

---

# pontoon Documentation

*Release 0.2.2*

**Ross Duggan**

February 08, 2017



<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Caveats</b>	<b>5</b>
<b>3</b>	<b>User Guide</b>	<b>7</b>
3.1	Installation . . . . .	7
3.2	CLI Usage . . . . .	7
3.2.1	Configure . . . . .	7
3.2.2	Configuration File . . . . .	7
3.2.3	Basic Usage . . . . .	8
3.3	Command Reference . . . . .	8
3.3.1	Configure . . . . .	8
3.3.2	Droplets . . . . .	9
3.3.3	Events . . . . .	12
3.3.4	Images . . . . .	13
3.3.5	Regions . . . . .	13
3.3.6	Sizes . . . . .	13
3.3.7	Snapshots . . . . .	13
3.3.8	SSH Keys . . . . .	14
<b>4</b>	<b>Developer / Contributor Guide</b>	<b>15</b>
4.1	Developer Interface . . . . .	15
4.1.1	Library Module . . . . .	15
4.1.2	Manager Class . . . . .	15
4.1.3	Droplet Class . . . . .	16
4.1.4	Account Class . . . . .	20
4.1.5	Action Class . . . . .	20
4.1.6	Domain Class . . . . .	20
4.1.7	FloatingIP Class . . . . .	21
4.1.8	Image Class . . . . .	21
4.1.9	Kernel Class . . . . .	22
4.1.10	Record Class . . . . .	22
4.1.11	Region Class . . . . .	22
4.1.12	SSHKey Class . . . . .	22
4.1.13	Size Class . . . . .	23
4.1.14	UI module . . . . .	23
4.1.15	Mocking Module . . . . .	24
4.1.16	Log Module . . . . .	24

4.1.17	Exceptions . . . . .	24
4.1.18	Configure Module . . . . .	24
4.1.19	Command Class . . . . .	25
4.2	Contributing . . . . .	25
4.2.1	Running the tests . . . . .	25
4.2.2	Debugging . . . . .	26
4.2.3	Mocking . . . . .	26
4.3	Addendum . . . . .	26
4.3.1	Windows support . . . . .	26
<b>5</b>	<b>Indices and tables</b>	<b>27</b>
	<b>Python Module Index</b>	<b>29</b>

A Python CLI (and library) for [Digital Ocean](#).



## **Introduction**

---

Pontoon makes interacting with Digital Ocean on the command line smooth sailing.

It is designed for human consumption, and aims to have good defaults.



### Caveats

---

Pontoon has one rule it imposes on top of Digital Ocean:

**Names are unique.**

Unique names make for a much easier command line experience. For Droplets, names are hostnames, and hostnames should be unique anyway; it's just a good idea.

They don't have to be unique *forever* though; once a Droplet is destroyed, it's fine to use the name again.

Anything "recommended" (like secure-erasing the drive on termination) is optional, but enabled by default.



---

## User Guide

---

### 3.1 Installation

Via pip:

```
$ pip install pontoon
```

Pontoon works with Python 2.6 through 3.5, and should work on any Linux/BSD with Python support.

It's also possible to use pontoon on Windows, though portions of the configuration command (which make use of Linux CLI tools like OpenSSH) do not work.

### 3.2 CLI Usage

#### 3.2.1 Configure

Set up your credentials and preferences:

```
$ pontoon configure
```

You'll be prompted for your Digital Ocean API credentials ([available here](#)), and whether you want to use existing SSH credentials or for them to be generated (using OpenSSH).

The rest are preferences, and can be set at any time by running configure again, editing the `~/.pontoon config` file (YAML format), or by specifying them with options on the command line.

#### 3.2.2 Configuration File

Here's an example of the options set in the configuration file:

```
api_token: foo-bar-baz
auth_key_name: Macbook.local
image: ubuntu-15-10-x32
region: lon1
size: 512mb
ssh_private_key: ~/.ssh/id_rsa
ssh_public_key: ~/.ssh/id_rsa.pub
username: root
```

Managing Droplets is probably what you'll spend most of your time doing with pontoon.

You can get a full list of subcommands and options by running:

```
$ pontoon droplet --help
```

### 3.2.3 Basic Usage

Creating and destroying Droplets is very straight forward:

```
$ pontoon droplet create my-droplet
Creating Droplet my-droplet (512mb using ubuntu-15-10-x32 in lon1)...
....active
$ pontoon droplet destroy my-droplet
Destroying udl and scrubbing data...
```

To SSH into your Droplet:

```
$ pontoon droplet ssh my-droplet
Welcome to Ubuntu 15.10 (GNU/Linux 4.2.0-27-generic i686)

 * Documentation: https://help.ubuntu.com/
Last login: Sun Mar  6 10:41:17 2016 from 192.168.1.200
```

To get a list of your Droplets:

```
$ pontoon droplet list
my-droplet: (512mb, ubuntu-15-10-x32, lon1, 104.236.32.182, active)
```

See the [Command Reference](#) for more.

## 3.3 Command Reference

A complete list of commands and their options.

Available on the command line by appending `--help` to the command.

### 3.3.1 Configure

The `configure` command interactively configures pontoon.

You're prompted for details and a configuration file is written to `~/.pontoon`.

Alternatively, you can manually place a config file at this location with this syntax:

```
api_token: foo-bar-baz
auth_key_name: Macbook.local
image: ubuntu-15-10-x32
region: lon1
size: 512mb
ssh_private_key: ~/.ssh/id_rsa
ssh_public_key: ~/.ssh/id_rsa.pub
username: root
```

```
pontoon configure
    Launch interactive configuration of pontoon.
```

### 3.3.2 Droplets

**pontoon** droplet list [options]

**--detail**

Show full Droplet info.

```
$ pontoon droplet list --detail
example.com
id: 3164444
size: 512mb
image: ubuntu-14-04-x64
region: nyc3
ip_address: 104.236.32.182
status: active
kernel:
  id: 2233
  name: Ubuntu 14.04 x64 vmlinuz-3.13.0-37-generic
  version: 3.13.0-37-generic
...
```

**pontoon** droplet create <name> [options]

**--size** size

Droplet RAM allocation. e.g., 512mb

**--image** image

Droplet image.

**--region** region

Droplet region.

**--keys** keys...

List of registered keys to add to Droplet(s)

**--user-data** userdata

String of user data to pass to Droplet. Include a file like: `--user-data=$(cat file.yml)`

**--private-networking**

Assign private address to Droplet (where available)

**--disable-virtio**

Disable VirtIO. (not recommended)

**--no-wait**

Don't wait for action to complete, return immediately.

**pontoon** droplet ssh <name> [command] [options]

**--user** user

Override configured username for SSH login.

**--key** path

Override configured private key for SSH login.

**pontoon** droplet rename <from> <to> [options]

Rename a Droplet. Takes the current name as the first parameter, and the new name as the second.

**--no-wait**

Don't wait for action to complete, return immediately.

**pontoon** droplet resize <name> <size> [options]

Resize a Droplet. Takes Droplet name as first paramter, size as second.

**--yes**

Don't prompt for confirmation.

**--no-wait**

Don't wait for action to complete, return immediately.

**pontoon** droplet snapshot <droplet> <snapshot> [options]

Snapshot a Droplet. Takes Droplet name as first paramter, snapshot name as second.

**--no-wait**

Don't wait for action to complete, return immediately.

**pontoon** droplet show <name> [options]

Show detailed information about a particular Droplet.

**--field** field

Extract and return a single field. Access nested items with dot syntax, e.g.: networks.v4.0.gateway

**pontoon** droplet status <name>

Return Droplet status.

```
pontoon droplet destroy <name>
    Destroy a Droplet.
```

```
pontoon droplet start <name>
    Start a Droplet.
```

**--no-wait**  
Don't wait for action to complete, return immediately.

```
pontoon droplet shutdown <name>
    Shut down a Droplet.
```

**--no-wait**  
Don't wait for action to complete, return immediately.

```
pontoon droplet reboot <name>
    Reboot a Droplet (sending signal to OS).
```

**--no-wait**  
Don't wait for action to complete, return immediately.

```
pontoon droplet restore <name> <snapshot>
    Restore a Droplet from a snapshot.
```

**--no-wait**  
Don't wait for action to complete, return immediately.

```
pontoon droplet rebuild <name> <image>
    Rebuild a Droplet from a given image.
```

**--no-wait**  
Don't wait for action to complete, return immediately.

**pontoon** droplet powercycle <name>  
Powercycle (hard restart) a Droplet.

**--yes**

Don't prompt for confirmation.

**--no-wait**

Don't wait for action to complete, return immediately.

**pontoon** droplet poweroff <name>  
Power off (without signalling the OS) a Droplet.

**--yes**

Don't prompt for confirmation.

**--no-wait**

Don't wait for action to complete, return immediately.

**pontoon** droplet passwordreset <name>  
Reset the root password on a Droplet.

**--yes**

Don't prompt for confirmation.

**pontoon** droplet backups <name>  
Manage backups on a Droplet.

**--enable**

Enable backups.

**--disable**

Depracted by Digital Ocean for their v2 API release, later added back but still deprecated here for the moment.

### 3.3.3 Events

These is an interface to Digital Ocean events.

Events are usually only an implementation detail, and an interface is provided here only for completeness.

**pontoon** event show <id>

Retrieve details for a particular event id.

### 3.3.4 Images

Public base images made available by Digital Ocean.

```
pontoon image list [options]
    Retrieve a list of public images.
```

```
--with-ids
```

Include image IDs in tabular output.

```
pontoon image oses
```

Retrieve a list of Operating Systems for which there are base images.

```
pontoon image show <name>
```

Show details for a particular image, including regions where it is available.

### 3.3.5 Regions

Regions available to launch Droplets.

```
pontoon region list
    List regions in which Droplets can be launched.
```

### 3.3.6 Sizes

Droplet sizes available.

```
pontoon size list
    List sizes of Droplets which can be launched.
```

### 3.3.7 Snapshots

Commands for interacting with snapshots.

```
pontoon snapshot list [options]
    List available snapshots.
```

```
--with-ids
```

Include image IDs in tabular output.

```
pontoon snapshot show <name>
```

Show snapshot details.

```
pontoon snapshot destroy <name>
Destroy a snapshot.
```

```
pontoon snapshot transfer <name> <region>
Move a snapshot from one region to another. A list of regions can be retrieved with pontoon region list
```

### 3.3.8 SSH Keys

Manage SSH keys in your account.

```
pontoon sshkey list
List of SSH keys in account.
```

```
pontoon sshkey add <name> <public-key-path>
Register a public SSH key from the specified path to your account.
```

```
pontoon sshkey show <name>
Retrieve a public key by name.
```

```
pontoon sshkey replace <name> <public-key-path>
Replace an existing key name with a new public key.
```

```
pontoon sshkey destroy <name>
Remove a given key from Digital Ocean. Note: this doesn't remove the key from any existing Droplets, just removes it from the keys available to boot Droplets with.
```

---

## Developer / Contributor Guide

---

### 4.1 Developer Interface

This part of the documentation covers all the interfaces of Pontoon.

#### 4.1.1 Library Module

pontoon.lib is the main entry point for using the library as a developer. digitalocean API to manage droplets

#### 4.1.2 Manager Class

```
class pontoon.lib.Manager(*args, **kwargs)
```

```
_Manager__deal_with_pagination(url, data, params)
```

Perform multiple calls in order to have a full list of elements when the API are “paginated”. (content list is divided in more than one page)

```
get_account()
```

Returns an Account object.

```
get_action(action_id)
```

Return an Action object by a specific ID.

```
get_all_actions()
```

This functions returns a list of Action objects.

```
get_all_domains()
```

This function returns a list of Domain object.

```
get_all_droplets()
```

This function returns a list of Droplet object.

```
get_all_floating_ips()
```

This function returns a list of FloatingIP objects.

```
get_all_images()
```

This function returns a list of Image objects containing all available DigitalOcean images, both public and private.

```
get_all_regions()
```

This function returns a list of Region object.

**get\_all\_sizes()**

This function returns a list of Size object.

**get\_all\_sshkeys()**

This function returns a list of SSHKey object.

**get\_app\_images()**

This function returns a list of Image objects representing public DigitalOcean ‘One-Click’ application images.

**get\_data(\*args, \*\*kwargs)**

Customized version of get\_data to perform \_\_check\_actions\_in\_data.

The default amount of elements per page defined is 200 as explained here:  
<https://github.com/koalalorenzo/python-digitalocean/pull/78>

**get\_distro\_images()**

This function returns a list of Image objects representing public base distribution images.

**get\_domain(domain\_name)**

Return a Domain by its domain\_name

**get\_droplet(droplet\_id)**

Return a Droplet by its ID.

**get\_floating\_ip(ip)**

Returns a FloatingIP object by its IP address.

**get\_global\_images()**

This function returns a list of Image objects representing public DigitalOcean images (e.g. base distribution images and ‘One-Click’ applications).

**get\_image(image\_id)**

Return a Image by its ID.

**get\_images(private=False, type=None)**

This function returns a list of Image object.

**get\_my\_images()**

This function returns a list of Image objects representing private DigitalOcean images (e.g. snapshots and backups).

**get\_ssh\_key(ssh\_key\_id)**

Return a SSHKey object by its ID.

### 4.1.3 Droplet Class

```
class pontoon.lib.Droplet(*args, **kwargs)
    “Droplet management
```

**Attributes accepted at creation time:** name: str - name size\_slug: str - droplet size image: str - image name to use to create droplet region: str - region ssh\_keys: [str] - list of ssh keys backups: bool - True if backups enabled ipv6: bool - True if ipv6 enabled private\_networking: bool - True if private networking enabled user\_data: str - arbitrary data to pass to droplet

**Attributes returned by API:** id: int - droplet id memory: str - memory size vcpus: int - number of vcpus disk: int - disk size in GB status: str - status locked: bool - True if locked created\_at: str - creation date in format u‘2014-11-06T10:42:09Z’ status: str - status, e.g. ‘new’, ‘active’, etc networks: dict - details of connected networks kernel: dict - details of kernel backup\_ids: [int] - list of ids of backups of this droplet snapshot\_ids: [int] - list of ids of snapshots of this droplet action\_ids: [int] - list of ids of actions features: [str] - list of enabled features. e.g.

[u'private\_networking', u'virtio']

**min\_size:** str - minimum size of droplet that can be created from a snapshot of this droplet

image: dict - details of image used to create this droplet  
ip\_address: str - public ip addresses  
private\_ip\_address: str - private ip address  
ip\_v6\_address: [str] - list of ipv6 addresses assigned  
end\_point: str - url of api endpoint used

#### `_Droplet__get_ssh_keys_id_or_fingerprint()`

Check and return a list of SSH key IDs or fingerprints according to DigitalOcean's API. This method is used to check and create a droplet with the correct SSH keys.

#### `_perform_action(params, return_dict=True)`

Perform a droplet action.

**Args:** params - dict : parameters of the action

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

#### `change_kernel(kernel, return_dict=True)`

Change the kernel to a new one

**Args:** kernel : instance of digitalocean.Kernel.Kernel

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

#### `create(*args, **kwargs)`

Create the droplet with object properties.

Note: Every argument and parameter given to this method will be assigned to the object.

#### `destroy()`

Destroy the droplet

Returns dict

#### `disable_backups(return_dict=True)`

Disable automatic backups

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

#### `enable_backups()`

Enable automatic backups (Not yet implemented in APIv2)

#### `enable_ipv6(return_dict=True)`

Enable IPv6 on an existing Droplet where available.

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**enable\_private\_networking (return\_dict=True)**

Enable private networking on an existing Droplet where available.

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**get\_action (action\_id)**

Returns a specific Action by its ID.

**Args:** action\_id: int - id of action

**get\_actions ()**

Returns a list of Action objects This actions can be used to check the droplet's status

**get\_data (\*args, \*\*kwargs)**

Customized version of get\_data to perform \_\_check\_actions\_in\_data

**get\_events ()**

A helper function for backwards compatibility. Calls get\_actions()

**get\_kernel\_available ()**

Get a list of kernels available

**classmethod get\_object (api\_token, droplet\_id, mocked)**

Class method that will return a Droplet object by ID.

**Args:** api\_token: str - token droplet\_id: int - droplet id mocked: bool - mocked

**get\_snapshots ()**

This method will return the snapshots/images connected to that specific droplet.

**load ()**

Fetch data about droplet - use this instead of get\_data()

**power\_cycle (return\_dict=True)**

restart the droplet

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**power\_off (return\_dict=True)**

restart the droplet

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**power\_on (return\_dict=True)**

Boot up the droplet

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**reboot (return\_dict=True)**

restart the droplet

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**rebuild**(*image\_id=None, return\_dict=True*)

Restore the droplet to an image ( snapshot or backup )

**Args:** *image\_id* : int - id of image

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**rename**(*name, return\_dict=True*)

Rename the droplet

**Args:** *name* : str - new name

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**reset\_root\_password**(*return\_dict=True*)

reset the root password

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**resize**(*new\_size\_slug, return\_dict=True, disk=True*)

Resize the droplet to a new size slug. <https://developers.digitalocean.com/documentation/v2/#resize-a-droplet>

**Args:** *new\_size\_slug*: str - name of new size

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

*disk* - bool : If a permanent resize, with disk changes included.

Returns dict or Action

**restore**(*image\_id, return\_dict=True*)

Restore the droplet to an image ( snapshot or backup )

**Args:** *image\_id* : int - id of image

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**shutdown**(*return\_dict=True*)

shutdown the droplet

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

Returns dict or Action

**take\_snapshot** (*snapshot\_name*, *return\_dict=True*, *power\_off=False*)  
Take a snapshot!

**Args:** *snapshot\_name*: str - name of snapshot

**Optional Args:**

**return\_dict - bool** [Return a dict when True (default),] otherwise return an Action.

**power\_off - bool** [Before taking the snapshot the droplet will be] turned off with another API call. It will wait until the droplet will be powered off.

Returns dict or Action

#### 4.1.4 Account Class

```
class pontoon.lib.Account(*args, **kwargs)
```

**classmethod get\_object** (*api\_token*, *mocked*)  
Class method that will return an Account object.

#### 4.1.5 Action Class

```
class pontoon.lib.Action(*args, **kwargs)
```

**classmethod get\_object** (*api\_token*, *action\_id*, *mocked*)  
Class method that will return a Action object by ID.

**wait** (*update\_every\_seconds=1*)

Wait until the action is marked as completed or with an error. It will return True in case of success, otherwise False.

**Optional Args:**

**update\_every\_seconds - int** [number of seconds to wait before] checking if the action is completed.

#### 4.1.6 Domain Class

```
class pontoon.lib.Domain(*args, **kwargs)
```

**create()**  
Create new domain

**create\_new\_domain\_record** (\*args, \*\*kwargs)  
Create new domain record. <https://developers.digitalocean.com/#create-a-new-domain-record>

**Args:**

@type The record type (A, MX, CNAME, etc). @name The host name, alias, or service being defined by the record @data Variable data depending on record type.

**Optional Args:**

@priority The priority of the host @port The port that the service is accessible on @weight The weight of records with the same priority

```
destroy()
    Destroy the domain by name

classmethod get_object (api_token, domain_name, mocked)
    Class method that will return a Domain object by ID.

get_records (params=None)
    Returns a list of Record objects

load()
```

#### 4.1.7 FloatingIP Class

```
class pontoon.lib.FloatingIP (*args, **kwargs)

assign (droplet_id)
    Assign a FloatingIP to a Droplet.

    Args: droplet_id: int - droplet id

create (*args, **kwargs)
    Creates a FloatingIP and assigns it to a Droplet.

    Note: Every argument and parameter given to this method will be assigned to the object.

    Args: droplet_id: int - droplet id

destroy()
    Destroy the FloatingIP

classmethod get_object (api_token, ip, mocked)
    Class method that will return a FloatingIP object by its IP.

    Args: api_token: str - token ip: str - floating ip address

load()
    Load the FloatingIP object from DigitalOcean.

    Requires self.ip to be set.

reserve (*args, **kwargs)
    Creates a FloatingIP in a region without assigning it to a specific Droplet.

    Note: Every argument and parameter given to this method will be assigned to the object.

    Args: region_slug: str - region's slug (e.g. 'nyc3')

unassign()
    Unassign a FloatingIP.
```

#### 4.1.8 Image Class

```
class pontoon.lib.Image (*args, **kwargs)

destroy()
    Destroy the image

classmethod get_object (api_token, image_id, mocked)
    Class method that will return an Image object by ID.
```

```
rename (new_name)
    Rename an image

transfer (new_region_slug)
    Transfer the image
```

## 4.1.9 Kernel Class

```
class pontoon.lib.Kernel (*args, **kwargs)
```

## 4.1.10 Record Class

```
class pontoon.lib.Record (domain_name=None, *args, **kwargs)
```

```
create ()
    Create a record for a domain

destroy ()
    Destroy the record

classmethod get_object (api_token, domain, record_id)
    Class method that will return a Record object by ID and the domain.

save ()
    Save existing record
```

## 4.1.11 Region Class

```
class pontoon.lib.Region (*args, **kwargs)
```

## 4.1.12 SSHKey Class

```
class pontoon.lib.SSHKey (*args, **kwargs)
```

```
create ()
    Create the SSH Key

destroy ()
    Destroy the SSH Key

edit ()
    Edit the SSH Key

classmethod get_object (api_token, ssh_key_id, mocked)
    Class method that will return a SSHKey object by ID.

load ()
    Load the SSHKey object from DigitalOcean.

    Requires either self.id or self.fingerprint to be set.

load_by_pub_key (public_key)
    This method will load a SSHKey object from DigitalOcean from a public_key. This method will avoid problem like uploading the same public_key twice.
```

### 4.1.13 Size Class

```
class pontoon.lib.Size(*args, **kwargs)
```

### 4.1.14 UI module

This module handles all output for the CLI, as well as some filesystem interactions. This is the only location outside of tests where the print statement is invoked directly.

```
pontoon.ui.ask(question)
```

Present a question with freeform input on an interactive prompt

```
pontoon.ui.ask_yesno(question)
```

Present a string as a yes/no question on an interactive prompt

```
pontoon.ui.box(text, decor='*', decor_x=None, decor_y=None, boxwidth=60, borderwidth=2)
```

Create a formatted textbox for highlighting important information

```
pontoon.ui.filename_from_path(path)
```

Get a filename from a given path

```
pontoon.ui.format_droplet_info(machine)
```

Present Droplet information in a more human parseable format

```
pontoon.ui.format_event(action)
```

Present event information in a more human parseable format

```
pontoon.ui.format_item(item)
```

Present any item in more human parseable format

```
pontoon.ui.full_path(path)
```

Expand a ~/ prefixed path to a full path

```
pontoon.ui.heading(text, boxwidth=60)
```

Create a ‘heading’ styled textbox

```
pontoon.ui.line(length=60, decor='--')
```

Write a line

```
pontoon.ui.machine()
```

```
pontoon.ui.mask(text, masker='*')
```

Hide part of a string,

If the input is small, hide the entire string. Otherwise, show only the last few characters.

```
pontoon.ui.message(text)
```

Wrapper for the *print* function

```
pontoon.ui.notify(text, boxwidth=60)
```

Create a ‘notification’ styled textbox

```
pontoon.ui.ordered_dump(data, stream=None, Dumper=<class 'yaml.dumper.Dumper'>, **kwds)
```

```
pontoon.ui.ticker()
```

A loading/waiting indicator.

Sends a ‘.’ to the screen, resets, and sleeps.

```
pontoon.ui.valid_path(path)
```

Check whether a given string resolves to a path on the filesystem

```
pontoon.ui.warning(text, boxwidth=60)  
    Create a ‘warning’ styled textbox
```

```
pontoon.ui.yaml_message(data)  
    Formats output as ordered YAML
```

#### 4.1.15 Mocking Module

```
class pontoon.mocking.Data  
  
pontoon.mocking._raise(ex=None)  
    Wrapper for exceptions so they can be thrown from inside lambdas  
  
pontoon.mocking.capture_stdout(*args, **kwds)  
    Captures STDOUT and turns it into an object  
  
pontoon.mocking.event_response()  
  
pontoon.mocking.get_builtins()  
    Python 2.x and 3.x have different names for accessing builtins  
  
pontoon.mocking.timestamp(hours=0)  
    Mocked Digital Ocean timestamp
```

#### 4.1.16 Log Module

```
pontoon.log.debug(obj)
```

#### 4.1.17 Exceptions

```
exception pontoon.exceptions.ConfigureException  
    An error occurred while processing the configuration file
```

```
exception pontoon.exceptions.PontoonException  
    An ambiguous error occurred while handling the command
```

#### 4.1.18 Configure Module

The configure module is a collection of methods for handling interaction with some external tools, config files, and for interactive configuration.

```
pontoon.configure.combined(*args, **kwargs)  
    Merge configuration defaults with values from config file.
```

```
pontoon.configure.create_config(*args, **kwargs)  
    Create a YAML config file from a dictionary
```

```
pontoon.configure.images(credentials)  
    Retrieve image options
```

```
pontoon.configure.logger()  
    Prepare interface to logging.
```

```
pontoon.configure.read_config(*args, **kwargs)  
    Read a YAML formatted config into a dictionary
```

```
pontoon.configure.read_key(*args, **kwargs)
    Read a public SSH key from the filesystem

pontoon.configure.regenerate_public_key(*args, **kwargs)
    Generate an SSH public key from an existing private key.

pontoon.configure.regions(credentials)
    Retrieve region options

pontoon.configure.register_key(*args, **kwargs)
    Register an SSH key with Digital Ocean

pontoon.configure.rsa_keygen(*args, **kwargs)
    Create a new SSH key

pontoon.configure.sizes(credentials)
    Retrieve size options

pontoon.configure.ssh_tools(*args, **kwargs)
    Checks for existence of SSH tools required for creating keys.
```

### 4.1.19 Command Class

The Command class encapsulates plumbing common to all CLI commands.

```
class pontoon.command.Command
    Base class for CLI commands.

    Parses docstrings and initializes client.

    run	override=None
        Run the command specified by the docstring.

    Parameters override – Run a command other than the one specified.
```

## 4.2 Contributing

Pull requests for bugs are always welcome! New functionality should generally be preceded by a discussion, though if you've written something that you needed and want to contribute back, a pull request is a fine way to start that discussion :)

All of the code in pontoon is [PEP-8](#) audited (using [pytest-pep8](#)), and there's a full suite of tests written for [py.test](#) (library code) and [Bats](#) (interface). Contributions should, therefore, include tests and pass a PEP-8 audit.

### 4.2.1 Running the tests

Running the tests locally requires the contents of `requirements.txt` as well as bats:

```
$ pip install -r requirements.txt
```

On OSX, bats can be installed with homebrew:

```
$ brew install bats
```

On Debian/Ubuntu, I've set up a PPA for easy installation of bats:

```
$ add-apt-repository ppa:duggan/bats
$ apt-get update
$ apt-get install bats
```

Tests can then be run from the root directory:

```
$ py.test --pep8 --cov pontoon
$ bats test/bats
```

## 4.2.2 Debugging

Set the DEBUG environment variable (to anything) to enable debug output for pontoon.

This will give a step through of most methods being executed during a command, like so:

```
$ DEBUG=1 pontoon droplet destroy foobar
2013-11-09 18:37:06,187 [pontoon.configure:DEBUG] combined: {}
2013-11-09 18:37:06,187 [pontoon.configure:DEBUG] read_config: {}
Destroying foobar and scrubbing data...
2013-11-09 18:37:06,204 [pontoon.droplet:DEBUG] destroy: (<pontoon.droplet.Droplet instance at 0x10ce1fd0>)
2013-11-09 18:37:06,204 [pontoon.droplet:DEBUG] id_from_name: (<pontoon.droplet.Droplet instance at 0x10ce1fd0>)
2013-11-09 18:37:06,204 [pontoon.droplet:DEBUG] list: (<pontoon.droplet.Droplet instance at 0x10ce1fd0>)
2013-11-09 18:37:06,205 [pontoon.pontoon:DEBUG] render: (<pontoon.pontoon.Pontoon instance at 0x10ce1fd0>)
2013-11-09 18:37:06,205 [pontoon.pontoon:DEBUG] request: (<pontoon.pontoon.Pontoon instance at 0x10ce1fd0>)
2013-11-09 18:37:07,498 [pontoon.pontoon:DEBUG] render: (<pontoon.pontoon.Pontoon instance at 0x10ce1fd0>)
2013-11-09 18:37:07,498 [pontoon.pontoon:DEBUG] request: (<pontoon.pontoon.Pontoon instance at 0x10ce1fd0>)
```

A timestamp, followed by the module, debug level, the method called and the arguments to that method (positional as brackets, keywords as curly braces).

This functionality is implemented by the `@debug` decorator, the code for which can be seen at `pontoon/log.py`.

## 4.2.3 Mocking

Set the MOCK environment variable (to anything) to return mock request data instead of querying Digital Ocean.

This is implemented solely for end-to-end testing of the CLI, but you may find it useful in some other scenarios.

## 4.3 Addendum

### 4.3.1 Windows support

Pontoon's lack of Windows support is a bug, not a feature. If you need pontoon on Windows, the best way to help get it there is with a pull request.

## **Indices and tables**

---

- genindex
- modindex
- search



**p**

`pontoon`, 15  
`pontoon.configure`, 24  
`pontoon.exceptions`, 24  
`pontoon.lib`, 15  
`pontoon.log`, 24  
`pontoon.mocking`, 24  
`pontoon.ui`, 23



## Symbols

- detail
    - pontoon-droplet-list command line option, 9
  - disable
    - pontoon-droplet-backups command line option, 12
  - disable-virtio
    - pontoon-droplet-create command line option, 9
  - enable
    - pontoon-droplet-backups command line option, 12
  - field field
    - pontoon-droplet-show command line option, 10
  - image image
    - pontoon-droplet-create command line option, 9
  - key path
    - pontoon-droplet-ssh command line option, 9
  - keys keys...
    - pontoon-droplet-create command line option, 9
  - no-wait
    - pontoon-droplet-create command line option, 9
    - pontoon-droplet-powercycle command line option, 12
  - pontoon-droplet-poweroff command line option, 12
  - pontoon-droplet-reboot command line option, 11
  - pontoon-droplet-rebuild command line option, 11
  - pontoon-droplet-rename command line option, 10
  - pontoon-droplet-resize command line option, 10
  - pontoon-droplet-restore command line option, 11
  - pontoon-droplet-shutdown command line option, 11
  - pontoon-droplet-snapshot command line option, 10
  - pontoon-droplet-start command line option, 11
  - private-networking
    - pontoon-droplet-create command line option, 9
  - region region
    - pontoon-droplet-create command line option, 9
  - size size
    - pontoon-droplet-create command line option, 9
  - user user
    - pontoon-droplet-ssh command line option, 9
  - user-data userdata
    - pontoon-droplet-create command line option, 9
  - with-ids
    - pontoon-image-list command line option, 13
    - pontoon-snapshot-list command line option, 13
  - yes
    - pontoon-droplet-passwordreset command line option, 12
    - pontoon-droplet-powercycle command line option, 12
    - pontoon-droplet-poweroff command line option, 12
    - pontoon-droplet-resize command line option, 10
  - \_Droplet\_\_get\_ssh\_keys\_id\_or\_fingerprint() (pontoon.lib.Droplet method), 17
  - \_Manager\_\_deal\_with\_pagination() (pontoon.lib.Manager method), 15
  - \_perform\_action() (pontoon.lib.Droplet method), 17
  - \_raise() (in module pontoon.mocking), 24
- ### A
- Account (class in pontoon.lib), 20
  - Action (class in pontoon.lib), 20
  - ask() (in module pontoon.ui), 23
  - ask\_yesno() (in module pontoon.ui), 23
  - assign() (pontoon.lib.FloatingIP method), 21
- ### B
- box() (in module pontoon.ui), 23
- ### C
- capture\_stdout() (in module pontoon.mocking), 24
  - change\_kernel() (pontoon.lib.Droplet method), 17
  - combined() (in module pontoon.configure), 24
  - Command (class in pontoon.command), 25
  - ConfigureException, 24
  - create() (pontoon.lib.Domain method), 20
  - create() (pontoon.lib.Droplet method), 17
  - create() (pontoon.lib.FloatingIP method), 21
  - create() (pontoon.lib.Record method), 22
  - create() (pontoon.lib.SSHKey method), 22
  - create\_config() (in module pontoon.configure), 24
  - create\_new\_domain\_record() (pontoon.lib.Domain method), 20

## D

Data (class in `pontoon.mocking`), 24  
`debug()` (in module `pontoon.log`), 24  
`destroy()` (`pontoon.lib.Domain` method), 20  
`destroy()` (`pontoon.lib.Droplet` method), 17  
`destroy()` (`pontoon.lib.FloatingIP` method), 21  
`destroy()` (`pontoon.lib.Image` method), 21  
`destroy()` (`pontoon.lib.Record` method), 22  
`destroy()` (`pontoon.lib.SSHKey` method), 22  
`disable_backups()` (`pontoon.lib.Droplet` method), 17  
`Domain` (class in `pontoon.lib`), 20  
`Droplet` (class in `pontoon.lib`), 16

## E

`edit()` (`pontoon.lib.SSHKey` method), 22  
`enable_backups()` (`pontoon.lib.Droplet` method), 17  
`enable_ipv6()` (`pontoon.lib.Droplet` method), 17  
`enable_private_networking()` (`pontoon.lib.Droplet` method), 17  
`event_response()` (in module `pontoon.mocking`), 24

## F

`filename_from_path()` (in module `pontoon.ui`), 23  
`FloatingIP` (class in `pontoon.lib`), 21  
`format_droplet_info()` (in module `pontoon.ui`), 23  
`format_event()` (in module `pontoon.ui`), 23  
`format_item()` (in module `pontoon.ui`), 23  
`full_path()` (in module `pontoon.ui`), 23

## G

`get_account()` (`pontoon.lib.Manager` method), 15  
`get_action()` (`pontoon.lib.Droplet` method), 18  
`get_action()` (`pontoon.lib.Manager` method), 15  
`get_actions()` (`pontoon.lib.Droplet` method), 18  
`get_all_actions()` (`pontoon.lib.Manager` method), 15  
`get_all_domains()` (`pontoon.lib.Manager` method), 15  
`get_all_droplets()` (`pontoon.lib.Manager` method), 15  
`get_all_floating_ips()` (`pontoon.lib.Manager` method), 15  
`get_all_images()` (`pontoon.lib.Manager` method), 15  
`get_all_regions()` (`pontoon.lib.Manager` method), 15  
`get_all_sizes()` (`pontoon.lib.Manager` method), 15  
`get_all_sshkeys()` (`pontoon.lib.Manager` method), 16  
`get_app_images()` (`pontoon.lib.Manager` method), 16  
`get_builtins()` (in module `pontoon.mocking`), 24  
`get_data()` (`pontoon.lib.Droplet` method), 18  
`get_data()` (`pontoon.lib.Manager` method), 16  
`get_distro_images()` (`pontoon.lib.Manager` method), 16  
`get_domain()` (`pontoon.lib.Manager` method), 16  
`get_droplet()` (`pontoon.lib.Manager` method), 16  
`get_events()` (`pontoon.lib.Droplet` method), 18  
`get_floating_ip()` (`pontoon.lib.Manager` method), 16  
`get_global_images()` (`pontoon.lib.Manager` method), 16  
`get_image()` (`pontoon.lib.Manager` method), 16

`get_images()` (`pontoon.lib.Manager` method), 16  
`get_kernel_available()` (`pontoon.lib.Droplet` method), 18  
`get_my_images()` (`pontoon.lib.Manager` method), 16  
`get_object()` (`pontoon.lib.Account` class method), 20  
`get_object()` (`pontoon.lib.Action` class method), 20  
`get_object()` (`pontoon.lib.Domain` class method), 21  
`get_object()` (`pontoon.lib.Droplet` class method), 18  
`get_object()` (`pontoon.lib.FloatingIP` class method), 21  
`get_object()` (`pontoon.lib.Image` class method), 21  
`get_object()` (`pontoon.lib.Record` class method), 22  
`get_object()` (`pontoon.lib.SSHKey` class method), 22  
`get_records()` (`pontoon.lib.Domain` method), 21  
`get_snapshots()` (`pontoon.lib.Droplet` method), 18  
`get_ssh_key()` (`pontoon.lib.Manager` method), 16

## H

`heading()` (in module `pontoon.ui`), 23

## I

`Image` (class in `pontoon.lib`), 21  
`images()` (in module `pontoon.configure`), 24

## K

`Kernel` (class in `pontoon.lib`), 22

## L

`line()` (in module `pontoon.ui`), 23  
`load()` (`pontoon.lib.Domain` method), 21  
`load()` (`pontoon.lib.Droplet` method), 18  
`load()` (`pontoon.lib.FloatingIP` method), 21  
`load()` (`pontoon.lib.SSHKey` method), 22  
`load_by_pub_key()` (`pontoon.lib.SSHKey` method), 22  
`logger()` (in module `pontoon.configure`), 24

## M

`machine()` (in module `pontoon.ui`), 23  
`Manager` (class in `pontoon.lib`), 15  
`mask()` (in module `pontoon.ui`), 23  
`message()` (in module `pontoon.ui`), 23

## N

`notify()` (in module `pontoon.ui`), 23

## O

`ordered_dump()` (in module `pontoon.ui`), 23

## P

`pontoon` (module), 15  
`pontoon configure`  
    `pontoon droplet backups <name>`  
    `pontoon droplet create <name> [options]`

pontoon-droplet-create command line option, 9  
pontoon droplet destroy <name>  
    pontoon-droplet-destroy command line option, 10  
pontoon droplet list [options]  
    pontoon-droplet-list command line option, 9  
pontoon droplet passwordreset <name>  
    pontoon-droplet-passwordreset command line option, 12  
pontoon droplet powercycle <name>  
    pontoon-droplet-powercycle command line option, 11  
pontoon droplet poweroff <name>  
    pontoon-droplet-poweroff command line option, 12  
pontoon droplet reboot <name>  
    pontoon-droplet-reboot command line option, 11  
pontoon droplet rebuild <name> <image>  
    pontoon-droplet-rebuild command line option, 11  
pontoon droplet rename <from> <to> [options]  
    pontoon-droplet-rename command line option, 10  
pontoon droplet resize <name> <size> [options]  
    pontoon-droplet-resize command line option, 10  
pontoon droplet restore <name> <snapshot>  
    pontoon-droplet-restore command line option, 11  
pontoon droplet show <name> [options]  
    pontoon-droplet-show command line option, 10  
pontoon droplet shutdown <name>  
    pontoon-droplet-shutdown command line option, 11  
pontoon droplet snapshot <droplet> <snapshot> [options]  
    pontoon-droplet-snapshot command line option, 10  
pontoon droplet ssh <name> [command] [options]  
    pontoon-droplet-ssh command line option, 9  
pontoon droplet start <name>  
    pontoon-droplet-start command line option, 11  
pontoon droplet status <name>  
    pontoon-droplet-status command line option, 10  
pontoon event show <id>  
    pontoon-event-show command line option, 12  
pontoon image list [options]  
    pontoon-image-list command line option, 13  
pontoon image oses  
    pontoon-image-oses command line option, 13  
pontoon image show <name>  
    pontoon-image-show command line option, 13  
pontoon region list  
    pontoon-region-list command line option, 13  
pontoon size list  
    pontoon-size-list command line option, 13  
pontoon snapshot destroy <name>  
    pontoon-snapshot-destroy command line option, 14  
pontoon snapshot list [options]  
    pontoon-snapshot-list command line option, 13  
pontoon snapshot show <name>  
    pontoon-snapshot-show command line option, 13  
pontoon snapshot transfer <name> <region>  
    pontoon-snapshot-transfer command line option, 14  
pontoon sshkey add <name> <public-key-path>  
    pontoon-sshkey-add command line option, 14  
pontoon sshkey destroy <name>  
    pontoon-sshkey-destroy command line option, 14  
pontoon sshkey list  
    pontoon-sshkey-list command line option, 14  
pontoon sshkey replace <name> <public-key-path>  
    pontoon-sshkey-replace command line option, 14  
pontoon sshkey show <name>  
    pontoon-sshkey-show command line option, 14  
pontoon-configure command line option  
    pontoon configure, 8  
pontoon-droplet-backups command line option  
    -disable, 12  
    -enable, 12  
    pontoon droplet backups <name>, 12  
pontoon-droplet-create command line option  
    -disable-virtio, 9  
    -image image, 9  
    -keys keys..., 9  
    -no-wait, 9  
    -private-networking, 9  
    -region region, 9  
    -size size, 9  
    -user-data userdata, 9  
    pontoon droplet create <name> [options], 9  
pontoon-droplet-destroy command line option  
    pontoon droplet destroy <name>, 10  
pontoon-droplet-list command line option  
    -detail, 9  
    pontoon droplet list [options], 9  
pontoon-droplet-passwordreset command line option  
    -yes, 12  
    pontoon droplet passwordreset <name>, 12  
pontoon-droplet-powercycle command line option  
    -no-wait, 12  
    -yes, 12  
    pontoon droplet powercycle <name>, 11  
pontoon-droplet-poweroff command line option  
    -no-wait, 12  
    -yes, 12  
    pontoon droplet poweroff <name>, 12  
pontoon-droplet-reboot command line option  
    -no-wait, 11  
    pontoon droplet reboot <name>, 11  
pontoon-droplet-rebuild command line option  
    -no-wait, 11  
    pontoon droplet rebuild <name> <image>, 11  
pontoon-droplet-rename command line option  
    -no-wait, 10  
    pontoon droplet rename <from> <to> [options], 10  
pontoon-droplet-resize command line option  
    -no-wait, 10

- yes, 10
- pontoon droplet resize <name> <size> [options], 10
- pontoon-droplet-restore command line option
  - no-wait, 11
  - pontoon droplet restore <name> <snapshot>, 11
- pontoon-droplet-show command line option
  - field field, 10
  - pontoon droplet show <name> [options], 10
- pontoon-droplet-shutdown command line option
  - no-wait, 11
  - pontoon droplet shutdown <name>, 11
- pontoon-droplet-snapshot command line option
  - no-wait, 10
  - pontoon droplet snapshot <droplet> <snapshot> [options], 10
- pontoon-droplet-ssh command line option
  - key path, 9
  - user user, 9
  - pontoon droplet ssh <name> [command] [options], 9
- pontoon-droplet-start command line option
  - no-wait, 11
  - pontoon droplet start <name>, 11
- pontoon-droplet-status command line option
  - pontoon droplet status <name>, 10
- pontoon-event-show command line option
  - pontoon event show <id>, 12
- pontoon-image-list command line option
  - with-ids, 13
  - pontoon image list [options], 13
- pontoon-image-oses command line option
  - pontoon image oses, 13
- pontoon-image-show command line option
  - pontoon image show <name>, 13
- pontoon-region-list command line option
  - pontoon region list, 13
- pontoon-size-list command line option
  - pontoon size list, 13
- pontoon-snapshot-destroy command line option
  - pontoon snapshot destroy <name>, 14
- pontoon-snapshot-list command line option
  - with-ids, 13
  - pontoon snapshot list [options], 13
- pontoon-snapshot-show command line option
  - pontoon snapshot show <name>, 13
- pontoon-snapshot-transfer command line option
  - pontoon snapshot transfer <name> <region>, 14
- pontoon-sshkey-add command line option
  - pontoon sshkey add <name> <public-key-path>, 14
- pontoon-sshkey-destroy command line option
  - pontoon sshkey destroy <name>, 14
- pontoon-sshkey-list command line option
  - pontoon sshkey list, 14
- pontoon-sshkey-replace command line option

pontoon sshkey replace <name> <public-key-path>, 14

pontoon-sshkey-show command line option

pontoon sshkey show <name>, 14

pontoon.configure (module), 24

pontoon.exceptions (module), 24

pontoon.lib (module), 15

pontoon.log (module), 24

pontoon.mocking (module), 24

pontoon.ui (module), 23

PontoonException, 24

power\_cycle() (pontoon.lib.Droplet method), 18

power\_off() (pontoon.lib.Droplet method), 18

power\_on() (pontoon.lib.Droplet method), 18

## R

read\_config() (in module pontoon.configure), 24

read\_key() (in module pontoon.configure), 24

reboot() (pontoon.lib.Droplet method), 18

rebuild() (pontoon.lib.Droplet method), 19

Record (class in pontoon.lib), 22

regenerate\_public\_key() (in module pontoon.configure), 25

Region (class in pontoon.lib), 22

regions() (in module pontoon.configure), 25

register\_key() (in module pontoon.configure), 25

rename() (pontoon.lib.Droplet method), 19

rename() (pontoon.lib.Image method), 21

reserve() (pontoon.lib.FloatingIP method), 21

reset\_root\_password() (pontoon.lib.Droplet method), 19

resize() (pontoon.lib.Droplet method), 19

restore() (pontoon.lib.Droplet method), 19

rsa\_keygen() (in module pontoon.configure), 25

run() (pontoon.command.Command method), 25

## S

save() (pontoon.lib.Record method), 22

shutdown() (pontoon.lib.Droplet method), 19

Size (class in pontoon.lib), 23

sizes() (in module pontoon.configure), 25

ssh\_tools() (in module pontoon.configure), 25

SSHKey (class in pontoon.lib), 22

## T

take\_snapshot() (pontoon.lib.Droplet method), 20

ticker() (in module pontoon.ui), 23

timestamp() (in module pontoon.mocking), 24

transfer() (pontoon.lib.Image method), 22

## U

unassign() (pontoon.lib.FloatingIP method), 21

## V

valid\_path() (in module pontoon.ui), 23

## W

`wait()` (pontoon.lib.Action method), 20  
`warning()` (in module pontoon.ui), 23

## Y

`yaml_message()` (in module pontoon.ui), 24