
click-types Documentation

codeaffen

Feb 17, 2022

USER DOCUMENTATION

1	click-types: Python library that provides useful click types	1
1.1	Installation	1
1.2	Custom types	2
2	CHANGELOG	3
2.1	Unreleased	3
2.2	1.0.1 - (2021-06-14)	3
3	click_types	5
3.1	click_types package	5
4	How to contribute to click-types	9
4.1	Did you found a bug	9
4.2	Did you wrote a patch for an open bug	9
4.3	Do you want to add a new feature	9
4.4	Do you want to contribute to documentation	9
4.5	Thank you for any contribution	10
5	Indices and tables	11
	Python Module Index	13
	Index	15

CLICK-TYPES: PYTHON LIBRARY THAT PROVIDES USEFUL CLICK TYPES

[PyPI version](#) [Codacy Badge](#) [Documentation](#) [Status](#)

`click` is the `Command line interface creation kit` and it helps you to create command line interfaces with some few lines of code. Click comes with meaningful defaults to make starting with it as easy as possible.

A powerful feature of `click` is to develop custom types to convert and/or validate user input. There are several custom types in the wild but this repository is intended to collect such custom types to make it easily accessible.

1.1 Installation

Currently we support two ways of installing `click-types` on your system. We will both illustrate short in the following sections.

1.1.1 Installing from pypi

We release all versions on [pypi.org](#), so you can simply use `pip` to install it.

```
pip install click-types
```

1.1.2 Install from repository

Alternatively you can install it from a local clone of our [github repository](#).

```
$ git clone https://github.com/codeaffen/click-types.git
Cloning into 'click-types'...
remote: Enumerating objects: 83, done.
remote: Counting objects: 100% (83/83), done.
remote: Compressing objects: 100% (59/59), done.
remote: Total 83 (delta 25), reused 72 (delta 16), pack-reused 0
Unpacking objects: 100% (83/83), 29.77 KiB | 441.00 KiB/s, done.
$ cd click-types/
$ python setup.py install
```

1.2 Custom types

Name | Module | Description — | — | ——— AnsibleVaultParamType | click_types.ansible | Manages secret values in ansible vaults. This type open the configured vault put the value to the given path and close vault. SemVerParamType | click_types.coding | Provides validity checks for semantic versions. CIDRParamType | click_types.net | Checking a given IP network/prefix if it's a valid CIDR. Both ip version (v4 and v6) are supported. VlanParamType | click_types.net | Validates vlan ids according to IEEE 802.1Q standard.

CHANGELOG

All notable changes to this project will be documented in this file. This project adheres to [Semantic Versioning](#) and [Keep a Changelog](#).

2.1 Unreleased

2.1.1 New

2.1.2 Changes

2.1.3 Fixes

- exit if key in path is not a dict
- exit if vault can't be decrypted

2.1.4 Breaks

2.2 1.0.1 - (2021-06-14)

2.2.1 New

- added tests for existing types

2.2.2 Fixes

- fix missing dependencies

CLICK_TYPES

3.1 click_types package

Python package that provides custom click types.

3.1.1 Submodules

3.1.2 click_types.ansible module

Module for custom click types regarding to ansible.

class `click_types.ansible.AnsibleVaultParamType`(*vault: str, secret: str, path: str*)

Bases: `click.types.ParamType`

Provide a custom click type for ansible vaults.

This custom click type provides managing passed values in a given vault.

- `decrypt vault`
- `save passed value`
- `encrypt vault`

convert(*value, param, ctx*)

Open vault and save vaule at the given path.

Parameters

- **value** (*str*) – the value passed
- **param** (*str*) – the parameter that we declared
- **ctx** (*str*) – context of the command

Returns the passed value as a checked semver

Return type `str`

name: `str = 'vault'`

the descriptive name of this type

path

alias of `str`

secret

alias of `str`

vault
alias of `str`

3.1.3 `click_types.coding` module

Module for custom click types regarding to development.

class `click_types.coding.SemVerParamType`

Bases: `click.types.ParamType`

Provide a custom click type for semantic versions.

This custom click type provides validity checks for semantic versions.

convert(*value*, *param*, *ctx*)

Converts the value from string into semver type.

This method takes a string and check if this string belongs to semantic version definition. If the test is passed the value will be returned. If not a error message will be prompted.

Parameters

- **value** (*str*) – the value passed
- **param** (*str*) – the parameter that we declared
- **ctx** (*str*) – context of the command

Returns the passed value as a checked semver

Return type `str`

name: `str = 'semver'`

the descriptive name of this type

3.1.4 `click_types.net` module

Module for custom click types regarding to network.

class `click_types.net.CIDRParamType`

Bases: `click.types.ParamType`

Provide a custom click type for network cidr handling.

This custom click type provides validity check for network cidrs. Both ip version (v4 and v6) are supported.

convert(*value*, *param*, *ctx*)

Converts the value from string into cidr type.

This method takes a string and check if this string belongs to ipv4 or ipv6 cidr definition. If the test is passed the value will be returned. If not a error message will be prompted.

Parameters

- **value** (*str*) – the value passed
- **param** (*str*) – the parameter that we declared
- **ctx** (*str*) – context of the command

Returns the passed value as a checked cidr

Return type `int`

name: `str = 'cidr'`
the descriptive name of this type

class `click_types.net.VlanIDParamType`

Bases: `click.types.ParamType`

Provide a custom click type for vlan id handling.

This custom click type provides validity checks for vlan ids according to IEEE 802.1Q standard.

convert (*value, param, ctx*)

Converts the value from string into semver type.

This method takes a string and check if this string belongs to semantic version definition. If the test is passed the value will be returned. If not a error message will be prompted.

Parameters

- **value** (*str*) – the value passed
- **param** (*str*) – the parameter that we declared
- **ctx** (*str*) – context of the command

Returns the passed value as a checked vlan id

Return type `int`

name: `str = 'vlanid'`
the descriptive name of this type

HOW TO CONTRIBUTE TO CLICK-TYPES

4.1 Did you found a bug

- Make sure the bug is not already opened by another user.
- If you can't find an open issue which reflects your observed problem go ahead and [open a new bug](#).
- Provide as much information as mentioned in the bug report template.

4.2 Did you wrote a patch for an open bug

- Open new pull request containing the patch.
- Provide a clear description which describes the problem and the solution. Link the existing bug to the PR.

4.3 Do you want to add a new feature

- Make sure there isn't already a feature request.
- If you can't find an open feature request which describe your feature idea or parts of it feel free to [open a new feature request](#).
- Suggest your feature idea within the created feature request.
- Provide as much discription as possible to enable others to have a good understanding of what you are doing.
- Point out that you want to start to work on the new feature

4.4 Do you want to contribute to documentation

- Write you documentation change.
- Open a PR with your change.
- Discuss with the team about your changes.

4.5 Thank you for any contribution

We will thank you for heed the contribution guidelines and we encourage you to contribute and join the team.

INDICES AND TABLES

- genindex
- modindex
- search

PYTHON MODULE INDEX

C

`click_types`, 5

`click_types.ansible`, 5

`click_types.coding`, 6

`click_types.net`, 6

INDEX

A

`AnsibleVaultParamType` (class in `click_types.ansible`), 5

C

`CIDRParamType` (class in `click_types.net`), 6

`click_types`
module, 5

`click_types.ansible`
module, 5

`click_types.coding`
module, 6

`click_types.net`
module, 6

`convert()` (`click_types.ansible.AnsibleVaultParamType` method), 5

`convert()` (`click_types.coding.SemVerParamType` method), 6

`convert()` (`click_types.net.CIDRParamType` method), 6

`convert()` (`click_types.net.VlanIDParamType` method), 7

M

module

`click_types`, 5

`click_types.ansible`, 5

`click_types.coding`, 6

`click_types.net`, 6

N

`name` (`click_types.ansible.AnsibleVaultParamType` attribute), 5

`name` (`click_types.coding.SemVerParamType` attribute), 6

`name` (`click_types.net.CIDRParamType` attribute), 6

`name` (`click_types.net.VlanIDParamType` attribute), 7

P

`path` (`click_types.ansible.AnsibleVaultParamType` attribute), 5

S

`secret` (`click_types.ansible.AnsibleVaultParamType` attribute), 5

`SemVerParamType` (class in `click_types.coding`), 6

V

`vault` (`click_types.ansible.AnsibleVaultParamType` attribute), 5

`VlanIDParamType` (class in `click_types.net`), 7