment	Associate a resource
add-hostgroup	Associate a resource
add-location	Associate a location
add-medium	Associate a resource
add-provisioning-template	Associate provisioning templates
add-smartproxy	Associate a resource
add-subnet	Associate a resource
add-user	Associate a resource
create	Create an organization
delete	Delete an organization
delete-parameter	Delete parameter <b>for</b> an organization.
info	Show an organization
list	List <b>all</b> organizations
remove_computeresource	Disassociate a resource
remove_domain	Disassociate a resource
remove_environment	Disassociate a resource
remove_hostgroup	Disassociate a resource
remove_location	Disassociate a location
remove_medium	Disassociate a resource
remove_provisioning-template	Disassociate provisioning templates
remove_smartproxy	Disassociate a resource
remove_subnet	Disassociate a resource
remove_user	Disassociate a resource
set-parameter	Create <b>or</b> update parameter <b>for</b> an organization.
update	Update an organization

## Module Contents

### Classes

<i>Org</i>	Manipulates Foreman's Organizations
------------	-------------------------------------

```
class robottelo.cli.org.Org
    Bases: robottelo.cli.base.Base

    Manipulates Foreman's Organizations

    command_base = organization

    classmethod add_computeresource(cls, options=None)
        Adds a computeresource to an org

    classmethod remove_computeresource(cls, options=None)
        Removes a computeresource from an org

    classmethod add_domain(cls, options=None)
        Adds a domain to an org
```

```
classmethod remove_domain(cls, options=None)
    Removes a domain from an org

classmethod add_environment(cls, options=None)
    Adds an environment to an org

classmethod remove_environment(cls, options=None)
    Removes an environment from an org

classmethod add_hostgroup(cls, options=None)
    Adds a hostgroup to an org

classmethod remove_hostgroup(cls, options=None)
    Removes a hostgroup from an org

classmethod add_location(cls, options=None)
    Adds a location to an org

classmethod remove_location(cls, options=None)
    Removes a location from an org

classmethod add_medium(cls, options=None)
    Adds a medium to an org

classmethod remove_medium(cls, options=None)
    Removes a medium from an org

classmethod add_provisioning_template(cls, options=None)
    Adds a provisioning template to an org

classmethod remove_provisioning_template(cls, options=None)
    Removes a provisioning template from an org

classmethod add_smart_proxy(cls, options=None)
    Adds a smartproxy to an org

classmethod remove_smart_proxy(cls, options=None)
    Removes a smartproxy from an org

classmethod add_subnet(cls, options=None)
    Adds existing subnet to an org

classmethod remove_subnet(cls, options=None)
    Removes a subnet from an org

classmethod add_user(cls, options=None)
    Adds an user to an org

classmethod remove_user(cls, options=None)
    Removes an user from an org
```

## robottelo.cli.ostreebranch

Usage:

```
hammer ostree-branch [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

<code>info</code>	Show an ostree branch
<code>list</code>	List ostree_branches

## Module Contents

### Classes

<code>OstreeBranch</code>	Manipulates Ostree branches.
---------------------------	------------------------------

`class robottelo.cli.ostreebranch.OstreeBranch`

Bases: `robottelo.cli.base.Base`

Manipulates Ostree branches.

`command_base = ostree-branch`

`robottelo.cli.package`

Usage:

<code>hammer package [OPTIONS] SUBCOMMAND [ARG] ...</code>
--

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

<code>info</code>	Show a package
<code>list</code>	List packages

## Module Contents

### Classes

<code>Package</code>	Manipulates packages command.
----------------------	-------------------------------

`class robottelo.cli.package.Package`

Bases: `robottelo.cli.base.Base`

Manipulates packages command.

`command_base = package`

## robottelo.cli.partitiontable

Usage:

```
hammer partition-table [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add_operatingsystem	Associate a resource
create	Create a ptable.
delete	Delete a ptable.
dump	View partition table content.
info	Show a ptable.
list	List all pttables.
remove_operatingsystem	Disassociate a resource
update	Update a ptable.

## Module Contents

### Classes

#### `PartitionTable`

Manipulates Foreman's partition tables.

#### `class robottelo.cli.partitiontable.PartitionTable`

Bases: `robottelo.cli.base.Base`

Manipulates Foreman's partition tables.

`command_base = partition-table`

#### `robottelo.cli.product`

Usage:

```
hammer product [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a product
delete	Destroy a product
info	Show a product

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<code>list</code>	List products <b>in</b> an environment
<code>remove_sync_plan</code>	Delete assignment sync plan <b>and</b> product.
<code>set_sync_plan</code>	Assign sync plan to product.
<code>synchronize</code>	Sync a repository
<code>update</code>	Update a product
<code>update-proxy</code>	Updates an HTTP Proxy <b>for</b> a product

## Module Contents

### Classes

<code>Product</code>	Manipulates Katello engine's product command.
----------------------	---

```
class robottelo.cli.product.Product
    Bases: robottelo.cli.base.Base

    Manipulates Katello engine's product command.

    command_base = product
    command_requires_org = True

    classmethod remove_sync_plan(cls, options=None)
        Delete assignment sync plan and product.

    classmethod set_sync_plan(cls, options=None)
        Assign sync plan to product.

    classmethod synchronize(cls, options=None)
        Synchronize a product.

    classmethod update_proxy(cls, options=None)
        Assign Http Proxy to products.
```

### robottelo.cli.proxy

Usage:

```
hammer proxy [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

<code>create</code>	Create a smart proxy.
<code>delete</code>	Delete a smart_proxy.
<code>import_classes</code>	Import puppet classes <b>from puppet</b> proxy.
<code>info</code>	Show a smart proxy.
<code>list</code>	List <b>all</b> smart_proxies.

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refresh-features	Refresh smart proxy features
update	Update a smart proxy.

## Module Contents

### Classes

---

<i>Proxy</i>	Manipulates Foreman's smart proxies.
--------------	--------------------------------------

---

**exception** `robottelo.cli.proxy.CapsuleTunnelError`

Bases: `Exception`

Raised when tunnel creation fails.

**class** `robottelo.cli.proxy.Proxy`

Bases: `robottelo.cli.base.Base`

Manipulates Foreman's smart proxies.

`command_base = proxy`

`classmethod import_classes(cls, options=None)`

Import puppet classes from puppet proxy.

`classmethod refresh_features(cls, options=None)`

Refreshes smart proxy features

**robottelo.cli.puppet**

Usage:

```
hammer puppet-class [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND	subcommand
[ARG] ...	subcommand arguments

Subcommands:

<code>info</code>	Show a puppetclass
<code>list</code>	List all puppetclasses.
<code>sc-params</code>	List all smart class parameters

## Module Contents

### Classes

<a href="#">Puppet</a>	Search Foreman's puppet modules.
------------------------	----------------------------------

```
class robottelo.cli.puppet.Puppet
    Bases: robottelo.cli.base.Base

    Search Foreman's puppet modules.

    command_base = puppet-class

    classmethod sc_params(cls, options=None)
```

**Usage:** hammer puppet-class sc-params [OPTIONS]

**Options:**

<b>--order ORDER</b>	sort results
<b>--page PAGE</b>	paginate results
<b>--per-page PER_PAGE</b>	number of entries per request
<b>--puppet-class PUPPET_CLASS_NAME</b>	Puppet class name
<b>--puppet-class-id PUPPET_CLASS_ID</b>	ID of Puppet class
<b>--search SEARCH</b>	filter results

### robottelo.cli.puppetmodule

Usage:

hammer puppet-module [OPTIONS] SUBCOMMAND [ARG] ...
---

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

info	Show a puppet module
list	List puppet modules

## Module Contents

### Classes

---

<i>PuppetModule</i>	To list OR show puppet modules.
---------------------	---------------------------------

---

```
class robottelo.cli.puppetmodule.PuppetModule
    Bases: robottelo.cli.base.Base
```

To list OR show puppet modules.

```
command_base = puppet-module
```

### robottelo.cli.realm

**Usage:** hammer realm [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters:** SUBCOMMAND subcommand [ARG] ... subcommand arguments

**Subcommands:** create Create a realm delete Delete a realm info Show a realm list List of realms update Update a realm

**Options:**

```
-h, --help          print help
```

## Module Contents

### Classes

---

<i>Realm</i>	Manipulates Realm subcommand
--------------	------------------------------

---

```
class robottelo.cli.realm.Realm
    Bases: robottelo.cli.base.Base
```

Manipulates Realm subcommand

```
command_base = realm
```

### robottelo.cli.recurring\_logic

**Usage:** hammer recurring-logic [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters:** SUBCOMMAND subcommand [ARG] ... subcommand arguments

**Subcommands:** cancel Cancel recurring logic info Show recurring logic details list List recurring logics

## Module Contents

### Classes

---

<i>RecurringLogic</i>	Manipulate recurring logics
-----------------------	-----------------------------

---

```
class robottelo.cli.recurring_logic.RecurringLogic
Bases: robottelo.cli.base.Base

Manipulate recurring logics

command_base = recurring-logic
```

### robottelo.cli.report

Usage:

hammer report [OPTIONS] SUBCOMMAND [ARG] ...
--

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

delete	Delete report.
info	Show info <b>for</b> report.
list	List reports.

## Module Contents

### Classes

---

<i>Report</i>	Manipulates Foreman's reports.
---------------	--------------------------------

---

```
class robottelo.cli.report.Report
Bases: robottelo.cli.base.Base

Manipulates Foreman's reports.

command_base = report
```

## robottelo.cli.report\_template

Usage:

```
hammer report-template [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	Subcommand Subcommand arguments
-------------------------	------------------------------------

Subcommands:

clone	Clone a template
create	Create a report template
delete	Delete a report template
dump	View report content
generate	Generate report
info	Show a report template
list	List all report templates
report-data	Downloads a generated report
schedule	Schedule generating of a report
update	Update a report template

## Module Contents

### Classes

<i>ReportTemplate</i>	Manipulates with Report Template
<pre>class robottelo.cli.report_template.ReportTemplate     Bases: robottelo.cli.base.Base      Manipulates with Report Template      command_base = report-template      classmethod create(cls, options=None)         Creates a new record using the arguments passed via dictionary.      classmethod generate(cls, options=None)         Generate a report      classmethod clone(cls, options=None)         Clone a report template      classmethod report_data(cls, options=None)         Downloads a generated report      classmethod schedule(cls, options=None)         Schedule generating of a report</pre>	

**robottelo.cli.repository**

Usage:

hammer repository [OPTIONS] SUBCOMMAND [ARG] ...
--

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a repository
delete	Destroy a repository
export	Export a repository
info	Show a repository
list	List of repositories
remove-content	Remove content <b>from the</b> repository
synchronize	Sync a repository
update	Update a repository
upload-content	Upload content into the repository

## Module Contents

### Classes

---

<i>Repository</i>	Manipulates Katello engine's repository command.
-------------------	--

---

```
class robottelo.cli.repository.Repository
    Bases: robottelo.cli.base.Base

    Manipulates Katello engine's repository command.

    command_base = repository
    command_requires_org = True

    @classmethod def create(cls, options=None)
        Create a custom repository

    @classmethod def export(cls, options=None)
        Export a repository

    @classmethod def info(cls, options=None)
        Show a custom repository

    @classmethod def synchronize(cls, options, return_raw_response=None, timeout=3600)
        Synchronizes a repository.

    @classmethod def remove_content(cls, options)
        Remove content from a repository

    @classmethod def upload_content(cls, options)
        Upload content to repository.
```

## robottelo.cli.repository\_set

Implementing the repository-set hammer command

Usage:

```
hammer repository-set [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND	subcommand
[ARG] ...	subcommand arguments

Subcommands:

available-repositories	Get <code>list</code> or available repositories <code>for</code> the repository <code>set</code>
disable	Disable a repository
enable	Enable a repository
info	Show a repository
list	List of repositories

## Module Contents

### Classes

---

<code>RepositorySet</code>	Manipulates Katello engine's repository command.
----------------------------	--

---

`class robottelo.cli.repository_set.RepositorySet`

Bases: `robottelo.cli.base.Base`

Manipulates Katello engine's repository command.

`command_base = repository-set`

`classmethod enable(cls, options)`

Enables a repository.

`classmethod disable(cls, options)`

Disables a repository.

`classmethod available_repositories(cls, options)`

Lists the available repositories.

`hammer repository-set available-repositories --help`

Usage:

```
hammer repository-set available-repositories [OPTIONS]
```

Options:

<code>--id ID</code>	ID of the repository <code>set</code>
<code>--name NAME</code>	Repository <code>set</code> name to search by

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--organization ORGANIZATION_NAME	Organization name to search by
--organization-id ORGANIZATION_ID	organization ID
--organization-label ORGANIZATION_LABEL	Organization label to search by
--product PRODUCT_NAME	Product name to search by
--product-id PRODUCT_ID	product numeric identifier
-h, --help	print help

## robottelo.cli.role

Usage:

```
hammer role [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND	subcommand
[ARG] ...	subcommand arguments

Subcommands:

clone	Clone a role
create	Create an role.
delete	Delete an role.
filters	List all filters.
info	Show a role
list	List all roles.
update	Update an role.

## Module Contents

### Classes

---

<a href="#">Role</a>	Manipulates Katello engine's role command.
----------------------	--

---

```
class robottelo.cli.role.Role
    Bases: robottelo.cli.base.Base

    Manipulates Katello engine's role command.

    command_base = role

    classmethod filters(cls, options=None)
        List all filters

    classmethod clone(cls, options)
        Clone a role
```

## robottelo.cli.scap\_policy

Usage:

```
policy [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a Policy
delete	Delete a Policy
info	Show a Policy
list	List Policies
update	Update a Policy

## Module Contents

### Classes

---

<a href="#">Scappolicy</a>	Manipulates Satellite's oscap policy.
----------------------------	---------------------------------------

---

**class robottelo.cli.scap\_policy.Scappolicy**

Bases: *robottelo.cli.base.Base*

Manipulates Satellite's oscap policy.

**command\_base = policy**

## robottelo.cli.scap\_tailoring\_files

Usage:

```
tailoring-file [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a Tailoring file
delete	Deletes a Tailoring file
download	Show a Tailoring file <b>as XML</b>
info	Show a Tailoring file
list	List Tailoring files
update	Update a Tailoring file

## Module Contents

### Classes

---

<i>TailoringFiles</i>	Manipulates Satellite's tailoring-file.
-----------------------	---

---

**class** `robottelo.cli.scap_tailoring_files.TailoringFiles`  
Bases: `robottelo.cli.base.Base`

Manipulates Satellite's tailoring-file.

**command\_base = tailoring-file**

**classmethod download\_tailoring\_file(cls, options)**

Downloads the tailoring file from satellite

### `robottelo.cli.scapcontent`

Usage:

```
scap-content [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

<code>create</code>	Create SCAP content
<code>delete</code>	Deletes an SCAP content
<code>info</code>	Show an SCAP content
<code>list</code>	List SCAP contents
<code>update</code>	Update an SCAP content

## Module Contents

### Classes

---

<i>Scapcontent</i>	Manipulates Satellite's scap-content.
--------------------	---------------------------------------

---

**class** `robottelo.cli.scapcontent.Scapcontent`  
Bases: `robottelo.cli.base.Base`

Manipulates Satellite's scap-content.

**command\_base = scap-content**

## robottelo.cli.scparams

Usage:

```
hammer sc-param [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add-override-value	Create an override value <b>for</b> a specific smart variable
info	Show a smart <b>class parameter</b>
list	List <b>all</b> smart <b>class parameters</b>
remove-override-value	Delete an override value <b>for</b> a specific smart variable
update	Update a smart <b>class parameter</b>

## Module Contents

### Classes

---

<a href="#">SmartClassParameter</a>	Manipulates smart class parameters
-------------------------------------	------------------------------------

---

#### `class robottelo.cli.scparams.SmartClassParameter`

Bases: `robottelo.cli.base.Base`

Manipulates smart class parameters

`command_base = sc-param`

`classmethod info(cls, options=None)`

Gets information for smart class parameter

`classmethod add_matcher(cls, options=None)`

Create a matcher for a specific smart class parameter

Usage:

```
hammer sc-param add-matcher [OPTIONS]
```

Options:

--location[-id -title]	Name/Title/Id of associated location
--match MATCH	Override match
--omit OMIT	Satellite will <b>not</b> send this parameter <b>in</b> classificationoutput
--organization[-id -title]	One of true/false, yes/no, 1/0.
--puppet-class[-id]	Name/Title/Id of associated organization
	Name/Id of associated puppetclass

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--smart-class-parameter[-id]	Name/Id of associated smart <b>class parameter</b>
--value VALUE	Override value, required if omit is false

**classmethod remove\_matcher(*cls*, *options=None*)**

Delete a matcher for a specific smart class parameter

Usage:

`hammer sc-param remove-matcher [OPTIONS]`

Options:

--id ID	
--location[-id -title]	Name/Title/Id of associated location
--organization[-id -title]	Name/Title/Id of associated organization
--puppet-class[-id]	Name/Id of associated puppetclass
--smart-class-parameter[-id]	Name/Id of associated smart <b>class parameter</b>

**robottelo.cli.settings**

Usage:

`hammer settings [OPTIONS] SUBCOMMAND [ARG] ...`

Parameters:

SUBCOMMAND	subcommand
[ARG] ...	subcommand arguments

Subcommands:

list	List all settings
set	Update a setting

**Module Contents****Classes*****Settings***

Manipulates Foreman's settings.

**class robottelo.cli.settings.Settings**Bases: *robottelo.cli.base.Base*

Manipulates Foreman's settings.

**command\_base = settings****classmethod set(*cls*, *options=None*)**

Update a setting

## robottelo.cli.srpm

**Usage:** hammer srpm [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters:** SUBCOMMAND Subcommand [ARG] ... Subcommand arguments

**Subcommands:** info Show a SRPM Details list List srpms

### Module Contents

#### Classes

<a href="#">Srpm</a>	Manipulates Katello engine's srpm command.
----------------------	--

**class** robottelo.cli.srpm.[Srpm](#)

Bases: [robottelo.cli.base.Base](#)

Manipulates Katello engine's srpm command.

**command\_base = srpm**

**classmethod** [info](#)(cls, options=None)

Show a SRPM Info

**classmethod** [list](#)(cls, options=None)

List SRPMs

## robottelo.cli.subnet

Usage:

```
hammer subnet [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

<a href="#">create</a>	Create a subnet
<a href="#">delete</a>	Delete a subnet
<a href="#">info</a>	Show a subnet.
<a href="#">list</a>	List of subnets
<a href="#">update</a>	Update a subnet

## Module Contents

### Classes

<i>Subnet</i>	Manipulates Foreman's subnets.
---------------	--------------------------------

```
class robottelo.cli.subnet.Subnet
    Bases: robottelo.cli.base.Base

    Manipulates Foreman's subnets.

    command_base = subnet
```

### robottelo.cli.subscription

Usage:

hammer sunscription [OPTIONS] SUBCOMMAND [ARG] ...
--

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

delete-manifest	Delete manifest <b>from Red Hat provider</b>
list	List organization subscriptions
manifest-history	obtain manifest history <b>for</b> subscriptions
refresh-manifest	Refresh previously imported manifest <b>for</b>
	Red Hat provider
upload	Upload a subscription manifest

## Module Contents

### Classes

<i>Subscription</i>	Manipulates Katello engine's subscription command.
---------------------	--

```
class robottelo.cli.subscription.Subscription
    Bases: robottelo.cli.base.Base

    Manipulates Katello engine's subscription command.

    command_base = subscription

    classmethod upload(cls, options=None, timeout=None)
        Upload a subscription manifest.

    classmethod delete_manifest(cls, options=None, timeout=None)
        Deletes a subscription manifest.
```

```
classmethod refresh_manifest(cls, options=None, timeout=None)
    Refreshes a subscription manifest.
```

```
classmethod manifest_history(cls, options=None)
    Provided history for subscription manifest
```

## robottelo.cli.syncplan

Usage:

```
hammer sync-plan [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a sync plan
delete	Destroy a sync plan
info	Show a sync plan
list	List sync plans
update	

## Module Contents

### Classes

---

<a href="#">SyncPlan</a>	Manipulates Katello engine's sync-plan command.
--------------------------	---

---

```
class robottelo.cli.syncplan.SyncPlan
```

Bases: *robottelo.cli.base.Base*

Manipulates Katello engine's sync-plan command.

```
command_base = sync-plan
```

## robottelo.cli.task

Usage:

```
hammer task [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

<code>list</code>	List tasks
<code>progress</code>	Show the progress of the task
<code>resume</code>	Resume <code>all</code> tasks paused <code>in</code> error state

## Module Contents

### Classes

<code>Task</code>	Manipulates Foreman's task.
<code>class robottelo.cli.task.Task</code>	
Bases: <code>robottelo.cli.base.Base</code>	
Manipulates Foreman's task.	
<code>command_base = task</code>	
<code>classmethod progress(cls, options=None, return_raw_response=None)</code>	
Shows a task progress	
<b>Usage:</b> hammer task progress [OPTIONS]	
<b>Options:</b>	
<code>--id ID</code>	UUID of the task
<code>--name NAME</code>	Name to search by
<code>classmethod resume(cls, options=None)</code>	
Resumes a task	
<b>Usage:</b> hammer task resume [OPTIONS]	
<b>Options:</b>	
<code>--search SEARCH</code>	Resume tasks matching search string
<code>--task-ids TASK_IDS</code>	Comma separated list of values.
<code>--tasks TASK_NAMES</code>	Comma separated list of values.
<code>classmethod list_tasks(cls, options=None)</code>	
List tasks	
<b>Usage:</b> hammer task list [OPTIONS]	
<b>Options:</b>	
<code>--search SEARCH</code>	List tasks matching search string

## robottelo.cli.template

**Usage:** hammer template [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters:** SUBCOMMAND Subcommand [ARG] ... Subcommand arguments

**Subcommands:** add-operatingsystem Associate an operating system build-pxe-default Update the default PXE menu on all configured TFTP servers clone Clone a provision template combination Manage template combinations create Create a provisioning template delete Delete a provisioning template dump View provisioning template content info Show provisioning template details kinds List available provisioning template kinds list List provisioning templates remove-operatingsystem Disassociate an operating system update Update a provisioning template

## Module Contents

### Classes

<a href="#">Template</a>	Manipulates Foreman's configuration templates.
<b>class</b> robottelo.cli.template.Template	
Bases: <a href="#">robottelo.cli.base.Base</a>	
Manipulates Foreman's configuration templates.	
<b>command_base = template</b>	
<b>classmethod kinds</b> (cls, options=None)	Returns list of types of templates.
<b>classmethod add_operatingsystem</b> (cls, options=None)	Adds operating system, requires "id" and "operatingsystem-id".
<b>classmethod remove_operatingsystem</b> (cls, options=None)	Remove operating system, requires "id" and "operatingsystem-id".
<b>classmethod clone</b> (cls, options=None)	Clone provided provisioning template
<b>classmethod build_pxe_default</b> (cls, options=None)	Build PXE default template

## robottelo.cli.template\_input

Usage:

```
hammer template-input [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	Subcommand Subcommand arguments
-------------------------	------------------------------------

Subcommands:

<code>create</code>	Create a template <code>input</code>
<code>delete</code>	Delete a template <code>input</code>
<code>info</code>	Show template <code>input</code> details
<code>list</code>	List template inputs

## Module Contents

### Classes

---

<code>TemplateInput</code>	Manipulates template input.
----------------------------	-----------------------------

---

`class robottelo.cli.template_input.TemplateInput`

Bases: `robottelo.cli.base.Base`

Manipulates template input.

`command_base = template-input`

`classmethod create(cls, options=None)`

Creates a new record using the arguments passed via dictionary.

`robottelo.cli.template_sync`

Export

**Usage:** hammer export-templates [OPTIONS]

**Options:** branch Branch in Git repo. commit-msg Custom commit message for templates export dirname The directory within Git repo containing the templates filter Export templates with names matching this regex ( case-insensitive; snippets are not filtered). location[-id|-title] Name/Title/Id of associated location location[s|-ids|-titles] REPLACE locations with given Names/Titles/Ids metadata-export-mode Specify how to handle metadata negate Negate the prefix (for purging). organization[-id|-title] Name/Title/Id of associated organization organization[s|-ids|-titles] REPLACE organizations with given Names/Titles/Ids. repo Override the default repo from settings.

Import

**Usage:** hammer import-templates [OPTIONS]

**Options:** associate Associate to OS's, Locations & Organizations. Options are: always branch Branch in Git repo. dirname The directory within Git repo containing the templates filter Export templates with names matching this regex force Update templates that are locked location[-id|-title] Name/Title/Id of associated location location[s|-ids|-titles] REPLACE locations with given Names/Titles/Ids lock Lock imported templates negate Negate the prefix (for purging). organization[-id|-title] Name/Title/Id of associated organization organization[s|-ids|-titles] REPLACE organizations with given Names/Titles/Ids. prefix The string all imported templates should begin with. repo Override the default repo from settings.

## Module Contents

### Classes

<code>TemplateSync</code>	Export/Import Satellite Templates to Git/Local Directory.
---------------------------	---

```
class robottelo.cli.template_sync.TemplateSync
    Bases: robottelo.cli.base.Base

    Export/Import Satellite Templates to Git/Local Directory.

    classmethod exports(cls, options=None)
        Export Satellite Templates to Git/Local Directory.

    classmethod imports(cls, options=None)
        Import Satellite Templates to Git/Local Directory.
```

## robottelo.cli.user

Usage:

```
hammer user [OPTIONS] SUBCOMMAND [ARG] ...
```

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

add-role	Assign a user role
create	Create an user.
delete	Delete an user.
info	Show an user.
list	List all users.
remove-role	Remove a user role
ssh-keys	Managing User SSH Keys.
update	Update an user.

## Module Contents

### Classes

<code>User</code>	Manipulates Foreman's users.
-------------------	------------------------------

```
class robottelo.cli.user.User
    Bases: robottelo.cli.base.Base

    Manipulates Foreman's users.
```

---

```

command_base = user
classmethod add_role(cls, options=None)
    Add a role to a user.

classmethod remove_role(cls, options=None)
    Remove a role from user.

classmethod ssh_keys_add(cls, options=None)
    Usage: hammer user ssh-keys add [OPTIONS]

    Options: --key KEY Public SSH key --key-file KEY_FILE Path to a SSH public key --location LOCATION_NAME Location name --location-id LOCATION_ID --location-title LOCATION_TITLE Location title --name NAME --organization ORGANIZATION_NAME Organization name --organization-id ORGANIZATION_ID Organization ID --organization-title ORGANIZATION_TITLE Organization title --user USER_LOGIN User's login to search by --user-id USER_ID

classmethod ssh_keys_delete(cls, options=None)
    Usage: hammer user ssh-keys delete [OPTIONS]

classmethod ssh_keys_list(cls, options=None)
    Usage: hammer user ssh-keys list [OPTIONS]

classmethod ssh_keys_info(cls, options=None)
    Usage: hammer user ssh-keys info [OPTIONS]

```

## robottelo.cli.usergroup

**Usage::** hammer user-group [OPTIONS] SUBCOMMAND [ARG] ...

**Parameters::** SUBCOMMAND subcommand [ARG] ... subcommand arguments

**Subcommands::** add-role Assign a user role add-user Associate an user add-user-group Associate an user group create Create a user group delete Delete a user group external View and manage external user groups info Show a user group list List all user groups remove-role Remove a user role remove-user Disassociate an user remove-user-group Disassociate an user group update Update a user group

## Module Contents

### Classes

---

<a href="#"><code>UserGroup</code></a>	Manipulates Foreman's user group.
<a href="#"><code>UserGroupExternal</code></a>	Manages Foreman external user groups.

---

#### `class robottelo.cli.usergroup.UserGroup`

Bases: `robottelo.cli.base.Base`

Manipulates Foreman's user group.

##### `command_base = user-group`

###### `classmethod add_role(cls, options=None)`

Assign a user role.

**Usage:** hammer user-group add-role [OPTIONS]

**Options:** --id ID --name NAME Name to search by --role ROLE\_NAME User role name --role-id ROLE\_ID

**classmethod add\_user**(*cls*, *options=None*)

Associate an user.

**Usage:** hammer user-group add-user [OPTIONS]

**Options:** –id ID –name NAME Name to search by –user USER\_LOGIN User’s login to search by –user-id USER\_ID

**classmethod add\_user\_group**(*cls*, *options=None*)

Associate an user group.

**Usage:** hammer user-group add-user-group [OPTIONS]

**Options:** –id ID –name NAME Name to search by –user-group USER\_GROUP\_NAME Name to search by –user-group-id USER\_GROUP\_ID

**classmethod remove\_role**(*cls*, *options=None*)

Remove a user role.

**Usage:** hammer user-group remove-role [OPTIONS]

**Options:** –id ID –name NAME Name to search by –role ROLE\_NAME User role name –role-id ROLE\_ID

**classmethod remove\_user**(*cls*, *options=None*)

Disassociate an user.

**Usage:** hammer user-group remove-user [OPTIONS]

**Options:** –id ID –name NAME Name to search by –user USER\_LOGIN User’s login to search by –user-id USER\_ID

**classmethod remove\_user\_group**(*cls*, *options=None*)

Disassociate an user group.

**Usage:** hammer user-group remove-user-group [OPTIONS]

**Options:** –id ID –name NAME Name to search by –user-group USER\_GROUP\_NAME Name to search by –user-group-id USER\_GROUP\_ID

**class** *robottelo.cli.usergroup.UserGroupExternal*

Bases: *robottelo.cli.base.Base*

Manages Foreman external user groups.

**Usage:** hammer user-group external [OPTIONS] SUBCOMMAND [ARG] ...

**Subcommands:** create Create an external user group linked to a user group delete Delete an external user group info Show an external user group for user group list List all external user groups for user group refresh Refresh external user group update Update external user group

**command\_base = user-group external**

**classmethod refresh**(*cls*, *options=None*)

**classmethod create**(*cls*, *options=None*)

Create external user group

**robottelo.cli.virt\_who\_config**

**Usage:** hammer virt-who-config [OPTIONS] SUBCOMMAND [ARG] ...

Parameters:

SUBCOMMAND [ARG] ...	subcommand subcommand arguments
-------------------------	------------------------------------

Subcommands:

create	Create a virt-who configuration
delete	Delete a virt-who configuration
deploy	Download <b>and</b> execute script <b>for</b> the specified virt-who configuration
fetch	Renders a deploy script <b>for</b> the specified virt-who configuration
info	Show a virt-who configuration
list	List of virt-who configurations
update	Update a virt-who configuration

**Module Contents****Classes**

<i>VirtWhoConfig</i>	Manipulates virt-who configuration.
----------------------	-------------------------------------

**class robottelo.cli.virt\_who\_config.VirtWhoConfig**

Bases: *robottelo.cli.base.Base*

Manipulates virt-who configuration.

**command\_base = virt-who-config**

**classmethod fetch(cls, options=None, output\_format=None)**

Renders a deploy script for the specified virt-who configuration

**classmethod deploy(cls, options=None)**

runs hammer virt-who-config deploy –id <x> which runs the script on the satellite server

**Parameters options – id required**

**Returns** Results of the command

**robottelo.config****Submodules****robottelo.config.base**

Define and instantiate the configuration class for Robottelo.

## Module Contents

### Classes

<a href="#"><i>INIReader</i></a>	ConfigParser wrapper able to cast value when reading INI options.
<a href="#"><i>FeatureSettings</i></a>	Settings related to a feature.
<a href="#"><i>ServerSettings</i></a>	Satellite server settings definitions.
<a href="#"><i>BrokerSettings</i></a>	Broker settings definitions.
<a href="#"><i>BugzillaSettings</i></a>	Bugzilla server settings definitions.
<a href="#"><i>CapsuleSettings</i></a>	Clients settings definitions.
<a href="#"><i>CertsSettings</i></a>	Katello-certs settings definitions.
<a href="#"><i>ClientsSettings</i></a>	Clients settings definitions.
<a href="#"><i>ContainerRepositorySettings</i></a>	Settings for syncing containers from container registries
<a href="#"><i>DistroSettings</i></a>	Distro settings definitions.
<a href="#"><i>DockerSettings</i></a>	Docker settings definitions.
<a href="#"><i>AzureRMSettings</i></a>	Azure Resource Manager settings definitions.
<a href="#"><i>EC2Settings</i></a>	AWS EC2 settings definitions.
<a href="#"><i>FakeManifestSettings</i></a>	Fake manifest settings definitions.
<a href="#"><i>GCESettings</i></a>	Google Compute Engine settings definitions.
<a href="#"><i>RHSSOSettings</i></a>	RHSSO settings definitions.
<a href="#"><i>LDAPSettings</i></a>	LDAP settings definitions.
<a href="#"><i>LDAPIPAPermissions</i></a>	LDAP freeIPA settings definitions.
<a href="#"><i>OpenLDAPSettings</i></a>	Open LDAP settings definitions.
<a href="#"><i>LibvirtHostSettings</i></a>	Libvirt host settings definitions.
<a href="#"><i>FakeCapsuleSettings</i></a>	Fake Capsule settings definitions.
<a href="#"><i>RHEVSettings</i></a>	RHEV settings definitions.
<a href="#"><i>VmWareSettings</i></a>	VmWare settings definitions.
<a href="#"><i>DiscoveryISOSettings</i></a>	Discovery ISO name settings definition.
<a href="#"><i>OscapSettings</i></a>	Oscap settings definitions.
<a href="#"><i>OSPSettings</i></a>	OSP settings definitions.
<a href="#"><i>PerformanceSettings</i></a>	Performance settings definitions.
<a href="#"><i>SSHClientSettings</i></a>	SSHClient settings definitions.
<a href="#"><i>VlanNetworkSettings</i></a>	Vlan Network settings definitions.
<a href="#"><i>UpgradeSettings</i></a>	Satellite upgrade settings definitions.
<a href="#"><i>SharedFunctionSettings</i></a>	Shared function settings definitions.
<a href="#"><i>VirtWhoSettings</i></a>	VirtWho settings definitions.
<a href="#"><i>ReportPortalSettings</i></a>	Report portal settings definitions.
<a href="#"><i>Settings</i></a>	Robottelo's settings representation.
<a href="#"><i>HttpProxySettings</i></a>	Http Proxy settings definitions.

## Functions

---

<code>get_project_root()</code>	Return the path to the Robottelo project root directory.
---------------------------------	--

---

## Attributes

---

`LOGGER`

---

`SETTINGS_FILE_NAME`

---

`robottelo.config.base.LOGGER`

`robottelo.config.base.SETTINGS_FILE_NAME = robottelo.properties`

`exception robottelo.config.base.ImproperlyConfigured`

Bases: `Exception`

Indicates that Robottelo somehow is improperly configured.

For example, if settings file can not be found or some required configuration is not defined.

`robottelo.config.base.get_project_root()`

Return the path to the Robottelo project root directory.

**Returns** A directory path.

**Return type** str

`class robottelo.config.base.INIReader(path)`

ConfigParser wrapper able to cast value when reading INI options.

`cast_boolean`

`cast_dict`

`cast_list`

`cast_logging_level`

`cast_tuple`

`cast_webdriver_desired_capabilities`

`get(self, section, option, default=None, cast=None)`

Read an option from a section of a INI file.

First try to lookup for the value as an environment variable having the following format: ROBOT-TELO\_{SECTION}\_{OPTION}.

The default value will return if the look up option is not available. The value will be cast using a callable if specified otherwise a string will be returned.

### Parameters

- **section** – Section to look for.
- **option** – Option to look for.
- **default** – The value that should be used if the option is not defined.

- **cast** – If provided the value will be cast using the cast provided.

**has\_section(self, section)**

Check if section is available.

**class robottelo.config.base.FeatureSettings**

Settings related to a feature.

Create a instance of this class and assign attributes to map to the feature options.

**abstract read(self, reader)**

Subclasses must implement this method in order to populate itself with expected settings values.

**Parameters** **reader** – An INIReader instance to read the settings.

**abstract validate(self)**

Subclasses must implement this method in order to validate the settings and raise `ImproperlyConfigured` if any issue is found.

**class robottelo.config.base.ServerSettings(\*args, \*\*kwargs)**

Bases: `FeatureSettings`

Satellite server settings definitions.

**read(self, reader)**

Read and validate Satellite server settings.

**property version(self)**

**validate(self)**

Subclasses must implement this method in order to validate the settings and raise `ImproperlyConfigured` if any issue is found.

**get\_credentials(self)**

Return credentials for interacting with a Foreman deployment API.

**Returns** A username-password pair.

**Return type** tuple

**get\_hostname(self, key='hostname')**

**get\_url(self)**

Return the base URL of the Foreman deployment being tested.

The following values from the config file are used to build the URL:

- [server] scheme (default: https)
- [server] hostname (required)
- [server] port (default: none)

Setting port to 80 does *not* imply that scheme is ‘https’. If port is 80 and scheme is unset, scheme will still default to ‘https’.

**Returns** A URL.

**Return type** str

**get\_pub\_url(self)**

Return the pub URL of the server being tested.

The following values from the config file are used to build the URL:

- main.server.hostname (required)

**Returns** The pub directory URL.

**Return type** str

**get\_cert\_rpm\_url(self)**

Return the Katello cert RPM URL of the server being tested.

The following values from the config file are used to build the URL:

- main.server.hostname (required)

**Returns** The Katello cert RPM URL.

**Return type** str

**class robottelo.config.base.BrokerSettings(\*args, \*\*kwargs)**

Bases: *FeatureSettings*

Broker settings definitions.

**read(self, reader)**

Read and validate broker settings.

**validate(self)**

This section is lazily validated on .issue\_handlers.bugzilla.

**class robottelo.config.base.BugzillaSettings(\*args, \*\*kwargs)**

Bases: *FeatureSettings*

Bugzilla server settings definitions.

**read(self, reader)**

Read and validate Bugzilla server settings.

**validate(self)**

This section is lazily validated on .issue\_handlers.bugzilla.

**class robottelo.config.base.CapsuleSettings(\*args, \*\*kwargs)**

Bases: *FeatureSettings*

Clients settings definitions.

**read(self, reader)**

Read clients settings.

**property hostname(self)**

**validate(self)**

Validate capsule settings.

**class robottelo.config.base.CertsSettings(\*args, \*\*kwargs)**

Bases: *FeatureSettings*

Katello-certs settings definitions.

**read(self, reader)**

Read certs settings.

**validate(self)**

Validate certs settings.

**class robottelo.config.base.ClientsSettings(\*args, \*\*kwargs)**

Bases: *FeatureSettings*

Clients settings definitions.

```
read(self, reader)
    Read clients settings.

validate(self)
    Validate clients settings.

class robottelo.config.base.ContainerRepositorySettings(*args, **kwargs)
    Bases: FeatureSettings

    Settings for syncing containers from container registries

    section = container_repo

    repo_config_required = ['label', 'registry_url', 'registry_username',
                           'registry_password', 'repos_to_sync']

    read(self, reader)
        Read container repo settings and associated yaml file

    validate(self)
        Subclasses must implement this method in order to validate the settings and raise
        ImproperlyConfigured if any issue is found.

    _validate_registry_configs(self, configs)

class robottelo.config.base.DistroSettings(*args, **kwargs)
    Bases: FeatureSettings

    Distro settings definitions.

    read(self, reader)
        Read distro settings.

    validate(self)
        Validate distro settings.

class robottelo.config.base.DockerSettings(*args, **kwargs)
    Bases: FeatureSettings

    Docker settings definitions.

    read(self, reader)
        Read docker settings.

    validate(self)
        Validate docker settings.

class robottelo.config.base.AzureRMSettings(*args, **kwargs)
    Bases: FeatureSettings

    Azure Resource Manager settings definitions.

    read(self, reader)
        Read AzureRM settings.

    validate(self)
        Validate AzureRM settings.

class robottelo.config.base.EC2Settings(*args, **kwargs)
    Bases: FeatureSettings

    AWS EC2 settings definitions.

    read(self, reader)
        Read AWS EC2 settings.
```

```
validate(self)
    Validate AWS EC2 settings.

class robottelo.config.base.FakeManifestSettings(*args, **kwargs)
    Bases: FeatureSettings

    Fake manifest settings defintitions.

    read(self, reader)
        Read fake manifest settings.

    validate(self)
        Validate fake manifest settings.

class robottelo.config.base.GCESettings(*args, **kwargs)
    Bases: FeatureSettings

    Google Compute Engine settings definitions.

    read(self, reader)
        Read GCE settings.

    validate(self)
        Validate GCE settings.

class robottelo.config.base.RHSSOSettings(*args, **kwargs)
    Bases: FeatureSettings

    RHSSO settings definitions.

    read(self, reader)
        Read LDAP settings.

    validate(self)
        Validate RHSSO settings.

class robottelo.config.base.LDAPSettings(*args, **kwargs)
    Bases: FeatureSettings

    LDAP settings definitions.

    read(self, reader)
        Read LDAP settings.

    validate(self)
        Validate LDAP settings.

class robottelo.config.base.LDAPIPASettings(*args, **kwargs)
    Bases: FeatureSettings

    LDAP freeIPA settings definitions.

    read(self, reader)
        Read LDAP freeIPA settings.

    validate(self)
        Validate LDAP freeIPA settings.

class robottelo.config.base.OpenLDAPSettings(*args, **kwargs)
    Bases: FeatureSettings

    Open LDAP settings definitions.

    read(self, reader)
        Read Open LDAP settings.
```

```
validate(self)
    Validate Open LDAP settings.

class robottelo.config.base.LibvirtHostSettings(*args, **kwargs)
Bases: FeatureSettings

    Libvirt host settings definitions.

read(self, reader)
    Read libvirt host settings.

validate(self)
    Validate libvirt host settings.

class robottelo.config.base.FakeCapsuleSettings(*args, **kwargs)
Bases: FeatureSettings

    Fake Capsule settings definitions.

read(self, reader)
    Read fake capsule settings

validate(self)
    Validate fake capsule settings.

class robottelo.config.base.RHEVSettings(*args, **kwargs)
Bases: FeatureSettings

    RHEV settings definitions.

read(self, reader)
    Read rhev settings.

validate(self)
    Validate rhev settings.

class robottelo.config.base.VmWareSettings(*args, **kwargs)
Bases: FeatureSettings

    VmWare settings definitions.

read(self, reader)
    Read vmware settings.

validate(self)
    Validate vmware settings.

class robottelo.config.base.DiscoveryISOSettings(*args, **kwargs)
Bases: FeatureSettings

    Discovery ISO name settings definition.

read(self, reader)
    Read discovery iso setting.

validate(self)
    Validate discovery iso name setting.

class robottelo.config.base.OscapSettings(*args, **kwargs)
Bases: FeatureSettings

    Oscap settings definitions.

read(self, reader)
    Read Oscap settings.
```

---

```

validate(self)
    Validate Oscap settings.

class robottelo.config.base.OSPSettings(*args, **kwargs)
    Bases: FeatureSettings

    OSP settings definitions.

read(self, reader)
    Read osp settings.

validate(self)
    Validate osp settings.

class robottelo.config.base.PerformanceSettings(*args, **kwargs)
    Bases: FeatureSettings

    Performance settings definitions.

read(self, reader)
    Read performance settings.

validate(self)
    Validate performance settings.

class robottelo.config.base.SSHClientSettings(*args, **kwargs)
    Bases: FeatureSettings

    SSHClient settings definitions.

property command_timeout(self)
property connection_timeout(self)

read(self, reader)
    Read SSHClient settings.

validate(self)
    Validate SSHClient settings.

class robottelo.config.base.VlanNetworkSettings(*args, **kwargs)
    Bases: FeatureSettings

    Vlan Network settings definitions.

read(self, reader)
    Read Vlan Network settings.

validate(self)
    Validate Vlan Network settings.

class robottelo.config.base.UpgradeSettings(*args, **kwargs)
    Bases: FeatureSettings

    Satellite upgrade settings definitions.

read(self, reader)
    Read and validate Satellite server settings.

validate(self)
    Subclasses must implement this method in order to validate the settings and raise ImproperlyConfigured if any issue is found.

class robottelo.config.base.SharedFunctionSettings(*args, **kwargs)
    Bases: FeatureSettings

```

Shared function settings definitions.

**MAX\_SHARE\_TIMEOUT = 86400**

**read(self, reader)**

Read shared settings.

**validate(self)**

Validate the shared settings

**class robottelo.config.base.VirtWhoSettings(\*args, \*\*kwargs)**

Bases: *FeatureSettings*

VirtWho settings definitions.

**read(self, reader)**

Read virtwho settings.

**validate(self)**

Validate virtwho settings.

**class robottelo.config.base.ReportPortalSettings(\*args, \*\*kwargs)**

Bases: *FeatureSettings*

Report portal settings definitions.

**read(self, reader)**

Read Report portal settings.

**validate(self)**

Validate Report portal settings.

**class robottelo.config.base.Settings**

Robottelo's settings representation.

**configure(self, settings\_path=None)**

Read the settings file and parse the configuration.

**Parameters** **settings\_path** (*str*) – path to settings file to read. If None, looks in the project root for a file named ‘robottelo.properties’.

**Raises** `ImproperlyConfigured` if any issue is found during the parsing or validation of the configuration.

**\_read\_robottelo\_settings(self)**

Read Robottelo's general settings.

**\_validate\_robottelo\_settings(self)**

Validate Robottelo's general settings.

**property configured(self)**

Returns True if the settings have already been configured.

**property all\_features(self)**

List all expected feature settings sections.

**class robottelo.config.base.HttpProxySettings(\*args, \*\*kwargs)**

Bases: *FeatureSettings*

Http Proxy settings definitions.

**read(self, reader)**

Read Http Proxy settings.

---

**validate(self)**  
Validate Http Proxy settings.

## robottelo.config.casts

Configuration casts to help typing the settings.

### Module Contents

#### Classes

<i>Boolean</i>	Cast a string to boolean.
<i>List</i>	Cast a comma separated string to a list.
<i>LogLevel</i>	Cast a string to a logging level.
<i>Tuple</i>	Cast a comma separated string to a tuple.
<i>Dict</i>	Cast a comma separated list of key=value to a dict.
<i>WebdriverDesiredCapabilities</i>	Cast a comma separated list of key=value to a

#### class robottelo.config.casts.Boolean

Cast a string to boolean.

String values 1, yes, true, on will result in python's True. String values 0, no, false, off will result in python's False.

**Parameters** `value (str)` – A string to cast to boolean.

`_booleans`

`__call__(self, value)`

#### class robottelo.config.casts.List

Cast a comma separated string to a list.

**Parameters** `value (str)` – A comma separated string to cast to a list.

`__call__(self, value)`

#### class robottelo.config.casts.LoggingLevel

Cast a string to a logging level.

**Parameters** `value (str)` – A string to cast to a logging level.

`_logging_levels`

`__call__(self, value)`

#### class robottelo.config.casts.Tuple

Bases: `List`

Cast a comma separated string to a tuple.

**Parameters** `value (str)` – A comma separated string to cast to a tuple.

`__call__(self, value)`

#### class robottelo.config.casts.Dict

Bases: `List`

Cast a comma separated list of key=value to a dict.

**Parameters** `value (str)` – A comma separated string to cast to a dict.

`__call__(self, value)`

`class robottelo.config.casts.WebdriverDesiredCapabilities`  
Bases: `Dict`

Cast a comma separated list of key=value to a webdriver.DesiredCapabilities dict.

Convert values `true` and `false` (ignore case) to a proper boolean.

**Parameters** `value (str)` – A comma separated string to cast to a webdriver.DesiredCapabilities dict.

`__call__(self, value)`

## robottelo.config.facade

### Module Contents

#### Classes

---

`SettingsNodeWrapper`

---

`SettingsFacade`

---

#### Attributes

---

`logger`

---

`WRAPPER_EXCEPTIONS`

---

`robottelo.config.facade.logger`

`robottelo.config.facade.WRAPPER_EXCEPTIONS = ['server.hostname', 'server.ssh_key', 'server.ssh_key_string', 'server.ssh_password', ...]`

`class robottelo.config.facade.SettingsNodeWrapper(wrapped, config_provider=None, full_path=None)`  
Bases: `wrapt.CallableObjectProxy`

`__getattr__(self, name)`

`__dir__(self)`

Default dir() implementation.

`__fspath__(self)`

`__repr__(self)`

Return repr(self).

`configure_nailgun(self)`

Configure NailGun's entity classes.

Do the following:

- Set `entity_mixins.CREATE_MISSING` to True. This causes method `EntityCreateMixin.create_raw` to generate values for empty and required fields.
- Set `nailgun.entity_mixins.DEFAULT_SERVER_CONFIG` to whatever is returned by `robottelo.helpers.get_nailgun_config()`. See `robottelo.entity_mixins.Entity` for more information on the effects of this.
- Set a default value for `nailgun.entities.GPGKey.content`.

**configure\_airgun(self)**

Pass required settings to AirGun

**configure\_logging(self)**

Configure logging for the entire framework.

If a config named `logging.conf` exists in Robottelo's root directory, the logger is configured using the options in that file. Otherwise, a custom logging output format is set, and default values are used for all other logging options.

**configure\_third\_party\_logging(self)**

Increase the level of third party packages logging.

```
class robottelo.config.facade.SettingsFacade
```

**\_cache****\_configs = []****classmethod set\_configs(cls, \*configs)****classmethod \_from\_cache(cls, key)****classmethod \_add\_to\_cache(cls, key, value)****static \_cached\_function(fn)****\_\_all\_features(self)****\_\_server\_get\_credentials(self)**

Return credentials for interacting with a Foreman deployment API.

**Returns** A username-password pair.

**Return type** tuple

**\_\_server\_get\_url(self)**

Return the base URL of the Foreman deployment being tested.

The following values from the config file are used to build the URL:

- [server] scheme (default: https)
- [server] hostname (required)
- [server] port (default: none)

Setting port to 80 does *not* imply that scheme is ‘https’. If port is 80 and scheme is unset, scheme will still default to ‘https’.

**Returns** A URL.

**Return type** str

**\_\_server\_get\_pub\_url(self)**

Return the pub URL of the server being tested.

The following values from the config file are used to build the URL:

- `main.server.hostname` (required)

**Returns** The pub directory URL.

**Return type** str

**`__server_get_cert_rpm_url(self)`**

Return the Katello cert RPM URL of the server being tested.

The following values from the config file are used to build the URL:

- `main.server.hostname` (required)

**Returns** The Katello cert RPM URL.

**Return type** str

**`__server_version(self)`**

**`__server_get_hostname(self, key='hostname')`**

**`__capsule_hostname(self)`**

**`__ssh_client_command_timeout(self)`**

**`__ssh_client_connection_timeout(self)`**

**`_robottelo_verbosity(self)`**

Casts logging level for robottelo framework, for more info refer robottelo.config.casts module

**`_fake_capsules_port_range(self)`**

Casts port ranges for fake capsules of type string into tuple

**`_dispatch_computed_value(self, key)`**

**`_dispatch_robottelo_value(self, key)`**

Returns robottelo setting with dynaconf object in stead of dynaconf.robottelo object

e.g `self.verbosity` instead of `self.robottelo.verbosity`

**`_dispatch_repos_value(self, key)`**

Returns repos setting with dynaconf object in stead of dynaconf.repos object

e.g `self.capsule_repo` instead of `self.repos.capsule_repo`

**`_get_from_configs(self, key)`**

**`get(self, full_path)`**

**`__dir__(self)`**

Default dir() implementation.

**robottelo.config.validators****Module Contents****robottelo.config.validators.validators****robottelo.config.virtwho**

Define and instantiate the configuration class for virtwho hypervisors.

**Module Contents****Classes**

<i>SkuSettings</i>	Sku settings definitions
<i>EsxSettings</i>	Esx settings definitions.
<i>XenSettings</i>	Xen settings definitions.
<i>HypervSettings</i>	Hyperv settings definitions.
<i>RhevmSettings</i>	Rhevm settings definitions.
<i>LibvirtSettings</i>	Libvirt settings definitions.
<i>KubevirtSettings</i>	Kubevirt settings definitions.
<i>VirtwhoSettings</i>	Virtwho's settings representation.

**Attributes**

---

*LOGGER*

---

*SETTINGS\_FILE\_NAME*

---

robottelo.config.virtwho.LOGGERrobottelo.config.virtwho.SETTINGS\_FILE\_NAME = *virtwho.properties***class robottelo.config.virtwho.SkuSettings(\*args, \*\*kwargs)**  
Bases: *robottelo.config.base.FeatureSettings*

Sku settings definitions

**read(self, reader)**  
Read sku settings.**validate(self)**  
Validate sku settings.**class robottelo.config.virtwho.EsxSettings(\*args, \*\*kwargs)**  
Bases: *robottelo.config.base.FeatureSettings*

Esx settings definitions.

```
read(self, reader)
    Read esx settings.

validate(self)
    Validate esx settings.

class robottelo.config.virtwho.XenSettings(*args, **kwargs)
    Bases: robottelo.config.base.FeatureSettings

    Xen settings definitions.

read(self, reader)
    Read xen settings.

validate(self)
    Validate xen settings.

class robottelo.config.virtwho.HypervSettings(*args, **kwargs)
    Bases: robottelo.config.base.FeatureSettings

    Hyperv settings definitions.

read(self, reader)
    Read hyperv settings.

validate(self)
    Validate hyperv settings.

class robottelo.config.virtwho.RhevmsSettings(*args, **kwargs)
    Bases: robottelo.config.base.FeatureSettings

    Rhevm settings definitions.

read(self, reader)
    Read rhevm settings.

validate(self)
    Validate rhevm settings.

class robottelo.config.virtwho.LibvirtSettings(*args, **kwargs)
    Bases: robottelo.config.base.FeatureSettings

    Libvirt settings definitions.

read(self, reader)
    Read libvirt settings.

validate(self)
    Validate libvirt settings.

class robottelo.config.virtwho.KubevirtSettings(*args, **kwargs)
    Bases: robottelo.config.base.FeatureSettings

    Kubevirt settings definitions.

read(self, reader)
    Read kubevirt settings.

validate(self)
    Validate kubevirt settings.

class robottelo.config.virtwho.VirtwhoSettings
    Virtwho's settings representation.
```

**configure(self, settings\_path=None)**

Read the settings file and parse the configuration.

**Parameters** `settings_path (str)` – path to settings file to read. If None, looks in the project root for a file named ‘robottelo.properties’.

**Raises** `ImproperlyConfigured` if any issue is found during the parsing or validation of the configuration.

## Package Contents

### Classes

<code>LegacySettings</code>	Robottelo’s settings representation.
<code>SettingsFacade</code>	
<code>SettingsNodeWrapper</code>	

### Functions

<code>setting_is_set(option)</code>	Return either True or False if a Robottelo section setting is
-------------------------------------	---

### Attributes

<code>dynaconf_validators</code>	
<code>logger</code>	
<code>legacy_settings</code>	
<code>dynaconf_settings</code>	
<code>settings_proxy</code>	
<code>settings</code>	

### robottelo.config.dynaconf\_validators

#### exception robottelo.config.ImproperlyConfigured

Bases: `Exception`

Indicates that Robottelo somehow is improperly configured.

For example, if settings file can not be found or some required configuration is not defined.

#### class robottelo.config.LegacySettings

Robottelo’s settings representation.

`configure(self, settings_path=None)`

Read the settings file and parse the configuration.

**Parameters** `settings_path (str)` – path to settings file to read. If None, looks in the project root for a file named ‘robottelo.properties’.

**Raises** `ImproperlyConfigured` if any issue is found during the parsing or validation of the configuration.

`_read_robottelo_settings(self)`

Read Robottelo’s general settings.

`_validate_robottelo_settings(self)`

Validate Robottelo’s general settings.

`property configured(self)`

Returns True if the settings have already been configured.

`property all_features(self)`

List all expected feature settings sections.

`class robottelo.config.SettingsFacade`

`_cache`

`_configs = []`

`classmethod set_configs(cls, *configs)`

`classmethod _from_cache(cls, key)`

`classmethod _add_to_cache(cls, key, value)`

`static _cached_function(fn)`

`__all_features(self)`

`__server_get_credentials(self)`

Return credentials for interacting with a Foreman deployment API.

**Returns** A username-password pair.

**Return type** tuple

`__server_get_url(self)`

Return the base URL of the Foreman deployment being tested.

The following values from the config file are used to build the URL:

- [server] scheme (default: https)
- [server] hostname (required)
- [server] port (default: none)

Setting port to 80 does *not* imply that scheme is ‘https’. If port is 80 and scheme is unset, scheme will still default to ‘https’.

**Returns** A URL.

**Return type** str

`__server_get_pub_url(self)`

Return the pub URL of the server being tested.

The following values from the config file are used to build the URL:

- `main.server.hostname` (required)

**Returns** The pub directory URL.

**Return type** str

**\_\_server\_get\_cert\_rpm\_url(self)**

Return the Katello cert RPM URL of the server being tested.

The following values from the config file are used to build the URL:

- `main.server.hostname` (required)

**Returns** The Katello cert RPM URL.

**Return type** str

**\_\_server\_version(self)**

**\_\_server\_get\_hostname(self, key='hostname')**

**\_\_capsule\_hostname(self)**

**\_\_ssh\_client\_command\_timeout(self)**

**\_\_ssh\_client\_connection\_timeout(self)**

**\_robottelo\_verbosity(self)**

Casts logging level for robottelo framework, for more info refer robottelo.config.casts module

**\_fake\_capsules\_port\_range(self)**

Casts port ranges for fake capsules of type string into tuple

**\_dispatch\_computed\_value(self, key)**

**\_dispatch\_robottelo\_value(self, key)**

Returns robottelo setting with dynaconf object in stead of dynaconf.robottelo object

e.g `self.verbosity` instead of `self.robottelo.verbosity`

**\_dispatch\_repos\_value(self, key)**

Returns repos setting with dynaconf object in stead of dynaconf.repos object

e.g `self.capsule_repo` instead of `self.repos.capsule_repo`

**\_get\_from\_configs(self, key)**

**get(self, full\_path)**

**\_\_dir\_\_(self)**

Default dir() implementation.

**class robottelo.config.SettingsNodeWrapper(wrapped, config\_provider=None, full\_path=None)**

Bases: `wrapt.CallableObjectProxy`

**\_\_getattr\_\_(self, name)**

**\_\_dir\_\_(self)**

Default dir() implementation.

**\_\_fspath\_\_(self)**

**\_\_repr\_\_(self)**

Return `repr(self)`.

**configure\_nailgun(self)**

Configure NailGun's entity classes.

Do the following:

- Set `entity_mixins.CREATE_MISSING` to `True`. This causes method `EntityCreateMixin.create_raw` to generate values for empty and required fields.
- Set `nailgun.entity_mixins.DEFAULT_SERVER_CONFIG` to whatever is returned by `robottelo.helpers.get_nailgun_config()`. See `robottelo.entity_mixins.Entity` for more information on the effects of this.
- Set a default value for `nailgun.entities.GPGKey.content`.

**configure\_airgun(self)**

Pass required settings to AirGun

**configure\_logging(self)**

Configure logging for the entire framework.

If a config named `logging.conf` exists in Robottelo's root directory, the logger is configured using the options in that file. Otherwise, a custom logging output format is set, and default values are used for all other logging options.

**configure\_third\_party\_logging(self)**

Increase the level of third party packages logging.

`robottelo.config.logger`

`robottelo.config.legacy_settings`

`robottelo.config.dynaconf_settings`

`robottelo.config.settings_proxy`

`robottelo.config.settings`

`robottelo.config.setting_is_set(option)`

Return either `True` or `False` if a Robottelo section setting is set or not respectively.

**robottelo.constants**

Defines various constants

## Submodules

**robottelo.constants.repos**

Only External Repos url specific constants module

## Module Contents

```
robottelo.constants.repos.REPOS_URL  
robottelo.constants.repos.CUSTOM_FILE_REPO = https://fixtures.pulpproject.org/file/  
robottelo.constants.repos.CUSTOM_KICKSTART_REPO =  
http://ftp.cvut.cz/centos/8/BaseOS/x86_64/kickstart/  
robottelo.constants.repos.CUSTOM_RPM_REPO = https://fixtures.pulpproject.org/rpm-signed/  
robottelo.constants.repos.CUSTOM_RPM_SHA_512 =  
https://fixtures.pulpproject.org/rpm-with-sha-512/  
robottelo.constants.repos.CUSTOM_MODULE_STREAM_REPO_1  
robottelo.constants.repos.CUSTOM_MODULE_STREAM_REPO_2  
robottelo.constants.repos.CUSTOM_SWID_TAG_REPO  
robottelo.constants.repos.FAKE_0_YUM_REPO  
robottelo.constants.repos.FAKE_1_YUM_REPO  
robottelo.constants.repos.FAKE_2_YUM_REPO  
robottelo.constants.repos.FAKE_3_YUM_REPO  
robottelo.constants.repos.FAKE_4_YUM_REPO  
robottelo.constants.repos.FAKE_5_YUM_REPO =  
http://{}:{1}@rplevka.fedorapeople.org/fakerepo{1}/  
robottelo.constants.repos.FAKE_6_YUM_REPO  
robottelo.constants.repos.FAKE_7_YUM_REPO  
robottelo.constants.repos.FAKE_8_YUM_REPO  
robottelo.constants.repos.FAKE_9_YUM_REPO  
robottelo.constants.repos.FAKE_10_YUM_REPO  
robottelo.constants.repos.FAKE_11_YUM_REPO  
robottelo.constants.repos.FAKE_YUM_DRPM_REPO =  
https://fixtures.pulpproject.org/drpm-signed/  
robottelo.constants.repos.FAKE_YUM_SRPM_REPO =  
https://fixtures.pulpproject.org/srpm-signed/  
robottelo.constants.repos.FAKE_YUM_SRPM_DUPLICATE_REPO =  
https://fixtures.pulpproject.org/srpm-duplicate/  
robottelo.constants.repos.FAKE_YUM_MIXED_REPO  
robottelo.constants.repos.FAKE_YUM_MD5_REPO =  
https://fixtures.pulpproject.org/rpm-with-md5/  
robottelo.constants.repos.CUSTOM_PUPPET_REPO  
robottelo.constants.repos.FAKE_0_PUPPET_REPO  
robottelo.constants.repos.FAKE_1_PUPPET_REPO  
robottelo.constants.repos.FAKE_2_PUPPET_REPO  
robottelo.constants.repos.FAKE_3_PUPPET_REPO
```

```
robottelo.constants.repos.FAKE_4_PUPPET_REPO
robottelo.constants.repos.FAKE_5_PUPPET_REPO
robottelo.constants.repos.FAKE_6_PUPPET_REPO
robottelo.constants.repos.FAKE_7_PUPPET_REPO =
http://{0}:{1}@rplevka.fedorapeople.org/fakepuppet01/
robottelo.constants.repos.FAKE_8_PUPPET_REPO
robottelo.constants.repos.FEDORA26_OSTREE_REPO =
https://kojipkgs.fedoraproject.org/compose/ostree-20190207-old/26/
robottelo.constants.repos.FEDORA27_OSTREE_REPO =
https://kojipkgs.fedoraproject.org/compose/ostree-20190207-old/26/
robottelo.constants.repos.OSTREE_REPO = https://fixtures.pulpproject.org/ostree/small/
robottelo.constants.repos.REPO_DISCOVERY_URL
robottelo.constants.repos.FAKE_0_INC_UPD_URL
robottelo.constants.repos.FAKE_PULP_REMOTE_FILEREPО
robottelo.constants.repos.FAKE_0_YUM_REPO_STRING_BASED VERSIONS =
https://fixtures.pulpproject.org/rpm-string-version-updateinfo/
```

## Package Contents

```
robottelo.constants.LOCALES = ['ca', 'de', 'en', 'en_GB', 'es', 'fr', 'gl', 'it', 'ja',
'ko', 'pt_BR', 'ru', 'sv_SE', 'zh_CN', 'zh_TW']
robottelo.constants.DISTRO_RHEL6 = rhel6
robottelo.constants.DISTRO_RHEL7 = rhel7
robottelo.constants.DISTRO_RHEL8 = rhel8
robottelo.constants.DISTRO_SLES11 = sles11
robottelo.constants.DISTRO_SLES12 = sles12
robottelo.constants.RHEL_6_MAJOR_VERSION = 6
robottelo.constants.RHEL_7_MAJOR_VERSION = 7
robottelo.constants.RHEL_8_MAJOR_VERSION = 8
robottelo.constants.DISTRO_DEFAULT
robottelo.constants.DISTROS_SUPPORTED
robottelo.constants.DISTROS_MAJOR_VERSION
robottelo.constants.MAJOR_VERSION_DISTRO
robottelo.constants.BROKER_DEPLOY_WORKFLOW = deploy-base-rhel
robottelo.constants.BROKER_RHEL77
robottelo.constants.INTERFACE_API = API
robottelo.constants.INTERFACE_CLI = CLI
robottelo.constants.FOREMAN_PROVIDERS
```

```
robottelo.constants.EC2_REGION_CA_CENTRAL_1 = ca-central-1
robottelo.constants.CONTENT_CREDENTIALS_TYPES
robottelo.constants.VIRT_WHO_HYPERVISOR_TYPES
robottelo.constants.LIBVIRT_RESOURCE_URL = qemu+ssh://root@%s/system
robottelo.constants.RHEV_CR = %s (RHV)
robottelo.constants.AWS_EC2_FLAVOR_T2_MICRO = t2.micro - T2 Micro Instance
robottelo.constants.COMPUTE_PROFILE_LARGE = 3-Large
robottelo.constants.COMPUTE_PROFILE_SMALL = 1-Small
robottelo.constants._bcds
robottelo.constants._abcfss
robottelo.constants._abcs
robottelo.constants._zones_combo
robottelo.constants.VALID_GCE_ZONES
robottelo.constants.LATEST_RHEL7_GCE_IMG_UUID = 7726764279310511390
robottelo.constants.GCE_MACHINE_TYPE_DEFAULT = f1-micro
robottelo.constants.GCE_NETWORK_DEFAULT = default
robottelo.constants.GCE_EXTERNAL_IP_DEFAULT = True
robottelo.constants.AZURERM_VALID_REGIONS = ['East Asia', 'Southeast Asia', 'Central US',
'East US', 'East US 2', 'West US', 'North Central...']
robottelo.constants.AZURERM_RHEL7_FT_IMG_URN = marketplace://RedHat:RHEL:7-RAW:latest
robottelo.constants.AZURERM_RHEL7_UD_IMG_URN =
marketplace://RedHat:RHEL:7-RAW-CI:7.6.2019072418
robottelo.constants.AZURERM_RHEL7_FT_BYOS_IMG_URN =
marketplace://RedHat:rhel-byos:rhel-lvm78:7.8.20200410
robottelo.constants.AZURERM_RHEL7_FT_CUSTOM_IMG_URN =
custom://vm1-shared-image-20200514081407
robottelo.constants.AZURERM_RHEL7_FT_GALLERY_IMG_URN = gallery://RHEL77img
robottelo.constants.AZURERM_RG_DEFAULT = SATQE
robottelo.constants.AZURERM_PLATFORM_DEFAULT = Linux
robottelo.constants.AZURERM_VM_SIZE_DEFAULT = Standard_B2ms
robottelo.constants.AZURERM_PREMIUM_OS_Disk = True
robottelo.constants.AZURERM_FILE_URI =
https://raw.githubusercontent.com/SatelliteQE/robottelo/master/tests/foreman/data/uri.sh
robottelo.constants.HTML_TAGS = ['A', 'ABBR', 'ACRONYM', 'ADDRESS', 'APPLET', 'AREA',
'B', 'BASE', 'BASEFONT', 'BDO', 'BIG',...
robottelo.constants.OPERATING_SYSTEMS
robottelo.constants.TEMPLATE_TYPES = ['finish', 'iPXE', 'provision', 'PXEGrub',
'PXELinux', 'script', 'user_data', 'ZTP']
```

```
robottelo.constants.RESOURCE_DEFAULT = Bare Metal
robottelo.constants.OS_TEMPLATE_DATA_FILE = os_template.txt
robottelo.constants.DOMAIN = lab.dom.%s.com
robottelo.constants.PARTITION_SCRIPT_DATA_FILE = partition_script.txt
robottelo.constants.SNIPPET_DATA_FILE = snippet.txt
robottelo.constants.SNIPPET_URL = https://gist.github.com/sghai/8434467/raw
robottelo.constants.INSTALL_MEDIUM_URL =
http://mirror.fakeos.org/%s/$major.$minor/os/$arch
robottelo.constants.VALID_GPG_KEY_FILE = valid_gpg_key.txt
robottelo.constants.ZOO_CUSTOM_GPG_KEY = zoo_custom_gpgkey.txt
robottelo.constants.VALID_GPG_KEY_BETA_FILE = valid_gpg_key_beta.txt
robottelo.constants.KEY_CLOAK_CLI = /opt/rh/rh-sso7/root/usr/share/keycloak/bin/kcadm.sh
robottelo.constants.RPM_TO_UPLOAD = which-2.19-6.el6.x86_64.rpm
robottelo.constants.SRPM_TO_UPLOAD = which-2.19-6.el6.src.rpm
robottelo.constants.ENVIRONMENT = Library
robottelo.constants.NOT_IMPLEMENTED = This is a Manual test!
robottelo.constants.SYNC_INTERVAL
robottelo.constants.REPO_TYPE
robottelo.constants.DOWNLOAD_POLICIES
robottelo.constants.CHECKSUM_TYPE
robottelo.constants.HASH_TYPE
robottelo.constants.REPO_TAB
robottelo.constants.PRDS
robottelo.constants.REPOSET
robottelo.constants.NO_REPOS_AVAILABLE = This system has no repositories available
through subscriptions.
robottelo.constants.SM_OVERALL_STATUS
robottelo.constants.REPOS
robottelo.constants.DISTRO_REPOS
robottelo.constants.RHVA_REPO_TREE = [['rhel', 'rhva6', 'rhva65', 'repo_name', 'Red Hat
Enterprise Virtualization Agents for RHEL 6...']
robottelo.constants.SAT6_TOOLS_TREE = [['rhel', 'rhst6', 'rhst6', 'repo_name', 'Red Hat
Satellite Tools 6.9 for RHEL 6 Server RPMs...']
robottelo.constants.ATOMIC_HOST_TREE = [['rhhah', 'rhaht', 'rhaht', 'repo_name', 'Red Hat
Enterprise Linux Atomic Host Trees'], ['rhhah',...']
robottelo.constants.DEFAULT_ORG = Default Organization
robottelo.constants.DEFAULT_LOC = Default Location
robottelo.constants.DEFAULT_CV = Default Organization View
```

```
robottelo.constants.DEFAULT_TEMPLATE = Kickstart default
robottelo.constants.DEFAULT_PXE_TEMPLATE = Kickstart default PXELinux
robottelo.constants.DEFAULT_ATOMIC_TEMPLATE = Atomic Kickstart default
robottelo.constants.DEFAULT_PTABLE = Kickstart default
robottelo.constants.DEFAULT_SUBSCRIPTION_NAME = Red Hat Enterprise Linux Server, Premium
(Physical or Virtual Nodes)
robottelo.constants.DEFAULT_ARCHITECTURE = x86_64
robottelo.constants.DEFAULT_RELEASE_VERSION = 6Server
robottelo.constants.DEFAULT_ROLE = Default role
robottelo.constants.LANGUAGES
robottelo.constants.SATELLITE_SUBSCRIPTION_NAME = Red Hat Satellite Infrastructure
Subscription
robottelo.constants.SATELLITE_FIREWALL_SERVICE_NAME = RH-Satellite-6
robottelo.constants.VDC_SUBSCRIPTION_NAME = Red Hat Enterprise Linux for Virtual
Datacenters, Premium
robottelo.constants.TIMEZONES = ['(GMT+00:00) UTC', '(GMT-10:00) Hawaii', '(GMT+02:00)
Kyiv', '(GMT+08:00) Hong Kong',...
robottelo.constants.FILTER_CONTENT_TYPE
robottelo.constants.FILTER_TYPE
robottelo.constants.FILTER_ERRATA_TYPE
robottelo.constants.FILTER_ERRATA_DATE
robottelo.constants.REPORT_TEMPLATE_FILE = report_template.txt
robottelo.constants.REP_TEM_APPLIED_ERRATA_INPUT
robottelo.constants.CONTAINER_REGISTRY_HUB = https://mirror.gcr.io
robottelo.constants.CONTAINER_UPSTREAM_NAME = library/busybox
robottelo.constants.CONTAINER_RH_REGISTRY_UPSTREAM_NAME =
openshift3/ose-metrics-hawkular Openshift-agent
robottelo.constants.CUSTOM_LOCAL_FOLDER = /var/www/html/myrepo/
robottelo.constants.CUSTOM_LOCAL_FILE = /var/www/html/myrepo/test.txt
robottelo.constants.CUSTOM_FILE_REPO_FILES_COUNT = 3
robottelo.constants.CUSTOM_RPM_SHA_512_FEED_COUNT
robottelo.constants.CUSTOM_REPODATA_PATH = /var/lib/pulp/published/yum/https/repos
robottelo.constants.CERT_PATH = /etc/pki/ca-trust/source/anchors/
robottelo.constants.FAKE_0_YUM_REPO_PACKAGES_COUNT = 32
robottelo.constants.FAKE_0_INC_UPD_ERRATA = EXA:2015-0002
robottelo.constants.FAKE_0_INC_UPD_OLD_PACKAGE =
pulp-test-package-0.2.1-1.fc11.x86_64.rpm
```

```
robottelo.constants.FAKE_0_INC_UPD_NEW_PACKAGE =
pulp-test-package-0.3.1-1.fc11.x86_64.rpm

robottelo.constants.FAKE_0_INC_UPD_OLD_UPDATEFILE = updateinfo.xml
robottelo.constants.FAKE_0_INC_UPD_NEW_UPDATEFILE = updateinfo_v2.xml
robottelo.constants.INVALID_URL = http://username:password@example.com/repo
robottelo.constants.FAKE_0_CUSTOM_PACKAGE = bear-4.1-1.noarch
robottelo.constants.FAKE_0_CUSTOM_PACKAGE_NAME = bear
robottelo.constants.FAKE_1_CUSTOM_PACKAGE = walrus-0.71-1.noarch
robottelo.constants.FAKE_1_CUSTOM_PACKAGE_NAME = walrus
robottelo.constants.FAKE_2_CUSTOM_PACKAGE = walrus-5.21-1.noarch
robottelo.constants.FAKE_2_CUSTOM_PACKAGE_NAME = walrus
robottelo.constants.FAKE_3_CUSTOM_PACKAGE = duck-0.8-1.noarch
robottelo.constants.FAKE_3_CUSTOM_PACKAGE_NAME = duck
robottelo.constants.FAKE_4_CUSTOM_PACKAGE = kangaroo-0.1-1.noarch
robottelo.constants.FAKE_4_CUSTOM_PACKAGE_NAME = kangaroo
robottelo.constants.FAKE_5_CUSTOM_PACKAGE = kangaroo-0.2-1.noarch
robottelo.constants.REAL_0_RH_PACKAGE = rhevm-sdk-python-3.3.0.21-1.el6ev.noarch
robottelo.constants.REAL_RHEL7_0_0_PACKAGE = python-pulp-common-2.21.0-1.el7sat.noarch
robottelo.constants.REAL_RHEL7_0_0_PACKAGE_NAME = python-pulp-common
robottelo.constants.REAL_RHEL7_0_1_PACKAGE = python-pulp-common-2.21.0.2-1.el7sat.noarch
robottelo.constants.REAL_RHEL7_0_1_PACKAGE_FILENAME =
python-pulp-common-2.21.0.2-1.el7sat.noarch.rpm
robottelo.constants.REAL_RHEL7_0_2_PACKAGE_NAME = python2-psutil
robottelo.constants.REAL_RHEL7_0_2_PACKAGE_FILENAME =
python2-psutil-5.7.2-2.el7sat.x86_64.rpm
robottelo.constants.FAKE_0_CUSTOM_PACKAGE_GROUP_NAME = birds
robottelo.constants.FAKE_3_YUM_OUTDATED_PACKAGES = ['acme-package-1.0.1-1.noarch',
'ant-7.7.5-1.noarch', 'antelope-5.0.7-1.noarch',...
robottelo.constants.FAKE_9_YUM_OUTDATED_PACKAGES = ['bear-4.0-1.noarch',
'crow-0.7-1.noarch', 'duck-0.5-1.noarch', 'gorilla-0.61-1.noarch',...
robottelo.constants.FAKE_9_YUM_UPDATED_PACKAGES = ['bear-4.1-1.noarch',
'crow-0.8-1.noarch', 'duck-0.6-1.noarch', 'gorilla-0.62-1.noarch',...
robottelo.constants.FAKE_0_MODULAR_ERRATA_ID = RHEA-2012:0059
robottelo.constants.FAKE_0_ERRATA_ID = RHEA-2012:0001
robottelo.constants.FAKE_1_ERRATA_ID = RHEA-2012:0002
robottelo.constants.FAKE_2_ERRATA_ID = RHSA-2012:0055
robottelo.constants.FAKE_3_ERRATA_ID = RHEA-2012:3733
robottelo.constants.FAKE_4_ERRATA_ID = WALRUS-2013:0002
```

```
robottelo.constants.FAKE_5_ERRATA_ID = RHBA-2012:1030
robottelo.constants.REAL_0_ERRATA_ID = RHBA-2021:1314
robottelo.constants.REAL_1_ERRATA_ID = RHBA-2016:1357
robottelo.constants.REAL_2_ERRATA_ID = RHEA-2014:0657
robottelo.constants.REAL_4_ERRATA_ID = RHSA-2014:1873
robottelo.constants.REAL_4_ERRATA_CVES = ['CVE-2014-3633', 'CVE-2014-3657',
'CVE-2014-7823']

robottelo.constants.REAL_RHEL7_0_ERRATA_ID = RHBA-2020:3615
robottelo.constants.REAL_RHEL7_1_ERRATA_ID = RHBA-2017:0395
robottelo.constants.FAKE_0_YUM_ERRATUM_COUNT = 4
robottelo.constants.FAKE_1_YUM_ERRATUM_COUNT = 4
robottelo.constants.FAKE_1_YUM_REPOS_COUNT = 32
robottelo.constants.FAKE_2_YUM_ERRATUM_COUNT = 4
robottelo.constants.FAKE_3_YUM_ERRATUM_COUNT = 28
robottelo.constants.FAKE_3_YUM_REPOS_COUNT = 78
robottelo.constants.FAKE_6_YUM_ERRATUM_COUNT = 5
robottelo.constants.FAKE_9_YUM_ERRATUM_COUNT = 5
robottelo.constants.FAKE_9_YUM_ERRATUM = ['RHSA-2012:0055', 'RHSA-2012:0056',
'RHSA-2012:0057', 'RHEA-2012:0058', 'RHBA-2012:1030']
robottelo.constants.FAKE_9_YUM_SECURITY_ERRATUM = ['RHSA-2012:0055', 'RHSA-2012:0056',
'RHSA-2012:0057']

robottelo.constants.FAKE_9_YUM_SECURITY_ERRATUM_COUNT
robottelo.constants.FAKE_10_YUM_BUGFIX_ERRATUM = ['RHBA-2012:1030']
robottelo.constants.FAKE_10_YUM_BUGFIX_ERRATUM_COUNT
robottelo.constants.FAKE_11_YUM_ENHANCEMENT_ERRATUM = ['RHEA-2012:0058']
robottelo.constants.FAKE_11_YUM_ENHANCEMENT_ERRATUM_COUNT
robottelo.constants.PUPPET_MODULE_NTP_PUPPETLABS = puppetlabs-ntp-3.2.1.tar.gz
robottelo.constants.PUPPET_MODULE_CUSTOM_FILE_NAME = puppet_custom_selinux-0.3.1.tar.gz
robottelo.constants.PUPPET_MODULE_CUSTOM_NAME = selinux
robottelo.constants.FAKE_0_CUSTOM_PACKAGE_GROUP = ['cockateel-3.1-1.noarch',
'duck-0.6-1.noarch', 'penguin-0.9.1-1.noarch', 'stork-0.12-2.noarch']
robottelo.constants.FAKE_1_YUM_REPO_RPMS = ['bear-4.1-1.noarch.rpm',
'camel-0.1-1.noarch.rpm', 'cat-1.0-1.noarch.rpm']
robottelo.constants.FAKE_0_PUPPET_MODULE = httpd
robottelo.constants.FAKE_0_YUM_REPO_STRING_BASED VERSIONS COUNTS
robottelo.constants.PULP_PUBLISHED_ISO_REPOS_PATH = /var/lib/pulp/published/http/isos
robottelo.constants.PULP_PUBLISHED_PUPPET_REPOS_PATH =
/var/lib/pulp/published/puppet/https/repos
```

```
robottelo.constants.PULP_PUBLISHED_YUM_REPOS_PATH =
/var/lib/pulp/published/yum/http/repos

robottelo.constants.PERMISSIONS
robottelo.constants.PERMISSIONS_UI
robottelo.constants.ANY_CONTEXT
robottelo.constants.SUBNET_IPAM_TYPES
robottelo.constants.LDAP_SERVER_TYPE
robottelo.constants.LDAP_ATTR
robottelo.constants.OSCAP_PERIOD
robottelo.constants.OSCAP_WEEKDAY
robottelo.constants.OSCAP_DEFAULT_CONTENT
robottelo.constants.OSCAP_PROFILE

robottelo.constants.ROLES = ['Access Insights Admin', 'Access Insights Viewer', 'Ansible
Roles Manager', 'Auditor', 'Boot...']

robottelo.constants.ROLES_UNLOCKED = ['Access Insights Admin', 'Access Insights Viewer',
'Boot disk access', 'Compliance manager', ...]

robottelo.constants.ROLES_LOCKED = ['Discovery Manager', 'Discovery Reader', 'Edit
hosts', 'Edit partition tables', 'Manager', ...]

robottelo.constants.BOOKMARK_ENTITIES

robottelo.constants.STRING_TYPES = ['alpha', 'numeric', 'alphanumeric', 'latin1', 'utf8',
'cjk', 'html']

robottelo.constants.REAL_4_ERRATA_DETAILS = [None, None, ['Type', 'Security Advisory'],
['Severity', 'Moderate'], ['Issued', '11/18/14'], ...]

robottelo.constants.TOOLS_ERRATA_DETAILS = [['Advisory', 'RHBA-2016:1503'], ['CVEs',
'N/A'], ['Type', 'Bug Fix Advisory'], ['Severity', ...]

robottelo.constants.TOOLS_ERRATA_TABLE_DETAILS = ['RHBA-2016:1503', 'Satellite 6.2 Tools
Release', 'Bug Fix Advisory', 'Installable', '7/27/16']

robottelo.constants.BACKUP_FILES = ['config_files.tar.gz', '.config.snar',
'metadata.yml', 'mongo_data.tar.gz', '.mongo.snar', ...]

robottelo.constants.HOT_BACKUP_FILES = ['candlepin.dump', 'config_files.tar.gz',
'.config.snar', 'foreman.dump', 'metadata.yml', ...]

robottelo.constants.VMWARE_CONSTANTS

robottelo.constants.HAMMER_CONFIG = ~/.hammer/cli.modules.d/foreman.yml

robottelo.constants.FOREMAN_TEMPLATE_IMPORT_URL =
https://github.com/SatelliteQE/foreman_templates.git

robottelo.constants.FOREMAN_TEMPLATES_COMMUNITY_URL =
https://github.com/theforeman/community-templates.git

robottelo.constants.FOREMAN_TEMPLATE_TEST_TEMPLATE = https://raw.githubusercontent.com/
SatelliteQE/foreman_templates/example/example_template.erb

robottelo.constants.FOREMAN_TEMPLATE_ROOT_DIR = /usr/share/foreman_templates
```

---

```

robottelo.constants.DEFAULT_SYSPURPOSE_ATTRIBUTES
robottelo.constants.OPEN_STATUSES = ['NEW', 'ASSIGNED', 'POST', 'MODIFIED']
robottelo.constants.CLOSED_STATUSES = ['ON_QA', 'VERIFIED', 'RELEASE_PENDING', 'CLOSED']
robottelo.constants.WONTFIX_RESOLUTIONS = ['WONTFIX', 'CANTFIX', 'DEFERRED']
robottelo.constants.GROUP_MEMBERSHIP_MAPPER
robottelo.constants.AUDIENCE_MAPPER
robottelo.constants.RHSSO_NEW_USER
robottelo.constants.RHSSO_USER_UPDATE
robottelo.constants.RHSSO_NEW_GROUP
robottelo.constants.RHSSO_RESET_PASSWORD
robottelo.constants.FOREMAN_ANSIBLE_MODULES = ['foreman_architecture',
'foreman_auth_source_ldap', 'foreman_bookmark',...
robottelo.constants.FAM_MODULE_PATH =
/usr/share/ansible/collections/ansible_collections/redhat/satellite/plugins/modules

```

## robottelo.decorators

Implements various decorators

### Subpackages

[robottelo.decorators.func\\_shared](#)

### Submodules

[robottelo.decorators.func\\_shared.base](#)

### Module Contents

#### Classes

---

##### *BaseStorageHandler*

---

**class robottelo.decorators.func\_shared.base.BaseStorageHandler**

**static encode(data)**

**static decode(data)**

**abstract lock(self, lock\_key)**

Return the storage locker context manager

**abstract when\_lock\_acquired(self, data)**

called when the lock is acquired to do some added action

**abstract** `get(self, key)`

Return the key value

**abstract** `set(self, key, value)`

Write the value of key to storage

`robottelo.decorators.func_shared.file_storage`

## Module Contents

### Classes

---

<code>FileStorageHandler</code>	Key value file storage handler.
---------------------------------	---------------------------------

---

### Functions

---

`get_temp_dir()`

---

`_get_root_dir(create=True)`

---

### Attributes

---

`TEMP_ROOT_DIR`

---

`TEMP_FUNC_SHARED_DIR`

---

`SHARED_DIR`

---

`logger`

---

`LOCK_TIMEOUT`

---

`robottelo.decorators.func_shared.file_storage.TEMP_ROOT_DIR = robottelo`

`robottelo.decorators.func_shared.file_storage.TEMP_FUNC_SHARED_DIR = shared_functions`

`robottelo.decorators.func_shared.file_storage.SHARED_DIR`

`robottelo.decorators.func_shared.file_storage.logger`

`robottelo.decorators.func_shared.file_storage.LOCK_TIMEOUT = 7200`

`robottelo.decorators.func_shared.file_storage.get_temp_dir()`

`robottelo.decorators.func_shared.file_storage._get_root_dir(create=True)`

---

```
class robottelo.decorators.func_shared.file_storage.FileStorageHandler(root_dir=None,
create=True,
lock_timeout=LOCK_TIMEOUT)
```

Bases: *robottelo.decorators.func\_shared.base.BaseStorageHandler*

Key value file storage handler.

```
property root_dir(self)
get_key_file_path(self, key)
lock(self, key)
    Return the storage locker context manager
when_lock_acquired(self, handler)
    Write the process id to file handler
get(self, key)
    Return the key value :type key: str
set(self, key, value)
    Write the value of key
```

## robottelo.decorators.func\_shared.redis\_storage

### Module Contents

#### Classes

---

<i>RedisStorageHandler</i>	Redis Key value storage handler
----------------------------	---------------------------------

---

#### Attributes

---

*redis*

---

*REDIS\_HOST*

---

*REDIS\_PORT*

---

*REDIS\_DB*

---

*REDIS\_PASSWORD*

---

*LOCK\_TIMEOUT*

---

robottelo.decorators.func\_shared.redis\_storage.**redis**

robottelo.decorators.func\_shared.redis\_storage.**REDIS\_HOST** = localhost

robottelo.decorators.func\_shared.redis\_storage.**REDIS\_PORT** = 6379

```

robottelo.decorators.func_shared.redis_storage.REDIS_DB = 0
robottelo.decorators.func_shared.redis_storage.REDIS_PASSWORD
robottelo.decorators.func_shared.redis_storage.LOCK_TIMEOUT = 7200
class robottelo.decorators.func_shared.redis_storage.RedisStorageHandler(host=REDIS_HOST,
port=REDIS_PORT,
db=REDIS_DB,
pass-
word=REDIS_PASSWORD,
lock_timeout=LOCK_TIMEOUT)
Bases: robottelo.decorators.func_shared.base.BaseStorageHandler

Redis Key value storage handler

property client(self)
lock(self, key, timeout=None)
    Return the storage locker context manager
when_lock_acquired(self, lock_object)
    called when the lock is acquired to do some added action
get(self, key)
    Return the key value

set(self, key, value)
    Write the value of key

```

## robottelo.decorators.func\_shared.shared

Shared function is a decorator, that enable a function once called to store the results to storage, any ulterior call from the same or other processes will return the stored results, which make the shared function results persistent.

**Note:** Shared function store it's data as json. The results of the decorated function must be json compatible.

Usage:

```

from robottelo.decorators.func_shared.shared import shared

@shared
def module_level_shared(*args, **kwargs):
    # do some
    # the result of a shared function must be json compatible
    return any_data

class SomeTestCase1(TestCase):

    @shared
    def _shared_function(cls):

        org = make_org()
        # upload manifest
        repo = make_repository()

```

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```

    return dict(org=org, repo=repo}

@classmethod
@shared
def setUpClass(cls):

    data = cls._shared_function()
    other_data = module_level_shared()

    cls.org = data['org']
    cls.repo = data['repo']
    return

# the shared function can be called an other time to be able to initiate
# specific data

class SomeTestCase2(TestCase):

    @classmethod
    @shared(inject=True, injected_kw='Injected')
    def setUpClass(cls, org=None, repo=None, _injected=False):

        if _injected:
            cls.org = org
            cls.repo = repo
        else:
            # create the org
            cls.org = make_org()
            # upload manifest
            cls.repo = make_repository()

        # create a virtual machine

        # shared function with inject=True, must return a dict
        # the resulting dictionary will be injected in other calls as
        # kwargs, an added bool kw argument by default named _injected
        # should be added to the function kwargs, to be able to be notified
        # that the kwargs are injected from already stored result
        return dict(org=cls.org, repo=cls.repo}

# in case we do not want the injected key word in kwargs
# simply , declare injected_kw=None
@classmethod
@shared(inject=True, injected_kw=None)
def shared_class_method(cls, org=None, repo=None):
    if org is not None:
        cls.org = org
    else:
        # create the org
        cls.org = make_org()
        # upload manifest
    if repo_id is not None:

```

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```

    cls.repo = repo
else:
    cls.repo = make_repository()

# create a virtual machine

return dict(org=cls.org, repo=cls.repo}

```

## Module Contents

### Classes

<code>_SharedFunction</code>	Internal class helper that is created each time the shared function is
------------------------------	--

### Functions

`_set_configured(value)``_check_config()`

<code>enable_shared_function(value)</code>	force and override settings, by setting the global use shared data
--	--

<code>set_default_scope(value)</code>	Set the default namespace scope
---------------------------------------	---------------------------------

<code>_get_default_scope()</code>	Return the shared function default scope
-----------------------------------	--

<code>_get_default_storage_handler()</code>	Return the storage handler instance
---	-------------------------------------

<code>_get_kwargs_md5(**kwargs)</code>	Create an md5 hexdigest from kwargs
--	-------------------------------------

<code>_get_scope_name(scope=None, scope_kwargs=None, scope_context=None)</code>	Return a string representation of the function as
---	---

<code>_get_function_name(function, class_name=None, kwargs=None)</code>	kwargs=None)
---	--------------

<code>_get_function_name_key(function_name, scope=None, scope_kwargs=None, scope_context=None)</code>	scope_kwargs=None,
---	--------------------

<code>shared(function_=None, scope=_get_default_scope, scope_context=None, scope_kwargs=None, timeout=SHARE_DEFAULT_TIMEOUT, tries=DEFAULT_CALL_RETRIES, function_kw=None, inject=False, injected_kw='Injected')</code>	Generic function sharing, share the results of any decorated function.
---	--

## Attributes

---

`logger`  
`_storage_handlers`  
`DEFAULT_STORAGE_HANDLER`  
`ENABLED`  
`NAMESPACE_SCOPE`  
`SHARE_DEFAULT_TIMEOUT`  
`DEFAULT_CALL_RETRIES`  
`_configured`  
`_NAMESPACE_SCOPE_KEY_TYPE`  
`_DEFAULT_CLASS_NAME_DEPTH`  
`_STATE_READY`  
`_STATE_FAILED`  
`_DATETIME_FORMAT`  
`_SERVER_CERT_MD5`

---

```
robottelo.decorators.func_shared.shared.logger
robottelo.decorators.func_shared.shared._storage_handlers
robottelo.decorators.func_shared.shared.DEFAULT_STORAGE_HANDLER = file
robottelo.decorators.func_shared.shared.ENABLED = False
robottelo.decorators.func_shared.shared.NAMESPACE_SCOPE
robottelo.decorators.func_shared.shared.SHARE_DEFAULT_TIMEOUT = 86400
robottelo.decorators.func_shared.shared.DEFAULT_CALL_RETRIES = 2
robottelo.decorators.func_shared.shared._configured = False
robottelo.decorators.func_shared.shared._NAMESPACE_SCOPE_KEY_TYPE = shared_function
robottelo.decorators.func_shared.shared._DEFAULT_CLASS_NAME_DEPTH = 3
robottelo.decorators.func_shared.shared._STATE_READY = READY
robottelo.decorators.func_shared.shared._STATE_FAILED = FAILED
robottelo.decorators.func_shared.shared._DATETIME_FORMAT = %Y-%m-%dT%H:%M:%S
robottelo.decorators.func_shared.shared._SERVER_CERT_MD5
```

```
robottelo.decorators.func_shared.shared._set_configured(value)
robottelo.decorators.func_shared.shared._check_config()
robottelo.decorators.func_shared.shared.enable_shared_function(value)
    force and override settings, by setting the global use shared data attribute
robottelo.decorators.func_shared.shared.set_default_scope(value)
    Set the default namespace scope :type value: str or callable
robottelo.decorators.func_shared.shared._get_default_scope()
    Return the shared function default scope
robottelo.decorators.func_shared.shared._get_default_storage_handler()
    Return the storage handler instance
exception robottelo.decorators.func_shared.shared.SharedFunctionError
    Bases: Exception
    Shared function related exception
exception robottelo.decorators.func_shared.shared.SharedFunctionException
    Bases: Exception
    Shared function call exception when not able to restore the original exception
class robottelo.decorators.func_shared.shared._SharedFunction(function_key, function, args=None,
    kwargs=None, retries=DEFAULT_CALL_RETRIES,
    storage_handler=None, timeout=SHARE_DEFAULT_TIMEOUT,
    inject=False,
    injected_kw='inject')
    Internal class helper that is created each time the shared function is launched and group all the necessary functionality
    property storage(self)
    property key(self)
    property transaction(self)
    _encode_result_kwargs(self, kwargs)
        look for some special kwargs and convert them
    _call_function(self)
    _has_result_expired(self, creation_datetime)
    __call__(self)
robottelo.decorators.func_shared.shared._get_kwargs_md5(**kwargs)
    Create an md5 hexdigest from kwargs
robottelo.decorators.func_shared.shared._get_scope_name(scope=None, scope_kwargs=None,
    scope_context=None)
robottelo.decorators.func_shared.shared._get_function_name(function, class_name=None,
    kwargs=None)
    Return a string representation of the function as module_path.Class_name.function_name
    note: the class name is the first parent class
```

```
robottelo.decorators.func_shared.shared._get_function_name_key(function_name, scope=None,
                                                               scope_kwargs=None,
                                                               scope_context=None)

robottelo.decorators.func_shared.shared(function_=None, scope=_get_default_scope,
                                         scope_context=None, scope_kwargs=None,
                                         timeout=SHARE_DEFAULT_TIMEOUT,
                                         retries=DEFAULT_CALL_RETRIES,
                                         function_kw=None, inject=False,
                                         injected_kw='Injected')
```

Generic function sharing, share the results of any decorated function. Any parallel pytest xdist worker will wait for this function to finish

#### Parameters

- **function (callable)** – the function that is intended to be shared
- **scope (str or callable)** – this parameter will define the namespace of data sharing
- **scope\_context (str)** – an added context string if applicable, of a concrete sharing in combination with scope and function.
- **scope\_kwargs (dict)** – kwargs to be passed to scope if is a callable
- **timeout (int)** – the time in seconds to wait for waiting the shared function
- **retries (int)** – if the shared function call fail, how much time should retry before setting the call with in failure state
- **function\_kw (list)** – The function kwargs to use as an additional scope, an md5 hexdigest of that kwargs will be created and added to the storage scope, that way we should have different stored values for different kw values.
- **inject (bool)** – whether to recall the function with injecting the result as \*\*kwargs
- **injected\_kw (str)** – the kw arg to set to True to inform the function that the kwargs was injected from a saved storage

#### Package Contents

**exception** robottelo.decorators.func\_shared.SharedFunctionError

Bases: Exception

Shared function related exception

**exception** robottelo.decorators.func\_shared.SharedFunctionException

Bases: Exception

Shared function call exception when not able to restore the original exception

## Submodules

### robottelo.decorators.func\_locker

Implements test function locking, using pytest\_services file locking

Usage:

```
from robottelo.decorators.func_locker import (
    locking_function,
    lock_function,
)

# in many cases we have tests that need some test functions to run isolated
# from other py.test workers when used in --boxed mode
class SomeTestCase(TestCase):

    @classmethod
    @lock_function
    def setUpClass(cls):
        pass

# in other cases we want only a portion of the test function to be isolated
class SomeTestCase(TestCase):

    @classmethod
    def setUpClass(cls):

        with locking_function(cls.setUpClass,
                             scope_context='publish_puppet_class'):
            # call the publish function

# some tests can be in conflicts with other tests parts
class SomeTestCase(TestCase):

    @lock_function
    def test_to_lock(self):
        pass

    def test_that_conflict_with_test_to_lock(self):
        with locking_function(self.test_to_lock):
            # do some operations that conflict with test_to_lock
```

## Module Contents

### Functions

<code>set_default_scope(value)</code>	Set the default namespace scope
<code>_get_default_scope()</code>	
<code>get_temp_dir()</code>	
<code>_get_temp_lock_function_dir(create=True)</code>	
<code>_get_scope_path(scope, scope_kwargs=None, scope_context=None, create=True)</code>	Returns the scopes path and create it if create is true
<code>_get_function_name(function, class_name=None)</code>	Return a string representation of the function as
<code>_get_function_name_lock_path(function_name, scope=None, scope_kwargs=None, scope_context=None)</code>	Return the path of the file to lock
<code>_check_deadlock(lock_file_path, process_id)</code>	To prevent process deadlock, raise exception if the file content is the
<code>_write_content(handler, content)</code>	write content to locked file
<code>lock_function(function=None, scope=_get_default_scope, scope_context=None, scope_kwargs=None, time-out=LOCK_DEFAULT_TIMEOUT)</code>	Generic function locker, lock any decorated function. Any parallel
<code>locking_function(function, scope=_get_default_scope, scope_context=None, scope_kwargs=None, time-out=LOCK_DEFAULT_TIMEOUT)</code>	Lock a function in combination with a scope and scope_context.

### Attributes

<code>logger</code>
<code>TEMP_ROOT_DIR</code>
<code>TEMP_FUNC_LOCK_DIR</code>
<code>LOCK_DIR</code>
<code>LOCK_DEFAULT_TIMEOUT</code>
<code>LOCK_FILE_NAME_EXT</code>
<code>LOCK_DEFAULT_SCOPE</code>
<code>_DEFAULT_CLASS_NAME_DEPTH</code>
<code>robottelo.decorators.func_locker.logger</code>

```
robottelo.decorators.func_locker.TEMP_ROOT_DIR = robottelo
robottelo.decorators.func_locker.TEMP_FUNC_LOCK_DIR = lock_functions
robottelo.decorators.func_locker.LOCK_DIR
robottelo.decorators.func_locker.LOCK_DEFAULT_TIMEOUT = 1800
robottelo.decorators.func_locker.LOCK_FILE_NAME_EXT = lock
robottelo.decorators.func_locker.LOCK_DEFAULT_SCOPE
robottelo.decorators.func_locker._DEFAULT_CLASS_NAME_DEPTH = 3
exception robottelo.decorators.func_locker.FunctionLockerError
Bases: Exception

the default function locker error

robottelo.decorators.func_locker.set_default_scope(value)
Set the default namespace scope

robottelo.decorators.func_locker._get_default_scope()
robottelo.decorators.func_locker.get_temp_dir()
robottelo.decorators.func_locker._get_temp_lock_function_dir(create=True)
robottelo.decorators.func_locker._get_scope_path(scope, scope_kwargs=None, scope_context=None,
                                               create=True)
>Returns the scopes path and create it if create is true

robottelo.decorators.func_locker._get_function_name(function, class_name=None)
Return a string representation of the function as module_path.Class_name.function_name
note: the class name is the first parent class

robottelo.decorators.func_locker._get_function_name_lock_path(function_name, scope=None,
                                                               scope_kwargs=None,
                                                               scope_context=None)
>Return the path of the file to lock

robottelo.decorators.func_locker._check_deadlock(lock_file_path, process_id)
To prevent process deadlock, raise exception if the file content is the same as process_id
note: this function is called before the lock

robottelo.decorators.func_locker._write_content(handler, content)
write content to locked file

robottelo.decorators.func_locker.lock_function(function=None, scope=_get_default_scope,
                                              scope_context=None, scope_kwargs=None,
                                              timeout=LOCK_DEFAULT_TIMEOUT)
```

**Generic function locker, lock any decorated function. Any parallel** pytest xdist worker will wait for this function to finish

#### Parameters

- **function (callable)** – the function that is intended to be locked

- **scope** (*str or callable*) – this parameter will define the namespace of locking
- **scope\_context** (*str*) – an added context string if applicable, of a concrete lock in combination with scope and function.
- **scope\_kwargs** (*dict*) – kwargs to be passed to scope if is a callable
- **timeout** (*int*) – the time in seconds to wait for acquiring the lock

```
robottelo.decorators.func_locker.locking_function(function, scope=_get_default_scope,
                                                scope_context=None, scope_kwargs=None,
                                                timeout=LOCK_DEFAULT_TIMEOUT)
```

Lock a function in combination with a scope and scope\_context. Any parallel pytest xdist worker will wait for this function to finish.

#### Parameters

- **function** (*callable*) – the function that is intended to be locked
- **scope** (*str or callable*) – this parameter will define the namespace of locking
- **scope\_context** (*str*) – an added context string if applicable, of a concrete lock in combination with scope and function.
- **scope\_kwargs** (*dict*) – kwargs to be passed to scope if is a callable
- **timeout** (*int*) – the time in seconds to wait for acquiring the lock

## robottelo.decorators.host

Implements decorator regarding satellite host

### Module Contents

#### Functions

<code>skip_if_os(*versions)</code>	Decorator to skip tests based on host version
------------------------------------	---

#### Attributes

<code>LOGGER</code>
---------------------

## robottelo.decorators.host.LOGGER

### robottelo.decorators.host.skip\_if\_os(\*versions)

Decorator to skip tests based on host version

If the calling function uses ‘RHEL6’ - test will be skipped for RHEL6, but will run for whatever another version, e.g., RHEL5, RHEL6.1, RHEL7, and so on

Note: If the version can’t be obtained, tests will run

Usage:

To skip a specific test:

```
from robottelo.decorators.host import skip_if_host_is

@skip_if_os('RHEL6')
def test_hostgroup_create():
    # test code continues here
```

**Parameters** `versions` (`tuple`) – args containing host versions for which test must be skipped

**Returns** `unittest2.skipIf`

## Package Contents

### Functions

---

<code>cacheable(func)</code>	Decorator that makes an optional object cache available
------------------------------	---

---

### Attributes

---

`LOGGER`

---

`OBJECT_CACHE`

---

`robottelo.decorators.LOGGER`

`robottelo.decorators.OBJECT_CACHE`

`robottelo.decorators.cacheable(func)`

Decorator that makes an optional object cache available

`robottelo.report_portal`

### Submodules

`robottelo.report_portal.portal`

### Module Contents

#### Classes

---

<code>ReportPortal</code>	Represents ReportPortal
---------------------------	-------------------------

---

`Launch`

---

## Attributes

---

`LOGGER`

---

`launch_types`

---

`robottelo.report_portal.portal.LOGGER`

`robottelo.report_portal.portal.launch_types = ['satellite6', 'upgrades']`

`class robottelo.report_portal.portal.ReportPortal`

Represents ReportPortal

This holds the properties and functions to interact with Report Portal properties and launches

`defect_types`

`statuses = ['failed', 'passed', 'skipped', 'interrupted', 'in_progress']`

`property api_url(self)`

Super url of report portal :returns: Base url for API request

`property headers(self)`

The headers for Report Portal Requests. :returns: header for API request

`_format_launches(self, launches)`

The pretty formatter function that formats launches in a structured way

**Parameters** `launches (filter)` – Satellite or Upgrade Type launches

**Returns dict** Launches, keyed with their snap\_versions formatted as,  
`{'snap_version1':launch_object1, 'snap_version2': launch_object2}`

`_launch_requester(self)`

The launch GET requester to fetch the all available launches of ReportPortal

**Returns dict** The json of all RP launches

`launches(self, sat_version=None, launch_type='satellite6')`

Returns launches in Report Portal customized by sat\_version, launch\_type and latest number of launches sorted by latest sat version/snap version.

This does not includes each tests data for all tests in all launches, but it includes just an overview data for all and each launch in Report Portal

**Parameters**

- `sat_version (str)` – The satellite version If its not specified, then latest count of launches of satellite versions returned
- `launch_type (str)` – Either satellite6 or upgrades, default returns only non-upgrade launches

**Returns dict** The launches of Report portal. if sat\_version is given,  
`{'snap_version1':launch_object1, 'snap_version2':launch_object2}'`  
else,  
`'{sat_version1:{'snap_version1':launch_object1, ...}, 'sat_version2':{}}'`

`launch(self, sat_version, snap_version=None, launch_type='satellite6')`

Returns a specific launch data in Report Portal Project

This does not includes each tests data in launch

## Parameters

- **sat\_version (str)** – The satellite version
- **snap\_version (str)** – The snap version of a given satellite version if None, the latest launch data of a given sat\_version is returned
- **launch\_type (str)** – Either satellite6 or upgrades, default returns only non-upgrade launches

**Returns dict** The data directory of requested or latest launch

```
class robottelo.report_portal.portal.Launch(rp, launch_info)
```

### **\_versions(self)**

Sets satellite and snap version attributes of a launch

### **\_test\_params(self, status, defect\_type, user)**

Customise parameters for Test items API request

**Returns dict** The parameters dict for API test items request

### **\_test\_requester(self, params, page)**

The Test Items GET requester to fetch the data on a page

If any error and before Failing explicitly, it retries for 3 times with 10 seconds delay

**Returns tuple (int, list)** Total pages count and the list of tests along with each tests properties in a page

### **tests(self, status=None, defect\_type=None, user=None)**

Returns tests data customized by kwargs parameters.

This is a main function that will be called to retrieve the tests data of a particular test status or/and defect\_type

## Parameters

- **status (str)** – Filter tests of a launch with tests *status*
- **defect\_type (str)** – Filter tests of a launch with tests *defect\_type*

**Returns dict** All filtered tests dict based on params data keyed by test name and test properties as value, in format - `{'test\_name1':test1\_properties\_dict, 'test\_name2':test2\_properties\_dict}`

**robottelo.ui**

## Submodules

**robottelo.ui.utils**

## Module Contents

## Functions

---

```
create_fake_host(session, host, interface_id=gen_string('alpha'),
                 global_parameters=None,
                 host_parameters=None, extra_values=None)
```

---

```
robottelo.ui.utils.create_fake_host(session, host, interface_id=gen_string('alpha'),
                                    global_parameters=None, host_parameters=None,
                                    extra_values=None)
```

## robottelo.utils

### Subpackages

#### robottelo.utils.issue\_handlers

### Submodules

#### robottelo.utils.issue\_handlers.bugzilla

### Module Contents

### Functions

<code>is_open_bz(issue, data=None)</code>	Check if specific BZ is open consulting a cached <i>data</i> dict or
<code>should_deselect_bz(issue, data=None)</code>	Check if test should be deselected based on marked issue.
<code>follow_duplicates(bz)</code>	Recursively load the duplicate data
<code>extract_min_version(bz)</code>	return target_milestone or min(versions flags) or 0
<code>try_from_cache(issue, data=None)</code>	Try to fetch issue from given data cache or previous loaded on pytest.
<code>collect_data_bz(collected_data, cached_data)</code>	Collect data from Bugzilla API and aggregate in a dictionary.
<code>collect_dupes(bz, collected_data, cached_data=None)</code>	Recursively find for duplicates
<code>collect_clones(bz, collected_data, cached_data=None)</code>	Recursively find for clones.
<code>get_data_bz(bz_numbers, cached_data=None)</code>	Get a list of marked BZ data and query Bugzilla REST API.
<code>get_single_bz(number, cached_data=None)</code>	Call BZ API to get a single BZ data and cache it
<code>get_default_bz(number)</code>	This is the default BZ data when it is not possible to reach BZ api

## Attributes

---

`LOGGER`

---

`VERSION_RE`

---

`CACHED_RESPONSES`

---

`robottelo.utils.issue_handlers.bugzilla.LOGGER`

`robottelo.utils.issue_handlers.bugzilla.VERSION_RE`

`robottelo.utils.issue_handlers.bugzilla.is_open_bz(issue, data=None)`

Check if specific BZ is open consulting a cached `data` dict or calling Bugzilla REST API.

**Arguments:** `issue` {str} – The BZ reference e.g: BZ:123456 `data` {dict} – Issue data indexed by <handler>:<number> or None

`robottelo.utils.issue_handlers.bugzilla.should_deselect_bz(issue, data=None)`

Check if test should be deselected based on marked issue.

1. Resolution WONTFIX/CANTFIX/DEFERRED should deselect

**Arguments:** `issue` {str} – The BZ reference e.g: BZ:123456 `data` {dict} – Issue data indexed by <handler>:<number> or None

`robottelo.utils.issue_handlers.bugzilla.follow_duplicates(bz)`

Recursively load the duplicate data

`robottelo.utils.issue_handlers.bugzilla.extract_min_version(bz)`

return target\_milestone or min(versions flags) or 0

`robottelo.utils.issue_handlers.bugzilla.try_from_cache(issue, data=None)`

Try to fetch issue from given data cache or previous loaded on pytest.

**Arguments:** `issue` {str} – The BZ reference e.g: BZ:123456 `data` {dict} – Issue data indexed by <handler>:<number> or None

`robottelo.utils.issue_handlers.bugzilla.collect_data_bz(collected_data, cached_data)`

Collect data from BUGzilla API and aggregate in a dictionary.

**Arguments:** `collected_data` {dict} – dict with BZs collected by pytest `cached_data` {dict} – Cached data previously loaded from API

`robottelo.utils.issue_handlers.bugzilla.collect_dupes(bz, collected_data, cached_data=None)`

Recursively find for duplicates

`robottelo.utils.issue_handlers.bugzilla.collect_clones(bz, collected_data, cached_data=None)`

Recursively find for clones. This handler does not process clones as part of skipping logic. but the data is fetched here to feed nagger script later.

`robottelo.utils.issue_handlers.bugzilla.CACHED_RESPONSES`

`robottelo.utils.issue_handlers.bugzilla.get_data_bz(bz_numbers, cached_data=None)`

Get a list of marked BZ data and query Bugzilla REST API.

**Arguments:** `bz_numbers` {list of str} – ['123456', ...] `cached_data`

**Returns:** [list of dicts] – [{‘id’:..., ‘status’:..., ‘resolution’: ...}]

---

`robottelo.utils.issue_handlers.bugzilla.get_single_bz(number, cached_data=None)`

Call BZ API to get a single BZ data and cache it

`robottelo.utils.issue_handlers.bugzilla.get_default_bz(number)`

This is the default BZ data when it is not possible to reach BZ api

## Package Contents

### Functions

<code>add_workaround(data, matches, usage, validation=lambda *a, **k: True, **kwargs)</code>	Adds entry for workaround usage.
<code>should_deselect(issue, data=None)</code>	Check if test should be deselected based on marked issue.
<code>is_open(issue, data=None)</code>	Check if specific issue is open.

### Attributes

---

`handler_methods`

---

`SUPPORTED_HANDLERS`

---

`robottelo.utils.issue_handlers.handler_methods`

`robottelo.utils.issue_handlers.SUPPORTED_HANDLERS`

`robottelo.utils.issue_handlers.add_workaround(data, matches, usage, validation=lambda *a, **k: ..., **kwargs)`

Adds entry for workaround usage.

`robottelo.utils.issue_handlers.should_deselect(issue, data=None)`

Check if test should be deselected based on marked issue.

`robottelo.utils.issue_handlers.is_open(issue, data=None)`

Check if specific issue is open.

Issue must be prefixed by its handler e.g:

Bugzilla: BZ:123456

**Arguments:** `issue` {str} – A string containing handler + number e.g: `BZ:123465` `data` {dict} – Issue data indexed by <handler>:<number> or None

## Submodules

`robottelo.utils.version`

### Module Contents

#### Classes

<code>VersionEncoder</code>	Transform Version instances to str
-----------------------------	------------------------------------

#### Functions

<code>search_version_key(key, value)</code>	recursively look for ‘version’ key and transform it in a Version instance
---	---

`robottelo.utils.version.search_version_key(key, value)`  
recursively look for ‘version’ key and transform it in a Version instance

`class robottelo.utils.version.VersionEncoder(*, skipkeys=False, ensure_ascii=True,  
check_circular=True, allow_nan=True, sort_keys=False,  
indent=None, separators=None, default=None)`

Bases: `json.JSONEncoder`

Transform Version instances to str

`default(self, o)`

Implement this method in a subclass such that it returns a serializable object for `o`, or calls the base implementation (to raise a `TypeError`).

For example, to support arbitrary iterators, you could implement `default` like this:

```
def default(self, o):  
    try:  
        iterable = iter(o)  
    except TypeError:  
        pass  
    else:  
        return list(iterable)  
    # Let the base class default method raise the TypeError  
    return JSONEncoder.default(self, o)
```

## Submodules

### `robottelo.cleanup`

Cleanup module for different entities

## Module Contents

### Functions

<code>capsule_cleanup(proxy_id=None)</code>	Deletes the capsule with the given id
<code>realm_cleanup(realm_id=None)</code>	Deletes the realm with the given id
<code>location_cleanup(loc_id=None)</code>	Deletes the location with the given id
<code>org_cleanup(org_id=None)</code>	Deletes the Org with the given id
<code>host_cleanup(host_id=None)</code>	Deletes the Host with the given id
<code>setting_cleanup(setting_name=None, setting_value=None)</code>	Put necessary value for a specified setting
<code>vm_cleanup(vm)</code>	Destroys virtual machine
<code>cleanup_of_provisioned_server(hostname=None, provisioning_server=None, distro=None)</code>	Cleanup the VM from provisioning server

### Attributes

---

#### `LOGGER`

---

#### `robottelo.cleanup.LOGGER`

##### `robottelo.cleanup.capsule_cleanup(proxy_id=None)`

Deletes the capsule with the given id

##### `robottelo.cleanup.realm_cleanup(realm_id=None)`

Deletes the realm with the given id

##### `robottelo.cleanup.location_cleanup(loc_id=None)`

Deletes the location with the given id

##### `robottelo.cleanup.org_cleanup(org_id=None)`

Deletes the Org with the given id

##### `robottelo.cleanup.host_cleanup(host_id=None)`

Deletes the Host with the given id

##### `robottelo.cleanup.setting_cleanup(setting_name=None, setting_value=None)`

Put necessary value for a specified setting

##### `robottelo.cleanup.vm_cleanup(vm)`

Destroys virtual machine

**Parameters** `vm` (`robottelo.vm.VirtualMachine`) – virtual machine to destroy

`robottelo.cleanup.cleanup_of_provisioned_server(hostname=None, provisioning_server=None, distro=None)`

Cleanup the VM from provisioning server

**Param** str hostname: The content host hostname

**Param** str provisioning\_server: provision server name

**Param** str distro: distro type

## robottelo.datafactory

Data Factory for all entities

### Module Contents

#### Functions

<code>filtered_datapoint(func)</code>	Overrides the data creator functions in this class to return 1 value and
<code>parametrized(data)</code>	Transforms data dictionary to pytest's parametrize acceptable format.
<code>generate_strings_list(length=None, exclude_types=None, min_length=3, max_length=30)</code>	Generates a list of different input strings.
<code>add_uppercase_char_into_string(text=None, length=10)</code>	Fix string to include a minimum of one uppercase character.
<code>invalid_emails_list()</code>	Returns a list of invalid emails.
<code>invalid_boolean_strings(list_len=10)</code>	Create a list of invalid booleans. E.g not true nor false
<code>xdist_adapter(argvalues)</code>	Adapter to avoid error when running tests on xdist
<code>invalid_id_list()</code>	Generates a list of invalid IDs.
<code>invalid_names_list()</code>	Generates a list of invalid names.
<code>valid_domain_names(interface=None, length=None)</code>	Valid domain names.
<code>invalid_domain_names(interface=None)</code>	Invalid domain names.
<code>invalid_usernames_list()</code>	
<code>invalid_values_list(interface=None)</code>	Generates a list of invalid input values.
<code>valid_data_list(interface=None)</code>	Generates a list of valid input values.
<code>valid_docker_repository_names()</code>	Generates a list of valid names for Docker repository.
<code>valid_emails_list()</code>	Returns a list of valid emails.
<code>valid_environments_list()</code>	Returns a list of valid environment names
<code>invalid_environments_list()</code>	Returns a list of invalid environment names
<code>valid_hosts_list(domain_length=10)</code>	Generates a list of valid host names.
<code>valid_hostgroups_list()</code>	Generates a list of valid host group names.
<code>valid_labels_list()</code>	Generates a list of valid labels.
<code>valid_names_list()</code>	Generates a list of valid names.
<code>valid_org_names_list()</code>	Generates a list of valid organization names.
<code>valid_usernames_list()</code>	Returns a list of valid user names.
<code>valid_interfaces_list()</code>	Generates a list of valid host interface names.
<code>invalid_interfaces_list()</code>	Generates a list of invalid host interface names.
<code>valid_http_credentials(url_encoded=False)</code>	Returns a list of valid credentials for HTTP authentication

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<code>invalid_http_credentials(url_encoded=False)</code>	Returns a list of invalid credentials for HTTP authentication
<code>invalid_docker_upstream_names()</code>	Return a list of various kinds of invalid strings for Docker
<code>valid_docker_upstream_names()</code>	Return a list of various kinds of valid strings for Docker repositories.
<code>valid_url_list()</code>	
<code>valid_cron_expressions()</code>	Returns a list of valid cron expressions

**exception** `robottelo.datafactory.InvalidArgumentError`Bases: `Exception`

Indicates an error when an invalid argument is received.

**robottelo.datafactory.filtered\_datapoint(func)**

Overrides the data creator functions in this class to return 1 value and transforms data dictionary to pytest's parametrize acceptable format for new style generators.

If `run_one_datapoint=false`, return the entire data set. (default: False) If `run_one_datapoint=true`, return a random data.**robottelo.datafactory.parametrized(data)**

Transforms data dictionary to pytest's parametrize acceptable format. Generates parametrized test names from data dict keys.

**Parameters** `data (dict)` – dictionary with parametrized test names as dict keys and parametrized arguments as dict values

**robottelo.datafactory.generate\_strings\_list(length=None, exclude\_types=None, min\_length=3, max\_length=30)**

Generates a list of different input strings.

**Parameters**

- **length (int)** – Specifies the length of the strings to be generated. If the len1 is None then the list is returned with string types of random length.
- **exclude\_types** – Specify a list of data types to be removed from generated list. example: `exclude_types=['html', 'cjk']`
- **min\_length (int)** – Minimum length to be used in integer generator
- **max\_length (int)** – Maximum length to be used in integer generator

**Returns** A list of various string types.**robottelo.datafactory.add\_uppercase\_char\_into\_string(text=None, length=10)**Fix string to include a minimum of one uppercase character. <https://github.com/SatelliteQE/robottelo/issues/4742>**Parameters**

- **text (str)** – String to include uppercase character.
- **length (int)** – Length of string that we create in case string to change was not provided.

**robottelo.datafactory.invalid\_emails\_list()**

Returns a list of invalid emails.

Based on RFC 5321 and 5322, however consecutive dots are removed from the list, as such emails, e.g. `email@example..c` or `dot..dot@example.com` are common on the wild and it was decided to treat them as valid.

For more information, see [Bugzilla #1455501](#).

`robottelo.datafactory.invalid_boolean_strings(list_len=10)`

Create a list of invalid booleans. E.g not true nor false

**Parameters** `list_len` – len of the list to be generated

**Returns** list

`robottelo.datafactory.xdist_adapter(argvalues)`

Adapter to avoid error when running tests on xdist Check <https://github.com/pytest-dev/pytest-xdist/issues/149>

It returns a dict with lst as argvalues and range(len(lst)) as ids

Since every run has the same number of values, ids is going to be the same on different workers.

```
dct = xdist_adapter(invalid_boolean_strings())

@pytest.mark.parametrize('value', **dct)
def test_something(value):
    #some code here
```

**Parameters** `argvalues` – to be passed to parametrize

**Returns** dict

`robottelo.datafactory.invalid_id_list()`

Generates a list of invalid IDs.

`robottelo.datafactory.invalid_names_list()`

Generates a list of invalid names.

`robottelo.datafactory.valid_domain_names(interface=None, length=None)`

Valid domain names.

`robottelo.datafactory.invalid_domain_names(interface=None)`

Invalid domain names.

`robottelo.datafactory.invalid_usernames_list()`

`robottelo.datafactory.invalid_values_list(interface=None)`

Generates a list of invalid input values.

This returns invalid values from `invalid_names_list()` and some interface (api/cli/ui) specific empty string values.

**Parameters** `interface` (str) – Interface name (one of api/cli/ui).

**Returns** Returns the invalid values list

**Raises** `InvalidArgumentException()`: If an invalid interface is received.

`robottelo.datafactory.valid_data_list(interface=None)`

Generates a list of valid input values.

Note: Although this helper is widely used for different attributes for several entities, the following are known behaviors and are handled specifically in the corresponding test modules:

Org - name **max length is 242**

Loc - name **max length is 246**

`robottelo.datafactory.valid_docker_repository_names()`

Generates a list of valid names for Docker repository.

`robottelo.datafactory.valid_emails_list()`

Returns a list of valid emails.

`robottelo.datafactory.valid_environments_list()`

Returns a list of valid environment names

`robottelo.datafactory.invalid_environments_list()`

Returns a list of invalid environment names

`robottelo.datafactory.valid_hosts_list(domain_length=10)`

Generates a list of valid host names.

Note:: Host name format stored in db is ‘fqdn=’ + host\_name + ‘.’ + domain\_name Host name max length is: 255 - ‘fqdn=’ - ‘.’ - domain name length (default is 10) = 239 chars (by default). Name should be transformed into lower case

**Parameters** `domain_length (int)` – Domain name length (default is 10).

**Returns** Returns the valid host names list

`robottelo.datafactory.valid_hostgroups_list()`

Generates a list of valid host group names.

Note:: Host group name max length is 245 chars. 220 chars for html as the largest html tag in fauxfactory is 10 chars long, so 245 - (10 chars + 10 chars + ‘<></>’ chars) = 220 chars.

**Returns** Returns the valid host group names list

`robottelo.datafactory.valid_labels_list()`

Generates a list of valid labels.

`robottelo.datafactory.valid_names_list()`

Generates a list of valid names.

`robottelo.datafactory.valid_org_names_list()`

Generates a list of valid organization names.

Note:: Organization name max length is 242 chars. 217 chars for html as the largest html tag in fauxfactory is 10 chars long, so 242 - (10 chars + 10 chars + ‘<></>’ chars) = 217 chars.

**Returns** Returns the valid organization names list

`robottelo.datafactory.valid_usernames_list()`

Returns a list of valid user names.

`robottelo.datafactory.valid_interfaces_list()`

Generates a list of valid host interface names.

`robottelo.datafactory.invalid_interfaces_list()`

Generates a list of invalid host interface names.

`robottelo.datafactory.valid_http_credentials(url_encoded=False)`

Returns a list of valid credentials for HTTP authentication The credentials dictionary contains the following keys:  
login - a username  
pass - a password  
quote - a Bool flag stating whether the credentials include special chars  
http\_valid - a Bool flag stating whether the HTTP authentication will pass successfully on the server

**Parameters** `url_encoded` – flag for quoting special characters

**Returns** A list of dictionaries with user and password credentials

`robottelo.datafactory.invalid_http_credentials(url_encoded=False)`

Returns a list of invalid credentials for HTTP authentication

**Parameters** `url_encoded` – flag for quoting special characters

**Returns** A list of dictionaries with user and password credentials

`robottelo.datafactory.invalid_docker_upstream_names()`

Return a list of various kinds of invalid strings for Docker repositories.

`robottelo.datafactory.valid_docker_upstream_names()`

Return a list of various kinds of valid strings for Docker repositories.

`robottelo.datafactory.valid_url_list()`

`robottelo.datafactory.valid_cron_expressions()`

Returns a list of valid cron expressions

### robottelo.errors

Custom Errors for Robottelo

#### Module Contents

`exception robottelo.errors.GCECertNotFoundError`

Bases: Exception

An exception to raise when GCE Cert json is not available for creating GCE CR

`exception robottelo.errors.TemplateNotFoundError`

Bases: Exception

An exception to raise when Template is not available in Satellite

### robottelo.helpers

Several helper methods and functions.

#### Module Contents

##### Classes

<code>ServerFileDownloader</code>	Downloads file from given fileurl to local /temp directory.
<code>Storage</code>	Turns a dict into an attribute based object.

##### Functions

<code>file_downloader(file_url, local_path=None, file_name=None, hostname=None)</code>	Downloads file from given fileurl to directory specified by local_path
<code>get_server_software()</code>	Figure out which product distribution is installed on the server.
<code>get_server_version()</code>	Read Satellite version.
<code>get_host_info(hostname=None)</code>	Get remote host's distribution information

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<code>get_nailgun_config(user=None)</code>	Return a NailGun configuration file constructed from default values.
<code>escape_search(term)</code>	Wraps a search term in '' and escape term's '' and characters
<code>update_dictionary(default, updates)</code>	Updates default dictionary with elements from
<code>get_data_file(filename)</code>	Returns correct path of file from data folder.
<code>read_data_file(filename)</code>	Read the contents of data file
<code>install_katello_ca(hostname=None, sat_hostname=None)</code>	Downloads and installs katello-ca rpm
<code>remove_katello_ca(hostname=None)</code>	Removes katello-ca rpm
<code>md5_by_url(url, hostname=None)</code>	Returns md5 checksum of a file, accessible via URL. Useful when you want
<code>add_remote_execution_ssh_key(hostname, key_path=None, proxy_hostname=None, **kwargs)</code>	Add remote execution keys to the client
<code>get_available_capsule_port(port_pool=None)</code>	returns a list of unused ports dedicated for fake capsules
<code>default_url_on_new_port(oldport, newport)</code>	Creates context where the default capsule is forwarded on a new port
<code>get_func_name(func, test_item=None)</code>	Given a func object return standardized name to use across project
<code>get_services_status()</code>	Check if core services are running
<code>form_repo_path(org=None, lce=None, cv=None, cvv=None, prod=None, repo=None, capsule=False)</code>	Forms unix path to the directory containing published repository in
<code>create_repo(name, repo_fetch_url=None, packages=None, wipe_repodata=False, hostname=None)</code>	Creates a repository from given packages and publishes it into pulp's
<code>repo_add_updateinfo(name, updateinfo_url=None, hostname=None)</code>	Modify repo with contents of updateinfo.xml file.
<code>extract_capsule_satellite_installer_command()</code>	(Extract) satellite installer command from capsule-certs-generate command
<code>extract_ui_token(input)</code>	Extracts and returns the CSRF protection token from a given
<code>get_web_session()</code>	Logs in as admin user and returns the valid requests.Session object
<code>host_provisioning_check(ip_addr)</code>	Check the provisioned host status by pinging the ip of host and check
<code>slugify_component(string, keep_hyphens=True)</code>	Make component name a slug
<code>download_gce_cert()</code>	
<code>idgen(val)</code>	The id generator function which will return string that will append to the parameterized

## Attributes

---

`LOGGER`

---

`download_server_file`

---

`robottelo.helpers.LOGGER`

`exception robottelo.helpers.DataFileError`

Bases: `Exception`

Indicates any issue when reading a data file.

**exception** `robottelo.helpers.HostInfoError`

Bases: `Exception`

Indicates any issue when getting host info.

**exception** `robottelo.helpers.ProvisioningCheckError`

Bases: `Exception`

Indicates any issue when provisioning a host.

**exception** `robottelo.helpers.InvalidArgumentError`

Bases: `Exception`

Indicates an error when an invalid argument is received.

**exception** `robottelo.helpers.ProxyError`

Bases: `Exception`

Indicates an error in state of proxy

**exception** `robottelo.helpers.DownloadFileError`

Bases: `Exception`

Indicates an error when failure in downloading file from server.

**class** `robottelo.helpers.ServerFileDownloader`

Downloads file from given fileurl to local /temp directory.

**\_\_call\_\_**(*self*, *extention*, *fileurl*)

Downloads file from given fileurl to local /temp directory with given extention.

**Parameters**

- **extention** (*str*) – The file extention with which the file to be saved in /temp directory.
- **fileurl** (*str*) – The complete server file path from where the file will be downloaded.

**Returns** Returns complete file path with name of downloaded file.

`robottelo.helpers.download_server_file`

`robottelo.helpers.file_downloader(file_url, local_path=None, file_name=None, hostname=None)`

Downloads file from given fileurl to directory specified by local\_path with given file\_name on host specified by hostname. Leave hostname as None to download file on the localhost. If remote directory is not specified it downloads file to /tmp/.

**Parameters**

- **file\_url** (*str*) – The complete server file path from where the file will be downloaded.
- **local\_path** (*str*) – Name of directory where file will be saved. If not provided file will be saved in /tmp/ directory.
- **file\_name** (*str*) – Name of the file to be saved with. If not provided filename from url will be used.
- **hostname** (*str*) – Hostname of server where the file need to be downloaded.

**Returns** Returns list containing complete file path and name of downloaded file.

`robottelo.helpers.get_server_software()`

Figure out which product distribution is installed on the server.

**Returns** Either ‘upstream’ or ‘downstream’.

**Return type** str

#### `robottelo.helpers.get_server_version()`

Read Satellite version.

Inspect server /usr/share/foreman/lib/satellite/version.rb in order to get the installed Satellite version.

**Returns** Either a string containing the Satellite version or None if the version.rb file is not present.

#### `robottelo.helpers.get_host_info(hostname=None)`

Get remote host’s distribution information

**Parameters** `hostname` (str) – Hostname or IP address of the remote host. If None the hostname will be get from `main.server.hostname` config.

**Returns** A tuple in the form (`distro`, `major`, `minor`). `major` and `minor` are integers. `minor` can be None if not available.

#### `robottelo.helpers.get_nailgun_config(user=None)`

Return a NailGun configuration file constructed from default values.

**Parameters** `user` – The `nailgun.entities.User` object of an user with additional passwd property/attribute

**Returns** `nailgun.config.ServerConfig` object, populated from user parameter object else with values from `robottelo.config.settings`

#### `robottelo.helpers.escape_search(term)`

Wraps a search term in ” and escape term’s ” and characters

#### `robottelo.helpers.update_dictionary(default, updates)`

Updates default dictionary with elements from optional dictionary.

@param `default`: A python dictionary containing the minimal required arguments to create a CLI object. @param `updates`: A python dictionary containing attributes to overwrite on default dictionary.

@return `default`: The modified default python dictionary.

#### `robottelo.helpers.get_data_file(filename)`

Returns correct path of file from data folder.

#### `robottelo.helpers.read_data_file(filename)`

Read the contents of data file

#### `robottelo.helpers.install_katello_ca(hostname=None, sat_hostname=None)`

Downloads and installs katello-ca rpm

**Parameters** `hostname` (str) – Hostname or IP address of the remote host. If None the hostname will be get from `main.server.hostname` config

**Returns** None.

**Raises** `AssertionError`: If katello-ca wasn’t installed.

#### `robottelo.helpers.remove_katello_ca(hostname=None)`

Removes katello-ca rpm

**Parameters** `hostname` (str) – Hostname or IP address of the remote host. If None the hostname will be get from `main.server.hostname` config

**Returns** None.

**Raises** `AssertionError`: If katello-ca wasn’t removed.

`robottelo.helpers.md5_by_url(url, hostname=None)`

Returns md5 checksum of a file, accessible via URL. Useful when you want to calculate checksum but don't want to deal with storing a file and removing it afterwards.

#### Parameters

- **url** (*str*) – URL of a file.
- **hostname** (*str*) – Hostname or IP address of the remote host. If *None* the hostname will be get from `main.server.hostname` config

**Return str** string containing md5 checksum.

**Raises** `AssertionError`: If non-zero return code received (file couldn't be reached or calculation was not successful).

`robottelo.helpers.add_remote_execution_ssh_key(hostname, key_path=None, proxy_hostname=None, **kwargs)`

Add remote execution keys to the client

#### Parameters

- **proxy\_hostname** (*str*) – external capsule hostname
- **hostname** (*str*) – The client hostname
- **key** (*str*) – Path to a key on the satellite server
- **kwargs** (*dict*) – directly passed to `ssh.addAuthorizedKey`

`robottelo.helpers.get_available_capsule_port(port_pool=None)`

returns a list of unused ports dedicated for fake capsules. This calls an `ss` command on the server prompting for a port range. `ss` returns a list of ports which have a PID assigned (a list of ports which are already used). This function then subtracts unavailable ports from the other ones and returns one of available ones randomly.

**Parameters** **port\_pool** – A list of ports used for fake capsules (for RHEL7+: don't forget to set a correct selinux context before otherwise you'll get Connection Refused error)

**Returns** Random available port from interval <9091, 9190>.

**Return type** int

`robottelo.helpers.default_url_on_new_port(oldport, newport)`

Creates context where the default capsule is forwarded on a new port

#### Parameters

- **oldport** (*int*) – Port to be forwarded.
- **newport** (*int*) – New port to be used to forward *oldport*.

**Returns** A string containing the new capsule URL with port.

**Return type** str

`class robottelo.helpers.Storage(*args, **kwargs)`

Turns a dict into an attribute based object.

Example:

```
d = {'foo': 'bar'}
d['foo'] == 'bar'
storage = Storage(d)
storage.foo == 'bar'
```

`robottelo.helpers.get_func_name(func, test_item=None)`

Given a func object return standardized name to use across project

`robottelo.helpers.get_services_status()`

Check if core services are running

`robottelo.helpers.form_repo_path(org=None, lce=None, cv=None, cvv=None, prod=None, repo=None, capsule=False)`

Forms unix path to the directory containing published repository in pulp using provided entity names. Supports both repositories in content view version and repositories in lifecycle environment. Note that either `cvv` or `lce` is required.

#### Parameters

- **org** (*str*) – organization label
- **optional lce** (*str*) – lifecycle environment label
- **cv** (*str*) – content view label
- **optional cvv** (*str*) – content view version, e.g. ‘1.0’
- **prod** (*str*) – product label
- **repo** (*str*) – repository label
- **capsule** (*bool*) – whether the `repo_path` is from a capsule or not

**Returns** full unix path to the specific repository

**Return type** str

`robottelo.helpers.create_repo(name, repo_fetch_url=None, packages=None, wipe_repodata=False, hostname=None)`

Creates a repository from given packages and publishes it into pulp’s directory for web access.

#### Parameters

- **name** (*str*) – repository name - name of a directory with packages
- **repo\_fetch\_url** (*str*) – URL to fetch packages from
- **packages** – list of packages to fetch (with extension)
- **wipe\_repodata** – whether to recursively delete repodata folder
- **optional hostname** (*str*) – hostname or IP address of the remote host. If None the hostname will be get from `main.server.hostname` config.

**Returns** URL where the repository can be accessed

**Return type** str

`robottelo.helpers.repo_add_updateinfo(name, updateinfo_url=None, hostname=None)`

Modify repo with contents of updateinfo.xml file.

#### Parameters

- **name** (*str*) – repository name
- **optional updateinfo\_url** (*str*) – URL to download updateinfo.xml file from. If not specified - updateinfo.xml from repository folder will be used instead
- **optional hostname** (*str*) – hostname or IP address of the remote host. If None the hostname will be get from `main.server.hostname` config.

**Returns** result of executing `modifyrepo` command

`robottelo.helpers.extract_capsule_satellite_installer_command(text)`

Extract satellite installer command from capsule-certs-generate command output

`robottelo.helpers.extract_ui_token(input)`

Extracts and returns the CSRF protection token from a given HTML string

`robottelo.helpers.get_web_session()`

Logs in as admin user and returns the valid requests.Session object

`robottelo.helpers.host_provisioning_check(ip_addr)`

Check the provisioned host status by pinging the ip of host and check to connect to ssh port

**Parameters** `ip_addr` – IP address of the provisioned host

**Returns** ssh command return code and stdout

`robottelo.helpers.slugify_component(string, keep_hyphens=True)`

Make component name a slug

**Arguments:** `string {str}` – Component name e.g: ActivationKeys `keep_hyphens {bool}` – Keep hyphens or replace with underscores

**Returns:** `str` – component slug e.g: activationkeys

`robottelo.helpers.download_gce_cert()`

`robottelo.helpers.idgen(val)`

The id generator function which will return string that will append to the parameterized test name

## robottelo.host\_info

Module that gather several informations about host

## Module Contents

### Classes

<code>SatVersionDependentValues</code>	Class which return values depending on Satellite host version
--	---

### Functions

<code>get_host_os_version()</code>	Fetches host's OS version through SSH
<code>get_host_sat_version()</code>	Fetches host's Satellite version through SSH
<code>_extract_sat_version(ssh_cmd)</code>	Extracts Satellite version if possible or 'Not Available' otherwise
<code>get_repo_files(repo_path, extension='rpm', host-name=None)</code>	Returns a list of repo files (for example rpms) in specific repository
<code>get_repolmd_revision(repo_path, hostname=None)</code>	Fetches a revision of repository.
<code>get_sat_version()</code>	Try to read sat_version from envvar SATELLITE_VERSION

## Attributes

---

`LOGGER`

---

`_SAT_6_2_VERSION_COMMAND`

---

`_SAT_6_1_VERSION_COMMAND`

---

`robottelo.host_info.LOGGER`

`robottelo.host_info.get_host_os_version()`  
Fetches host's OS version through SSH :return: str with version

`robottelo.host_info._SAT_6_2_VERSION_COMMAND = rpm -q satellite`

`robottelo.host_info._SAT_6_1_VERSION_COMMAND = grep "VERSION"`

`/usr/share/foreman/lib/satellite/version.rb`

`robottelo.host_info.get_host_sat_version()`  
Fetches host's Satellite version through SSH :return: Satellite version :rtype: version

`robottelo.host_info._extract_sat_version(ssh_cmd)`  
Extracts Satellite version if possible or 'Not Available' otherwise

**Parameters** `ssh_cmd` – str ssh command

**Returns** Satellite version

**Return type** str

`robottelo.host_info.get_repo_files(repo_path, extension='rpm', hostname=None)`  
Returns a list of repo files (for example rpms) in specific repository directory.

**Parameters**

- `repo_path` (str) – unix path to the repo, e.g. '/var/lib/pulp/fooRepo/'
- `extension` (str) – extension of searched files. Defaults to 'rpm'
- `optional hostname` (str) – hostname or IP address of the remote host. If None the hostname will be get from `main.server.hostname` config.

**Returns** list representing rpm package names

**Return type** list

`robottelo.host_info.get_repolmd_revision(repo_path, hostname=None)`  
Fetches a revision of repository.

**Parameters**

- `repo_path` (str) – unix path to the repo, e.g. '/var/lib/pulp/fooRepo'
- `optional hostname` (str) – hostname or IP address of the remote host. If None the hostname will be get from `main.server.hostname` config.

**Returns** string containing repository revision

**Return type** str

`class robottelo.host_info.SatVersionDependentValues(*dcts, **kwargs)`  
Class which return values depending on Satellite host version

## `__getitem__(self, item)`

Return value dependent on Satellite version :param item: str :return: respective Satellite version values

## `robottelo.host_info.get_sat_version()`

Try to read sat\_version from envvar SATELLITE\_VERSION if not available fallback to ssh connection to get it.

## `robottelo.hosts`

### Module Contents

#### Classes

---

`ContentHost`

---

`Capsule`

---

`Satellite`

---

#### Functions

---

`setup_capsule(satellite, capsule, registration_args=None, installation_args=None)` registration\_args – Given satellite and capsule instances, run the commands needed to set up the capsule

---

#### Attributes

---

`logger`

---

## `robottelo.hosts.logger`

### `robottelo.hosts.setup_capsule(satellite, capsule, registration_args=None, installation_args=None)`

Given satellite and capsule instances, run the commands needed to set up the capsule

Note: This does not perform content setup actions on the Satellite

#### Parameters

- **satellite** – An instance of this module’s Satellite class
- **capsule** – An instance of this module’s Capsule class
- **registration\_args** – A dictionary mapping argument: value pairs for registration
- **installation\_args** – A dictionary mapping argument: value pairs for installation

**Returns** An ssh2-python result object for the installation command.

### `exception robottelo.hosts.ContentHostError`

Bases: `Exception`

Common base class for all non-exit exceptions.

```
class robottelo.hosts.ContentHost
    Bases: broker.hosts.Host

    run
    subscribed = False

    property nailgun_host(self)
        If this host is subscribed, provide access ot its nailgun object

    property subscribed(self)
        Boolean representation of a content host's subscription status

    property ip_addr(self)

    download_install_rpm(self, repo_url, package_name)
        Downloads and installs custom rpm on the broker virtual machine.

    Parameters
        • repo_url – URL to repository, where package is located.
        • package_name – Desired package name.

    Returns None.

    Raises robottelo.hosts.ContentHostError – If package wasn't installed.

enable_repo(self, repo, force=False)
    Enables specified Red Hat repository on the broker virtual machine. Does nothing if downstream capsule or satellite tools repo was passed. Custom repos are enabled by default when registering a host.

    Parameters
        • repo – Red Hat repository name.
        • force – enforce enabling command, even when custom repos are detected for satellite tools or capsule.

    Returns None.

subscription_manager_list_repos(self)
subscription_manager_status(self)
subscription_manager_list(self)
create_custom_repos(self, **kwargs)
    Create custom repofiles. Each kwargs item will result in one repository file created. Where the key is the repository filename and repository name, and the value is the repository URL.

    For example:

    create_custom_repo(custom_repo='http://repourl.domain.com/path')

    Will create a repository file named custom_repo.repo with the following contents:

    [custom_repo]
    name=custom_repo
    baseurl=http://repourl.domain.com/path
    enabled=1
    gpgcheck=0

install_katello_agent(self)
    Install katello-agent on the virtual machine.
```

**Returns** None.

**Raises** `ContentHostError` – if katello-agent is not installed.

**install\_katello\_host\_tools(self)**

Installs Katello host tools on the broker virtual machine

**Raises** `robottelo.hosts.ContentHostError` – If katello-host-tools wasn't installed.

**install\_katello\_ca(self, sat\_hostname=None)**

Downloads and installs katello-ca rpm on the broker virtual machine.

Uses common helper `install_katello_ca(hostname=None)`, but passes `self.hostname` instead of the hostname as we are using fake hostnames for broker virtual machines.

**Returns** None.

**Raises** `robottelo.hosts.ContentHostError` – If katello-ca wasn't installed.

**install\_capsule\_katello\_ca(self, capsule=None)**

Downloads and installs katello-ca rpm on the broker virtual machine.

**Param** str capsule: Capsule hostname

**Raises** `robottelo.hosts.ContentHostError` – If katello-ca wasn't installed.

**register\_contenthost(self, org='Default\_Organization', activation\_key=None, lce='Library', consumerid=None, force=True, releasever=None, username=None, password=None, auto\_attach=False)**

Registers content host on foreman server either by specifying organization name and activation key name or by specifying organization name and lifecycle environment name (administrator credentials for authentication will be passed automatically).

#### Parameters

- **activation\_key** – Activation key name to register content host with.
- **lce** – lifecycle environment name to which register the content host.
- **consumerid** – uuid of content host, register to this content host, content host has to be created before
- **org** – Organization name to register content host for.
- **force** – Register the content host even if it's already registered
- **releasever** – Set a release version
- **username** – a user name to register the content host with
- **password** – the user password
- **auto\_attach** – automatically attach compatible subscriptions to this system.

**Returns** SSHCommandResult instance filled with the result of the registration.

**remove\_katello\_ca(self, capsule=None)**

Removes katello-ca rpm from the broker virtual machine.

**Param** str capsule: (optional) Capsule hostname

**Returns** None.

**Raises** `robottelo.hosts.ContentHostError` – If katello-ca wasn't removed.

**unregister(self)**

Run subscription-manager unregister.

**Returns** SSHCommandResult instance filled with the result of the unregistration.

**get**(*self*, *remote\_path*, *local\_path*=None)  
Get a remote file from the broker virtual machine.

**put**(*self*, *local\_path*, *remote\_path*=None)  
Put a local file to the broker virtual machine.

**configure\_rhel\_repo**(*self*, *rhel\_repo*)  
Configures specified Red Hat repository on the broker virtual machine.

**Parameters** **rhel\_repo** – Red Hat repository link from properties file.

**Returns** None.

**configure\_puppet**(*self*, *rhel\_repo*=None, *proxy\_hostname*=None)  
Configures puppet on the virtual machine/Host. :param proxy\_hostname: external capsule hostname  
:param rhel\_repo: Red Hat repository link from properties file. :return: None.

**execute\_foreman\_scap\_client**(*self*, *policy\_id*=None)  
Executes foreman\_scap\_client on the vm to create security audit report.

**Parameters** **policy\_id** – The Id of the OSCAP policy.

**Returns** None.

**configure\_rhai\_client**(*self*, *activation\_key*, *org*, *rhel\_distro*, *register*=True)  
Configures a Red Hat Access Insights service on the system by installing the redhat-access-insights package and registering to the service.

**Parameters**

- **activation\_key** – Activation key to be used to register the system to satellite
- **org** – The org to which the system is required to be registered
- **rhel\_distro** – rhel distribution used by the vm
- **register** – Whether to register client to insights

**Returns** None

**unregister\_insights**(*self*)  
Unregister insights client.

**Returns** None

**set\_infrastructure\_type**(*self*, *infrastructure\_type*='physical')  
Force host to appear as bare-metal or broker virtual machine in subscription-manager fact.

**Parameters** **infrastructure\_type** (*str*) – One of ‘physical’, ‘virtual’

**patch\_os\_release\_version**(*self*, *distro*=DISTRO\_RHEL7)  
Patch VM OS release version.

This is needed by yum package manager to generate the right RH repositories urls.

**class** robottelo.hosts.Capsule

Bases: [ContentHost](#)

**restart\_services**(*self*)

Restart services, returning True if passed and stdout if not

**check\_services**(*self*)

**install**(*self*, \*\**cmd\_kwargs*)

General purpose installer

```
class robottelo.hosts.Satellite(*args, **kwargs)
Bases: Capsule

    _init_nailgun(self)
        Import all nailgun entities and wrap them under self.api

    _init_cli(self)
        Import all robottelo cli entities and wrap them under self.cli

    _init_airgun(self)
        Initialize an airgun Session object and store it as self.ui_session

    version(self)

    capsule_certs_generate(self, capsule, **extra_kwargs)
        Generate capsule certs, returning the cert path and the installer command args
```

## robottelo.libvirt\_discovery

Utilities to create virtual host on libvirt with and without PXE boot

Hosts are virtual guests provisioned on a external `libvirt_host`. All guests images are stored on the `image_dir` path on external libvirt server.

Make sure to configure the `compute_resources` section on the configuration file. Also make sure that the `vlan_networking` section is properly configured.

## Module Contents

### Classes

---

<code>LibvirtGuest</code>	Manages a Libvirt guests to allow host discovery and provisioning
---------------------------	---

---

### Functions

---

<code>_gen_mac_for_libvirt()</code>
-------------------------------------

---

### Attributes

---

<code>logger</code>
---------------------

---

```
robottelo.libvirt_discovery.logger
robottelo.libvirt_discovery._gen_mac_for_libvirt()
exception robottelo.libvirt_discovery.LibvirtGuestError
Bases: Exception
```

Exception raised for failed virtual guests on external libvirt

```
class robottelo.libvirt_discovery.LibvirtGuest(cpu=1, ram=1024, boot_iso=False, extra_nic=False,
libvirt_server=None, image_dir=None, mac=None,
network=None, network_type=None)
```

Manages a Libvirt guests to allow host discovery and provisioning

It expects that Libvirt host is defined with image path. Make sure to call `destroy()` to stop and clean the image on the libvirt server, otherwise the virtual machine and its image will stay on the server consuming hardware resources.

It is possible to customize the `libvirt_host` and `image_dir` as per virtual machine basis. Just set the expected values when instantiating.

**create(self)**

Creates a virtual machine on the libvirt server using virt-install

**Raises** `robottelo.libvirt_discovery.LibvirtGuestError` – Whenever a virtual guest could not be executed.

**destroy(self)**

Destroys the virtual machine on the provisioning server

**attach\_nic(self)**

Add a new NIC to existing host

**\_\_enter\_\_(self)**

**\_\_exit\_\_(self, \*exc)**

## robottelo.log

Utilities to help work with log files

### Module Contents

#### Classes

---

`LogFile`

References a remote log file. The log file will be downloaded to allow

---

#### Attributes

---

`LOGS_DATA_DIR`

---

`robottelo.log.LOGS_DATA_DIR`

```
class robottelo.log.LogFile(remote_path, pattern=None)
```

References a remote log file. The log file will be downloaded to allow operate on it using python

**filter(self, pattern=None)**

Filter the log file using the pattern argument or object's pattern

## robottelo.manifests

Manifest cloning tools..

### Module Contents

#### Classes

<code>ManifestCloner</code>	Manifest cloning utility class.
<code>Manifest</code>	Class that holds the contents of a manifest with a generated filename

#### Functions

<code>clone(org_environment_access=False, name='default')</code>	Clone the cached manifest and return a <code>Manifest</code> object.
<code>original_manifest(name='default')</code>	Returns a <code>Manifest</code> object filled with the template manifest.
<code>upload_manifest_locked(org_id, manifest=None, interface=INTERFACE_API, timeout=None)</code>	Upload a manifest with locking, using the requested interface.

#### Attributes

---

##### `_manifest_cloner`

---

`class robottelo.manifests.ManifestCloner(template=None, private_key=None, signing_key=None)`

Manifest cloning utility class.

`_download_manifest_info(self, name='default')`

Download and cache the manifest information.

`clone(self, org_environment_access=False, name='default')`

Clones a RedHat-manifest file.

Change the consumer uuid and sign the new manifest with signing key. The certificate for the key must be installed on the candlepin server in order to accept uploading the cloned manifest.

##### Parameters

- `org_environment_access` – Whether to modify consumer content access mode to org\_environment (Golden ticket enabled manifest).
- `name` – which manifest url to clone (named key-value pairs are defined as fake\_manifest.url value in robottelo.properties (default: ‘default’))

**Returns** A file-like object (BytesIO on Python 3 and StringIO on Python 2) with the contents of the cloned manifest.

`original(self, name='default')`

Returns the original manifest as a file-like object.

**Parameters name** – A name of the manifest as defined in robottelo.properties

Be aware that using the original manifest and not removing it afterwards will make it impossible to import it to any other Organization.

Make sure to close the returned file-like object in order to clean up the memory used to store it.

#### robottelo.manifests.\_manifest\_cloner

```
class robottelo.manifests.Manifest(content=None, filename=None, org_environment_access=False,
                                    name='default')
```

Class that holds the contents of a manifest with a generated filename based on `time.time`.

To ensure that the manifest content is closed use this class as a context manager with the `with` statement:

```
with Manifest() as manifest:
    # my fancy stuff
```

`property content(self)`

`__enter__(self)`

`__exit__(self, type, value, traceback)`

```
robottelo.manifests.clone(org_environment_access=False, name='default')
```

Clone the cached manifest and return a `Manifest` object.

#### Parameters

- `org_environment_access` – Whether to modify consumer content access mode to org\_environment (Golden ticket enabled manifest).
- `name` – key name of the fake\_manifests.url dict defined in robottelo.properties

Is hightly recommended to use this with the `with` statement to make that the content of the manifest (file-like object) is closed properly:

```
with clone() as manifest:
    # my fancy stuff
```

```
robottelo.manifests.original_manifest(name='default')
```

Returns a `Manifest` object filed with the template manifest.

**Parameters name** – key name of the fake\_manifests.url dict defined in robottelo.properties

Make sure to remove the manifest after its usage otherwiser the Satellite 6 server will not accept it anymore on any other organization.

Is hightly recommended to use this with the `with` statement to make that the content of the manifest (file-like object) is closed properly:

```
with original_manifest() as manifest:
    # my fancy stuff
```

```
robottelo.manifests.upload_manifest_locked(org_id, manifest=None, interface=INTERFACE_API,
                                            timeout=None)
```

Upload a manifest with locking, using the requested interface.

**Returns** the upload result

**Note:** The manifest uploading is strictly locked only when using this function

Usage:

```
# for API interface
manifest = manifests.clone()
upload_manifest_locked(org_id, manifest, interface=INTERFACE_API)

# for CLI interface
manifest = manifests.clone()
upload_manifest_locked(org_id, manifest, interface=INTERFACE_CLI)

# or in one line with default interface
result = upload_manifest_locked(org_id, manifests.clone())
subscription_id = result[id']
```

## robottelo.products

Manage RH products repositories and custom repositories.

The main purpose of this feature is to manage product repositories especially the RH one in the context of a special distro and cdn settings.

The repository data creation became transparent when supplying only the target distro.

Example Usage:

We know that sat tool key = ‘rhst’

Working with generic repos.

Generic repos has no way to guess the custom repo url in case of settings.cdn = false , that why the GenericRHRepo without custom url always return cdn repo data:

```
sat_repo = GenericRHRepository(key=PRODUCT_KEY_SAT_TOOLS)
print(sat_repo.cdn) >> True
# today the default distro is rhel7
print(sat_repo.distro) >> rhel7
print(sat_repo.data) >>
{
'arch': 'x86_64',
'cdn': True,
'product': 'Red Hat Enterprise Linux Server',
'releasever': None,
'repository': 'Red Hat Satellite Tools 6.2 for RHEL 7 Server RPMs x86_64',
'repository-id': 'rhel-7-server-satellite-tools-6.2-rpms',
'repository-set': 'Red Hat Satellite Tools 6.2 (for RHEL 7 Server) (RPMs)'
}

# Generic CDN RH repository with specific distro "DISTRO_RHEL6"
sat_repo = GenericRHRepository(
    distro=DISTRO_RHEL6, key=PRODUCT_KEY_SAT_TOOLS)

print(sat_repo.distro) >> rhel6
print(sat_repo.data) >>
{
'arch': 'x86_64',
'cdn': True,
```

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```
'product': 'Red Hat Enterprise Linux Server',
'releasever': None,
'repository': 'Red Hat Satellite Tools 6.2 for RHEL 6 Server RPMs x86_64',
'repository-id': 'rhel-6-server-satellite-tools-6.2-rpms',
'repository-set': 'Red Hat Satellite Tools 6.2 (for RHEL 6 Server) (RPMs)'
}

# Generic RH repository with custom url
sat_repo = GenericRHRepository(
    key=PRODUCT_KEY_SAT_TOOLS, url='http://sat-tools.example.com')

# because default settings.cdn=False and we have a custom url
print(sat_repo.cdn) >> False
print(sat_repo.distro) >> rhel7
print(sat_repo.data) >>
{'cdn': False, 'url': 'http://sat-tools.example.com'}

# Generic RH repository with custom url and force cdn
sat_repo = GenericRHRepository(
    key=PRODUCT_KEY_SAT_TOOLS,
    url='http://sat-tools.example.com',
    cdn=True
)
print(sat_repo.data) >>
{
'arch': 'x86_64',
'cdn': True,
'product': 'Red Hat Enterprise Linux Server',
'releasever': None,
'repository': 'Red Hat Satellite Tools 6.2 for RHEL 7 Server RPMs x86_64',
'repository-id': 'rhel-7-server-satellite-tools-6.2-rpms',
'repository-set': 'Red Hat Satellite Tools 6.2 (for RHEL 7 Server) (RPMs)'
}

# We have created a SatelliteToolsRepository that automatically detect it's
# custom url in settings, so there no need to explicitly initialise with
# url, simply the distro is needed (in case of specific one), otherwise
# the default distro will be used.

# SatelliteToolsRepository RH repo use settings urls and cdn
sat_repo = SatelliteToolsRepository()
print(sat_repo.cdn) >> False
print(sat_repo.distro) >> rhel7
print(sat_repo.data) >>
{
'cdn': False,
# part of the url was hidden
'url': 'XXXXXXXXXXXXXXXXXXXX/Tools_6_3_RHEL7/custom/'
    'Satellite_Tools_6_3_Composes/Satellite_Tools_x86_64/'
}

# SatelliteToolsRepository RH repo use settings urls with 'force cdn'
```

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```

sat_repo = SatelliteToolsRepository(cdn=True)
print(sat_repo.cdn >> True
print(sat_repo.distro >> rhel7
print(sat_repo.data >>
{
'arch': 'x86_64',
'cdn': True,
'product': 'Red Hat Enterprise Linux Server',
'releasever': None,
'repository': 'Red Hat Satellite Tools 6.2 for RHEL 7 Server RPMs x86_64',
'repository-id': 'rhel-7-server-satellite-tools-6.2-rpms',
'repository-set': 'Red Hat Satellite Tools 6.2 (for RHEL 7 Server) (RPMs)'
}

# we can also indicate the distro, the same as for the generic one the
# data will be switched for that distro

# Working with RepositoryCollection using the default distro
repos_collection = RepositoryCollection(
    repositories=[
        RHELRepository(),
        SatelliteToolsRepository(),
        SatelliteCapsuleRepository(),
        CustomYumRepository(url=FAKE_0_YUM_REPO)
    ]
)

repos_collection.distro >> None
repos_collection.repos_data >>
[{'cdn': False,
 'url': 'http://XXXXXXXX/RHEL-7/7.4/Server/x86_64/os/'},
 {'cdn': False,
 'url': 'http://XXXXXXXXXX/Tools_6_3_RHEL7/custom/'
     'Satellite_Tools_6_3_Composes/Satellite_Tools_x86_64/',
 },
 {'cdn': False,
 'url': 'http://XXXXXXXXXX/Satellite_6_3_RHEL7/custom/'
     'Satellite_6_3_Composes/Satellite_6_3_RHEL7',
 },
 {'cdn': False, 'url': 'http://inecas.fedorapeople.org/fakerepos/zoo/'}
]
repos_collection.need_subscription >> False

# Working with RepositoryCollection with force distro RHEL6 and force cdn
# on some repos
repos_collection = RepositoryCollection(
    distro=DISTRO_RHEL6,
    repositories=[
        SatelliteToolsRepository(cdn=True),
        SatelliteCapsuleRepository(),
        YumRepository(url=FAKE_0_YUM_REPO)
]
)

```

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```

        ]
)
repos_collection.distro >> rhel6
repos_collection.repos_data >>
[
    {'arch': 'x86_64',
     'cdn': True,
     'product': 'Red Hat Enterprise Linux Server',
     'releasever': None,
     'repository': 'Red Hat Satellite Tools 6.2 for RHEL 6 Server RPMs'
                  ' x86_64',
     'repository-id': 'rhel-6-server-satellite-tools-6.2-rpms',
     'repository-set': 'Red Hat Satellite Tools 6.2 (for RHEL 6 Server)
                       '(RPMs)'
    },
    {
        'arch': 'x86_64',
        'cdn': True,
        'product': 'Red Hat Satellite Capsule',
        'releasever': None,
        'repository': 'Red Hat Satellite Capsule 6.2 for RHEL 6 Server RPMs '
                      ' x86_64',
        'repository-id': 'rhel-6-server-satellite-capsule-6.2-rpms',
        'repository-set': 'Red Hat Satellite Capsule 6.2 (for RHEL 6 Server) '
                          '(RPMs)'
    },
    {'cdn': False, 'url': 'http://inecas.fedorapeople.org/fakerepos/zoo/'}
]
repos_collection.need_subscription >> True
# Note: satellite capsule repo will query the server for a distro and if
# the same distro as the sat server is used will use the settings url
# (if cdn=False) else it will use the cdn one.

# Please consult the RepositoryCollection for some usage functions
# also test usage located at:
# tests/foreman/cli/test_vm_install_products_package.py

```

## Module Contents

### Classes

<code>BaseRepository</code>	Base repository class for custom and RH repositories
<code>YumRepository</code>	Custom Yum repository
<code>DockerRepository</code>	Custom Docker repository
<code>PuppetRepository</code>	Custom Puppet repository
<code>OSTreeRepository</code>	Custom OSTree repository
<code>GenericRHRepository</code>	Generic RH repository
<code>RHELRepository</code>	RHEL repository
<code>SatelliteToolsRepository</code>	Satellite Tools Repository

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<i>SatelliteCapsuleRepository</i>	Satellite capsule repository
<i>VirtualizationAgentsRepository</i>	Virtualization Agents repository
<i>RHELCloudFormsTools</i>	Generic RH repository
<i>RHELAnsibleEngineRepository</i>	Red Hat Ansible Engine Repository
<i>RepositoryCollection</i>	Repository collection

## Functions

---

*get\_server\_distro()* → str

---

## Attributes

---

*REPO\_TYPE\_YUM*

---

*REPO\_TYPE\_DOCKER*

---

*REPO\_TYPE\_PUPPET*

---

*REPO\_TYPE\_OSTREE*

---

*DOWNLOAD\_POLICY\_ON\_DEMAND*

---

*DOWNLOAD\_POLICY\_IMMEDIATE*

---

*DOWNLOAD\_POLICY\_BACKGROUND*

---

*PRODUCT\_KEY\_RHEL*

---

*PRODUCT\_KEY\_SAT\_TOOLS*

---

*PRODUCT\_KEY\_SAT\_CAPSULE*

---

*PRODUCT\_KEY\_VIRT\_AGENTS*

---

*PRODUCT\_KEY\_CLOUD\_FORMS\_TOOLS*

---

*PRODUCT\_KEY\_ANSIBLE\_ENGINE*

---

*\_server\_distro*

---

robottelo.products.REPO\_TYPE\_YUM

robottelo.products.REPO\_TYPE\_DOCKER

robottelo.products.REPO\_TYPE\_PUPPET

robottelo.products.REPO\_TYPE\_OSTREE

```

robottelo.products.DOWNLOAD_POLICY_ON_DEMAND = on_demand
robottelo.products.DOWNLOAD_POLICY_IMMEDIATE = immediate
robottelo.products.DOWNLOAD_POLICY_BACKGROUND = background
robottelo.products.PRODUCT_KEY_RHEL = rhel
robottelo.products.PRODUCT_KEY_SAT_TOOLS = rhst
robottelo.products.PRODUCT_KEY_SAT_CAPSULE = rhsc
robottelo.products.PRODUCT_KEY_VIRT_AGENTS = rhva6
robottelo.products.PRODUCT_KEY_CLOUD_FORMS_TOOLS = rhct6
robottelo.products.PRODUCT_KEY_ANSIBLE_ENGINE = rhae2
robottelo.products._server_distro :str
exception robottelo.products.RepositoryAlreadyDefinedError
    Bases: Exception
        Raised when a repository has already a predefined key
exception robottelo.products.DistroNotSupportedError
    Bases: Exception
        Raised when using a non supported distro
exception robottelo.products.RepositoryDataNotFound
    Bases: Exception
        Raised when repository data cannot be found for a predefined distro
exception robottelo.products.OnlyOneOSRepositoryAllowed
    Bases: Exception
        Raised when trying to more than one OS repository to a collection
exception robottelo.products.RepositoryAlreadyCreated
    Bases: Exception
        Raised when a repository content is already created and trying to launch the create an other time
exception robottelo.products.ReposContentSetupWasNotPerformed
    Bases: Exception
        Raised when trying to setup a VM but the repositories content was not setup
robottelo.products.get_server_distro() → str
class robottelo.products.BaseRepository(url=None, distro=None, content_type=None)
    Base repository class for custom and RH repositories
    _url :Optional[str]
    _distro :Optional[str]
    _type :Optional[str]
    _repo_info :Optional[Dict]
    property url(self) → Optional[str]
    property cdn(self) → bool
    property data(self) → Dict

```

```
property distro(self) → Optional[str]
    Return the current distro

property content_type(self) → str

__repr__(self)
    Return repr(self).

property repo_info(self) → Optional[Dict]

create(self: int, organization_id: int, product_id: str, download_policy: bool =
    DOWNLOAD_POLICY_ON_DEMAND, synchronize=True) → Dict
    Create the repository for the supplied product id

synchronize(self)
    Synchronize the repository

add_to_content_view(self: int, organization_id: int, content_view_id) → None
    Associate repository content to content-view

class robottelo.products.YumRepository(url=None, distro=None, content_type=None)
    Bases: BaseRepository

    Custom Yum repository

    _type :str

class robottelo.products.DockerRepository(url=None, distro=None, upstream_name=None)
    Bases: BaseRepository

    Custom Docker repository

    _type :str

    property upstream_name(self)

    create(self, organization_id, product_id, download_policy=None, synchronize=True)
        Create the repository for the supplied product id

class robottelo.products.PuppetRepository(: str, url: Optional[str] = None, distro: List[Dict[str, str]] =
    None, modules=None)
    Bases: BaseRepository

    Custom Puppet repository

    _type :str

    property puppet_modules(self)

    add_to_content_view(self: int, organization_id: int, content_view_id) → None
        Associate repository content to content-view

class robottelo.products.OSTreeRepository(url=None, distro=None, content_type=None)
    Bases: BaseRepository

    Custom OSTree repository

    _type

class robottelo.products.GenericRHRepository(distro=None, key=None, cdn=False, url=None)
    Bases: BaseRepository

    Generic RH repository

    _type

    _distro :str
```

```

_key :str
_repo_data :Dict
_url :Optional[str]
property url(self)
property cdn(self)
property key(self)
property distro(self)
    Return the current distro

_get_repo_data(self: Optional[str], distro=None) → Dict
    Return the repo data as registered in constant module and bound to distro.

property repo_data(self) → Dict
_repo_is_distro(self: Optional[Dict], repo_data=None) → bool
    return whether the repo data is for an OS distro product repository

property is_distro_repository(self) → bool
property distro_major_version(self)
property distro_repository(self) → Optional[RHELRepository]
    Return the OS distro repository object relied to this repository

Suppose we have a repository for a product that must be installed on RHEL, but for proper installation needs some dependencies packages from the OS repository. This function will return the right OS repository object for later setup.

for example: capsule_repo = SatelliteCapsuleRepository() # the capsule_repo will represent a capsule
repo for default distro rhel_repo = capsule_repo.distro_repository # the rhel repo representation object
for default distro will be # returned, if not found raise exception

property rh_repository_id(self) → Optional[str]
property data(self) → Dict
__repr__(self)
    Return repr(self).

create(self: int, organization_id: Optional[int], product_id: Optional[str] = None, download_policy:
Optional[bool] = DOWNLOAD_POLICY_ON_DEMAND, synchronize=True) → Dict
    Create an RH repository

class robottelo.products.RHELRepository(distro=None, key=None, cdn=False, url=None)
Bases: GenericRHERepository

RHEL repository

_key
property url(self)

class robottelo.products.SatelliteToolsRepository(distro=None, key=None, cdn=False, url=None)
Bases: GenericRHERepository

Satellite Tools Repository

_key
property url(self)

```

```
class robottelo.products.SatelliteCapsuleRepository(distro=None, key=None, cdn=False, url=None)
Bases: GenericRHRepository

Satellite capsule repository

_key
property url(self)

class robottelo.products.VirtualizationAgentsRepository(distro=None, key=None, cdn=False,
url=None)
Bases: GenericRHRepository

Virtualization Agents repository

_key
_distro

class robottelo.products.RHELCloudFormsTools(distro=None, key=None, cdn=False, url=None)
Bases: GenericRHRepository

Generic RH repository

_distro
_key

class robottelo.products.RHELAnsibleEngineRepository(distro=None, key=None, cdn=False,
url=None)
Bases: GenericRHRepository

Red Hat Ansible Engine Repository

_key

class robottelo.products.RepositoryCollection(distro=None, repositories=None)
Repository collection

_distro :str
_org :Dict
_items :List[BaseRepository] = []
_repos_info :List[Dict] = []
_custom_product_info :Dict
_os_repo :RHELRepository
_setup_content_data :Dict[str, Dict]

property distro(self) → str
property repos_info(self) → List[Dict]
property custom_product(self)
property os_repo(self) → RHELRepository
property repos_data(self) → List[Dict]
property rh_repos(self) → List[BaseRepository]
property custom_repos(self) → List[BaseRepository]
property rh_repos_info(self) → List[Dict]
```

```

property custom_repos_info(self) → List[Dict]
property setup_content_data(self)
property need_subscription(self) → bool
property organization(self)
add_item(self, item) → None
    Add repository to collection
        Parameters item (BaseRepository) – Item to add
        Returns None
add_items(self, items)
    Add multiple repositories to collection
        Parameters items (List [BaseRepository]) – Items to add
        Returns None
__iter__(self)
setup(self: int, org_id: str, download_policy: bool = DOWNLOAD_POLICY_ON_DEMAND,
      synchronize=True) → Tuple[Dict, List[Dict]]
    Setup the repositories on server.

    Recommended usage: repository only setup, for full content setup see setup_content.

setup_content_view(self: int, org_id: int, lce_id=None) → Tuple[Dict, Dict]
    Setup organization content view by adding all the repositories, publishing and promoting to lce if needed.

static setup_activation_key(org_id: int, content_view_id: int, lce_id: int, subscription_names:
    Optional[List[str]] = None) → Dict
    Create activation and associate content-view, lifecycle environment and subscriptions

static organization_has_manifest(organization_id)
    Check if an organization has a manifest, an organization has manifest if one of it's subscriptions have the account defined.

setup_content(self: int, org_id: int, lce_id: bool, upload_manifest: str = False, download_policy:
    Optional[List[str]] = DOWNLOAD_POLICY_ON_DEMAND, rh_subscriptions=None) →
    Dict[str, Any]
    Setup content view and activation key of all the repositories.

Parameters

- org_id – The organization id
- lce_id – The lifecycle environment id
- upload_manifest – Whether to upload the manifest (The manifest is uploaded only if needed)
- download_policy – The repositories download policy
- rh_subscriptions – The RH subscriptions to be added to activation key

setup_virtual_machine(self, vm, patch_os_release=False, install_katello_agent=True,
    enable_rh_repos=True, enable_custom_repos=False,
    configure_rhel_repo=False)
    Setup The virtual machine basic task, eg: install katello ca, register vm host, enable rh repos and install katello-agent

Parameters

```

- **vm** (`VirtualMachine`) – The Virtual machine to setup.
- **patch\_os\_release** (`bool`) – whether to patch the VM with os version.
- **install\_katello\_agent** (`bool`) – whether to install katello-agent
- **enable\_rh\_repos** (`bool`) – whether to enable RH repositories
- **enable\_custom\_repos** (`bool`) – whether to enable custom repositories
- **configure\_rhel\_repo** (`bool`) – Whether to configure the distro Red Hat repository, this is needed to configure manually RHEL custom repo url as sync time is very big (more than 2 hours for RHEL 7Server) and not critical for some contexts.

## `robottelo.rh_cloud_utils`

Utility module for RH cloud inventory tests

### Module Contents

#### Functions

<code>get_host_counts(tarobj)</code>	Returns hosts count from tar file.
<code>get_local_file_data(path)</code>	Returns information about tar file.
<code>get_remote_report_checksum(org_id)</code>	Returns checksum of red_hat_inventory report present on satellite.

#### `robottelo.rh_cloud_utils.get_host_counts(tarobj)`

Returns hosts count from tar file. Args:

tarobj: tar file to get host count from

#### `robottelo.rh_cloud_utils.get_local_file_data(path)`

Returns information about tar file. Args:

path: path to tar file

#### `robottelo.rh_cloud_utils.get_remote_report_checksum(org_id)`

Returns checksum of red\_hat\_inventory report present on satellite. Args:

org\_id: organization-id

## robottelo.rhssو\_utils

Utility module to handle the rhsso-satellite configure UI/CLI/API testing

### Module Contents

#### Functions

<code>run_command(cmd, hostname=satellite, time_out=None)</code>	helper function for ssh command and avoiding the return code check in called function
<code>get_rhssو_client_id()</code>	Getter method for fetching the client id and can be used other functions
<code>get_rhssو_user_details(username)</code>	Getter method to receive the user id
<code>get_rhssو_groups_details(group_name)</code>	Getter method to receive the group id
<code>upload_rhssو_entity(json_content, entity_name)</code>	Helper method upload the entity json request as file on RHSSO Server
<code>create_mapper(json_content, client_id)</code>	Helper method to create the RH-SSO Client Mapper
<code>create_new_rhssو_user(client_id, username=None)</code>	create new user in RHSSO instance and set the password
<code>update_rhssو_user(username, group_name=None)</code>	
<code>delete_rhssو_user(username)</code>	Delete the RHSSO user
<code>create_group(group_name=None)</code>	Create the RHSSO group
<code>delete_rhssو_group(group_name)</code>	Delete the RHSSO group
<code>update_client_configuration(json_content)</code>	Update the client configuration
<code>get_oidc_token_endpoint()</code>	getter oidc token endpoint
<code>get_oidc_client_id()</code>	getter for the oidc client_id
<code>get_oidc_authorization_endpoint()</code>	getter for the oidc authorization endpoint
<code>get_two_factor_token_rh_sso_url()</code>	getter for the two factor token rh_sso url
<code>open_pxssh_session(ssh_key=settings.server.ssh_key, hostname=settings.server.hostname, user_name=settings.server.ssh_username)</code>	user-
<code>set_the_redirect_uri()</code>	

### Attributes

---

`satellite`

---

`rhssو_host`

---

`realm`

---

`rhssو_user`

---

`rhssو_password`

---

robottelo.rhssو\_utils.**satellite**

```
robottelo.rhsso_utils.rhsso_host
robottelo.rhsso_utils.realm
robottelo.rhsso_utils.rhsso_user
robottelo.rhsso_utils.rhsso_password
robottelo.rhsso_utils.run_command(cmd, hostname=satellite, timeout=None)
    helper function for ssh command and avoiding the return code check in called function
robottelo.rhsso_utils.get_rhsso_client_id()
    Getter method for fetching the client id and can be used other functions
robottelo.rhsso_utils.get_rhsso_user_details(username)
    Getter method to receive the user id
robottelo.rhsso_utils.get_rhsso_groups_details(group_name)
    Getter method to receive the group id
robottelo.rhsso_utils.upload_rhsso_entity(json_content, entity_name)
    Helper method upload the entity json request as file on RHSSO Server
robottelo.rhsso_utils.create_mapper(json_content, client_id)
    Helper method to create the RH-SSO Client Mapper
robottelo.rhsso_utils.create_new_rhsso_user(client_id, username=None)
    create new user in RHSSO instance and set the password
robottelo.rhsso_utils.update_rhsso_user(username, group_name=None)
robottelo.rhsso_utils.delete_rhsso_user(username)
    Delete the RHSSO user
robottelo.rhsso_utils.create_group(group_name=None)
    Create the RHSSO group
robottelo.rhsso_utils.delete_rhsso_group(group_name)
    Delete the RHSSO group
robottelo.rhsso_utils.update_client_configuration(json_content)
    Update the client configuration
robottelo.rhsso_utils.get_oidc_token_endpoint()
    getter oidc token endpoint
robottelo.rhsso_utils.get_oidc_client_id()
    getter for the oidc client_id
robottelo.rhsso_utils.get_oidc_authorization_endpoint()
    getter for the oidc authorization endpoint
robottelo.rhsso_utils.get_two_factor_token_rh_sso_url()
    getter for the two factor token rh_sso url
robottelo.rhsso_utils.open_pxssh_session(ssh_key=settings.server.ssh_key,
                                         hostname=settings.server.hostname,
                                         username=settings.server.ssh_username)
robottelo.rhsso_utils.set_the_redirect_uri()
```

**robottelo.ssh**

Utility module to handle the shared ssh connection.

**Module Contents****Classes**

<code>SSHCommandResult</code>	Structure that returns in all ssh commands results.
<code>SSHClient</code>	Extended SSHClient allowing custom methods

**Functions**

<code>decode_to_utf8(text)</code>	Paramiko returns bytes object and we need to ensure it is utf-8 before
<code>_call_paramiko_sshclient()</code>	Call paramiko.SSHClient.
<code>get_client(hostname=None, username=None, password=None, key_filename=None, key_string=None, timeout=None, port=22)</code>	Returns a SSH client connected to given hostname
<code>get_connection(hostname=None, user_name=None, password=None, key_filename=None, key_string=None, timeout=None, port=22)</code>	Yield an ssh connection object.
<code>get_sftp_session(hostname=None, user_name=None, password=None, key_filename=None, key_string=None, timeout=None)</code>	Yield a SFTP session object.
<code>addAuthorizedKey(key, hostname=None, user_name=None, password=None, key_filename=None, key_string=None, timeout=None)</code>	Appends a local public ssh key to remote authorized keys
<code>upload_file(local_file, remote_file, key_filename=None, key_string=None, host_name=None)</code>	Upload a local file to a remote machine
<code>upload_files(local_dir, remote_dir, file_search='*.txt', hostname=None, key_filename=None, key_string=None)</code>	Upload all files from directory to a remote directory
<code>_upload_file(sftp, local_file, remote_file)</code>	Upload a file using existent sftp session
<code>download_file(remote_file, local_file=None, host_name=None)</code>	Download a remote file to the local machine. If hostname is not
<code>command(cmd, hostname=None, output_format=None, username=None, password=None, key_filename=None, key_string=None, timeout=None, connection_timeout=None, port=22)</code>	Executes SSH command(s) on remote hostname.
<code>execute_command(cmd, connection, output_format=None, timeout=None, connection_timeout=None)</code>	Execute a command via ssh in the given connection
<code>is_ssh_pub_key(key)</code>	Validates if a string is in valid ssh pub key format

## Attributes

---

`logger`

---

`robottelo.ssh.logger`

`exception robottelo.ssh.SSHCommandTimeoutError`

Bases: `Exception`

Raised when the SSH command has not finished executing after a predefined period of time.

`robottelo.ssh.decode_to_utf8(text)`

Paramiko returns bytes object and we need to ensure it is utf-8 before parsing

`class robottelo.ssh.SSHCommandResult(stdout=None, stderr=None, return_code=0, output_format=None)`

Structure that returns in all ssh commands results.

`__repr__(self)`

Return `repr(self)`.

`class robottelo.ssh.SSHClient`

Bases: `paramiko.SSHClient`

Extended `SSHClient` allowing custom methods

`run(self, cmd, *args, **kwargs)`

This method exists to allow the reuse of existing connections when running multiple ssh commands as in the following example of use:

```
with robottelo.ssh.get_connection() as connection: connection.run('ls      /tmp')      connection.run('another command')
```

`self` is always passed as the connection when used in context manager only when using `ssh.get_connection` function.

Note: This method is named `run` to avoid conflicts with existing `exec_command` and local function `execute_command`.

`robottelo.ssh._call_paramiko_sshclient()`

Call `paramiko.SSHClient`.

This function does not alter the behaviour of `paramiko.SSHClient`. It exists solely for the sake of easing unit testing: it can be overridden for mocking purposes.

`robottelo.ssh.get_client(hostname=None, username=None, password=None, key_filename=None, key_string=None, timeout=None, port=22)`

Returns a SSH client connected to given hostname

Processes ssh credentials in the order: password, key\_filename, ssh\_key Config validation enforces one of the three must be set in settings.server

`robottelo.ssh.get_connection(hostname=None, username=None, password=None, key_filename=None, key_string=None, timeout=None, port=22)`

Yield an ssh connection object.

The connection will be configured with the specified arguments or will fall-back to server configuration in the configuration file.

Yield this SSH connection. The connection is automatically closed when the caller is done using it using `contextlib`, so clients should use the `with` statement to handle the object:

```
with get_connection() as connection:
```

...

kwargs are passed through to get\_client

**Returns** An SSH connection.

**Return type** paramiko.SSHClient

`robottelo.ssh.get_sftp_session(hostname=None, username=None, password=None, key_filename=None, key_string=None, timeout=None)`

Yield a SFTP session object.

The session will be configured with the host whose hostname is passed as argument.

Yield this SFTP Session. The session is automatically closed when the caller is done using it using `contextlib`, so clients should use the ``with`` statement to handle the object:

```
with get_sftp_session() as session:
```

...

kwargs are passed through to get\_connection

`robottelo.ssh.addAuthorizedKey(key, hostname=None, username=None, password=None, key_filename=None, key_string=None, timeout=None)`

Appends a local public ssh key to remote authorized keys

refer to: `remote_execution_ssh_keys` provisioning template

kwargs are passed through to get\_client

**Parameters** `key` – either a file path, key string or a file-like obj to append.

`robottelo.ssh.upload_file(local_file, remote_file, key_filename=None, key_string=None, hostname=None)`

Upload a local file to a remote machine

#### Parameters

- `local_file` – either a file path or a file-like object to be uploaded.
- `remote_file` – a remote file path where the uploaded file will be placed.
- `hostname` – target machine hostname. If not provided will be used the `server.hostname` from the configuration.
- `key_filename(str)` – The path of the ssh private key to use when connecting to the server. If it is None `key_filename` from configuration's `server` section will be used.

`robottelo.ssh.upload_files(local_dir, remote_dir, file_search='*.txt', hostname=None, key_filename=None, key_string=None)`

Upload all files from directory to a remote directory

#### Parameters

- `local_dir` – all files from local path to be uploaded.
- `remote_dir` – a remote path where the uploaded files will be placed.
- `file_search` – filter only files contains the type extension
- `hostname` – target machine hostname. If not provided will be used the `server.hostname` from the configuration.
- `key_filename(str)` – The path of the ssh private key to use when connecting to the server. If it is None `key_filename` from configuration's `server` section will be used.

`robottelo.ssh._upload_file(sftp, local_file, remote_file)`

Upload a file using existent sftp session

**Parameters**

- **sftp** – sftp session object
- **local\_file** – either a file path or a file-like object to be uploaded.
- **remote\_file** – a remote file path where the uploaded file will be placed.

`robottelo.ssh.download_file(remote_file, local_file=None, hostname=None)`

Download a remote file to the local machine. If hostname is not provided will be used the server.

`robottelo.ssh.command(cmd, hostname=None, output_format=None, username=None, password=None, key_filename=None, key_string=None, timeout=None, connection_timeout=None, port=22)`

Executes SSH command(s) on remote hostname.

kwargs are passed through to get\_connection

**Parameters**

- **cmd (str)** – The command to run
- **output\_format (str)** – json, csv or None
- **timeout (int)** – Time to wait for the ssh command to finish.
- **connection\_timeout** – Time to wait for establishing the connection.

`robottelo.ssh.execute_command(cmd, connection, output_format=None, timeout=None, connection_timeout=None)`

Execute a command via ssh in the given connection

**Parameters**

- **cmd** – a command to be executed via ssh
- **connection** – SSH Paramiko client connection
- **output\_format** – base|json|csv|list valid only for hammer commands
- **timeout** – Time to wait for the ssh command to finish.
- **connection\_timeout** – Time to wait for establishing the connection.

**Returns** SSHCommandResult

`robottelo.ssh.is_ssh_pub_key(key)`

Validates if a string is in valid ssh pub key format

**Parameters** **key** – A string containing a ssh public key encoded in base64

**Returns** Boolean

## `robottelo.system_facts`

JSON representation for a RHEL server.

### Module Contents

#### Functions

---

<code>_bios_date()</code>	Generate a random date for system's BIOS between
<code>generate_system_facts(name=None)</code>	Generate random system facts for registration.

---

#### Attributes

---

`ARCHITECTURES`

---

`DISTRO_IDS`

---

`MEMORY_CAPACITY`

---

`MEMORY_SIZE`

---

`SYSTEM_FACTS`

---

#### `robottelo.system_facts._bios_date()`

Generate a random date for system's BIOS between today and 10 years ago.

**Returns** A random `datetime.date` that falls within the last 10 years from today.

**Return type** object

`robottelo.system_facts.ARCHITECTURES = ['i386', 'x86_64', 'ppc', 's390x']`

`robottelo.system_facts.DISTRO_IDS`

`robottelo.system_facts.MEMORY_CAPACITY = ['2 GB', '4 GB', '8 GB', '16 GB']`

`robottelo.system_facts.MEMORY_SIZE = ['1024 MB', '2048 MB', '4096 MB', '8192 MB']`

`robottelo.system_facts.SYSTEM_FACTS`

`robottelo.system_facts.generate_system_facts(name=None)`

Generate random system facts for registration.

**Parameters** `name` (`str`) – A valid FQDN for a system. If one is not provided, then a random value will be generated.

**Returns** A dictionary with random system facts

**Return type** dict

## robottelo.upgrade\_utility

Common Upgrade test utilities

### Module Contents

#### Functions

<code>run_goferd(client_hostname=None)</code>	Start the goferd process.
<code>check_package_installed(client_hostname=None, package=None)</code>	Verify if package is installed on docker content host.
<code>install_or_update_package(client_hostname=None, update=False, package=None)</code>	Install/update the package on docker content host.
<code>create_repo(rpm_name, repo_path, post_upgrade=False, other_rpm=None)</code>	Creates a custom yum repository, that will be synced to satellite
<code>host_status(client_container_name=None)</code>	fetch the content host details.
<code>host_location_update(client_container_name=None, logger_obj=None, loc=None)</code>	Check the content host status (as package profile update task does
<code>publish_content_view(org=None, repolist=None)</code>	publish content view and return content view

#### robottelo.upgrade\_utility.run\_goferd(*client\_hostname=None*)

Start the goferd process. :param: str `client_hostname`: It should be container's id.

#### robottelo.upgrade\_utility.check\_package\_installed(*client\_hostname=None, package=None*)

Verify if package is installed on docker content host. :param: str `client_hostname`: It should be container's id. :param: str `package`: pass the package name to check the status :return: name of the installed package

#### robottelo.upgrade\_utility.install\_or\_update\_package(*client\_hostname=None, update=False, package=None*)

Install/update the package on docker content host. :param: str `client_hostname`: It should be container's id. :param: bool `update`: :param: str `package`:

#### robottelo.upgrade\_utility.create\_repo(*rpm\_name, repo\_path, post\_upgrade=False, other\_rpm=None*)

Creates a custom yum repository, that will be synced to satellite and later to capsule from satellite :param: str `rpm_name` : rpm name, required to create a repository. :param: str `repo_path`: Name of the repository path :param: bool `post_upgrade`: For Pre-upgrade, `post_upgrade` value will be False :param: str `other_rpm`: If we want to clean a specific rpm and update with latest then we pass other rpm.

#### robottelo.upgrade\_utility.host\_status(*client\_container\_name=None*)

fetch the content host details. :param: str `client_container_name`: The content host hostname :return: nailgun.entity.host: host

#### robottelo.upgrade\_utility.host\_location\_update(*client\_container\_name=None, logger\_obj=None, loc=None*)

Check the content host status (as package profile update task does take time to upload) and update location.

**Param** str `client_container_name`: The content host hostname

**Param** str `loc`: Location

#### robottelo.upgrade\_utility.publish\_content\_view(*org=None, repolist=None*)

publish content view and return content view :param: str `org`: Name of the organisation :param: str `repolist`: Name of the repolist :return: Return content view

**robottelo.virtwho\_utils**

Utility module to handle the virtwho configure UI/CLI/API testing

**Module Contents****Functions**

<code>_parse_entry(entry)</code>	Parse the string and return json format
<code>get_system(system_type)</code>	Return a dict account for ssh connect.
<code>get_guest_info(hypervisor_type)</code>	Return the guest_name, guest_uuid
<code>runcmd(cmd, system=None, timeout=600, out_put_format='base')</code>	Return the retcode and stdout.
<code>register_system(system, activation_key=None, org='Default_Organization', env='Library')</code>	Return True if the system is registered to satellite successfully.
<code>virtwho_cleanup()</code>	Before running test cases, need to clean the environment.
<code>get_virtwho_status()</code>	Return the status of virt-who service, it will help us to know
<code>get_configure_id(name)</code>	Return the configure id by hammer.
<code>get_configure_command(config_id, org=DEFAULT_ORG)</code>	Return the deploy command line based on configure id.
<code>get_configure_file(config_id)</code>	Return the configuration file full name in /etc/virt-who.d
<code>get_configure_option(option, filename)</code>	Return the option's value for the specific file.
<code>_get_hypervisor_mapping(logs, hypervisor_type)</code>	Analysing rhsmlog and get to know: what is the hypervisor_name
<code>deploy_validation(hypervisor_type)</code>	Checkout the deploy result
<code>deploy_configure_by_command(command, hypervisor_type, debug=False, org='Default_Organization')</code>	Deploy and run virt-who servcie by the hammer command.
<code>deploy_configure_by_script(script_content, hypervisor_type, debug=False)</code>	Deploy and run virt-who service by the shell script.
<code>restart_virtwho_service()</code>	Do the following:
<code>update_configure_option(option, value, config_file)</code>	Update option in virt-who config file
<code>delete_configure_option(option, config_file)</code>	Delete option in virt-who config file
<code>add_configure_option(option, value, config_file)</code>	Add option to virt-who config file
<code>hypervisor_json_create(hypervisors, guests)</code>	Create a hypervisor guest json data. For example:
<code>create_fake_hypervisor_content(org_label, hypervisors, guests)</code>	Post the fake hypervisor content to satellite server
<code>get_hypervisor_info(hypervisor_type)</code>	Get the hypervisor_name and guest_name from rhsmlog.
<code>virtwho_package_locked()</code>	Uninstall virt-who package and lock the foreman-maintain packages.
<code>create_http_proxy(name=None, url=None, type='https')</code>	Creat a new http-proxy with attributes.

## Attributes

---

`VIRTWHO_SYSCONFIG`

---

`virtwho`

---

`robottelo.virtwho_utils.VIRTWHO_SYSCONFIG = /etc/sysconfig/virt-who`

`robottelo.virtwho_utils.virtwho`

`exception robottelo.virtwho_utils.VirtWhoError`

Bases: `Exception`

Exception raised for failed virtwho operations

`robottelo.virtwho_utils._parse_entry(entry)`

Parse the string and return json format

`robottelo.virtwho_utils.get_system(system_type)`

Return a dict account for ssh connect.

**Parameters** `system_type (str)` – The type of the system, should be one of ('satellite', 'esx', 'xen', 'hyperv', 'rhev', 'libvirt', 'kubevirt').

**Raises** `VirtWhoError`: If wrong `system_type` specified.

`robottelo.virtwho_utils.get_guest_info(hypervisor_type)`

Return the guest\_name, guest\_uuid

`robottelo.virtwho_utils.runcmd(cmd, system=None, timeout=600, output_format='base')`

Return the retcode and stdout.

### Parameters

- `cmd (str)` – The command line will be executed in the target system.
- `system (dict)` – the system account which ssh will connect to, it will connect to the satellite host if the system is None.
- `timeout (int)` – Time to wait for establish the connection.
- `output_format (str)` – base|json|csv|list

`robottelo.virtwho_utils.register_system(system, activation_key=None, org='Default_Organization', env='Library')`

Return True if the system is registered to satellite successfully.

### Parameters

- `system (dict)` – system account used by ssh to connect and register.
- `activation_key (str)` – the activation key will be used to register.
- `org (str)` – Which organization will be used to register.
- `env (str)` – Which environment will be used to register.

**Raises** `VirtWhoError`: If failed to register the system.

`robottelo.virtwho_utils.virtwho_cleanup()`

Before running test cases, need to clean the environment. Do the following: 1. stop virt-who service. 2. kill all the virt-who pid 3. clean rhsm.log message, make sure there is no old message exist. 4. clean all the configure files in /etc/virt-who.d/

`robottelo.virtwho_utils.get_virtwho_status()`

Return the status of virt-who service, it will help us to know the virt-who configuration file is deployed or not.

`robottelo.virtwho_utils.get_configure_id(name)`

Return the configure id by hammer. :param str name: the configure name you have created. :raises: VirtWhoError: If failed to get the configure info by hammer.

`robottelo.virtwho_utils.get_configure_command(config_id, org=DEFAULT_ORG)`

Return the deploy command line based on configure id. :param str config\_id: the unique id of the configure file you have created. :param str org: the satellite organization name.

`robottelo.virtwho_utils.get_configure_file(config_id)`

Return the configuration file full name in /etc/virt-who.d :param str config\_id: the unique id of the configuration file you have created.

`robottelo.virtwho_utils.get_configure_option(option, filename)`

Return the option's value for the specific file.

#### Parameters

- **option (str)** – the option name in the configuration file
- **filename (str)** – the configuration file, it could be: /etc/sysconfig/virt-who /etc/virt-who.d/virt-who-config-{ }.conf

**Raises** VirtWhoError: If this option name not in the file.

`robottelo.virtwho_utils._get_hypervisor_mapping(logs, hypervisor_type)`

Analysing rhsm.log and get to know: what is the hypervisor\_name for the specific guest. :param str logs: the output of rhsm.log. :param str hypervisor\_type: esx, libvirt, rhevm, xen, libvirt, kubevirt :raises: VirtWhoError: If hypervisor\_name is None. :return: hypervisor\_name and guest\_name

`robottelo.virtwho_utils.deploy_validation(hypervisor_type)`

Checkout the deploy result :param str hypervisor\_type: esx, libvirt, rhevm, xen, libvirt, kubevirt :raises: VirtWhoError: If failed to start virt-who servcie. :return: hypervisor\_name and guest\_name

`robottelo.virtwho_utils.deploy_configure_by_command(command, hypervisor_type, debug=False, org='Default_Organization')`

Deploy and run virt-who servcie by the hammer command.

#### Parameters

- **command (str)** – get the command by UI/CLI/API, it should be like: *hammer virt-who-config deploy -id 1 -organization-id 1*
- **hypervisor\_type (str)** – esx, libvirt, rhevm, xen, libvirt, kubevirt
- **debug (bool)** – if VIRTWHO\_DEBUG=1, this option should be True.
- **org (str)** – Organization Label

`robottelo.virtwho_utils.deploy_configure_by_script(script_content, hypervisor_type, debug=False)`

Deploy and run virt-who service by the shell script. :param str script\_content: get the script by UI or API. :param str hypervisor\_type: esx, libvirt, rhevm, xen, libvirt, kubevirt :param bool debug: if VIRTWHO\_DEBUG=1, this option should be True.

`robottelo.virtwho_utils.restart_virtwho_service()`

Do the following: 1. remove rhsm.log to ensure there are no old messages. 2. restart virt-who service via systemctl command

`robottelo.virtwho_utils.update_configure_option(option, value, config_file)`

Update option in virt-who config file :param option: the option you want to update :param value: set the option to the value :param config\_file: path of virt-who config file

`robottelo.virtwho_utils.delete_configure_option(option, config_file)`

Delete option in virt-who config file :param option: the option you want to delete :param config\_file: path of virt-who config file

`robottelo.virtwho_utils.add_configure_option(option, value, config_file)`

Add option to virt-who config file :param option: the option you want to add :param value: the value of the option :param config\_file: path of virt-who config file

`robottelo.virtwho_utils.hypervisor_json_create(hypervisors, guests)`

Create a hypervisor guest json data. For example: {‘hypervisors’: [{‘hypervisorId’: ‘820b5143-3885-4dba-9358-4ce8c30d934e’, ‘guests’: [{‘guestId’: ‘afb91b1f-8438-46f5-bc67-d7ab328ef782’, ‘state’: 1, ‘attributes’: {‘active’: 1, ‘virtWhoType’: ‘esx’}}]}]} :param hypervisors: how many hypervisors will be created :param guests: how many guests will be created

`robottelo.virtwho_utils.create_fake_hypervisor_content(org_label, hypervisors, guests)`

Post the fake hypervisor content to satellite server :param hypervisors: how many hypervisors will be created :param guests: how many guests will be created :param org\_label: the label of the Organization :return data: the hypervisor content

`robottelo.virtwho_utils.get_hypervisor_info(hypervisor_type)`

Get the hypervisor\_name and guest\_name from rhsm.log.

`robottelo.virtwho_utils.virtwho_package_locked()`

Uninstall virt-who package and lock the foreman-maintain packages.

`robottelo.virtwho_utils.create_http_proxy(name=None, url=None, type='https')`

Create a new http-proxy with attributes. :param name: Name of the proxy :param url: URL of the proxy including schema (<https://proxy.example.com:8080>) :param type: https or http :return:

## robottelo.vm

Utilities to create clients

Clients are virtual machines provisioned on a `provisioning_server`. All virtual machine images are stored on the `image_dir` path on the provisioning server.

Make sure to configure the `clients` section on the configuration file. Also make sure that the server have in place: the base images for rhel66 and rhel71, snap-guest and its dependencies and the `image_dir` path created.

## Module Contents

### Classes

---

<code>VirtualMachine</code>	Manages a virtual machine to allow client provisioning for robottelo
-----------------------------	--

---

## Attributes

---

`logger`

---

`robottelo.vm.logger`

`exception robottelo.vm.VirtualMachineError`

Bases: `Exception`

Exception raised for failed virtual machine management operations

`class robottelo.vm.VirtualMachine(cpu=1, ram=512, distro=None, provisioning_server=None, image_dir=None, tag=None, hostname=None, domain=None, source_image=None, target_image=None, bridge=None, network=None)`

Manages a virtual machine to allow client provisioning for robottelo

It expects that base images are created and snap-guest is setup on the provisioning server.

This also can be used as a context manager:

```
with VirtualMachine() as vm:
    result = vm.run('ls')
    out = result.stdout
```

Make sure to call `destroy()` to stop and clean the image on the provisioning server, otherwise the virtual machine and its image will stay on the server consuming hardware resources.

It is possible to customize the `provisioning_server` and `image_dir` as per virtual machine basis. Just set the wanted values when instantiating.

`allowed_distros(self)`

This is needed in construction, record it for easy reference Property instead of a class attribute to delay reading of the settings

`property subscribed(self)`

`property domain(self)`

`property hostname(self)`

`property target_image(self)`

`create(self)`

Creates a virtual machine on the provisioning server using snap-guest

`Raises robottelo.vm.VirtualMachineError` – Whenever a virtual machine could not be executed.

`destroy(self)`

Destroys the virtual machine on the provisioning server

`download_install_rpm(self, repo_url, package_name)`

Downloads and installs custom rpm on the virtual machine.

### Parameters

- `repo_url` – URL to repository, where package is located.
- `package_name` – Desired package name.

**Returns** None.

**Raises** `robottelo.vm.VirtualMachineError` – If package wasn’t installed.

**enable\_repo(self, repo, force=False)**

Enables specified Red Hat repository on the virtual machine. Does nothing if capsule or satellite tools repo was passed and downstream with custom repo URLs detected (custom repos are enabled by default when registering a host).

**Parameters**

- **repo** – Red Hat repository name.
- **force** – enforce enabling command, even when custom repos are detected for satellite tools or capsule.

**Returns** None.

**subscription\_manager\_list\_repos(self)**

**subscription\_manager\_status(self)**

**create\_custom\_repos(self, \*\*kwargs)**

Create custom repofiles. Each kwargs item will result in one repository file created. Where the key is the repository filename and repository name, and the value is the repository URL.

For example:

```
create_custom_repo(custom_repo='http://repourl.domain.com/path')
```

Will create a repository file named `custom_repo.repo` with the following contents:

```
[custom_repo]
name=custom_repo
baseurl=http://repourl.domain.com/path
enabled=1
gpgcheck=0
```

**install\_katello\_agent(self)**

Installs katello agent on the virtual machine.

**Returns** None.

**Raises** `robottelo.vm.VirtualMachineError` – If katello-ca wasn’t installed.

**install\_katello\_host\_tools(self)**

Installs Katello host tools on the virtual machine

**Raises** `robottelo.vm.VirtualMachineError` – If katello-host-tools wasn’t installed.

**install\_katello\_ca(self)**

Downloads and installs katello-ca rpm on the virtual machine.

Uses common helper `install_katello_ca(hostname=None)`, but passes `self.ip_addr` instead of the hostname as we are using fake hostnames for virtual machines.

**Returns** None.

**Raises** `robottelo.vm.VirtualMachineError` – If katello-ca wasn’t installed.

**install\_capsule\_katello\_ca(self, capsule=None)**

Downloads and installs katello-ca rpm on the virtual machine.

**Param** str capsule: Capsule hostname

**Raises** `robottelo.vm.VirtualMachineError` – If katello-ca wasn’t installed.

**register\_contenthost**(*self*, *org*, *activation\_key=None*, *lce=None*, *consumerid=None*, *force=True*, *releasever=None*, *username=None*, *password=None*, *auto\_attach=False*)

Registers content host on foreman server using activation-key. This can be done in two ways: either by specifying organization name and activation key name or by specifying organization name and lifecycle environment name (administrator credentials for authentication will be passed automatically)

#### Parameters

- **activation\_key** – Activation key name to register content host with.
- **lce** – lifecycle environment name to which register the content host.
- **consumerid** – uuid of content host, register to this content host, content host has to be created before
- **org** – Organization name to register content host for.
- **force** – Register the content host even if it’s already registered
- **releasever** – Set a release version
- **username** – a user name to register the content host with
- **password** – the user password
- **auto\_attach** – automatically attach compatible subscriptions to this system.

**Returns** SSHCommandResult instance filled with the result of the registration.

**remove\_katello\_ca**(*self*)

Removes katello-ca rpm from the virtual machine.

Uses common helper `remove_katello_ca(hostname=None)`, but passes `self.ip_addr` instead of the hostname as we are using fake hostnames for virtual machines.

**Returns** None.

**Raises** `robottelo.vm.VirtualMachineError` – If katello-ca wasn’t removed.

**remove\_capsule\_katello\_ca**(*self*, *capsule=None*)

Removes katello-ca rpm and reset rhsm.conf from the virtual machine.

**Param** str capsule: Capsule hostname

**Raises** `robottelo.vm.VirtualMachineError` – If katello-ca wasn’t removed.

**unregister**(*self*)

Run subscription-manager unregister.

**Returns** SSHCommandResult instance filled with the result of the unregistration.

**run**(*self*, *cmd*, *timeout=None*)

Runs a ssh command on the virtual machine

#### Parameters

- **cmd (str)** – Command to run on the virtual machine
- **timeout (int)** – Time to wait for the ssh command to finish

**Returns** A `robottelo.ssh.SSHCommandResult` instance with the commands results

**Return type** `robottelo.ssh.SSHCommandResult`

**Raises** `robottelo.vm.VirtualMachineError` – If the virtual machine is not created.

**get**(*self*, *remote\_path*, *local\_path=None*)

Get a remote file from the virtual machine.

**put**(*self*, *local\_path*, *remote\_path=None*)

Put a local file to the virtual machine.

**configure\_rhel\_repo**(*self*, *rhel\_repo*)

Configures specified Red Hat repository on the virtual machine.

**Parameters** **rhel\_repo** – Red Hat repository link from properties file.

**Returns** None.

**configure\_puppet**(*self*, *rhel\_repo=None*, *proxy\_hostname=None*)

Configures puppet on the virtual machine/Host. :param proxy\_hostname: external capsule hostname  
:param rhel\_repo: Red Hat repository link from properties file. :return: None.

**execute\_foreman\_scap\_client**(*self*, *policy\_id=None*)

Executes foreman\_scap\_client on the vm/clients to create security audit report.

**Parameters** **policy\_id** – The Id of the OSCAP policy.

**Returns** None.

**configure\_rhai\_client**(*self*, *activation\_key*, *org*, *rhel\_distro*, *register=True*)

Configures a Red Hat Access Insights service on the system by installing the redhat-access-insights package and registering to the service.

**Parameters**

- **activation\_key** – Activation key to be used to register the system to satellite
- **org** – The org to which the system is required to be registered
- **rhel\_distro** – rhel distribution for
- **register** – Whether to register client to insights

**Returns** None

**set\_infrastructure\_type**(*self*, *infrastructure\_type='physical'*)

Force host to appear as bare-metal or virtual machine in subscription-manager fact.

**Parameters** **infrastructure\_type** (*str*) – One of “physical”, “virtual”

**patch\_os\_release\_version**(*self*, *distro=DISTRO\_RHEL7*)

Patch VM OS release version.

This is needed by yum package manager to generate the right RH repositories urls.

**\_\_enter\_\_**(*self*)

**\_\_exit\_\_**(*self*, \**exc*)

**robottelo.vm\_capsule**

Virtual machine client provisioning with satellite capsule product setup

**Module Contents****Classes**


---

<code>CapsuleVirtualMachine</code>	Virtual machine client provisioning with satellite capsule product
------------------------------------	--

---

**Attributes**


---

<code>logger</code>
---------------------

---

`robottelo.vm_capsule.logger`

`exception robottelo.vm_capsule.CapsuleVirtualMachineError`

Bases: `Exception`

Exception raised for failed capsule virtual machine operations

`class robottelo.vm_capsule.CapsuleVirtualMachine(cpu=4, ram=16384, distro=None, provisioning_server=None, image_dir=None, org_id=None, lce_id=None, organization_ids=None, location_ids=None)`

Bases: `robottelo.vm.VirtualMachine`

Virtual machine client provisioning with satellite capsule product setup

`property hostname_local(self)`

The virtual machine local hostname from provisioning server

`property capsule_org(self)`

`property capsule(self)`

`property capsule_lce(self)`

`property capsule_location_ids(self)`

`property capsule_organization_ids(self)`

`_capsule_setup_name_resolution(self)`

Setup a name resolution so the capsule and satellite are resolvable

`_capsule_cleanup(self)`

make the necessary cleanup in case of a crash

`_setup_capsule(self)`

Prepare the virtual machine to host a capsule node

`create(self)`

Creates a virtual machine on the provisioning server using snap-guest

**Raises** `robottelo.vm.VirtualMachineError` – Whenever a virtual machine could not be executed.

**suspend**(*self*, *ensure=False*, *timeout=None*, *connection\_timeout=30*)  
Suspend the virtual machine.

#### Parameters

- **ensure** (*bool*) – ensure that the virtual machine is unreachable
- **timeout** (*int*) – Time to wait for the ssh command to finish.
- **connection\_timeout** (*int*) – Time to wait for establishing the connection.

Notes:

1. The virtual machine will consume system RAM but not processor resources. Disk and network I/O does not occur while the guest is suspended.
2. This operation is immediate and the guest can be restarted with resume.

**resume**(*self*, *ensure=False*, *timeout=None*, *connection\_timeout=30*)  
Restore from a suspended state

#### Parameters

- **ensure** (*bool*) – ensure that the virtual machine is reachable
- **timeout** (*int*) – Time to wait for the ssh command to finish.
- **connection\_timeout** (*int*) – Time to wait for establishing the connection.

Note: This operation is immediate

**destroy**(*self*)  
Destroys the virtual machine on the provisioning server

#### hidden

committing code\_standards reviewing\_PRs features/index autoapi/index

Want to contribute? Before submitting code, read through the committing guide and **Robottelo** code standards. Ready to start reviewing pull requests? We have a guide for that too! Finally, the [API reference](#) covers individual functions, classes, methods and modules.

**Robottelo** is compatible with Python 3.6+.

Bugs are listed [on GitHub](#). If you think you've found a new issue, please do one of the following:

- Open a new bug report on Github.
- Join the #robottelo IRC channel on Freenode (irc.freenode.net).

You can generate the documentation for Robottelo as follows, so long as you have [Sphinx](#) and make installed:

```
$ cd docs  
$ make html
```

You can generate a graph of Foreman entities and their dependencies, so long as you have [graphviz](#) installed:

```
$ make graph-entities
```

To check for code smells:

```
$ pre-commit install-hooks  
$ pre-commit run --all-files
```

The design and development for this software is led by [Og Maciel](#).



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