

Setting Quotas for Users and Groups

Quotas limit the disk space used by a volume or an *entity* (user or group) on an Enterprise Edition-licensed cluster, by specifying the amount of disk space the volume or entity is allowed to use:

- A volume quota limits the space used by a volume.
- A user/group quota limits the space used by all volumes owned by a user or group.

To manage quotas, you must have `a` or `fc` permissions.

Quotas are expressed as an integer value plus a single letter to represent the unit:

- B - bytes
- K - kilobytes
- M - megabytes
- G - gigabytes
- T - terabytes
- P - petabytes

Example: 500G specifies a 500-gigabyte quota. Do not use two-letter abbreviations for units, such as MB or GB.

The size of a disk space quota is expressed in terms of the actual data stored from the user's point of view. Only *post-compression* data blocks are counted, and snapshot and replica space does not count against quotas. For example, a 10G file that is compressed to 8G and has a replication factor of 3 consumes 24G (3*8G) of disk space, but charges only 8G to the user or volume's quota.

If a volume or entity exceeds its quota, further disk writes are prevented and a corresponding alarm is raised:

- AE_ALARM_AEQUOTA_EXCEEDED - an entity exceeded its quota
- VOLUME_ALARM_QUOTA_EXCEEDED - a volume exceeded its quota

A quota that prevents writes above a certain threshold is also called a *hard quota*. In addition to the hard quota, you can also set an *advisory* quota for a user, group, or volume. An advisory quota does not enforce disk usage limits, but raises an alarm when it is exceeded:

- AE_ALARM_AEADVISORY_QUOTA_EXCEEDED - an entity exceeded its advisory quota
- VOLUME_ALARM_ADVISORY_QUOTA_EXCEEDED - a volume exceeded its advisory quota

In most cases, it is useful to set the advisory quota somewhat lower than the hard quota, to give advance warning that disk usage is approaching the allowed limit.

Setting Volume Quotas and Advisory Quotas

You can set a volume quota using the `volume modify` command, or use the following procedure to set a volume quota using the MapR Control System.

To set a volume quota using the MapR Control System:

1. In the Navigation pane, expand the **MapR-FS** group and click the **Volumes** view.
2. Display the **Volume Properties** dialog by clicking the volume name, or by selecting the checkbox beside the volume name then clicking the **Properties** button.
3. In the Usage Tracking section, select the **Volume Quota** checkbox and type a quota (value and unit) in the field. Example: 500G
4. To set the advisory quota, select the **Volume Advisory Quota** checkbox and type a quota (value and unit) in the field. Example: 250G
5. After setting the quota, click **Modify Volume** to exit save changes to the volume.

Setting User/Group Quotas and Advisory Quotas

You can set a user/group quota using the `entity modify` command, or use the following procedure to set a user/group quota using the MapR Control System.

To set a user or group quota using the MapR Control System:

1. In the Navigation pane, expand the MapR-FS group and click the **User Disk Usage** view.
2. Select the checkbox beside the user or group name for which you wish to set a quota, then click the **Edit Properties** button to display the **User Properties** dialog.
3. In the Usage Tracking section, select the **User/Group Quota** checkbox and type a quota (value and unit) in the field. Example: 500G
4. To set the advisory quota, select the **User/Group Advisory Quota** checkbox and type a quota (value and unit) in the field. Example: 250G

5. After setting the quota, click **OK** to exit save changes to the entity.

Setting Quota Defaults

You can set hard quota and advisory quota defaults for users and groups. When a user or group is created, the default quota and advisory quota apply unless overridden by specific quotas. You can set an entity quota using the entity modify command, or use the following procedure to set an entity quota using the MapR Control System:

To set quota defaults using the MapR Control System:

1. In the Navigation pane, expand the **System Settings** group.
2. Click the [Quota Defaults](#) view to display the **Configure Quota Defaults** dialog.
3. To set the user quota default, select the **Default User Total Quota** checkbox in the User Quota Defaults section, then type a quota (value and unit) in the field.
4. To set the user advisory quota default, select the **Default User Advisory Quota** checkbox in the User Quota Defaults section, then type a quota (value and unit) in the field.
5. To set the group quota default, select the **Default Group Total Quota** checkbox in the Group Quota Defaults section, then type a quota (value and unit) in the field.
6. To set the group advisory quota default, select the **Default Group Advisory Quota** checkbox in the Group Quota Defaults section, then type a quota (value and unit) in the field.
7. After setting the quota, click **Save** to exit save changes to the entity.