

# Quota Policy on Disk Space and Files

## Category: Archiving Data

Filesystems on Pleiades, Columbia, and Lou have quotas: limits on the total disk space occupied by your files, and limits on how many files (represented by inodes) you can store, irrespective of size. For quota purposes, directories count as files.

## Quota Hard and Soft Limits

There are hard limits and soft limits on quotas. Hard limits can never be exceeded. Any attempt to use more than your hard limit will be refused with an error. Soft limits can be exceeded temporarily, for a grace period of 14 days. If you remain over your soft limit for more than 14 days, the soft limit is enforced as a hard limit, in which case you will not be able to add or extend files until you get back under the soft limit. Usually, this means deleting unneeded files or copying important files elsewhere (such as [the Lou mass storage system](#)) and then removing them locally.

## Table of Quotas on Columbia, Pleiades, and Lou

Default Quotas on Disk Space and Files			
	Columbia	Pleiades	Lou
<b>\$HOME</b>	NFS	NFS	XFS
Space: soft	4 GB	8 GB	none
Space: hard	5 GB	10 GB	none
Inode: soft	none	none	250,000
Inode: hard	none	none	300,000
<b>/nobackup</b>	CXFS /nobackup1[e-h] /nobackup2[a-j]	Lustre /nobackupp[1-6]	N/A
Space: soft	200 GB	500 GB	N/A
Space: hard	400 GB	1 TB	N/A
Inode: soft	25,000	75,000	N/A
Inode: hard	50,000	100,000	N/A

## Email Warnings and Consequences

It is expected that you will exceed your soft limits as needed. When you exceed your soft limit you will begin getting daily emails to inform you of your current disk space and how much of your grace period remains. During the grace period, these emails are intended to be informative and not a demand to immediately remove files. However, if you are still over your soft limit on Columbia and/or Pleiades after 14 days, your batch queue access will be disabled. On Lou, after 14 days of exceeding your soft limit, you will be unable to archive files until you have reduced your use to below the soft limit.

## **Disabled Batch Access on Pleiades/Columbia**

If an account no longer has batch access to Columbia and/or Pleiades, all data from that system should be moved off within 7 days (or sooner if the other projects need the space).

If an account has been disabled for more than 14 days, its Columbia and/or Pleiades data will be moved to the archive host, Lou, and kept there for 6 months before removal, unless the project lead requests having the data moved to another account.

## **Disk File Quotas on Lou**

There is no quota for file space on Lou 1 or Lou2 because data that does not fit on disk is written to tape. There is a quota on the number of files you can store. Currently there is a soft limit of 250,000 files and a hard limit of 300,000 files.

The maximum size of a file moved to Lou should not exceed 30% of the size of your home filesystem on Lou. If you need to archive files larger than this, please contact the NAS Control Room at [support@nas.nasa.gov](mailto:support@nas.nasa.gov) for assistance.

## **Changing Your Quotas**

If an account needs larger quota limits, send an email justification to [support@nas.nasa.gov](mailto:support@nas.nasa.gov). This will be reviewed by the HECC Deputy Project Manager, Bill Thigpen, for approval.

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<http://www.nas.nasa.gov/hecc/support/kb/entry/156/?ajax=1>