Ohio Supercomputer Center

Scratch Filesystem Storage
OSC Policy

Applies to: Staff, Student Employees, Primary Investigators, Users, OSC Affiliates

Responsible Department	Client Services

POLICY

Version:	1.2	Issued:	10/20/2022

This policy defines standards for utilization and maintenance of the scratch filesystem by OSC users and staff. The scratch filesystem provides storage to all OSC users with the caveat that all data on scratch is meant to be temporary and not backed up.

Purpose of the Policy

To define OSC procedures related to the scratch filesystem, specifically for the periodic deletion of data to maintain performance and ensure a minimum amount of free space. The policy also specifies proper usage expectations for OSC users.

Definitions

Term	Definition
inode	An index node for every file and directory in the filesystem

Policy Details

OSC provides high-performance, high-capacity, shared space on the scratch filesystem. Proper usage of scratch filesystem is defined as follows:

I. Namespace of scratch directories will be consistent in the format of /fs/scratch/<project-code>.

II. The scratch filesystem has a storage quota per user.
   A. Each user has a quota of 100 tebibytes and 25 million inodes.
   B. OSC retains the right to determine which scratch filesystem a user may utilize.
   C. Any user can request a temporary quota increase.

III. OSC does not maintain backups of the scratch filesystem. If data loss occurs, the data is unrecoverable.

IV. This filesystem is meant only for temporary storage of data. Files will be deleted periodically to remove any which have not been accessed in more than 90 days.

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Ohio Supercomputer Center

Scratch Filesystem Storage
OSC Policy

A. Attempts by any user to subvert data deletion by manually adjusting the access date of files are prohibited. Users engaged in this activity will be contacted by OSC and may be subject to account suspension and loss of scratch filesystem privileges.

B. Users may request an exemption to periodic deletion, if needed.

Policy Procedure

Maintenance

I. Routine file deletion.
   OSC staff will perform periodic deletions of data on the scratch filesystem.
   A. Files to be deleted.
      Files which have not been accessed in over 90 days and do not have an active exemption will be removed from the system.
   B. Deletion frequency.
      1. Weekly.
      2. Frequency may be adjusted as appropriate based on the available space on the scratch filesystem.
   C. User notifications.
      OSC does not actively contact users whose data may be removed due to routine deletions.

II. Emergency file deletion.
   OSC reserves the right to delete data as needed to maintain the overall health of the service.
   A. Targeted deletion.
      If the scratch filesystem storage requires emergency file deletion due to low space or other time-sensitive issues, OSC may target all users or specific projects with high scratch filesystem usage.
   B. User notifications.
      OSC will attempt to inform all users prior to emergency file deletion but, due to the nature of these deletions, there is no guarantee that all affected users will receive the notifications and OSC may not wait for a response.

Usage/Exemptions

I. Any OSC user may request a temporary quota increase when necessary.
   A. To store data in excess of the quota on scratch, users may request a temporary quota increase for up to 30 days. Please contact OSC Help at least 3 business days before the temporary increase is needed. Include the following information:
      1. OSC username
      2. Additional space needed

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3. Additional number of inodes needed
4. Duration: up to 30 days
5. Detailed justification

B. Requests may be denied if more suitable options are available.
C. When a temporary quota increase ends, the quota reverts to the default value. The user is responsible for reducing their scratch usage before the end of the temporary quota increase. Failure to do so will result in the inability to write more data to scratch.
D. Users who need to extend a temporary quota increase beyond the original expiration date should contact OSC Help in a timely matter for more assistance.

II. OSC users may request an exemption from routine deletion.

A. To keep files on scratch for more than 90 days, users should contact OSC Help at least 3 business days before the data is due for deletion. Include the following information:
1. OSC username
2. Path(s) of directories/files that need exemption from routine deletion
3. Duration: up to 90 days
4. Detailed justification

B. Requests may be denied if more suitable options are available or the scratch filesystem is low on free space at the time of the request.
C. Exemptions from routine deletion are not renewable. The user is responsible for backing up all important data before the exemption ends.

Responsibilities

Position or Department	Responsibilities
HPC Systems	Monitor scratch filesystem and perform the routine and emergency deletions.
Client Services	Contact users and groups when scratch filesystem is low on space to encourage manual cleanup of old files.

Resources

OSC: Available filesystems, https://www.osc.edu/supercomputing/storage-environment-at-osc/available-file-systems

Contacts

Subject	Department	Telephone	E-mail/URL
Policy questions	Client Services	1-800-686-6472	policy@osc.edu

History

Issued: 04/05/2021 Issued 'Scratch Filesystem Storage Policy'

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Revised: 07/27/2022 Changed '# of files' to 'inodes' and added 'inode' to the definition
Revised: 10/11/2022 Removed /fs/ess/scratch due to the DDN storage decommissioning