



















will be yielded, and the next request will be made to the URL in the `.links.pages.next` field until the responses no longer contain that field.

#### Parameters

- **url** (*str*) – the URL to make the initial request of. If `url` begins with a forward slash, `endpoint` is prepended to it; otherwise, `url` is treated as an absolute URL.
- **key** (*str*) – the field on each page containing a list of values to yield
- **params** (*dict*) – parameters to add to the initial URL's query string. A "per\_page" parameter may be included to override the default `per_page` setting.

**Return type** generator of decoded JSON values

#### Raises

- **ValueError** – if a response body is not an object or `key` is not one of its keys
- **DOAPIError** – if the API endpoint replies with an error

**fetch\_droplet** (*obj*)

Fetch a droplet by ID number

**Parameters** *obj* (integer, *dict*, or *Droplet*) – the ID of the droplet, a *dict* with an "id" field, or a *Droplet* object (to re-fetch the same droplet)

**Return type** *Droplet*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_droplets** ()

Returns a generator that yields all of the droplets belonging to the account

**Return type** generator of *Droplets*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_droplet\_upgrades** ()

Returns a generator that yields *DropletUpgrade* objects describing droplets that are scheduled to be upgraded

**Return type** generator of *DropletUpgrades*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**create\_droplet** (*name*, *image*, *size*, *region*, *ssh\_keys=None*, *backups=None*, *ipv6=None*, *private\_networking=None*, *user\_data=None*, *\*\*kwargs*)

Create a new droplet. All fields other than `name`, `image`, `size`, and `region` are optional and will be omitted from the API request if not specified.

The returned *Droplet* object will represent the droplet at the moment of creation; the actual droplet may not be active yet and may not have even been assigned an IP address. To wait for the droplet to activate, use the *Droplet*'s `wait()` method.

#### Parameters

- **name** (*str*) – a name for the droplet
- **image** (integer, string, or *Image*) – the image ID, slug, or *Image* object representing the base image to use for the droplet
- **size** (string or *Size*) – the slug or *Size* object representing the size of the new droplet
- **region** (string or *Region*) – the slug or *Region* object representing the region in which to create the droplet

- **ssh\_keys** (*iterable*) – an iterable of SSH key resource IDs, SSH key fingerprints, and/or *SSHKey* objects specifying the public keys to add to the new droplet’s `/root/.ssh/authorized_keys` file
- **backups** (*bool*) – whether to enable automatic backups on the new droplet
- **ipv6** (*bool*) – whether to enable IPv6 on the new droplet
- **private\_networking** (*bool*) – whether to enable private networking for the new droplet
- **user\_data** (*str*) – a string of user data/metadata for the droplet
- **kwargs** – additional fields to include in the API request

**Returns** the new droplet resource

**Return type** *Droplet*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**create\_multiple\_droplets** (*names*, *image*, *size*, *region*, *ssh\_keys=None*, *backups=None*, *ipv6=None*, *private\_networking=None*, *user\_data=None*, *\*\*kwargs*)

Create multiple new droplets at once with the same image, size, etc., differing only in name. All fields other than names, image, size, and region are optional and will be omitted from the API request if not specified.

The returned *Droplet* objects will represent the droplets at the moment of creation; the actual droplets may not be active yet and may not have even been assigned IP addresses. To wait for the droplets to activate, use their *wait()* method or *wait\_droplets*.

#### Parameters

- **names** (*list of strings*) – the names for the new droplets
- **image** (integer, string, or *Image*) – the image ID, slug, or *Image* object representing the base image to use for the droplets
- **size** (string or *Size*) – the slug or *Size* object representing the size of the new droplets
- **region** (string or *Region*) – the slug or *Region* object representing the region in which to create the droplets
- **ssh\_keys** (*iterable*) – an iterable of SSH key resource IDs, SSH key fingerprints, and/or *SSHKey* objects specifying the public keys to add to the new droplets’ `/root/.ssh/authorized_keys` files
- **backups** (*bool*) – whether to enable automatic backups on the new droplets
- **ipv6** (*bool*) – whether to enable IPv6 on the new droplets
- **private\_networking** (*bool*) – whether to enable private networking for the new droplets
- **user\_data** (*str*) – a string of user data/metadata for the droplets
- **kwargs** – additional fields to include in the API request

**Returns** the new droplet resources

**Return type** list of *Droplets*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_droplet\_neighbors** ()

Returns a generator of all sets of multiple droplets that are running on the same physical hardware

**Return type** generator of lists of *Droplets*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**wait\_droplets** (*droplets*, *status=None*, *wait\_interval=None*, *wait\_time=None*)

Poll the server periodically until all droplets in *droplets* have reached some final state, yielding each *Droplet*'s final value when it's done. If *status* is non-*None*, *wait\_droplets* will wait for each droplet's *status* field to equal the given value; otherwise, it will wait for the most recent action on each droplet to finish.

If *wait\_time* is exceeded or a `KeyboardInterrupt` is caught, any remaining droplets are returned immediately without waiting for completion.

**Parameters**

- **droplets** (*iterable*) – an iterable of *Droplets* and/or other values that are acceptable arguments to *fetch\_droplet()*
- **status** (string or *None*) – When non-*None*, the desired value for the *status* field of each *Droplet*, which should be one of *Droplet.STATUS\_ACTIVE*, *Droplet.STATUS\_ARCHIVE*, *Droplet.STATUS\_NEW*, and *Droplet.STATUS\_OFF*. (For the sake of forwards-compatibility, any other value is accepted as well.)
- **wait\_interval** (*number*) – how many seconds to sleep between requests; defaults to *wait\_interval* if not specified or *None*
- **wait\_time** (*number*) – the total number of seconds after which the method will return, or a negative number to wait indefinitely; defaults to *wait\_time* if not specified or *None*

**Return type** generator of *Droplets*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_action** (*obj*)

Fetch an action by ID number

**Parameters** *obj* (integer, *dict*, or *Action*) – the ID of the action, a *dict* with an "id" field, or an *Action* object (to re-fetch the same action)

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_last\_action** ()

Fetch the most recent action performed on the account, or *None* if no actions have been performed yet. If multiple actions were triggered simultaneously, the choice of which to return is undefined.

**Return type** *Action* or *None*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_actions** ()

Returns a generator that yields all of the actions associated with the account

**Return type** generator of *Actions*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**wait\_actions** (*actions*, *wait\_interval=None*, *wait\_time=None*)

Poll the server periodically until all actions in *actions* have either completed or errored out, yielding each *Action*'s final value as it ends. If *wait\_time* is exceeded or a `KeyboardInterrupt` is caught, any remaining actions are returned immediately without waiting for completion.

**Parameters**

- **actions** (*iterable*) – an iterable of *Actions* and/or other values that are acceptable arguments to *fetch\_action()*
- **wait\_interval** (*number*) – how many seconds to sleep between requests; defaults to *wait\_interval* if not specified or *None*
- **wait\_time** (*number*) – the total number of seconds after which the method will return, or a negative number to wait indefinitely; defaults to *wait\_time* if not specified or *None*

**Return type** generator of *Actions*

**Raises** *DOAPIError* – if the API endpoint replies with an error

**fetch\_ssh\_key** (*obj*)

Fetch an SSH public key by ID number or fingerprint

**Parameters** *obj* (integer, string, *dict*, or *SSHKey*) – the ID or fingerprint of the SSH key, a *dict* with an "id" or "fingerprint" field, or an *SSHKey* object (to re-fetch the same SSH key)

**Return type** *SSHKey*

**Raises** *DOAPIError* – if the API endpoint replies with an error

**fetch\_all\_ssh\_keys** ()

Returns a generator that yields all of the SSH public keys belonging to the account

**Return type** generator of *SSHKeys*

**Raises** *DOAPIError* – if the API endpoint replies with an error

**create\_ssh\_key** (*name*, *public\_key*, *\*\*kwargs*)

Add a new SSH public key resource to the account

**Parameters**

- **name** (*str*) – the name to give the new SSH key resource
- **public\_key** (*str*) – the text of the public key to register, in the form used by *authorized\_keys* files
- **kwargs** – additional fields to include in the API request

**Returns** the new SSH key resource

**Return type** *SSHKey*

**Raises** *DOAPIError* – if the API endpoint replies with an error

**fetch\_image** (*obj*)

Fetch an image by ID number

**Parameters** *obj* (integer, *dict*, or *Image*) – the ID of the image, a *dict* with an "id" field, or an *Image* object (to re-fetch the same image)

**Return type** *Image*

**Raises** *DOAPIError* – if the API endpoint replies with an error

**fetch\_image\_by\_slug** (*slug*)

Fetch an image by its slug

**Parameters** *slug* (*str*) – the slug of the image to fetch

**Return type** *Image*

**Raises** *DOAPIError* – if the API endpoint replies with an error

**fetch\_all\_images** (*type=None, private=False*)

Returns a generator that yields all of the images available to the account

**Parameters**

- **type** (*string or None*) – the type of images to fetch: "distribution", "application", or all (*None*); default: *None*
- **private** (*bool*) – whether to only return the user's private images; default: *False* (i.e., return all images)

**Return type** generator of *Images*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_distribution\_images** ()

Returns a generator that yields all of the distribution images available to the account

**Return type** generator of *Images*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_application\_images** ()

Returns a generator that yields all of the application images available to the account

**Return type** generator of *Images*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_private\_images** ()

Returns a generator that yields all of the user's private images

**Return type** generator of *Images*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_regions** ()

Returns a generator that yields all of the regions available to the account

**Return type** generator of *Regions*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_sizes** ()

Returns a generator that yields all of the sizes available to the account

**Return type** generator of *Sizes*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_account** ()

Returns an *Account* object representing the user's account

**Return type** *Account*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_domain** (*obj*)

Fetch a domain by FQDN

**Parameters** **obj** (*string, dict, or Domain*) – the domain name, a *dict* with a "name" field, or a *Domain* object (to re-fetch the same domain)

**Return type** *Domain*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_domains** ()

Returns a generator that yields all of the domains belonging to the account

**Return type** generator of *Domains*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**create\_domain** (*name*, *ip\_address*, *\*\*kwargs*)

Add a new domain name resource to the account.

Note that this method does not actually register a new domain name; it merely configures DigitalOcean's nameservers to provide DNS resolution for the domain. See [How To Set Up a Host Name with DigitalOcean](#) for more information.

**Parameters**

- **name** (*str*) – the domain name to add
- **ip\_address** (string or *FloatingIP*) – the IP address to which the domain should point
- **kwargs** – additional fields to include in the API request

**Returns** the new domain resource

**Return type** *Domain*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_floating\_ip** (*obj*)

Fetch a floating IP

**Parameters** *obj* (string, integer, *dict*, or *FloatingIP*) – an IP address (as a string or 32-bit integer), a *dict* with an "ip" field, or a *FloatingIP* object (to re-fetch the same floating IP)

**Return type** *FloatingIP*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_floating\_ips** ()

Returns a generator that yields all of the floating IPs belonging to the account

**Return type** generator of *FloatingIPs*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**create\_floating\_ip** (*droplet\_id=None*, *region=None*, *\*\*kwargs*)

Create a new floating IP assigned to a droplet or reserved to a region. Either *droplet\_id* or *region* must be specified, but not both.

The returned *FloatingIP* object will represent the IP at the moment of creation; if the IP address is supposed to be assigned to a droplet, the assignment may not have been completed at the time the object is returned. To wait for the assignment to complete, use the *FloatingIP*'s *wait* () method.

**Parameters**

- **droplet\_id** (integer or *Droplet*) – the droplet to assign the floating IP to as either an ID or a *Droplet* object
- **region** (string or *Region*) – the region to reserve the floating IP to as either a slug or a *Region* object
- **kwargs** – additional fields to include in the API request

**Returns** the new floating IP

Return type *FloatingIP*

Raises

- **TypeError** – if both `droplet_id` & `region` or neither of them are defined
- **DOAPIError** – if the API endpoint replies with an error

## 1.2 Droplets

### 1.2.1 Droplet

**class** `doapi.Droplet`

A droplet resource, representing a virtual machine provided by DigitalOcean.

New droplets are created via the `doapi.create_droplet()` and `doapi.create_multiple_droplets()` methods and can be retrieved with the `doapi.fetch_droplet()` and `doapi.fetch_all_droplets()` methods.

The DigitalOcean API specifies the following fields for droplet objects:

#### Variables

- **id** (*int*) – a unique identifier for the droplet
- **backup\_ids** (*list of integers*) – image IDs of backups taken of the droplet
- **created\_at** (*datetime.datetime*) – date & time of the droplet's creation
- **disk** (*number*) – size of the droplet's disk in gigabytes
- **features** (*list of strings*) – a list of strings naming the features enabled on the droplet
- **image** (*Image*) – the base image used to create the droplet
- **kernel** (*Kernel* or *None*) – the droplet's current kernel
- **locked** (*bool*) – whether the droplet is currently locked, preventing actions on it
- **memory** (*number*) – RAM of the droplet in megabytes
- **name** (*string*) – a human-readable name for the droplet
- **networks** (*Networks*) – the network interfaces configured for the droplet
- **next\_backup\_window** (*BackupWindow* or *None*) – the start & end of the next time-frame in which the droplet will be backed up; only defined if backups are enabled on the droplet
- **region** (*Region*) – the region in which the droplet is located
- **size** (*Size*) – the current size of the droplet
- **size\_slug** (*string*) – the unique slug identifier for the droplet's size
- **snapshot\_ids** (*list of integers*) – image IDs of snapshots taken of the droplet
- **status** (*string*) – the current state of the droplet: "new", "active", "off", or "archive"
- **vcpus** (*int*) – number of virtual CPUs

**action\_url**

The endpoint for actions on the specific resource

**act** (\*\*data)

Perform an arbitrary action on the resource. data will be serialized as JSON and POSTed to the resource's *action\_url*. All currently-documented actions require the POST body to be a JSON object containing, at a minimum, a "type" field.

**Returns** an *Action* representing the in-progress operation on the resource

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_actions** ()

Returns a generator that yields all of the actions associated with the resource

**Return type** generator of *Actions*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_last\_action** ()

Fetch the most recent action performed on the resource. If multiple actions were triggered simultaneously, the choice of which to return is undefined.

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_current\_action** ()

Fetch the action currently in progress on the resource, or *None* if there is no such action

**Return type** *Action* or *None*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**\_\_int\_\_** ()

Convert the resource to its unique ID

**STATUS\_ACTIVE** = 'active'

The status of droplets that are powered on and operating

**STATUS\_ARCHIVE** = 'archive'

The status of "archived" droplets

**STATUS\_NEW** = 'new'

The status of recently-created droplets that are not yet usable

**STATUS\_OFF** = 'off'

The status of droplets that are powered off

**active**

*True* iff the droplet's status is "active"

**new**

*True* iff the droplet's status is "new"

**off**

*True* iff the droplet's status is "off"

**archive**

*True* iff the droplet's status is "archive"

**region\_slug**

The unique slug identifier for the droplet's region



**image\_slug**

The unique slug identifier for the droplet's image, or `None` if the image doesn't have a slug

**ip\_address**

The IP address of the first interface listed in the droplet's `networks` field (ordering IPv4 before IPv6), or `None` if there are no interfaces

**url**

The endpoint for operations on the specific droplet

**fetch()**

Fetch & return a new *Droplet* object representing the droplet's current state

**Return type** *Droplet*

**Raises** **DOAPIError** – if the API endpoint replies with an error (e.g., if the droplet no longer exists)

**fetch\_all\_neighbors()**

Returns a generator that yields all of the droplets running on the same physical server as the droplet

**Return type** generator of *Droplets*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_snapshots()**

Returns a generator that yields all of the snapshot images created from the droplet

**Return type** generator of *Images*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_backups()**

Returns a generator that yields all of the backup images created from the droplet

**Return type** generator of *Images*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_kernels()**

Returns a generator that yields all of the kernels available to the droplet

**Return type** generator of *Kernels*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**enable\_backups()**

Enable backups on the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**disable\_backups()**

Disable backups on the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**reboot()**

Reboot the droplet

A reboot action is an attempt to reboot the Droplet in a graceful way, similar to using the **reboot** command from the console. *[APIDocs]*

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

#### **power\_cycle()**

Power cycle the droplet

A powercycle action is similar to pushing the reset button on a physical machine, it's similar to booting from scratch. *[APIDocs]*

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

#### **shutdown()**

Shut down the droplet

A shutdown action is an attempt to shutdown the Droplet in a graceful way, similar to using the **shutdown** command from the console. Since a `shutdown` command can fail, this action guarantees that the command is issued, not that it succeeds. The preferred way to turn off a Droplet is to attempt a shutdown, with a reasonable timeout, followed by a power off action to ensure the Droplet is off. *[APIDocs]*

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

#### **power\_off()**

Power off the droplet

A `power_off` event is a hard shutdown and should only be used if the `shutdown()` action is not successful. It is similar to cutting the power on a server and could lead to complications. *[APIDocs]*

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

#### **power\_on()**

Power on the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

#### **restore(image)**

Restore the droplet to the specified backup image

A Droplet restoration will rebuild an image using a backup image. The image ID that is passed in must be a backup of the current Droplet instance. The operation will leave any embedded SSH keys intact. *[APIDocs]*

**Parameters** **image** (integer, string, or *Image*) – an image ID, an image slug, or an *Image* object representing a backup image of the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**password\_reset** ()

Reset the password for the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**resize** (*size*, *disk=None*)

Resize the droplet

**Parameters**

- **size** (string or *Size*) – a size slug or a *Size* object representing the size to resize to
- **disk** (*bool*) – Set to *True* for a permanent resize, including disk changes

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**rebuild** (*image*)

Rebuild the droplet with the specified image

A rebuild action functions just like a new create. *[APIDocs]*

**Parameters** **image** (integer, string, or *Image*) – an image ID, an image slug, or an *Image* object representing the image the droplet should use as a base

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**rename** (*name*)

Rename the droplet

**Parameters** **name** (*str*) – the new name for the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**change\_kernel** (*kernel*)

Change the droplet's kernel

**Parameters** **kernel** (integer or *Kernel*) – a kernel ID or *Kernel* object representing the new kernel

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**enable\_ipv6** ()

Enable IPv6 networking on the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**enable\_private\_networking** ()

Enable private networking on the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**snapshot** (*name*)

Create a snapshot image of the droplet

**Parameters** **name** (*str*) – the name for the new snapshot

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**upgrade** ()

Upgrade the droplet

**Returns** an *Action* representing the in-progress operation on the droplet

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**delete** ()

Delete the droplet

**Returns** *None*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**wait** (*status=None, wait\_interval=None, wait\_time=None*)

Poll the server periodically until the droplet has reached some final state. If *status* is non-*None*, *wait* will wait for the droplet's *status* field to equal the given value; otherwise, it will wait for the most recent action on the droplet to finish.

If *wait\_time* is exceeded or a `KeyboardInterrupt` is caught, the droplet's most recently fetched state is returned immediately without waiting for completion.

**Parameters**

- **status** (string or *None*) – When non-*None*, the desired value for the *status* field of the droplet, which should be one of `Droplet.STATUS_ACTIVE`, `Droplet.STATUS_ARCHIVE`, `Droplet.STATUS_NEW`, and

`Droplet.STATUS_OFF`. (For the sake of forwards-compatibility, any other value is accepted as well.)

- **wait\_interval** (*number*) – how many seconds to sleep between requests; defaults to the *doapi* object's *wait\_interval* if not specified or `None`
- **wait\_time** (*number*) – the total number of seconds after which the method will return, or a negative number to wait indefinitely; defaults to the *doapi* object's *wait\_time* if not specified or `None`

**Returns** the droplet's final state

**Return type** *Droplet*

**Raises** `DOAPIError` – if the API endpoint replies with an error

## 1.2.2 BackupWindow

**class** `doapi.BackupWindow`

A backup window resource, representing an upcoming timeframe in which a droplet is scheduled to be backed up.

A *Droplet*'s next backup window is stored in its *next\_backup\_window* attribute.

The DigitalOcean API implicitly specifies the following fields for backup window objects:

### Variables

- **start** (*datetime.datetime*) – beginning of the window
- **end** (*datetime.datetime*) – end of the window

### droplet

The *Droplet* associated with the backup window

### fetch\_droplet()

Fetch the droplet to which the resource belongs, or return `None` if the resource's *droplet* attribute is `None`

**Return type** *Droplet* or `None`

**Raises** `DOAPIError` – if the API endpoint replies with an error

## 1.2.3 DropletUpgrade

**class** `doapi.DropletUpgrade`

A droplet upgrade resource, representing a scheduled upgrade of a droplet.

The set of all currently-scheduled upgrades can be retrieved with the `doapi.fetch_all_droplet_upgrades()` method.

The DigitalOcean API specifies the following fields for droplet upgrade objects:

### Variables

- **date\_of\_migration** (*datetime.datetime*) – date & time that the droplet will be migrated
- **droplet\_id** (*int*) – the ID of the affected droplet
- **url** (*string*) – the endpoint for operations on the affected droplet

**fetch\_droplet()**

Fetch the droplet affected by the droplet upgrade

**Return type** *Droplet*

**Raises** **DOAPIError** – if the API endpoint replies with an error

## 1.2.4 Kernel

**class** `doapi.Kernel`

A kernel resource, representing a kernel version that can be installed on a given droplet.

A *Droplet*'s current kernel is stored in its `kernel` attribute, and the set of kernels available to a given *Droplet* can be retrieved with the `droplet.fetch_all_kernels()` method.

The DigitalOcean API specifies the following fields for kernel objects:

### Variables

- **id** (*int*) – a unique identifier for the kernel
- **name** (*string*) – a human-readable name for the kernel
- **version** (*string*) – the version string for the kernel

**droplet**

The *Droplet* associated with the kernel

**fetch\_droplet()**

Fetch the droplet to which the resource belongs, or return *None* if the resource's `droplet` attribute is *None*

**Return type** *Droplet* or *None*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**\_\_int\_\_()**

Convert the resource to its unique ID

## 1.2.5 Networks

**class** `doapi.Networks`

A networks resource, representing a set of network interfaces configured for a specific droplet.

A *Droplet*'s network information is stored in its `networks` attribute.

The DigitalOcean API implicitly specifies the following fields for networks objects:

### Variables

- **v4** (list of *NetworkInterfaces*) – a list of IPv4 interfaces allocated for a droplet
- **v6** (list of *NetworkInterfaces*) – a list of IPv6 interfaces allocated for a droplet

**droplet**

The *Droplet* associated with the networks resource

**fetch\_droplet()**

Fetch the droplet to which the resource belongs, or return *None* if the resource's `droplet` attribute is *None*

**Return type** *Droplet* or *None*

Raises **DOAPIError** – if the API endpoint replies with an error

## 1.2.6 NetworkInterface

**class** `doapi.NetworkInterface`

A network interface resource, representing an IP address allocated to a specific droplet.

A *Droplet*'s network interfaces are listed in its `networks` attribute.

The DigitalOcean API implicitly specifies the following fields for network interface objects:

### Variables

- **gateway** (*string*) – gateway
- **ip\_address** (*string*) – IP address
- **netmask** – netmask
- **type** – "public" or "private"

### droplet

The *Droplet* to which the network interface belongs

### ip\_version

The IP version used by the interface: 4 or 6

### fetch\_droplet()

Fetch the droplet to which the resource belongs, or return *None* if the resource's `droplet` attribute is *None*

**Return type** *Droplet* or *None*

Raises **DOAPIError** – if the API endpoint replies with an error

### \_\_str\_\_()

Show just the IP address of the interface

## 1.3 Domains

### 1.3.1 Domain

**class** `doapi.Domain`

A domain resource, representing a domain name whose DNS is managed by DigitalOcean's nameservers.

New domains are created via the `doapi.create_domain()` method and can be retrieved with the `doapi.fetch_domain()` and `doapi.fetch_all_domains()` methods.

The DigitalOcean API specifies the following fields for domain objects:

### Variables

- **name** (*string*) – the domain name
- **ttl** (*number*) – the time-to-live for the domain's records, in seconds
- **zone\_file** (*string*) – the complete zone file for the domain

### \_\_str\_\_()

Convert the domain to just the actual domain name

**url**

The endpoint for operations on the specific domain

**fetch()**

Fetch & return a new *Domain* object representing the domain's current state

**Return type** *Domain*

**Raises** **DOAPIError** – if the API endpoint replies with an error (e.g., if the domain no longer exists)

**delete()**

Delete the domain

**Returns** *None*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**record\_url**

The endpoint for operations on the domain's DNS records

**fetch\_record(obj)**

Fetch a domain record by ID number

**Parameters** **obj** (integer, *dict*, or *DomainRecord*) – the ID of the record, a *dict* with an "id" field, or a *DomainRecord* object (to re-fetch the same record)

**Return type** *DomainRecord*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_records()**

Returns a generator that yields all of the DNS records for the domain

**Return type** generator of *DomainRecords*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**create\_record(type, name, data, priority=None, port=None, weight=None, \*\*kwargs)**

Add a new DNS record to the domain

**Parameters**

- **type** (*str*) – the type of DNS record to add ("A", "CNAME", etc.)
- **name** (*str*) – the name (hostname, alias, etc.) of the new record
- **data** (*str*) – the value of the new record
- **priority** (*int*) – the priority of the new record (SRV and MX records only)
- **port** (*int*) – the port that the service is accessible on (SRV records only)
- **weight** (*int*) – the weight of records with the same priority (SRV records only)
- **kwargs** – additional fields to include in the API request

**Returns** the new domain record

**Return type** *DomainRecord*

**Raises** **DOAPIError** – if the API endpoint replies with an error



### 1.3.2 DomainRecord

#### class doapi.DomainRecord

A domain record resource, representing an individual DNS record that can be set & modified by the user of the DigitalOcean API.

New domain records are created via the *Domain.create\_record()* method and can be retrieved with the *Domain.fetch\_record()* and *Domain.fetch\_all\_records()* methods.

The DigitalOcean API specifies the following fields for domain record objects:

#### Variables

- **id** (*int*) – a unique identifier for the domain record
- **type** (*string*) – the type of the DNS record
- **name** (*string*) – the name of the DNS record
- **data** (*string*) – the value of the DNS record
- **priority** (number or *None*) – the priority of the record (SRV and MX records only)
- **port** (number or *None*) – the port of the record (SRV records only)
- **weight** (number or *None*) – the weight of the record (SRV records only)

#### domain

The *Domain* to which the record belongs

#### \_\_int\_\_()

Convert the resource to its unique ID

#### url

The endpoint for operations on the specific domain record

#### fetch()

Fetch & return a new *DomainRecord* object representing the domain record's current state

**Return type** *DomainRecord*

**Raises** **DOAPIError** – if the API endpoint replies with an error (e.g., if the domain record no longer exists)

#### fetch\_domain()

Fetch & return the domain resource that the record belongs to

**Return type** *Domain*

**Raises** **DOAPIError** – if the API endpoint replies with an error

#### update\_record(\*\*attrs)

Update the record, modifying any number of its attributes (except *id*). *update\_record* takes the same keyword arguments as *Domain.create\_record()*; pass in only those attributes that you want to update.

**Returns** an updated *DomainRecord* object

**Return type** *DomainRecord*

**Raises** **DOAPIError** – if the API endpoint replies with an error

#### delete()

Delete the domain record

**Returns** *None*

**Raises** `DOAPIError` – if the API endpoint replies with an error

## 1.4 Floating IPs

### 1.4.1 FloatingIP

**class** `doapi.FloatingIP`

A floating IP resource, representing a public IP address that can be (re)assigned at any time to any droplet in a certain region.

New floating IPs are created via the `doapi.create_floating_ip()` method and can be retrieved with the `doapi.fetch_floating_ip()` and `doapi.fetch_all_floating_ips()` methods.

The DigitalOcean API specifies the following fields for floating IP objects:

#### Variables

- **ip** (*string*) – the IP address
- **droplet** (*Droplet* or *None*) – the droplet the floating IP is currently assigned to, or *None* if the address is currently unassigned
- **region** (*Region*) – the region the floating IP is reserved to

#### **action\_url**

The endpoint for actions on the specific resource

#### **act** (*\*\*data*)

Perform an arbitrary action on the resource. *data* will be serialized as JSON and POSTed to the resource's *action\_url*. All currently-documented actions require the POST body to be a JSON object containing, at a minimum, a "type" field.

**Returns** an *Action* representing the in-progress operation on the resource

**Return type** *Action*

**Raises** `DOAPIError` – if the API endpoint replies with an error

**wait** (*wait\_interval=None, wait\_time=None*)

Poll the server periodically until the resource's most recent action has either completed or errored out, and return the resource's final state afterwards. If *wait\_time* is exceeded or a `KeyboardInterrupt` is caught, the resource's current state is returned immediately without waiting for completion.

#### Parameters

- **wait\_interval** (*number*) – how many seconds to sleep between requests; defaults to the *doapi* object's *wait\_interval* if not specified or *None*
- **wait\_time** (*number*) – the total number of seconds after which the method will return, or a negative number to wait indefinitely; defaults to the *doapi* object's *wait\_time* if not specified or *None*

**Returns** the resource's final state

**Raises** `DOAPIError` – if the API endpoint replies with an error

**fetch\_all\_actions** ()

Returns a generator that yields all of the actions associated with the resource

**Return type** generator of *Actions*

**Raises** `DOAPIError` – if the API endpoint replies with an error

**fetch\_last\_action()**

Fetch the most recent action performed on the resource. If multiple actions were triggered simultaneously, the choice of which to return is undefined.

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_current\_action()**

Fetch the action currently in progress on the resource, or *None* if there is no such action

**Return type** *Action* or *None*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**\_\_str\_\_()**

Convert the floating IP to just the actual IP address

**url**

The endpoint for operations on the specific floating IP

**fetch()**

Fetch & return a new *FloatingIP* object representing the floating IP's current state

**Return type** *FloatingIP*

**Raises** **DOAPIError** – if the API endpoint replies with an error (e.g., if the floating IP no longer exists)

**delete()**

Delete the floating IP

**Returns** *None*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**assign(droplet\_id)**

Assign the floating IP to a droplet

**Parameters** **droplet\_id** (integer or *Droplet*) – the droplet to assign the floating IP to as either an ID or a *Droplet* object

**Returns** an *Action* representing the in-progress operation on the floating IP

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**unassign()**

Unassign the floating IP

**Returns** an *Action* representing the in-progress operation on the floating IP

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

## 1.5 Images

### 1.5.1 Image

**class** `doapi.Image`

An image resource, representing an OS image that can be used to create or reset a droplet.

New images can be created via the `Droplet.snapshot()` method. They are also automatically created regularly for droplets that have backups enabled. Images can be retrieved with the `doapi.fetch_image()` and `doapi.fetch_all_images()` methods, among others.

The DigitalOcean API specifies the following fields for domain objects:

#### Variables

- **id** (*int*) – a unique identifier for the image
- **created\_at** (*datetime.datetime*) – date & time of the image's creation
- **distribution** (*string*) – the base Linux distribution used for the image
- **min\_disk\_size** (*number*) – the minimum disk size required for a droplet to use the image
- **name** (*string*) – a human-readable name for the image
- **public** (*bool*) – whether the image is public (i.e., available to all accounts) or not (i.e., only accessible from your account)
- **regions** (*list of strings*) – the slugs of the regions in which the image is available
- **slug** (*string or None*) – the unique slug identifier for the image (only defined for public images)
- **type** (*string*) – the type of the image: "snapshot" or "backup"

#### droplet

The `Droplet` to which the image belongs. This attribute is only defined for `Droplet.image` attributes and the images returned by the `Droplet.fetch_all_backups()` and the `Droplet.fetch_all_snapshots()` methods. Images obtained by any other means have this attribute set to `None`.

#### action\_url

The endpoint for actions on the specific resource

#### act (\*\*data)

Perform an arbitrary action on the resource. `data` will be serialized as JSON and POSTed to the resource's `action_url`. All currently-documented actions require the POST body to be a JSON object containing, at a minimum, a "type" field.

**Returns** an `Action` representing the in-progress operation on the resource

**Return type** `Action`

**Raises** `DOAPIError` – if the API endpoint replies with an error

#### wait (wait\_interval=None, wait\_time=None)

Poll the server periodically until the resource's most recent action has either completed or errored out, and return the resource's final state afterwards. If `wait_time` is exceeded or a `KeyboardInterrupt` is caught, the resource's current state is returned immediately without waiting for completion.

#### Parameters

- **wait\_interval** (*number*) – how many seconds to sleep between requests; defaults to the `doapi` object's `wait_interval` if not specified or `None`
- **wait\_time** (*number*) – the total number of seconds after which the method will return, or a negative number to wait indefinitely; defaults to the `doapi` object's `wait_time` if not specified or `None`

**Returns** the resource's final state

**Raises DOAPIError** – if the API endpoint replies with an error

**fetch\_all\_actions()**

Returns a generator that yields all of the actions associated with the resource

**Return type** generator of *Actions*

**Raises DOAPIError** – if the API endpoint replies with an error

**fetch\_last\_action()**

Fetch the most recent action performed on the resource. If multiple actions were triggered simultaneously, the choice of which to return is undefined.

**Return type** *Action*

**Raises DOAPIError** – if the API endpoint replies with an error

**fetch\_current\_action()**

Fetch the action currently in progress on the resource, or *None* if there is no such action

**Return type** *Action* or *None*

**Raises DOAPIError** – if the API endpoint replies with an error

**fetch\_droplet()**

Fetch the droplet to which the resource belongs, or return *None* if the resource's `droplet` attribute is *None*

**Return type** *Droplet* or *None*

**Raises DOAPIError** – if the API endpoint replies with an error

**\_\_int\_\_()**

Convert the resource to its unique ID

**\_\_str\_\_()**

Convert the image to its slug representation. If the image does not have a slug, an `AttributeError` is raised.

**url**

The endpoint for operations on the specific image

**fetch()**

Fetch & return a new *Image* object representing the image's current state

**Return type** *Image*

**Raises DOAPIError** – if the API endpoint replies with an error (e.g., if the image no longer exists)

**update\_image(name)**

Update (i.e., rename) the image

**Parameters** *name* (*str*) – the new name for the image

**Returns** an updated *Image* object

**Return type** *Image*

**Raises DOAPIError** – if the API endpoint replies with an error

**delete()**

Delete the image

**Returns** *None*

**Raises DOAPIError** – if the API endpoint replies with an error

**transfer** (*region*)

Transfer the image to another region

**Parameters** **region** (string or *Region*) – the slug or *Region* object representing the region to which to transfer the image

**Returns** an *Action* representing the in-progress operation on the image

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**convert** ()

Convert the image to a snapshot

**Returns** an *Action* representing the in-progress operation on the image

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

## 1.6 SSH Keys

### 1.6.1 SSHKey

**class** `doapi.SSHKey`

An SSH key resource, representing an SSH public key that can be automatically added to the `/root/.ssh/authorized_keys` files of new droplets.

New SSH keys are created via the `doapi.create_ssh_key()` method and can be retrieved with the `doapi.fetch_ssh_key()` and `doapi.fetch_all_ssh_keys()` methods.

The DigitalOcean API specifies the following fields for SSH key objects:

#### Variables

- **id** (*int*) – a unique identifier for the SSH key
- **fingerprint** (*string*) – the unique fingerprint of the SSH key
- **name** (*string*) – a human-readable name for the SSH key
- **public\_key** (*string*) – the entire SSH public key as it was uploaded to DigitalOcean

**\_\_int\_\_** ()

Convert the resource to its unique ID

**\_\_str\_\_** ()

Convert the SSH key to its fingerprint

**url**

The endpoint for operations on the specific SSH key

**fetch** ()

Fetch & return a new *SSHKey* object representing the SSH key's current state

**Return type** *SSHKey*

**Raises** **DOAPIError** – if the API endpoint replies with an error (e.g., if the SSH key no longer exists)

**update\_ssh\_key** (*name*)

Update (i.e., rename) the SSH key

**Parameters** `name (str)` – the new name for the SSH key

**Returns** an updated `SSHKey` object

**Return type** `SSHKey`

**Raises** `DOAPIError` – if the API endpoint replies with an error

**delete()**

Delete the SSH key

**Returns** `None`

**Raises** `DOAPIError` – if the API endpoint replies with an error

## 1.7 Immutable Resources

### 1.7.1 Account

**class** `doapi.Account`

An account resource describing the user's DigitalOcean account.

Current details on the user's account can be retrieved with the `doapi.fetch_account()` method.

The DigitalOcean API specifies the following fields for account objects:

#### Variables

- **droplet\_limit** (`int`) – the maximum number of droplets the account may have at any one time
- **email** (`string`) – the e-mail address the account used to register for DigitalOcean
- **email\_verified** (`bool`) – whether the user's account has been verified via e-mail
- **floating\_ip\_limit** (`int`) – the maximum number of floating IPs the account may have at any one time
- **status** (`string`) – the status of the account: "active", "warning", or "locked"
- **status\_message** – a human-readable string describing the status of the account
- **uuid** (`alphanumeric string`) – a UUID for the user

**STATUS\_ACTIVE = 'active'**

The status of an account that is currently active and warning-free

**STATUS\_WARNING = 'warning'**

The status of an account that is currently in a “warning” state, e.g., from having reached the droplet limit

**STATUS\_LOCKED = 'locked'**

The status of a locked account

**fetch()**

Fetch & return a new `Account` object representing the account's current state

**Return type** `Account`

**Raises** `DOAPIError` – if the API endpoint replies with an error

**url**

The endpoint for operations on the user's account

## 1.7.2 Action

### `class doapi.Action`

An action resource, representing a change made to another resource.

Actions are created in response to almost all mutating requests on droplets, images, and floating IPs, and they can be retrieved with the `doapi.fetch_action()`, `doapi.fetch_last_action()`, `doapi.fetch_all_actions()` methods as well as the `fetch_all_actions`, `fetch_last_action`, and `fetch_current_action` methods of `Droplet`, `Image`, and `FloatingIP`.

The DigitalOcean API specifies the following fields for action objects:

#### Variables

- **id** (*int*) – a unique identifier for the action
- **completed\_at** (*datetime.datetime* or *None*) – date & time of the action's completion, or *None* if the action has not completed yet
- **region** (*Region*) – the region in which the action occurred
- **region\_slug** (*string*) – the unique slug identifier for the region in which the action occurred
- **resource\_id** (*int*) – the unique ID of the resource that the action operated on. If the resource was a droplet or image, this will be its `id` field. If the resource was a floating IP, this will be the IP address as a 32-bit integer.
- **resource\_type** (*string*) – the type of resource that the action operated on: "droplet", "image", or "floating\_ip"
- **started\_at** (*datetime.datetime*) – date & time of the action's initiation
- **status** (*string*) – the current status of the action: "in-progress", "completed", or "errored"
- **type** (*string*) – the type of action performed

**\_\_int\_\_** ()

Convert the resource to its unique ID

**STATUS\_IN\_PROGRESS** = 'in-progress'

The status of actions that are currently still in progress

**STATUS\_COMPLETED** = 'completed'

The status of actions that have completed successfully

**STATUS\_ERRORED** = 'errored'

The status of actions that failed to complete successfully

**completed**

*True* iff the action's status is "completed"

**in\_progress**

*True* iff the action's status is "in-progress"

**done**

*True* iff the action's status is *not* "in-progress"

**errored**

*True* iff the action's status is "errored"



**url**

The endpoint for operations on the specific action

**fetch()**

Fetch & return a new *Action* object representing the action's current state

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

**fetch\_resource()**

Fetch & return the resource that the action operated on, or *None* if the resource no longer exists (specifically, if the API returns a 404)

**Return type** *Droplet*, *Image*, *FloatingIP*, or *None*

**Raises**

- **ValueError** – if the action has an unknown `resource_type` (This indicates a deficiency in the library; please report it!)
- **DOAPIError** – if the API endpoint replies with a non-404 error

**wait** (*wait\_interval=None*, *wait\_time=None*)

Poll the server periodically until the action has either completed or errored out and return its final state. If `wait_time` is exceeded or a `KeyboardInterrupt` is caught, the action's most recently fetched state is returned immediately without waiting for completion.

**Parameters**

- **wait\_interval** (*number*) – how many seconds to sleep between requests; defaults to the *doapi* object's `wait_interval` if not specified or *None*
- **wait\_time** (*number*) – the total number of seconds after which the method will return, or a negative number to wait indefinitely; defaults to the *doapi* object's `wait_time` if not specified or *None*

**Returns** the action's final state

**Return type** *Action*

**Raises** **DOAPIError** – if the API endpoint replies with an error

### 1.7.3 Region

**class** *doapi.Region*

A region resource, representing a physical datacenter in which droplets can be located.

Available regions can be retrieved with the *doapi.fetch\_all\_regions()* method.

The DigitalOcean API specifies the following fields for region objects:

**Variables**

- **available** (*bool*) – whether new droplets can be created in the region
- **features** (*list of strings*) – a list of strings naming the features available in the region
- **name** (*string*) – a human-readable name for the region
- **sizes** (*list of strings*) – the slugs of the sizes available in the region
- **slug** (*string*) – the unique slug identifier for the region

```
__str__()
```

Convert the region to its slug representation

## 1.7.4 Size

**class** `doapi.Size`

A size resource, representing an option for the amount of RAM, disk space, etc. provisioned for a droplet.

Available sizes can be retrieved with the `doapi.fetch_all_sizes()` method.

The DigitalOcean API specifies the following fields for size objects:

### Variables

- **available** (*bool*) – whether new droplets can be created with this size
- **disk** (*number*) – disk size of a droplet of this size in gigabytes
- **memory** (*number*) – RAM of a droplet of this size in megabytes
- **price\_hourly** (*number*) – the hourly cost for a droplet of this size in USD
- **price\_monthly** (*number*) – the monthly cost for a droplet of this size in USD
- **regions** (*list of strings*) – the slugs of the regions in which this size is available
- **slug** (*string*) – the unique slug identifier for the size
- **transfer** (*number*) – the amount of transfer bandwidth in terabytes available for a droplet of this size
- **vcpus** (*int*) – the number of virtual CPUs on a droplet of this size

```
__str__()
```

Convert the size to its slug representation

## 1.8 Utility Classes

### 1.8.1 DOAPIError

**exception** `doapi.DOAPIError` (*response*)

An exception raised in reaction to the API endpoint responding with a 4xx or 5xx error. If the body of the response is a JSON object, its fields will be added to the `DOAPIError`'s attributes (except where a pre-existing attribute would be overwritten). DigitalOcean error response bodies have been observed to consist of an object with two string fields, "id" and "message".

Note that this class is only for representing errors reported by the endpoint in response to API requests. Everything else that can go wrong uses the normal Python exceptions.

**response** = `None`

The `requests.Response` object

**http\_error\_msg** = `None`

An error message that should be appropriate for human consumption, containing the type of HTTP error, the URL that was requested, and the body of the response.

## 1.8.2 DOEncoder

```
class doapi.DOEncoder(skipkeys=False, ensure_ascii=True, check_circular=True, allow_nan=True,
                      sort_keys=False, indent=None, separators=None, encoding='utf-8',
                      default=None)
```

A `json.JSONEncoder` subclass that converts resource objects to `dicts` for JSONification. It also converts iterators to lists.

**default** (*obj*)

## 1.9 Examples

```
# Shut.
# Down.
# EVERYTHING.

actions = []

for droplet in manager.fetch_all_droplets():
    if droplet.active: # Only droplets that are already up can be shut down.
        actions.append(droplet.shutdown())

# `list` forces the generator returned by `wait_actions` to be fully
# evaluated, thereby making Python wait until all of the shutdown actions
# have completed.
list(manager.wait_actions(actions))
```

---

### Todo

Organize this better

---

---

### Todo

Document potential weirdness when accessing `doapi.last_*` while a generator is being evaluated

---

All public non-magic methods (except `doapi.close`) perform API requests and may raise a `DOAPIError`.

Under normal circumstances, the `fetch` and `fetch_all_*` methods of a resource will only raise a `DOAPIError` if the resource no longer exists.

Generators producing objects always yield them in whatever order the API endpoint returns them in.

If you want all paginated results to be fetched at once, wrap the generator in `list()`.

Passing objects produced by one `doapi` object to methods of another results in undefined behavior.

## 1.10 Resource Objects

---

### Todo

Document `doapi_manager` and conversion to a dict

---

Instances of classes representing DigitalOcean API resources — i.e., *Account*, *Action*, *BackupWindow*, *Domain*, *DomainRecord*, *Droplet*, *DropletUpgrade*, *FloatingIP*, *Image*, *Kernel*, *NetworkInterface*, *Networks*, *Region*, *SSHKey*, and *Size* — make their API fields available in three different ways:

- as regular object attributes: `droplet.id`
- via indexing: `droplet["id"]`
- via indexing the `fields` dictionary attribute: `droplet.fields["id"]`

Modifying a resource object's fields only affects your local copy of the resource's data; to actually modify the resource on DigitalOcean's servers, call one of the object's methods.

Note that calling a mutating method on a resource object simply sends a request to the API endpoint and does not modify the local Python object. To get the most up-to-date information on a resource, you must call the resource object's `fetch` method to acquire a new object.

Note that resource objects have whatever attributes the API returns them with, which may or may not be the same set of attributes as the documentation says they should have. Also note that only documented attributes are ever converted to custom classes; e.g., if the API suddenly returns an SSH key with a `"region"` field, the region data will be left as a `dict` rather than converted to a *Region*.

---

## Command-Line Programs

---

### 2.1 `doapi-account`

#### 2.1.1 NAME

**doapi-account** — fetch DigitalOcean account data

#### 2.1.2 SYNOPSIS

```
doapi-account [<universal options>] [--rate-limit]
```

#### 2.1.3 DESCRIPTION

**doapi-account** displays the current information about your DigitalOcean account as available via the API. The account information is output as an *Account* object converted to JSON.

#### 2.1.4 OPTIONS

In addition to the *universal options* common to all **doapi** commands, **doapi-account** takes the following:

**--rate-limit**

Fetch the account data, but instead of displaying it, output the rate limit headers from the response. (The account data is only requested so that there's a response to get the headers from.)

### 2.2 `doapi-action`

#### 2.2.1 NAME

**doapi-action** — manage DigitalOcean API actions

#### 2.2.2 SYNOPSIS

```
doapi-action show [<action> ...]
doapi-action show {--in-progress | --last}
doapi-action wait [--wait-time <seconds>] [--wait-interval <seconds>] [<action> ...]
doapi-action resource <action> ...
doapi-action resource {--in-progress | --last}
```

**doapi-action** also takes the *universal options* common to all **doapi** commands.

Actions are specified by ID number.

### 2.2.3 show

```
doapi-action show [<action> ...]
doapi-action show {--in-progress | --last}
```

Show the given actions. If no actions or flags are specified, all actions ever performed on the account are shown. The actions are output as a list of *Action* objects converted to JSON.

#### Options

##### **--in-progress**

Show only the currently in-progress actions

##### **--last**

Show only the most recent action performed on the account instead of a list of all actions. If multiple actions were triggered simultaneously, the choice of which to display is undefined.

### 2.2.4 wait

```
doapi-action wait [--wait-time <seconds>] [--wait-interval <seconds>] [<action> ...]
```

Wait for the given actions to either complete or error out. The finished actions are output as a list of *Action* objects converted to JSON, with each action output (roughly) as soon as it finishes. If no actions are specified, **wait** will wait for all currently in-progress actions to complete.

#### Options

##### **--wait-interval** <seconds>

How often to poll the server for the actions' current statuses; default value: 5 seconds

##### **--wait-time** <seconds>

The maximum number of seconds to wait for all actions to complete. After this much time has passed since program invocation, any remaining in-progress actions will be output immediately without waiting for them to finish.

If this option is not specified, **wait** will wait indefinitely.

### 2.2.5 resource

```
doapi-action resource <action> ...
doapi-action resource {--in-progress | --last}
```

Show the resources that the specified actions operated on. The resources are output as a list of *Droplet*, *Image*, and/or *FloatingIP* objects converted to JSON. Resources that no longer exist are output as null.

## Options

### **--in-progress**

Show only the resources currently being acted upon

### **--last**

Show only the resource operated on by the account's most recent action. If multiple actions were triggered simultaneously, the choice of which to display is undefined.

## 2.3 doapi-domain

### 2.3.1 NAME

**doapi-domain** — manage DigitalOcean domains & domain records

### 2.3.2 SYNOPSIS

```
doapi-domain new <domain> <ip address>
doapi-domain show [<domain> ...]
doapi-domain delete <domain> ...

doapi-domain new-record [--priority <int>] [--port <int>] [--weight <int>]
                        [--delete] <domain> <type> <name> <data>

doapi-domain show-record <domain> [<record id> ...]

doapi-domain update-record [--type <type>]
                           [--name <name>]
                           [--data <data>]
                           [--port <int> | --no-port]
                           [--priority <int> | --no-priority]
                           [--weight <int> | --no-weight]
                           <domain> <record id>

doapi-domain delete-record <domain> <record id> [<record id> ...]
```

**doapi-domain** also takes the *universal options* common to all **doapi** commands.

Domains are specified as the base domain name without any subdomains (e.g., `example.com`, never `www.example.com`). Records of a given domain are specified by ID number.

### 2.3.3 new

```
doapi-domain new <domain> <ip address>
```

Set up a domain name `<domain>` pointing to `<ip address>`. The new domain is output as a *Domain* object converted to JSON.

Note that this command does not actually register a new domain name; it merely configures DigitalOcean's name-servers to provide DNS resolution for the domain. See [How To Set Up a Host Name with DigitalOcean](#) for more information.

### 2.3.4 show

```
doapi-domain show [<domain> ...]
```

Show domains. If no domains are specified, all domains registered to the account are shown. The domains are output as a list of *Domain* objects converted to JSON.

### 2.3.5 delete

```
doapi-domain delete <domain> ...
```

Delete domains. There is no output.

### 2.3.6 new-record

```
doapi-domain new-record [--priority <int>] [--port <int>] [--weight <int>]
                        [--delete] <domain> <type> <name> <data>
```

Add a new domain record with the given type, name, & data to domain <domain>. The new record is output as a *DomainRecord* object converted to JSON.

### Options

#### **--delete**

After creating the new record, delete any old records with the same type & name.

#### **--port <int>**

Specify the port on which the service is available (SRV records only)

#### **--priority <int>**

Specify the priority for the new record (SRV and MX records only)

#### **--weight <int>**

Specify the weight for the new record (SRV records only)

### 2.3.7 show-record

```
doapi-domain show-record <domain> [<record id> ...]
```

Show records for domain <domain>. If no records are specified, all records for the domain are shown. The records are output as a list of *DomainRecord* objects converted to JSON.

### 2.3.8 update-record



```
doapi-domain update-record [--type <type>]
                           [--name <name>]
                           [--data <data>]
                           [--port <int> | --no-port]
                           [--priority <int> | --no-priority]
                           [--weight <int> | --no-weight]
                           <domain> <record id>
```

Modify one or more fields of a domain record. The updated record is output as a *DomainRecord* object converted to JSON.

## Options

**--data** <data>  
Set the record's data to <data>

**--name** <name>  
Set the record's name to <name>

**--no-port**  
Unset the record's port field

**--no-priority**  
Unset the record's priority field

**--no-weight**  
Unset the record's weight field

**--port** <int>  
Set the record's port to <int>

**--priority** <int>  
Set the record's priority to <int>

**--type** <type>  
Set the record's type to <type>

**--weight** <int>  
Set the record's weight to <int>

### 2.3.9 delete-record

```
doapi-domain delete-record <domain> <record id> [<record id> ...]
```

Delete records of the given domain. There is no output.

## 2.4 doapi-droplet

### 2.4.1 NAME

**doapi-droplet** — manage DigitalOcean droplets

## 2.4.2 SYNOPSIS

```
doapi-droplet new
  -I|--image <image>
  -S|--size <size>
  -R|--region <region>
  [-B|--backups]
  [-6|--ipv6]
  [-P|--private-networking]
  [-U|--user-data <string|@file>]
  [-K|--ssh-key <key>] ...
  [--unique]
  [--wait] [--wait-time <seconds>] [--wait-interval <seconds>]
  <name> ...

doapi-droplet show [-M|--multiple] [<droplet> ...]

doapi-droplet enable-backups [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet disable-backups [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet reboot [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet power-cycle [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet shutdown [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet power-off [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet power-on [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet password-reset [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet enable-ipv6 [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet enable-private-networking [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet upgrade [<wait options>] [-M|--multiple] <droplet> ...

doapi-droplet show-upgrades [--droplets]
doapi-droplet show-snapshots [-M|--multiple] <droplet> ...
doapi-droplet backups [-M|--multiple] <droplet> ...
doapi-droplet kernels [-M|--multiple] <droplet> ...
doapi-droplet delete [-M|--multiple] <droplet> ...

doapi-droplet neighbors
doapi-droplet neighbors [-M|--multiple] <droplet> ...

doapi-droplet restore [<wait options>] <droplet> <backup>

doapi-droplet resize [<wait options>] [--disk] [-M|--multiple] <size> <droplet> ...

doapi-droplet rebuild [<wait options>] [-I|--image <image>] [-M|--multiple] <droplet> ...

doapi-droplet rename [<wait options>] [--unique] <droplet> <new name>
doapi-droplet snapshot [<wait options>] [--unique] <droplet> <name>
doapi-droplet change-kernel [<wait options>] [-M|--multiple] <kernel> <droplet> ...

doapi-droplet act [<wait options>] [-p|--params <JSON|@file>] [-M|--multiple] <type> <droplet> ...
doapi-droplet actions [--last | --in-progress] [-M|--multiple] <droplet> ...
doapi-droplet wait [--wait-time <seconds>] [--wait-interval <seconds>] [-M|--multiple] [-S|--status <status>]
```

**doapi-droplet** also takes the *universal options* common to all **doapi** commands.

Droplets can be specified by ID number or name. A name that is also a valid ID is interpreted as such rather than as a name (and so droplets with such names must be referred to by their actual ID instead).

### 2.4.3 new

```
doapi-droplet new
  -I|--image <image>
  -S|--size <size>
  -R|--region <region>
  [-B|--backups]
  [-6|--ipv6]
  [-P|--private-networking]
  [-U|--user-data <string|@file>]
  [-K|--ssh-key <key>] ...
  [--unique]
  [--wait] [--wait-time <seconds>] [--wait-interval <seconds>]
  <name> ...
```

### 2.4.4 show

```
doapi-droplet show [-M|--multiple] [<droplet> ...]
```

### 2.4.5 Simple Actions

```
doapi-droplet enable-backups [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet disable-backups [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet reboot [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet power-cycle [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet shutdown [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet power-off [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet power-on [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet password-reset [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet enable-ipv6 [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet enable-private-networking [<wait options>] [-M|--multiple] <droplet> ...
doapi-droplet upgrade [<wait options>] [-M|--multiple] <droplet> ...
```

### 2.4.6 show-upgrades

```
doapi-droplet show-upgrades [--droplets]
```

--droplets: return the droplets that will be upgraded instead

### 2.4.7 show-snapshots

```
doapi-droplet show-snapshots [-M|--multiple] <droplet> ...
```

### 2.4.8 backups

```
doapi-droplet backups [-M|--multiple] <droplet> ...
```

## 2.4.9 kernels

```
doapi-droplet kernels [-M|--multiple] <droplet> ...
```

## 2.4.10 neighbors

```
doapi-droplet neighbors  
doapi-droplet neighbors [-M|--multiple] <droplet> ...
```

## 2.4.11 restore

```
doapi-droplet restore [<wait options>] <droplet> <backup>
```

## 2.4.12 resize

```
doapi-droplet resize [<wait options>] [--disk] [-M|--multiple] <size> <droplet> ...
```

## 2.4.13 rebuild

```
doapi-droplet rebuild [<wait options>] [-I|--image <image>] [-M|--multiple] <droplet> ...
```

## 2.4.14 rename

```
doapi-droplet rename [<wait options>] [--unique] <droplet> <new name>
```

## 2.4.15 snapshot

```
doapi-droplet snapshot [<wait options>] [--unique] <droplet> <name>
```

## 2.4.16 change-kernel

```
doapi-droplet change-kernel [<wait options>] [-M|--multiple] <kernel> <droplet> ...
```

## 2.4.17 act

```
doapi-droplet act [<wait options>] [-p|--params <JSON|@file>] [-M|--multiple] <type> <droplet> ...
```

## 2.4.18 actions

```
doapi-droplet actions [--last | --in-progress] [-M|--multiple] <droplet> ...
```

### 2.4.19 wait

```
doapi-droplet wait [--wait-time <seconds>] [--wait-interval <seconds>] [-M|--multiple] [-S|--status <status>]
```

### 2.4.20 delete

```
doapi-droplet delete [-M|--multiple] <droplet> ...
```

## 2.5 doapi-floating-ip

### 2.5.1 NAME

**doapi-floating-ip** — manage DigitalOcean floating IP addresses

### 2.5.2 SYNOPSIS

```
doapi-floating-ip new      [<wait options>] -D|--droplet <droplet>
doapi-floating-ip new      [<wait options>] -R|--region <region>

doapi-floating-ip show     [<ip> ...]

doapi-floating-ip assign   [<wait options>] <ip> <droplet>
doapi-floating-ip unassign [<wait options>] <ip> ...

doapi-floating-ip act      [<wait options>] [-p|--params <JSON|@file>] <type> <ip> ...
doapi-floating-ip actions  [--in-progress | --last] <ip> ...
doapi-floating-ip wait     [--wait-interval <seconds>] [--wait-time <seconds>] <ip> ...

doapi-floating-ip delete   <ip> ...
```

**doapi-floating-ip** also takes the *universal options* common to all **doapi** commands.

Floating IPs can be specified in either dotted-quad notation (e.g., 127.0.0.1) or as 32-bit integers (e.g., 2130706433).

### 2.5.3 new

```
doapi-floating-ip new [<wait options>] -D|--droplet <droplet>
doapi-floating-ip new [<wait options>] -R|--region <region>
```

Create a new floating IP assigned to a droplet or reserved to a region. The new IP is output as a *FloatingIP* object converted to JSON.

### Options

In addition to the *waiting options*, the **new** subcommand takes the following:

**-D <droplet>**, **--droplet <droplet>**

Assign the new floating IP to the specified droplet (identified by ID or name). The floating IP will also be reserved to the droplet's region.

**-R** <region>, **--region** <region>  
Reserve the floating IP to the specified region (identified by slug).

## 2.5.4 show

```
doapi-floating-ip show [<ip> ...]
```

Show floating IPs. If no IPs are specified, all IPs allocated to the account are shown. The IPs are output as a list of *FloatingIP* objects converted to JSON.

## 2.5.5 assign

```
doapi-floating-ip assign [<wait options>] <ip> <droplet>
```

Assign the given floating IP to a given droplet (identified by ID or name). The *Action* object thus produced is output as JSON.

The **assign** subcommand only takes the *waiting options*.

## 2.5.6 unassign

```
doapi-floating-ip unassign [<wait options>] <ip> ...
```

Unassign the given floating IP(s) from their droplet(s). The *Action* objects thus produced are output as a JSON list.

The **unassign** subcommand only takes the *waiting options*.

## 2.5.7 act

```
doapi-floating-ip act [<wait options>] [-p|--params <JSON|@file>] <type> <ip> ...
```

Perform an arbitrary action of type <type> (assign, unassign, or something otherwise not implemented here) on one or more floating IPs. The *Action* objects thus produced are output as a JSON list.

## Options

In addition to the *waiting options*, the **act** subcommand takes the following:

**-p** <data>, **--params** <data>  
A JSON object/dictionary of parameters to the action. If <data> begins with “@”, the rest of the argument (if there is any) is treated as a file from which to read the JSON; a filename of – causes data to be read from standard input.

## 2.5.8 actions

```
doapi-floating-ip actions [--in-progress | --last] <ip> ...
```

List all of the actions that have ever been performed on the given floating IP(s). The results are output as a JSON list containing a sublist of *Action* objects for each IP specified on the command line, in order.

## Options

### **--in-progress**

Show only the currently in-progress action on each floating IP instead of a list of all actions. If there is currently no in-progress action on an IP, show `null`.

### **--last**

Show only the most recent action on each floating IP instead of a list of all actions. If multiple actions on a single IP were triggered simultaneously, the choice of which to return is undefined.

## 2.5.9 wait

```
doapi-floating-ip wait [--wait-interval <seconds>] [--wait-time <seconds>] <ip> ...
```

Wait for the currently in-progress actions on the given floating IP(s) to either complete or error out. The finished actions are output as a list of *Action* objects converted to JSON, with each action output (roughly) as soon as it finishes. If there are no actions currently in progress on a given floating IP, nothing will be output for it.

## Options

### **--wait-interval** <seconds>

How often to poll the server for the actions' current statuses; default value: 5 seconds

### **--wait-time** <seconds>

The maximum number of seconds to wait for all actions to complete. After this much time has passed since program invocation, any remaining in-progress actions will be output immediately without waiting for them to finish.

If this option is not specified, **wait** will wait indefinitely.

## 2.5.10 delete

```
doapi-floating-ip delete <ip> ...
```

Delete floating IPs. There is no output.

## 2.6 doapi-image

### 2.6.1 NAME

**doapi-image** — manage DigitalOcean droplet images

### 2.6.2 SYNOPSIS

```
doapi-image show      [-M|--multiple] [<image> ...]
doapi-image show      [--application|--distribution|--type=<type>|--private}

doapi-image update    [--unique] <image> <new name>

doapi-image convert   [<wait options>] [-M|--multiple] <image> ...
```

```
doapi-image transfer [<wait options>] [-M|--multiple] <region> <image> ...

doapi-image act      [<wait options>] [-p|--params <JSON|@file>] [-M|--multiple] <type> <image> ...
doapi-image actions  [--in-progress | --last] [-M|--multiple] <image> ...
doapi-image wait     [--wait-time <seconds>] [--wait-interval <seconds>] [-M|--multiple] <image> ...

doapi-image delete   [-M|--multiple] <image> ...
```

**doapi-image** also takes the *universal options* common to all **doapi** commands.

Images can be specified by ID number, slug (if any), or name. A name that is also a valid ID or slug is interpreted as such rather than as a name (and so images with such names must be referred to by their ID instead).

### 2.6.3 show

```
doapi-image show [-M|--multiple] [<image> ...]
doapi-image show {--application|--distribution|--type=<type>|--private}
```

Show images. If no images or flags are specified, all images available to the account are shown. The images are output as a list of *Image* objects converted to JSON.

#### Options

**--application**

Only show application images

**--distribution**

Only show distribution images

**-M, --multiple**

If an argument is the name of more than one image, show all images with that name instead of erroring.

**--private**

Only show the user's private images

**--type=<type>**

Only show images of type <type> (application, distribution, or something not otherwise implemented here)

### 2.6.4 update

```
doapi-image update [--unique] <image> <new name>
```

Update (i.e., rename) an image. The updated image is output as an *Image* object converted to JSON.

#### Options

**--unique**

If <new name> is already in use by another image, fail with an error. Without this option, a warning will still be generated if <new name> is already in use.



## 2.6.5 convert

```
doapi-image convert [<wait options>] [-M|--multiple] <image> ...
```

Convert one or more images to snapshots. The *Action* objects thus produced are output as a JSON list.

### Options

In addition to the *waiting options*, the **convert** subcommand takes the following:

**-M, --multiple**

If an argument is the name of more than one image, operate on all images with that name instead of erroring.

## 2.6.6 transfer

```
doapi-image transfer [<wait options>] [-M|--multiple] <region> <image> ...
```

Transfer one or more images to another region (identified by its slug). The *Action* objects thus produced are output as a JSON list.

### Options

In addition to the *waiting options*, the **transfer** subcommand takes the following:

**-M, --multiple**

If an argument is the name of more than one image, operate on all images with that name instead of erroring.

## 2.6.7 act

```
doapi-image act [<wait options>] [-p|--params <JSON|@file>] [-M|--multiple] <type> <image> ...
```

Perform an arbitrary action of type <type> (convert, transfer, or something otherwise not implemented here) on one or more images. The *Action* objects thus produced are output as a JSON list.

### Options

In addition to the *waiting options*, the **act** subcommand takes the following:

**-M, --multiple**

If <image> is the name of more than one image, act on all images with that name instead of erroring.

**-p <data>, --params <data>**

A JSON object/dictionary of parameters to the action. If <data> begins with “@”, the rest of the argument (if there is any) is treated as a file from which to read the JSON; a filename of – causes data to be read from standard input.

## 2.6.8 actions

```
doapi-image actions [--in-progress | --last] <image> ...
```

List all of the actions that have ever been performed on the given image(s). The results are output as a JSON list containing a sublist of *Action* objects for each image specified on the command line, in order.

## Options

### **--in-progress**

Show only the currently in-progress action on each image instead of a list of all actions. If there is currently no in-progress action on an image, show `null`.

### **--last**

Show only the most recent action on each image instead of a list of all actions. If multiple actions on a single image were triggered simultaneously, the choice of which to return is undefined.

## 2.6.9 wait

```
doapi-image wait [--wait-interval <seconds>] [--wait-time <seconds>] <image> ...
```

Wait for the currently in-progress actions on the given image(s) to either complete or error out. The finished actions are output as a list of *Action* objects converted to JSON, with each action output (roughly) as soon as it finishes. If there are no actions currently in progress on a given image, nothing will be output for it.

## Options

### **--wait-interval** <seconds>

How often to poll the server for the actions' current statuses; default value: 5 seconds

### **--wait-time** <seconds>

The maximum number of seconds to wait for all actions to complete. After this much time has passed since program invocation, any remaining in-progress actions will be output immediately without waiting for them to finish.

If this option is not specified, **wait** will wait indefinitely.

## 2.6.10 delete

```
doapi-image delete [-M|--multiple] <image> ...
```

Delete images. There is no output.

## Options

### **-M, --multiple**

If an argument is the name of more than one image, delete all images with that name instead of erroring.

## 2.7 doapi-region

### 2.7.1 NAME

**doapi-region** — list available DigitalOcean droplet regions

## 2.7.2 SYNOPSIS

```
doapi-region [<universal options>]
```

## 2.7.3 DESCRIPTION

**doapi-region** lists all of the droplet regions available to your DigitalOcean account. The regions are output as a list of *Region* objects converted to JSON.

## 2.7.4 OPTIONS

**doapi-region** only takes the *universal options* common to all **doapi** commands.

## 2.8 doapi-request

### 2.8.1 NAME

**doapi-request** — perform a raw DigitalOcean API request

### 2.8.2 SYNOPSIS

```
doapi-request [<universal options>]
              [-d|--data <string|@file>]
              [-D|--dump-header <file>]
              [--paginate <key>]
              [-X|--request <method>]
              <URL>|<path>
```

### 2.8.3 DESCRIPTION

**doapi-request** makes a request to a DigitalOcean API endpoint and outputs the text of the response (if any) as nicely-formatted JSON. It's like a DigitalOcean-centric *curl*(1) that doesn't make you type out your API token every time, with an option for handling pagination.

A request can be made either to an absolute URL or to a path like `/v2/account` that will be appended to the API endpoint in use.

### 2.8.4 OPTIONS

In addition to the *universal options* common to all **doapi** commands, **doapi-request** takes the following:

**-d** <data>, **--data** <data>

Send the given data (which must be valid JSON) in the body of the request. If <data> begins with “@”, the rest of the argument (if there is any) is treated as a file from which to read the data; a filename of `-` causes data to be read from standard input.

*--data* and *--paginate* are mutually exclusive.

**-D** <file>, **--dump-header** <file>

Dump the headers of the HTTP response as a JSON object to the given file. If **--paginate** is also used, only the headers for the last response will be dumped. <file> may be - to write the headers to standard output.

**--paginate** <key>

(GET method only) Assume that the API will respond with a [paginated](#) list of one or more values, i.e., an object containing a field <key> mapped to a list of values and a field "links" containing a URL for retrieving the next set of values in the result list, if any. Instead of performing a single request and outputting the response body, **doapi-requests** will perform multiple requests to retrieve all of the pages and will output a concatenated list of all of the values in the <key> field of each page.

**--data** and **--paginate** are mutually exclusive.

**-X** <method>, **--request** <method>

Specifies the HTTP method to use for the request. Valid options are GET (the default), POST, PUT, and DELETE (case insensitive).

## 2.9 doapi-size

### 2.9.1 NAME

**doapi-size** — list available DigitalOcean droplet sizes

### 2.9.2 SYNOPSIS

```
doapi-size [<universal options>]
```

### 2.9.3 DESCRIPTION

**doapi-size** lists all of the droplet sizes available to your DigitalOcean account. The sizes are output as a list of [Size](#) objects converted to JSON.

### 2.9.4 OPTIONS

**doapi-size** only takes the [universal options](#) common to all **doapi** commands.

## 2.10 doapi-ssh-key

### 2.10.1 NAME

**doapi-ssh-key** — manage SSH public keys on DigitalOcean

### 2.10.2 SYNOPSIS

```
doapi-ssh-key new      [--unique]      <name> [<file>]
doapi-ssh-key show    [-M|--multiple] [<ssh key> ...]
doapi-ssh-key update  [--unique]      <ssh key> <new name>
doapi-ssh-key delete  [-M|--multiple] <ssh key> ...
```

**doapi-ssh-key** also takes the *universal options* common to all **doapi** commands.

SSH keys can be specified by ID number, fingerprint, or name. A name that is also a valid ID or fingerprint is interpreted as such rather than as a name (and so SSH keys with such names must be referred to by their ID or fingerprint instead).

### 2.10.3 new

```
doapi-ssh-key new [--unique] <name> [<file>]
```

Register the contents of `<file>` (or standard input if no file is specified) as a new SSH public key with name `<name>`. The new key is output as an *SSHKey* object converted to JSON.

#### Options

##### **--unique**

If `<name>` is already in use by another key, fail with an error. Without this option, a warning will still be generated if `<name>` is already in use.

### 2.10.4 show

```
doapi-ssh-key show [-M|--multiple] [<ssh key> ...]
```

Show SSH keys. If no keys are specified, all keys registered to the account are shown. The keys are output as a list of *SSHKey* objects converted to JSON.

#### Options

##### **-M, --multiple**

If an argument is the name of more than one key, show all keys with that name instead of erroring.

### 2.10.5 update

```
doapi-ssh-key update [--unique] <ssh key> <new name>
```

Update (i.e., rename) an SSH key. The updated key is output as an *SSHKey* object converted to JSON.

#### Options

##### **--unique**

If `<new name>` is already in use by another key, fail with an error. Without this option, a warning will still be generated if `<new name>` is already in use.

### 2.10.6 delete

```
doapi-ssh-key delete [-M|--multiple] <ssh key> ...
```

Delete SSH keys. There is no output.

## Options

### **-M, --multiple**

If an argument is the name of more than one key, delete all keys with that name instead of erroring.

---

## Todo

Document the plain **doapi** command

---

## 2.11 Common CLI Behavior

### 2.11.1 API Authentication

In order to perform API requests, an OAuth token must be supplied to **doapi** so that it can authenticate with the DigitalOcean server. You can generate an OAuth token for your account via the “Apps & API” section of your DigitalOcean account’s control panel.

The **doapi** commands will look for an OAuth token in the following locations, in order:

1. Specified on the command line with `--api-token token` or `--api-token-file file`
2. The value of the `DO_API_TOKEN` environment variable
3. The contents of a `.doapi` file in your home directory

### 2.11.2 Handling Non-Uniqueness of Identifiers

Most resources in the API are referred to by only a single identifier each, but droplets, images, and SSH keys can be referred to by either a unique ID number, a unique slug (for certain images), a unique fingerprint (for SSH keys), or a (potentially) *non*-unique name.

When the user specifies an object identifier that could be an ID, slug, fingerprint, or name, the order of resolution is as follows:

1. If the identifier is an integer and there is an object of the relevant type with that integer as its ID number, **doapi** uses that object.
2. For images, if there is an image whose slug equals the identifier, **doapi** uses that image.
3. For SSH keys, if the identifier is in the form of an SSH public key fingerprint (16 colon-separated two-digit hexadecimal integers) and there is an SSH key with that fingerprint registered with the user’s DigitalOcean account, **doapi** uses that SSH key.
4. Otherwise, the identifier is assumed to be a name, and if there exists exactly one object of the relevant type with that name, **doapi** uses that object. If the name is shared by multiple objects, by default **doapi** will exit without taking any action, displaying an error message that includes the ID numbers of all of the objects with that name. For subcommands that operate on lists of objects, this behavior can be changed by passing the `--multiple` option to the subcommand, causing any names that refer to more than one object to be interpreted as a list of all of those objects in unspecified order.

In all cases, if the same object is specified more than once on the command line, all occurrences after the first are ignored with a warning.

### 2.11.3 Universal Options

All commands take the following options in addition to those listed in their individual documentation:

- api-token** <token>  
Use <token> as an OAuth token for authentication with the API; mutually exclusive with `--api-token-file`
- api-token-file** <file>  
Use the contents of <file> as an OAuth token for authentication with the API; mutually exclusive with `--api-token`
- endpoint** <URL>  
Use <URL> as the base URL for all API requests; default value: `https://api.digitalocean.com` (the official DigitalOcean API endpoint)
- help**  
Show command usage and exit
- timeout** <seconds>  
The maximum number of seconds to wait when attempting to connect to or read from the remote endpoint; default value: no timeout
- version**  
Show doapi version and exit

Note that these options (other than `--help`) cannot be attached to subcommands:

```
doapi-droplet --timeout 1000 show # Good
doapi --timeout 1000 droplet show # Good
doapi-droplet show --timeout 1000 # Bad!
```

### 2.11.4 Waiting Options

By default, all subcommands that perform non-atomic actions return immediately after initiating the action, without waiting for it to complete. They can be made to instead wait until completion with the `--wait` option, which can be configured further with `--wait-interval` and `--wait-time`, as described below:

- wait**  
Periodically poll the server for the current status of all actions until they all complete or error out or until the time limit specified by `--wait-time` is exceeded. If this action is not specified, the subcommand will exit immediately after initiating the actions.
- wait-interval** <seconds>  
How often to poll the server for the actions' current statuses; default value: 5 seconds
- wait-time** <seconds>  
The maximum number of seconds to wait for all actions to complete. After this much time has passed since program invocation, any remaining in-progress actions will be output immediately without waiting for them to finish.  
  
If `--wait` is specified but this option is not, the subcommand will wait indefinitely.





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## Indices and tables

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## Bibliography

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[APIDocs] <https://developers.digitalocean.com/documentation/v2/>



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