

CSAR PI Administration Guide

Introduction

This document describes the tasks the Principal Investigator needs to perform to set up and manage their CSAR project. All these tasks are done via the web pages. There are help pages on the various aspects available on-line.

Enter the PI/Project Management Database (<u>ureg.mcc.ac.uk/CSAR/pi.shtml</u>) to perform tasks as detailed below.

If you have any queries, or if you wish us to perform any of these tasks for you, please contact the Helpdesk (<u>csar-advice@cfs.ac.uk</u>).

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1. Self-Registration as the CSAR PI

Using the appropriate access username and password, self-register (www.csar.cfs.ac.uk/project_management/register.shtml) as the CSAR PI on the machines you require. The CSAR Helpdesk staff will then authenticate your username and give you administrative status for your project. The CSAR PI must register first. Note that the CSAR PI need not necessarily be the actual grant PI; the first person to register will be taken to be the CSAR PI. We recommend that you consider delegating CSAR admin. tasks to a research assistant for example.

2. Giving access username/password to your users so they can self-register

Note that different sites and subprojects (if applicable – see www.csar.cfs.ac.uk/project_management/subproject.shtml) will have different access usernames/passwords. If you do not have access usernames/passwords for all your user sites please ask the Helpdesk. You will also need an access username/password for each machine you wish to self-register for.

Please ensure that users understand that they **must** register the same userid on all the machines they wish to use. If they have been a user on a previous project they **must** register a **different** userid for the new project.

3. Accessing the PI Project Administration pages

To access your project's database information login at https://ureg.mcc.ac.uk/CSAR/pi.html

Login to the secure server using one of your CSAR system usernames/passwords. If you have more than one username you should use your "primary personal username". This is generally the first one you registered. You may safely accept the licence notices. Login can take a little time as the CSAR machine password files are checked.

You should now have a page on which the first line is your project title. (If you are the PI on more than one project you will be asked which project you require, unless you have registered a different person record for each project.) From this page you may approve user registrations, view and allocate resources, view/update your capacity plan, and trade your project's resources. These tasks are described below.

4. Checking your project's resources and capacity plan

If you are not already in your project's database pages, login as described above and click on "the project itself, and the resources available". This takes you to a page headed, "Affiliation Record", which contains a table of the project's resources (towards the bottom of the page) amongst other things.

Your project should have a number of different resources for the systems you require (e.g. CPU time, disk). These have been bought from your "generic tokens"; according to your application. If you have generic tokens only then you will need to contact the Helpdesk and they will trade your generic tokens. Similarly, if you wish to change the resource profile please contact the Helpdesk. Similarly, if you wish to change the resource profile please contact the Helpdesk.

Below the table of resources is a button "Capacity Planning and Trading" which takes you to your project's capacity plan, which should have been populated with data from your original application. In order that we can ensure that the resources are available, we request that you review your capacity plan regularly (say every three months) to ensure that your project's current and planned usage is in line with your plan.



From the bottom of this page you can access the Trading Pool if you wish to re-trade, i.e. change your overall resource profile. This is normally allowed only at 3 monthly intervals, but if for any reason you wish to perform a re-trade at any other time please contact the Helpdesk who can re-enable trading.

5. How to Approve users

When a user self-registers you will receive an email asking you to approve them.

If you are not already in your project's database pages, login as described above.

- 1. Click on the "List userids" button for each machine. The names of unapproved users/userids will be highlighted.
- 2. Click on the userid you wish to approve. You will be taken to a page headed "User Registration Individual userid on...".
- 3. Click on the "Approve userid/Change userid details" button, and then on "Approve userid". (You may allocate disk quota to the user at this stage if you wish further down the screen.)
- 4. Use your browser's back button to repeat the previous steps for other machines or other users, as necessary.

Please try to ensure that you approve users only if they have registered the same userid on all the machines.

6. Project disk quotas

Your project should have been given small initial disk quota(s) on each SAN disk type that you requested. As PI you are in control of your project's disk quota(s), and you should ensure that disk quotas are in line with the disk resources you have and with actual disk usage. Note that disk resources are decremented according to **quota** multiplied by time (not actual usage). You should use the project's quota to control the rate of usage of the project's disk resources.

To increase a quota login to your project's database pages, as described above, click on "the project itself, and the resources available", and scroll down to the table of resources. Click on the numeric quota figure in the column headed "allocation" for either disk (N.B. this has to be done for each disk). This then leads to your project quota record - scroll down this page to reach the section where you are able to change the allocation. A limit exists to avoid excessively high use, but if the limit is not high enough for your requirements please contact the Helpdesk.

Please ensure you manage your project's quota throughout the duration of the project in order to make best use of your disk resources.

Note on archive (HSM/tape) facility: Use of this facility (which includes the /hold areas) is managed separately from disk - see the next section.

7. Sub-allocation your project's resources

If your project has subprojects, you first need to sub-allocate resources to the subprojects. You must give subprojects a proportion of any resource which can be used directly by users i.e. disk quota, CPU time, disk and tape resources (GByteYears). It is not necessary to sub-allocate training and support resources to subprojects (although you may).

You can sub-allocate your project's resources to individual users within your project/subprojects. (If you have subprojects, sub-allocation to a user must be done from that particular subproject to which the user is affiliated.)



Sub-allocation of disk quota to users is mandatory, as is sub-allocation of tape resource (GByteYears) for users who need to use the HSM/tape facility. Note that users must have a userid on fermat if they are to be given HSM/tape resource, and once they have been given some of the project's tape resource they will be able to access the /hold areas.

CPU time may be sub-allocated to users, but note that this is optional - if users do not have any sub-allocation of CPU time they will have unrestricted access to all of the (sub)project's available CPU resources.

Sub-allocation to users adds to your initial and ongoing management tasks, so we suggest that you make user sub-allocations only where necessary. In particular we advise that you avoid optional sub-allocation to individual users if you are using subprojects. (Note however that disk quota sub-allocation to users is always mandatory.)

To sub-allocate resources:

- 1. If you are not already in your project's database pages, login as described above, and click on "the project itself, and the resources available".
- 2. In the resources table, click on the numerical link for the resource type required in the column headed "allocation".
- 3. This page, "Individual Resource", allows the sub-allocation of the resource to subprojects/users. (If you have subprojects you should sub-allocate resources to all sub-projects from the main project, and to individual users from their sub-projects.) Note that the sum of all sub-allocations must be less than or equal to the project's total allocation.

To subsequently change the level of sub-allocations, you can repeat the above steps and change the value in the boxes provided on the appropriate Individual Resource page. Alternatively you can go to a particular sub-project's page (the link being in the list of Children on your main project's page) or to a particular userid's page (e.g. from the list of userids obtained via the "List Userids" button) and click on an existing allocation to modify. For disk quota allocation you may also click directly on the numeric quota value for a user in the list of userids.

Resource management may appear to be somewhat complicated at first sight, but will soon become quite straightforward. There is a natural resource tree consisting of projects, subprojects (possibly), and users. All of these have a page and a table of resources. Clicking on numeric values of resources allows you to change the value, or to add/change sub-allocations. Links up and down the tree are provided wherever appropriate.

8. Monitoring Project Usage

It is important to monitor usage/allocations of all resources at user/subproject/project levels, in particular disk quotas. Where you have made user level sub-allocations of optional resources you will see individual usage on your project's pages, and you and the user will be warned by email when usage is nearing the allocation. Similarly you will be warned by email if (sub)project level resources approach the limits. If subsequent overuse is not corrected, sanctions will be imposed on your users, meaning a ban on batch jobs on the machine on which the overspend has occurred.

Note that your project's database pages show overall allocation and usage information. More flexible usage reporting facilities are:

- the web-based Usage Reports
 (www.csar.cfs.ac.uk/project_management/accounting/)
- the lac command on the machines (see man lac).



9. Ongoing Tasks

- Approve new userids and allocate disk quota and possibly other resources.
- Monitor usage/allocations of all resources at user/subproject/project levels, in particular disk quotas.
- Regularly review and update your project's capacity plan.
- Re-trade resources only if you require at three monthly intervals.

10. Final Notes

If you are going to be unavailable for any length of time please consider arranging for someone to take over PI tasks (a member of your project or even the CSAR Helpdesk staff-please contact the Helpdesk to arrange either of these options).

Again, if you have any queries, or if you wish us to perform any of these tasks for you, please contact the Helpdesk.

