# RBD COMMANDS

The rbd command enables you to create, list, introspect and remove block device images. You can also use it to clone images, create snapshots, rollback an image to a snapshot, view a snapshot, etc. For details on using the rbd command, see RBD – Manage RADOS Block Device (RBD) Images for details.

**Important:** To use RBD commands, you must have a running Ceph cluster.

## CREATING A BLOCK DEVICE IMAGE

Before you can add a block device to a Ceph client, you must create an image for it in the OSD cluster first. To create a block device image, execute the following:

```
rbd create {image-name} --size {megabytes} --pool {pool-name}
```

For example, to create a 1GB image named foo that stores information in a pool named swimmingpool, execute the following:

```
rbd create foo --size 1024
rbd create bar --size 1024 --pool swimmingpool
```

**Note:** You must create a pool first before you can specify it as a source. See Storage Pools for details.

## LISTING BLOCK DEVICE IMAGES

To list block devices in the rbd pool, execute the following:

```
rbd ls
```

To list block devices in a particular pool, execute the following, but replace {poolname} with the name of the pool:

```
rbd ls {poolname}
```

For example:

```
rbd ls swimmingpool
```

## RETRIEVING IMAGE INFORMATION

To retrieve information from a particular image, execute the following, but replace {image-name} with the name for the image:

```
rbd --image {image-name} info
```

For example:

```
rbd --image foo info
```

To retrieve information from an image within a pool, execute the following, but replace {image-name} with the name of the image and replace {pool-name} with the name of the pool:

```
rbd --image {image-name} -p {pool-name} info
```

For example:

```
rbd --image bar -p swimmingpool info
```

## RESIZING A BLOCK DEVICE IMAGE

RBD images are thin provisioned. They don’t actually use any physical storage until you begin saving data to them. However, they do have a maximum capacity that you set with the `--size` option. If you want to increase (or decrease) the maximum size of a RADOS block device image, execute the following:

```
rbd resize --image foo --size 2048
```

## REMOVING A BLOCK DEVICE IMAGE

To remove a block device, execute the following, but replace `{image-name}` with the name of the image you want to remove:

```
rbd rm {image-name}
```

For example:

```
rbd rm foo
```

To remove a block device from a pool, execute the following, but replace `{image-name}` with the name of the image to remove and replace `{pool-name}` with the name of the pool:

```
rbd rm {image-name} -p {pool-name}
```

For example:

```
rbd rm bar -p swimmingpool
```