

Lifecycle of your HPC Accounts for Coursework: Or how can I continue to use CWRU HPC

The CWRU High Performance Computing (HPC) cluster, offered through [U]Tech's Research Computing and Cyberinfrastructure (RCCI) group, provides computational resources for research and in support of coursework. In each case, accounts are organized with PI-sponsored groups, and the PI acts as the primary manager of the accounts in the group. Research account groups are persistent, while groups supporting coursework have temporary duration. This document organizes information about practical actions related to the management of accounts for students who want to have access to HPC following participation in a course using HPC resources.

Transition Student Account from Course Group to Research Group

We are principally concerned with how to transition students from accounts generated for course participation into research account groups. HPC policy suggests that course groups be purged of student accounts within 3 to 4 weeks following the end of the course (defined as the date final grades are due). In this case, as shown in Fig. 1, students have membership in not just the course account, but also in an administrative group named 'bench'. The administrative group will become the primary group for students at the time that the coursework account is closed. The administrative group has essentially no compute resource, but maintains storage resources under /home/<caseid>, so your files do not disappear from your /home/<caseid> directory.. Membership in bench allows persistence of scripts and code developed during a course, and continued work on coding -- but running jobs in the cluster is highly limited.

For students wanting to conduct research with HPC resources, membership in a research group is required. An account may be provided by Case faculty. A student will need to contact a Case faculty member to arrange for sponsorship of your HPC account. Since research groups are available to all faculty, simply by registering an "account creation request" with RCCI, students should feel encouraged to approach any faculty member. Faculty requests are conducted through HPC account management system - <https://amara.case.edu>, accessible only to faculty, through Single-Sign On authentication. A faculty can either add a user in his/her existing HPC account or create a new account using the link to HPC management system.

Faculty can get a "guest" HPC group account to do exploratory HPC research, or they can fund a "research" HPC group account. The faculty member can then add your <caseID> to their guest or paid membership HPC group account. Each type of group provides access to HPC compute and storage resources, including work on GPU and high memory nodes, though the resource levels vary. HPC's current policy and resources levels are described on HPC Access Policy page.

Coursework Student HPC Account Lifecycle

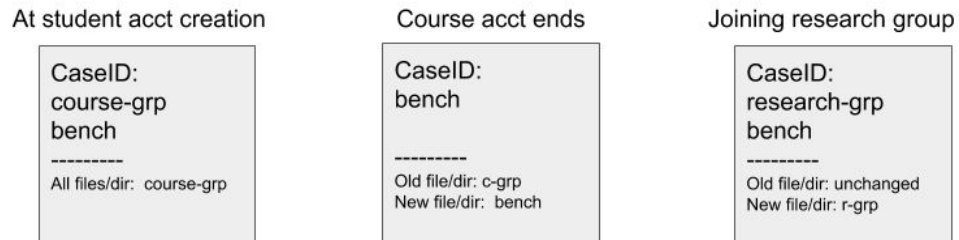


Fig. 1. Unmigrated course accounts will be compressed and archived to off-line storage approximately 60 days following end-of-course. Managing Group Ownership of Files and Directories Attention need be paid to disk storage usage when joining a research group. The /home and /scratch partition allowances are shared resources, sometimes amongst many individuals. After obtaining a research account, the files previously generated under the course group should have their group membership migrated to the new group. This should be performed with an understanding of the effect on the group disk usage. Consult with the new group to determine what locations in the file structure are appropriate to use.

Understanding your situation

What are your group accounts?

The “groups” command in the shell will list groups for which your account has membership. The name appearing left-most in the list is your login (primary) group. All others are termed 'secondary'. The general format follows:

```
> groups <caseid>
<caseid> : <login-group> <secondary-1> [<secondary-2> ... ]
```

- Student without previous HPC account, after being added to course group:
 <caseid> : <course-group> bench
- For students already having an HPC account, and having been added to a course:
 <caseid> : <research-group> bench <course-group>

For Further Information

Please visit [HPC site](#) for more information. If you are unable to find a sponsor, contact Research Computing, HPC team at hpc-support@case.edu with a reason for continued HPC access.