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# **rundeck-resources Documentation**

***Release 0.3.9***

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



# CHAPTER 1

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## Installation

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```
pip install rundeck-resources
```





## CHAPTER 2

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### Usage

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```
$ 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

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### Docker

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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

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### Importers

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**rundeck-resources** currently offer the following importers:

- Chef: `ChefImporter`



## CHAPTER 5

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### Exporters

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**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

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