DFS

We have several Distributed File Systems on Greenplanet. They are generally accessible from every node, and are each made up of multiple servers.

Data

/DFS-L/DATA (1.6PB)

DFS-L is the current main Lustre (2.12) file system for data. The /DFS-L/DATA subdirectory contains directories for each research group, which contain sub-directories for each user in that group.

There is no quota for this file system, but usage is tracked for billing purposes. Each group gets one TB free, with additional data storage at $2/TB/month. [Data usage is aggregated with the deprecated /DFS-B]

/DFS-B/DATA (109TB)

/DFS-B is an older file system using BeeGFS (7.2). It uses some of the same physical servers as /DFS-L, so space used on one lowers capacity on the other. This is why usage is aggregated with /DFS-L for billing.

At the time, that it was initially installed, BeeGFS had superior metadata performance to Lustre (i.e. it could handle lots of small files quickly). Since then, Lustre performance on these workloads has improved enough to not need multiple file systems competing for resources. /DFS-B will not be accessible on the newer Rocky Linux 8 side of the cluster, so migrating from /DFS-B/DATA to /DFS-L/DATA is recommended.

/D2/DATA (0TB)

/D2/DATA is currently being built but will be based on the next stable Lustre with long-term support (2.17 or 2.18, TBD). There will likely be a long period of coexistence of /DFS-L and /D2 for data migration,

Scratch

Scratch file systems are intended for short or medium term data storage. It is free of charge, but old and unused data can be purged if space becomes tight.

Scratch data deletion policy (as of 24 February 2026)

Temporary files and directories created by known slurm submission scripts (e.g. /XXX-L/SCRATCH/$group/$user/$SLURM_JOB_ID) will be deleted if they meet all of these criteria:

- Not an actively running/pending job
- Not open on login or compute nodes
- Have a most-recent access time older than 365 days ago

Other files that we can't identify as obvious trash will have these deletion criteria:

- 1) Not open on login or compute nodes
- 2) Have a most-recent access time older than 1080 days ago

/XXX-L/SCRATCH (143TB)

A smaller Lustre (2.15) file system built on older, but highly redundant hardware. Currently very full, and may be decommissioned as the disks age out.

/X2/SCRATCH (263TB)

Another small Lustre (2.15) file system, built on less old but still redundant hardware. Currently the default scratch area used by the Slurm submission scripts we provide for multi-node or large jobs.

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