Filesystems

This page gives an overview of the file systems of the Grid.UP and details the various types system services available to end-users.

Overview of the filesystems

There are several filesystems available:

File System	Quota (space)	Shared between nodes	Mount point	Expiration	Backup	Notes
Home	100 GB	yes	/homes/<username>	user deletion	No backup	
Project	shared storage by users	yes	/mnt/<project>share	per request	No backup	

The home file system

Every user has their own home directory, which is accessible at /homes/<login_name> .

Your home directory has default capacity quota of 100 GiB.

The 100 GiB home directory is ample space for a work environment on the system for most users. If you think that it is not sufficient to accommodate your work environment, or you need any of the features commented below, you can request extra storage space (if applicate) through your department responsible. Logins are per person and per department, and each login has its own home directory. Think of your home directory as the basis for arranging the work environment for your current computational project. Note, however, that home directories are not intended for long term storage of large data sets.

Be very restrictive in allowing other logins to access your home directory

Technically, your login “owns” your home directory. This implies that you can change its access permissions. On a semi-public system, many people of completely unrelated affiliations have logins to access the system interactively, you should be very restrictive in using this capability. We understand that there are use cases in which you might want to share some data, and perhaps some executable programs, with specific other logins. More specifically:

- You should *never* give other logins write permission to your home directory (or to subdirectory thereof).
- You should *never* give any permission to any unqualified 'other' to the root of your home directory.

Since you are the directory owner, Grid.UP system administrators have no technical means by which they proactively can enforce these rules. That is: they cannot possibly prevent you from enabling permissions that are highly deficient from a data integrity point of view. Remember, also according to the usage agreement that you signed for your login, you are accountable for proper usage of the

resources that you are handed to you. This is one of those aspects that are your own responsibility. System administrators can however revert, disable, unwanted permissions, and correct the undesirable consequences they may have had, after the fact, when they have detected them in filesystem meta-data analyses (analyses of quota, resource usage, etc.). There is a policy to take corrective actions to change, undo deficient permissions when they are detected, without prior notification of the registered home directory owner.

If write permissions have been enabled on your home directory, an additional consequence, that is not simply repaired by disabling permissions, could be, that your home directory, or a sub-directory thereof, now contains some files and / or directories that are not owned by your login. In worst cases, you cannot even inspect nor remove them. Corrective action - changing ownership - will ensue without prior notice to the registered home directory owner.

Node-local system directories such as /tmp, /var/tmp

> Use of /tmp, /var/tmp, ...
>
> Truly local directories, such as /tmp and /var/tmp, should be regarded as “off limits” for users. They are too small and too slow to be used for job outputs. Furthermore, they are needed by the operating system itself. They can be emptied without further notice at node reboot, at node re-install - in fact at several other occasions.
>
> If you (accidentally) fill up /tmp or /var/tmp on a node, the operating system will experience problems. Ultimately your job (and on an interactive node you and other users as well) will experience problems, and our system administrators and/or your fellow users won't like you.

The project file system

By default accounts on our systems are not provisioned with a space on the project. It can be requested if your account is eligible for a project space.

End date and expiration

All members will receive a notification on their e-mail address 30 days in advance of the expiration date. A second notification mail will be sent out 7 day before expiration.

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Last update: **2024/03/01 15:27**