
Honeycomb Documentation

Release 0.0.11

Cymmetria

May 15, 2018

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Honeycomb is an open-source honeypot framework created by [Cymmetria](#).

Honeycomb allows running honeypots with various integrations from a public library of plugins from https://github.com/Cymmetria/honeycomb_plugins

Writing new honeypot services and integrations for honeycomb is super easy! See the plugins repo for more info.

Full CLI documentation can be found at <http://honeycomb.cymmetria.com/en/latest/cli.html>

CHAPTER 1

Usage

Using pip:

```
$ pip install honeycomb-framework
$ honeycomb --help
```

Using Docker:

```
$ docker run -v honeycomb.yml:/usr/share/honeycomb/honeycomb.yml cymmetria/honeycomb
```

1.1 Running Honeycomb from command line

1.1.1 Honeycomb

Honeycomb is a honeypot framework.

```
Honeycomb [OPTIONS] COMMAND [ARGS] ...
```

Options

```
-H, --home <home>
    Honeycomb home path [default: /home/docs/.config/honeycomb]

--iamroot
    Force run as root (NOT RECOMMENDED!)

-c, --config <config>
    Path to a honeycomb.yml file that provides instructions

-v, --verbose
    Enable verbose logging
```

--version

Show the version and exit.

Environment variables

DEBUG

Provide a default for `--verbose`

integration

Honeycomb integration commands.

```
Honeycomb integration [OPTIONS] COMMAND [ARGS]...
```

configure

Configure an integration with default parameters.

You can still provide one-off integration arguments to `honeycomb.commands.service.run()` if required.

```
Honeycomb integration configure [OPTIONS] INTEGRATION [ARGS]...
```

Options

-e, --editable

Load integration directly from unspecified path without installing (mainly for dev)

-a, --show_args

Show available integration arguments

Arguments

INTEGRATION

Required argument

ARGS

Optional argument(s)

install

Install a honeycomb integration from the online library, local path or zipfile.

```
Honeycomb integration install [OPTIONS] [INTEGRATIONS]...
```

Arguments

INTEGRATIONS

Optional argument(s)

list

List integrations.

```
Honeycomb integration list [OPTIONS]
```

Options

-r, --remote

Include available integrations from online repository

show

Show detailed information about a package.

```
Honeycomb integration show [OPTIONS] INTEGRATION
```

Options

-r, --remote

Show information only from remote repository

Arguments

INTEGRATION

Required argument

test

Execute the integration's internal test method to verify it's working as intended.

```
Honeycomb integration test [OPTIONS] [INTEGRATIONS]...
```

Options

-e, --editable

Run integration directly from specified path (main for dev)

Arguments

INTEGRATIONS

Optional argument(s)

uninstall

Uninstall a integration.

```
Honeycomb integration uninstall [OPTIONS] [INTEGRATIONS]...
```

Options

-y, --yes

Don't ask for confirmation of uninstall deletions.

Arguments

INTEGRATIONS

Optional argument(s)

service

Honeycomb service commands.

```
Honeycomb service [OPTIONS] COMMAND [ARGS]...
```

install

Install a honeypot service from the online library, local path or zipfile.

```
Honeycomb service install [OPTIONS] [SERVICES]...
```

Arguments

SERVICES

Optional argument(s)

list

List services.

```
Honeycomb service list [OPTIONS]
```

Options

-r, --remote

Include available services from online repository

logs

Show logs of daemonized service.

```
Honeycomb service logs [OPTIONS] SERVICES...
```

Options

-n, --num <num>
Number of lines to read from end of file [default: 10]

-f, --follow
Follow log output

Arguments

SERVICES
Required argument(s)

run

Load and run a specific service.

```
Honeycomb service run [OPTIONS] SERVICE [ARGS]...
```

Options

-d, --daemon
Run service in daemon mode
-e, --editable
Load service directly from specified path without installing (mainly for dev)
-a, --show-args
Show available service arguments
-i, --integration <integration>
Enable an integration

Arguments

SERVICE
Required argument

ARGS
Optional argument(s)

show

Show detailed information about a package.

```
Honeycomb service show [OPTIONS] SERVICE
```

Options

-r, --remote

Show information only from remote repository

Arguments

SERVICE

Required argument

status

Show status of installed service(s).

```
Honeycomb service status [OPTIONS] [SERVICES]...
```

Options

-a, --show-all

Show status for all services

Arguments

SERVICES

Optional argument(s)

stop

Stop a running service daemon.

```
Honeycomb service stop [OPTIONS] SERVICE
```

Options

-e, --editable

Load service directly from specified path without installing (mainly for dev)

Arguments

SERVICE

Required argument

test

Execute the service's internal test method to verify it's working as intended.

If there's no such method, honeycomb will attempt to connect to the port listed in config.json

```
Honeycomb service test [OPTIONS] [SERVICES]...
```

Options

-f, --force

Do not check if service is running before testing

-e, --editable

Run service directly from specified path (main for dev)

Arguments

SERVICES

Optional argument(s)

uninstall

Uninstall a service.

```
Honeycomb service uninstall [OPTIONS] [SERVICES]...
```

Options

-y, --yes

Don't ask for confirmation of uninstall deletions.

Arguments

SERVICES

Optional argument(s)

1.2 Running honeycomb in a container

The rationale of container support is to allow rapid configuration and deployment so launching honeypots would be simple and easy.

Since honeycomb is a standalone runner for services and integrations, it doesn't make sense for it to orchestrate deployment of external honeypots using docker. Instead, honeycomb itself could be run as a container.

This means the goal is to allow simple configuration that can be passed on to honeycomb and launch services with integration at ease.

To launch a honeycomb service with configured integration, the user needs to type in several commands to install a service, install an integration, configure that integration and finally run the service with optional parameters.

This actually resembles configuring a docker environment, where the user needs to type in several commands to define volumes, networks, and finally run a the desired container.

A yaml configuration that specifies all of the desired configurations (services, integrations, etc.) will be supplied to honeycomb, and it will work like a state-machine to reach the desired state before finally running the service.

An example honeycomb file can be found on [github](#)

```
1 ---  
2 version: 1  
3  
4 services:  
5   simple_http:  
6     parameters:  
7       port: 1234  
8  
9 integrations:  
10  syslog:  
11    parameters:  
12      address: "127.0.0.1"  
13      port: 5514  
14      protocol: tcp
```

1.3 API Reference

1.3.1 honeycomb package

Subpackages

[honeycomb.commands.service package](#)

Submodules

[honeycomb.commands.service.install module](#)

Honeycomb service install command.

[honeycomb.commands.service.list module](#)

Honeycomb service list command.

honeycomb.commands.service.logs module

Honeycomb service logs command.

honeycomb.commands.service.run module

Honeycomb service run command.

honeycomb.commands.service.show module

Honeycomb service show command.

honeycomb.commands.service.status module

Honeycomb service status command.

honeycomb.commands.service.stop module

Honeycomb service stop command.

honeycomb.commands.service.test module

Honeycomb service test command.

honeycomb.commands.service.uninstall module

Honeycomb service uninstall command.

honeycomb.commands.integration package

Submodules

honeycomb.commands.integration.configure module

Honeycomb integration run command.

honeycomb.commands.integration.install module

Honeycomb integration install command.

honeycomb.commands.integration.list module

Honeycomb integration list command.

honeycomb.commands.integration.show module

Honeycomb integration show command.

honeycomb.commands.integration.test module

Honeycomb integration test command.

honeycomb.commands.integration.uninstall module

Honeycomb integration uninstall command.

honeycomb.decoymanager package

Submodules

honeycomb.decoymanager.models module

Honeycomb defs and constants.

```
class honeycomb.decoymanager.models.Alert(alert_type: honey-
                                             comb.decoymanager.models.AlertType, id:
                                             str = NOTHING, status: int = 2, timestamp:
                                             datetime.datetime = NOTHING) → None
```

Bases: object

Alert object.

```
ALERT_STATUS = ((0, 'Ignore'), (1, 'Mute'), (2, 'Alert'))
```

```
STATUS_ALERT = 2
```

```
STATUS_IGNORED = 0
```

```
STATUS_MUTED = 1
```

```
additional_fields
```

```
address
```

```
alert_type
```

```
cmd
```

```
decoy_hostname
```

```
decoy_ipv4
```

```
decoy_name
```

```
decoy_os
```

```
dest_ip
```

```
dest_port
```

```
domain
```

```
end_timestamp
```

```
event_description
event_type
file_accessed
id
image_file
image_md5
image_path
image_sha256
manufacturer
originating_hostname
originating_ip
originating_mac_address
originating_port
password
pid
ppid
request
status
timestamp
transport_protocol
uid
username

class honeycomb.decoymanager.models.AlertType(name: str, label: str, service_type: honeycomb.servicemanager.models.ServiceType)
→ None
Bases: object
Alert Type.

label
name
service_type
```

Module contents

Honeycomb Decoy Manager.

honeycomb.integrationmanager package

Submodules

honeycomb.integrationmanager.defs module

Honeycomb integrations definitions and constants.

```
class honeycomb.integrationmanager.defs.IntegrationAlertStatuses → None
    Bases: honeycomb.defs.IBaseType

    Provides information about the alert status in queue.

    DONE = BaseNameLabel(name='done', label='Done')
    ERROR_MISSING_SEND_FIELDS = BaseNameLabel(name='error_missing', label='Error. Missing')
    ERROR_POLLING = BaseNameLabel(name='error_polling', label='Error polling')
    ERROR_POLLING_FORMATTING = BaseNameLabel(name='error_polling_formatting', label='Error')
    ERROR_SENDING = BaseNameLabel(name='error_sending', label='Error sending')
    ERROR_SENDING_FORMATTING = BaseNameLabel(name='error_sending_formatting', label='Error')
    IN_POLLING = BaseNameLabel(name='in_polling', label='Polling')
    PENDING = BaseNameLabel(name='pending', label='Pending')
    POLLING = BaseNameLabel(name='polling', label='Polling')

class honeycomb.integrationmanager.defs.IntegrationTypes → None
    Bases: honeycomb.defs.IBaseType

    Integration types.

    Currently only output event is supported.

    EVENT_OUTPUT = BaseNameLabel(name='event_output', label='Event output')
```

honeycomb.integrationmanager.error_messages module

Honeycomb integration error messages.

honeycomb.integrationmanager.exceptions module

Honeycomb Output Integration Exceptions.

```
exception honeycomb.integrationmanager.exceptions.IntegrationMissingRequiredFieldError(*args, **kwargs)
    Bases: honeycomb.exceptions.PluginError

    IntegrationMissingRequiredFieldError.

exception honeycomb.integrationmanager.exceptions.IntegrationNoMethodImplementationError(*args, **kwargs)
    Bases: honeycomb.exceptions.PluginError

    IntegrationNoMethodImplementationError.
```

```

exception honeycomb.integrationmanager.exceptions.IntegrationNotFound(*args,
                                                               **kwargs)
Bases: honeycomb.exceptions.PluginError
Integration not found.

    msg_format = 'Cannot find integration named {}, try installing it?'
exception honeycomb.integrationmanager.exceptions.IntegrationOutputFormatError(*args,
                                                               **kwargs)
Bases: honeycomb.exceptions.PluginError
IntegrationOutputFormatError.

exception honeycomb.integrationmanager.exceptions.IntegrationPackageError(*args,
                                                               **kwargs)
Bases: honeycomb.exceptions.PluginError
IntegrationPackageError.

exception honeycomb.integrationmanager.exceptions.IntegrationPollEventError(*args,
                                                               **kwargs)
Bases: honeycomb.exceptions.PluginError
IntegrationPollEventError.

exception honeycomb.integrationmanager.exceptions.IntegrationSendEventError(*args,
                                                               **kwargs)
Bases: honeycomb.exceptions.PluginError
IntegrationSendEventError.

    msg_format = 'Error sending integration event: {}'
exception honeycomb.integrationmanager.exceptions.IntegrationTestFailed(*args,
                                                               **kwargs)
Bases: honeycomb.exceptions.PluginError
Integration not found.

    msg_format = 'Integration test failed, details: {}'

```

[honeycomb.integrationmanager.integration_utils module](#)

Honeycomb Integration Manager.

```

class honeycomb.integrationmanager.integration_utils.BaseIntegration(integration_data)
Bases: object

Base Output Integration Class.

Will be overridden by output plugins.

    format_output_data(output_data)
        format_output_data.

    poll_for_updates(integration_output_data)
        poll_for_updates.

    send_event(required_alert_fields)
        Send event.

    test_connection(data)
        test_connection.

```

honeycomb.integrationmanager.models module

Honeycomb integration models.

```
class honeycomb.integrationmanager.models.ConfiguredIntegration(name: str,
                                                                path: str,
                                                                integration: honeycomb.integrationmanager.models.Integration,
                                                                send_muted: bool = False,
                                                                created_at: datetime.datetime = NOTHING)
                                                                → None
```

Bases: object

Configured integration model.

```
class honeycomb.integrationmanager.models.Integration(parameters: str,
                                                       play_name: str, required_fields: list,
                                                       polling_enabled: bool,
                                                       integration_type: str,
                                                       max_send_retries: int,
                                                       supported_event_types: list,
                                                       test_connection_enabled: bool,
                                                       module=None, description: str = None,
                                                       polling_duration: datetime.timedelta = 0)
                                                       → None
```

Bases: object

Integration model.

```
class honeycomb.integrationmanager.models.IntegrationAlert(alert: honeycomb.decoymanager.models.Alert,
                                                               status: str, retries: int,
                                                               configured_integration: honeycomb.integrationmanager.models.ConfiguredIntegration)
                                                               → None
```

Bases: object

Integration alert model.

honeycomb.integrationmanager.registration module

Honeycomb service manager.

```
honeycomb.integrationmanager.registration.get_integration_module(integration_path)
```

Add custom paths to sys and import integration module.

Parameters `integration_path` – Path to integration folder

```
honeycomb.integrationmanager.registration.register_integration(package_folder)
    Register a honeycomb integration.
```

Parameters `package_folder` – Path to folder with integration to load

Returns Validated integration object

Return type `honeycomb.utils.defs.Integration()`

honeycomb.integrationmanager.tasks module

Honeycomb integration tasks.

```
honeycomb.integrationmanager.tasks.configure_integration(path)
    Configure and enable an integration.
```

```
honeycomb.integrationmanager.tasks.create_integration_alert_and_call_send(alert,
    con-
    fig-
    ured_integration)
Create an IntegrationAlert object and send it to Integration.
```

```
honeycomb.integrationmanager.tasks.get_current_datetime_utc()
    Return a datetime object localized to UTC.
```

```
honeycomb.integrationmanager.tasks.get_valid_configured_integrations(alert)
    Return a list of integrations for alert filtered by alert_type.
```

Returns A list of relevant integrations

```
honeycomb.integrationmanager.tasks.poll_integration_alert_data(integration_alert)
    Poll for updates on waiting IntegrationAlerts.
```

```
honeycomb.integrationmanager.tasks.poll_integration_information_for_waiting_integration_alerts()
    poll_integration_information_for_waiting_integration_alerts.
```

```
honeycomb.integrationmanager.tasks.send_alert_to_configured_integration(integration_alert)
    Send IntegrationAlert to configured integration.
```

```
honeycomb.integrationmanager.tasks.send_alert_to_subscribed_integrations(alert)
    Send Alert to relevant integrations.
```

Module contents

Honeycomb Output Manager.

honeycomb.servicemanager package

Submodules

honeycomb.servicemanager.base_service module

Custom Service implementation from MazeRunner.

```
class honeycomb.servicemanager.base_service.ServerCustomService(alert_types:  
    list,      ser-  
    vice_args: dict  
    = {}) → None
```

Bases: multiprocessing.context.Process

Custom Service Class.

This class provides a basic wrapper for honeycomb and mazerunner services.

Parameters `service_args` – Validated dictionary of service arguments (see: `honeycomb.Honeycomb.parse_service_args()`)

add_alert_to_queue(`alert_dict`)

Log alert and send to integrations.

emit(`**kwargs`)

Send alerts to logfile.

Parameters `kwargs` – Fields to pass to `honeycomb.decoymanager.models.Alert`

logger = `<logging.Logger object>`

on_server_shutdown()

Shutdown function of the server.

Override this and take care of gracefully shutting down your service (e.g., close files)

on_server_start()

Service run loop function.

The service manager will call this function in a new thread.

Note: Must call `signal_ready()` after finishing configuration

run()

Daemon entry point.

run_service()

Run the service and start an alert processing queue.

See also:

Use `on_server_start()` and `on_server_shutdown()` for starting and shutting down your service

signal_ready()

Signal the service manager this service is ready for incoming connections.

`honeycomb.servicemanager.defs` module

Honeycomb services definitions and constants.

```
honeycomb.servicemanager.defs.ALLOWED_PROTOCOLS = ['TCP', 'UDP']
```

Parameters.

```
honeycomb.servicemanager.defs.STDERRLOG = 'stderr.log'
```

Service section.

honeycomb.servicemanager.error_messages module

Honeycomb services error messages.

honeycomb.servicemanager.exceptions module

Honeycomb Service Manager Exceptions.

```
exception honeycomb.servicemanager.exceptions.ServiceManagerException(*args,
                                                                    **kwargs)
    Bases: honeycomb.exceptions.PluginError

    Generic Service Manager Exception.

exception honeycomb.servicemanager.exceptions.ServiceNotFound(*args, **kwargs)
    Bases: honeycomb.servicemanager.exceptions.ServiceManagerException

    Specified service does not exist.

    msg_format = 'Cannot find service named {}, try installing it?'

exception honeycomb.servicemanager.exceptions.UnsupportedOS(*args, **kwargs)
    Bases: honeycomb.servicemanager.exceptions.ServiceManagerException

    Specified service does not exist.

    msg_format = 'Service requires running on {} and you are using {}'
```

honeycomb.servicemanager.models module

Honeycomb service models.

```
class honeycomb.servicemanager.models.OSFamilies → None
    Bases: honeycomb.defs.IBaseType

    Defines supported platforms for services.

    ALL = BaseNameLabel(name='All', label='All')
    LINUX = BaseNameLabel(name='Linux', label='Linux')
    MACOS = BaseNameLabel(name='Darwin', label='Darwin')
    WINDOWS = BaseNameLabel(name='Windows', label='Windows')

class honeycomb.servicemanager.models.ServiceType(name: str, ports: list, label: str, allow_many: bool, supported_os_families: list, alert_types: list = []) → None
    Bases: object

    Holds loaded service metadata.
```

honeycomb.servicemanager.registration module

Honeycomb service manager.

```
honeycomb.servicemanager.registration.get_service_module(service_path)
    Add custom paths to sys and import service module.
```

Parameters `service_path` – Path to service folder

`honeycomb.servicemanager.registration.register_service(package_folder)`
Register a honeycomb service.

Parameters `package_folder` – Path to folder with service to load

Returns Validated service object

Return type `honeycomb.utils.defs.ServiceType()`

Module contents

Honeycomb Service Manager.

`honeycomb.utils` package

Submodules

`honeycomb.utils.config_utils` module

Honeycomb Config Utilities.

`honeycomb.utils.config_utils.config_field_type(field, cls)`
Validate a config field against a type.

Similar functionality to `validate_field_matches_type()` but returns `honeycomb.defs.ConfigField`

`honeycomb.utils.config_utils.get_config_parameters(plugin_path)`
Return the parameters section from config.json.

`honeycomb.utils.config_utils.get_truetype(value)`
Convert a string to a pythonized parameter.

`honeycomb.utils.config_utils.is_valid_field_name(value)`
Ensure field name is valid.

`honeycomb.utils.config_utils.process_config(ctx, configfile)`
Process a yaml config with instructions.

This is a heavy method that loads lots of content, so we only run the imports if its called.

`honeycomb.utils.config_utils.validate_config(config_json, fields)`
Validate a JSON file configuration against list of `honeycomb.defs.ConfigField`.

`honeycomb.utils.config_utils.validate_config_parameters(config_json, allowed_keys, allowed_types)`
Validate parameters in config file.

`honeycomb.utils.config_utils.validate_field(field, allowed_keys, allowed_types)`
Validate field is allowed and valid.

`honeycomb.utils.config_utils.validate_field_matches_type(field, value, field_type, select_items=None, min=None, max=None)`
Validate a config field against a specific type.

honeycomb.utils.daemon module

Honeycomb DaemonRunner utility.

```
class honeycomb.utils.daemon.myRunner (app, pidfile=None, stdout=<_io.TextIOWrapper  
name='<stdout>' mode='w' encoding='UTF-  
8'>, stderr=<_io.TextIOWrapper  
name='<stderr>' mode='w' encoding='UTF-  
8'>, stdin=<_io.TextIOWrapper name='/dev/null'  
mode='rt' encoding='UTF-8'>)
```

Bases: *daemon.runner.DaemonRunner*

Overriding default runner behaviour to be simpler.

honeycomb.utils.plugin_utils module

Honeycomb generic plugin install utils.

```
exception honeycomb.utils.plugin_utils.CTError (errors)
```

Bases: *Exception*

Copytree exception class, used to collect errors from the recursive *copy_tree* function.

```
honeycomb.utils.plugin_utils.copy_file (src, dst)
```

Copy a single file.

:param:*src*: Source name :param:*dst*: Destination name

```
honeycomb.utils.plugin_utils.copy_tree (src, dst, symlinks=False, ignore=[])
```

Copy a full directory structure.

:param:*src*: Source path :param:*dst*: Destination path :param:*symlinks*: Copy symlinks :param:*ignore*: Sub-dirs/filenames to ignore

```
honeycomb.utils.plugin_utils.get_plugin_path (home, plugin_type, plugin_name, editable=False)
```

Return path to plugin.

:param:*home*: Path to honeycomb home :param:*plugin_type*: Type of plugin (*honeycomb.defs.SERVICES* pr *honeycomb.defs.INTEGRATIONS*) :param:*plugin_name*: Name of plugin :param:*editable*: Use *plugin_name* as direct path instead of loading from honeycomb home folder

```
honeycomb.utils.plugin_utils.get_select_items (items)
```

Return list of possible select items.

```
honeycomb.utils.plugin_utils.install_deps (pkgpath)
```

Install plugin dependencies using pip.

We import pip here to reduce load time for when its not needed.

```
honeycomb.utils.plugin_utils.install_dir (pkgpath, install_path, register_func,  
delete_after_install=False)
```

Install plugin from specified directory.

install_path and *register_func* are same as *install_plugin()*. :param:*delete_after_install*: Delete *pkgpath* after install (used in *install_from_zip()*).

```
honeycomb.utils.plugin_utils.install_from_repo (pkgname, plugin_type, install_path, register_func)
```

Install plugin from online repo.

```
honeycomb.utils.plugin_utils.install_from_zip(pkgpath, install_path, register_func,  
                                delete_after_install=False)
```

Install plugin from zipfile.

```
honeycomb.utils.plugin_utils.install_plugin(pkgpath, plugin_type, install_path, regis-  
                                ter_func)
```

Install specified plugin.

:param:*pkgpath*: Name of plugin to be downloaded from online repo or path to plugin folder or zip file.
:param:*install_path*: Path where plugin will be installed. :param:*register_func*: Method used to register and validate plugin.

```
honeycomb.utils.plugin_utils.list_local_plugins(plugin_type, plugins_path, plu-  
                                gin_details)
```

List local plugins with details.

```
honeycomb.utils.plugin_utils.list_remote_plugins(installed_plugins, plugin_type)
```

List remote plugins from online repo.

```
honeycomb.utils.plugin_utils.parse_plugin_args(command_args, config_args)
```

Parse command line arguments based on the plugin's parameters config.

Parameters

- **command_args** – Command line arguments as provided by the user in *key=value* format.
- **config_args** – Plugin parameters parsed from config.json.

Returns Validated dictionary of parameters that will be passed to plugin class

```
honeycomb.utils.plugin_utils.print_plugin_args(plugin_path)
```

Print plugin parameters table.

```
honeycomb.utils.plugin_utils.uninstall_plugin(pkgpath, force)
```

Uninstall a plugin.

:param:*pkgpath*: Path to package to uninstall (delete) :param:*force*: Force uninstall without asking

honeycomb.utils.tailer module

Honeycomb service log tailer.

```
class honeycomb.utils.tailer.Tailer(name: str, filepath: str, color: str = "", nlines: int =  
                                10, follow: bool = False, outfile=<_io.TextIOWrapper  
                                name=<stdout>, mode='w', encoding='UTF-8',  
sleeptime: int = 0.5, show_name: bool = True,  
used_colors: list = []) → None
```

Bases: object

Colorized file tailer.

Print lines from a file prefixed with a colored name. Optionally continue to follow file.

```
follow_file()
```

Follow a file and send every new line to a callback.

```
print_log(line)
```

Print a line from a logfile.

```
print_named_log(line)
```

Print a line from a logfile prefixed with service name.

stop()
Stop follow.

honeycomb.utils.validators module

Honeycomb generic validators.

`honeycomb.utils.validators.validate_ip_or_hostname(value)`
IP/Host parameter validator.

`honeycomb.utils.validators.validate_port(value)`
Validate port is in standard range.

honeycomb.utils.wait module

Honeycomb wait utilities.

exception `honeycomb.utils.wait.TimeoutException`
Bases: Exception

Exception to be raised on timeout.

`honeycomb.utils.wait.search_json_log(filepath, key, value)`
Search json log file for a key=value pair.

Parameters

- **filepath** – Valid path to a json file
- **key** – key to match
- **value** – value to match

Returns First matching line in json log file, parsed by `json.loads()`

`honeycomb.utils.wait.wait_until(func, check_return_value=True, total_timeout=60, interval=0.5, exc_list=None, error_message="", *args, **kwargs)`
Run a command in a loop until desired result or timeout occurs.

Parameters

- **func** – Function to call and wait for
- **check_return_value** (`bool`) – Examine return value
- **total_timeout** (`int`) – Wait timeout,
- **interval** (`float`) – Sleep interval between retries
- **exc_list** (`list`) – Acceptable exception list
- **error_message** (`str`) – Default error messages
- **args** – args to pass to func
- **kwargs** – lwargs to pass to fun

Module contents

Honeycomb Utils.

Submodules

honeycomb.cli module

Honeycomb Command Line Interface.

class `honeycomb.cli.MyLogger(name, level=0)`

Bases: `logging.Logger`

Custom Logger.

makeRecord (`name, level, fn, lno, msg, args, exc_info, func=None, extra=None, sinfo=None`)

Override default logger to allow overriding of internal attributes.

`honeycomb.cli.setup_logging(home, verbose)`

Configure logging for honeycomb.

honeycomb.defs module

Honeycomb defs and constants.

class `honeycomb.defs.BaseCollection` → None

Bases: `object`

Abstract type collection mixin, should hold `BaseNameLabel` attributes.

class `honeycomb.defs.BaseNameLabel(name, label)` → None

Bases: `object`

Generic name/label class.

`honeycomb.defs.CONFIG_FILE_NAME = 'config.json'`

Parameters constants.

class `honeycomb.defs.ConfigField(validation_func, get_error_message)` → None

Bases: `object`

Config Validator.

`error_message` is also a function to calculate the error when we ran the `validation_func`

`honeycomb.defs.GITHUB_RAW_URL = 'https://raw.githubusercontent.com/Cymmetria/honeycomb_plug...`

Config constants.

class `honeycomb.defs.IBaseType` → None

Bases: `object`

Abstract type interface, provides `BaseNameLabel` collection methods.

classmethod `all_labels()`

Return list of all property labels.

classmethod `all_names()`

Return list of all property names.

honeycomb.error_messages module

Honeycomb generic error messages.

honeycomb.exceptions module

Honeycomb Exceptions.

```
exception honeycomb.exceptions.BaseHoneycombException(*args, **kwargs)
    Bases: click.exceptions.ClickException
    Base Exception.

    msg_format = None

exception honeycomb.exceptions.ConfigFieldMissing(*args, **kwargs)
    Bases: honeycomb.exceptions.ConfigValidationError
    Field is missing from config file.

    msg_format = 'field {} is missing from config file'

exception honeycomb.exceptions.ConfigFieldTypeMismatch(*args, **kwargs)
    Bases: honeycomb.exceptions.ConfigValidationError
    Config field does not match specified type.

    msg_format = 'Parameters: Bad value for {}={} (must be {})'

exception honeycomb.exceptions.ConfigFieldValidationError(*args, **kwargs)
    Bases: honeycomb.exceptions.ConfigValidationError
    Error validating config field.

    msg_format = 'Failed to import config. error in field {} with value {}:  {}'

exception honeycomb.exceptions.ConfigFileNotFoundException(*args, **kwargs)
    Bases: honeycomb.exceptions.PluginError
    Config file not found.

    msg_format = 'Missing file {}'

exception honeycomb.exceptions.ConfigValidationException(*args, **kwargs)
    Bases: honeycomb.exceptions.BaseHoneycombException
    Base config validation error.

exception honeycomb.exceptions.ParametersFieldError(*args, **kwargs)
    Bases: honeycomb.exceptions.ConfigValidationError
    Error validating parameter.

    msg_format = "Parameters: '{}' is not a valid {}"

exception honeycomb.exceptions.PathNotFoundException(*args, **kwargs)
    Bases: honeycomb.exceptions.BaseHoneycombException
    Specified path was not found.

    msg_format = 'Cannot find path {}'

exception honeycomb.exceptions.PluginAlreadyInstalled(*args, **kwargs)
    Bases: honeycomb.exceptions.PluginError
    Plugin already installed.

    msg_format = '{} is already installed'
```

```
exception honeycomb.exceptions.PluginError(*args, **kwargs)
    Bases: honeycomb.exceptions.BaseHoneycombException
    Base Plugin Exception.

exception honeycomb.exceptions.PluginNotFoundInOnlineRepo(*args, **kwargs)
    Bases: honeycomb.exceptions.PluginError
    Plugin not found in online repo.

    msg_format = 'Cannot find {} in online repository'

exception honeycomb.exceptions.PluginRepoConnectionError(*args, **kwargs)
    Bases: honeycomb.exceptions.PluginError
    Connection error when trying to connect to plugin repo.

    msg_format = 'Unable to access online repository (check debug logs for detailed info)'

exception honeycomb.exceptions.RequiredFieldMissing(*args, **kwargs)
    Bases: honeycomb.exceptions.PluginError
    Required parameter is missing.

    msg_format = "Parameters: '{}' is missing (use --args to see all parameters)"
```

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