
rundeck-resources Documentation

Release 0.3.9

Elia El Lazkani

Nov 01, 2018

Contents

1	Installation	3
2	Usage	5
3	Docker	7
4	Importers	9
5	Exporters	11
6	Contributors:	13
6.1	CLI	13
6.2	Errors	14
6.3	Logger	15
6.4	Cache	15
6.5	Common	16
6.6	Config	16
6.7	Interfaces	16
6.8	Plugins	17
6.9	Chef Importer	17
6.10	YAML Exporter	18
7	Indices and tables	19
	Python Module Index	21

Python tool to query resources from different sources and export them into a data structure that `Rundeck` can consume.

CHAPTER 1

Installation

```
pip install rundeck-resources
```


CHAPTER 2

Usage

```
$ rundeck-resources -h
usage: rundeck-resources [-h] [-v] [-l LOGGER] [--no-cache] [-V] config

Generates rundeck resources file from different API sources.

positional arguments:
  config                Configuration file.

optional arguments:
  -h, --help            show this help message and exit
  -v, --verbose         Verbosity level to use.
  -l LOGGER, --logger LOGGER
                        The logger YAML configuration file.
  --no-cache            Do not use cache.
  -V, --version         Prints version.
```

The `rundeck-resources` requires an INI configuration file. You can see the example configuration in the [example.ini](#).

CHAPTER 3

Docker

There is a docker image tagged with the version of the released package.

ENV	OPTIONAL	DESCRIPTION
ARGS	True	The command line arguments.
CONFIG	False	The path to the configuration file.

Usage:

```
$ docker run -it -v ~/config:/config \  
-v ~/export:/export \  
-e ARGS="-vvv" -e CONFIG="/config/config.ini" \  
elazkani/rundeck-resources
```

Assumptions:

- ~/config/ holds the config.ini configuration file.
- The configuration is set to export to the /export/ path.
- /export will hold the resources exported file inside the container.
- ~/export/ exists on the host.

CHAPTER 4

Importers

rundeck-resources currently offer the following importers:

- Chef: `ChefImporter`

CHAPTER 5

Exporters

rundeck-resources currently offers the following exporters:

- **YAML:** `YAMLExporter`

- [Andrew Rabert](#)

6.1 CLI

`rundeck_resources.cli.argument_parse()`

Method to extract the arguments from the command line.

Return type `ArgumentParser`

Returns The argument parser.

`rundeck_resources.cli.export_resources(interfaces, resources)`

Method to export the resources using the *output* interfaces.

Parameters

- **interfaces** (`list`) – The list of initialized output interfaces.
- **resources** (`dict`) – The resources provided by the input interfaces.

Return type `None`

`rundeck_resources.cli.import_resources(interfaces)`

Method to get all resources from the *input* interfaces.

Parameters **interfaces** (`list`) – The list of initialized input interfaces.

Return type `dict`

Returns The resources returned by the input interfaces.

`rundeck_resources.cli.initialize_export_interfaces(config, plugins)`

Method to initialize the interfaces with the configuration.

Parameters

- **config** (`dict`) – The configuration file content.

- **plugins** (dict) – The list of loaded plugins.

Return type list

Returns The list of loaded plugins initialized.

`rundeck_resources.cli.initialize_import_interfaces (config, plugins, cache)`

Method to initialize the interfaces with the configuration.

Parameters

- **config** (dict) – The configuration file content.
- **plugins** (dict) – The list of loaded plugins.
- **cache** (*Cache*) – The cache system instance.

Return type list

Returns The list of loaded plugins initialized.

`rundeck_resources.cli.load_exporters (config)`

Method to load the *Exporters* plugins configured in the configuration file.

Parameters **config** – The configuration file content.

Returns The *Exporters* plugins, loaded.

`rundeck_resources.cli.load_importers (config)`

Method to load the *Importers* plugins configured in the configuration file.

Parameters **config** – The configuration file content.

Returns The *Importers* plugins, loaded.

`rundeck_resources.cli.main ()`

Main method.

Return type None

`rundeck_resources.cli.verbosity (verbose)`

Method to set the verbosity.

Parameters **verbose** (int) – The verbosity set by user.

Returns The verbosity level.

6.2 Errors

exception `rundeck_resources.errors.CacheNotFound (message=None)`

Custom *CacheNotFound* exception. We raise this exception when no plugin cache have been found.

exception `rundeck_resources.errors.ConfigError (message=None)`

Custom *ConfigError* exception. We raise this exception when a configuration error is encountered.

exception `rundeck_resources.errors.NoResourcesFound (message=None)`

Custom *NoResourcesFound* exception. We raise this exception when no resources have been returned from the importers.

6.3 Logger

`rundeck_resources.logger.setup_logging` (*default_path=None*, *default_level=40*,
env_key='LOG_CFG')

Method that sets the logging system up.

Parameters

- **default_path** (*Optional[str]*) – The path to the logger configuration.
- **default_level** (*int*) – The default logging level (DEFAULT: ERROR)
- **env_key** (*str*) – The environment variable specifying the path to the configuration file.

Return type `None`

6.4 Cache

class `rundeck_resources.cache.Cache` (*config, no_cache*)

A cache module the plugins can take advantage of in case the APIs do not return data or the server is down.

cache (*plugin, resources*)

Method to cache plugin data.

Parameters

- **plugin** (*str*) – The plugin name to cache data for.
- **resources** (*dict*) – The resources data to cache.

Return type `None`

invalidate (*plugin*)

Method to invalidate a plugin cache file.

Parameters **plugin** (*str*) – The plugin name to invalidate the cache file for.

Return type `None`

load_cache (*config*)

Method to search for all configured plugins cache files

Parameters **config** (*dict*) – the configuration provided by *config.read_config*.

Return type `dict`

Returns The cache configuration that includes paths to all plugin cache files.

static translate_to_filename (*plugin_name*)

Static method to translate the plugin name to a standard prefix that could be used in a standard matter in the *Cache* class.

Parameters **plugin_name** (*str*) – The plugin to translate the name for.

Return type `str`

Returns The translated plugin name.

uncache (*plugin*)

Method to read cached data for a specific plugin.

Parameters **plugin** (*str*) – The plugin to read cached data for.

Raises `CacheNotFound`

Return type dict

6.5 Common

`rundeck_resources.common.check_file(path)`

Method to normalize the path of a file and check if the file exists and is a file.

Parameters `path` (str) – The file path to check.

Return type str

Returns The absolute path of a file.

Raises FileNotFoundError

`rundeck_resources.common.get_section(plugin, title)`

Construct the configuration section

Parameters

- **plugin** (str) – The plugin name.
- **title** (str) – The title separated by : in the configuration file.

Return type str

Returns The configuration section to pull from the configuration file.

`rundeck_resources.common.normalize_path(path)`

Method to expand and return an absolute path from a normal path.

Parameters `path` (str) – The path to normalize.

Return type str

Returns The absolute path.

6.6 Config

`rundeck_resources.config.read_config(path)`

Method to read the init configuration file.

Parameters `path` (str) – The path to the init configuration file.

Return type dict

Returns The content of the configuration file.

6.7 Interfaces

class `rundeck_resources.interfaces.ResourcesExporter`

ResourcesExporter interface definition

export_resources (resources)

This method is expected to save the data into a rundeck resources formatted file.

Parameters `resources` (dict) – The resources to save into the resources file.

Return type None

class rundeck_resources.interfaces.ResourcesImporter

ResourcesImporter interface definition

import_resources ()

This method is expected to export the data into a rundeck data structure that can be easily saved

Return type dict

Returns Resources data.

6.8 Plugins

rundeck_resources.plugins.get_plugins (*resource_types*)

Method to get the plugins defined in the *entry_point*.

Parameters **resource_types** (*str*) – The resource type to get (Input, Output).

Return type dict

Returns The entry points by name.

rundeck_resources.plugins.load_plugins (*config, resource_types*)

Method to load plugins defined in the *entry_point* by *resource_type*.

Parameters

- **config** (*dict*) – The configuration file content.
- **resource_types** (*str*) – The resource type to load (Input, Output).

Return type dict

Returns The plugins loaded.

6.9 Chef Importer

class rundeck_resources.chef_importer.ChefImporter (*tiitle, config, cache*)

A Chef node information importer

static call_chef (*config*)

Method to query the chef server.

Parameters **config** (*dict*) – The chef configuration.

Return type dict

Returns The chef nodes information.

static expand_paths (*config*)

Method to expand file paths for the user certificate and the chef ssl certificate.

Parameters **config** (*dict*) – The chef configuration.

Return type dict

Returns The chef configuration with expanded paths.

static expand_ssl_cert_path (*ssl_cert_path*)

Method to return expanded and checked *ssl_cert_path*.

Parameters **user_cert_path** – The chef server SSL certificate path.

Return type `str`

Returns The check expanded chef server SSL certificate path.

static `expand_user_cert_path (user_cert_path)`

Method to return expanded and checked *user_cert_path*.

Parameters `user_cert_path (str)` – The user certificate path.

Return type `str`

Returns The check expanded user certificate path.

get_chef_nodes ()

Method to get the chef nodes information.

Return type `dict`

Returns The chef nodes information.

import_resources ()

Method to format chef resources into rundeck resources.

Return type `dict`

Returns Rundeck formatted nodes resources.

6.10 YAML Exporter

class `rundeck_resources.yaml_exporter.YAMLExporter (title, config={})`

The YAML rundeck exporter class

static `export_path (config)`

Method to get the rundeck export file in absolute path format.

Parameters `config (dict)` – The *Rundeck* section of the configuration.

Return type `str`

Returns The file path of rundeck resources to export to.

export_resources (dictionary)

Method to save nodes' information into a rundeck nodes resources *YAML* file.

Parameters `dictionary (dict)` – Rundeck formatted nodes information.

Return type `None`

CHAPTER 7

Indices and tables

- `genindex`
- `modindex`
- `search`

r

- `rundeck_resources.cache`, [15](#)
- `rundeck_resources.chef_importer`, [17](#)
- `rundeck_resources.cli`, [13](#)
- `rundeck_resources.common`, [16](#)
- `rundeck_resources.config`, [16](#)
- `rundeck_resources.errors`, [14](#)
- `rundeck_resources.interfaces`, [16](#)
- `rundeck_resources.logger`, [15](#)
- `rundeck_resources.plugins`, [17](#)
- `rundeck_resources.yaml_exporter`, [18](#)

A

argument_parse() (in module rundeck_resources.cli), 13

C

Cache (class in rundeck_resources.cache), 15

cache() (rundeck_resources.cache.Cache method), 15

CacheNotFound, 14

call_chef() (rundeck_resources.chef_importer.ChefImporter static method), 17

check_file() (in module rundeck_resources.common), 16

ChefImporter (class in rundeck_resources.chef_importer), 17

ConfigError, 14

E

expand_paths() (rundeck_resources.chef_importer.ChefImporter static method), 17

expand_ssl_cert_path() (rundeck_resources.chef_importer.ChefImporter static method), 17

expand_user_cert_path() (rundeck_resources.chef_importer.ChefImporter static method), 18

export_path() (rundeck_resources.yaml_exporter.YAMLExporter static method), 18

export_resources() (in module rundeck_resources.cli), 13

export_resources() (rundeck_resources.interfaces.ResourcesExporter method), 16

export_resources() (rundeck_resources.yaml_exporter.YAMLExporter method), 18

G

get_chef_nodes() (rundeck_resources.chef_importer.ChefImporter method), 18

get_plugins() (in module rundeck_resources.plugins), 17

get_section() (in module rundeck_resources.common), 16

I

import_resources() (in module rundeck_resources.cli), 13

import_resources() (rundeck_resources.chef_importer.ChefImporter method), 18

import_resources() (rundeck_resources.interfaces.ResourcesImporter method), 17

initialize_export_interfaces() (in module rundeck_resources.cli), 13

initialize_import_interfaces() (in module rundeck_resources.cli), 14

invalidate() (rundeck_resources.cache.Cache method), 15

L

load_cache() (rundeck_resources.cache.Cache method), 15

load_exporters() (in module rundeck_resources.cli), 14

load_importers() (in module rundeck_resources.cli), 14

load_plugins() (in module rundeck_resources.plugins), 17

M

main() (in module rundeck_resources.cli), 14

N

NoResourcesFound, 14

normalize_path() (in module rundeck_resources.common), 16

R

read_config() (in module rundeck_resources.config), 16

ResourcesExporter (class in rundeck_resources.interfaces), 16

ResourcesImporter (class in rundeck_resources.interfaces), 16

rundeck_resources.cache (module), 15

rundeck_resources.chef_importer (module), 17

rundeck_resources.cli (module), 13

[rundeck_resources.common \(module\)](#), [16](#)
[rundeck_resources.config \(module\)](#), [16](#)
[rundeck_resources.errors \(module\)](#), [14](#)
[rundeck_resources.interfaces \(module\)](#), [16](#)
[rundeck_resources.logger \(module\)](#), [15](#)
[rundeck_resources.plugins \(module\)](#), [17](#)
[rundeck_resources.yaml_exporter \(module\)](#), [18](#)

S

[setup_logging\(\)](#) (in module [rundeck_resources.logger](#)),
[15](#)

T

[translate_to_filename\(\)](#) ([rundeck_resources.cache.Cache](#)
static method), [15](#)

U

[uncache\(\)](#) ([rundeck_resources.cache.Cache](#) method), [15](#)

V

[verbosity\(\)](#) (in module [rundeck_resources.cli](#)), [14](#)

Y

[YAMLExporter](#) (class in [rundeck_resources.yaml_exporter](#)), [18](#)