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# WebPBS

## Quick Reference

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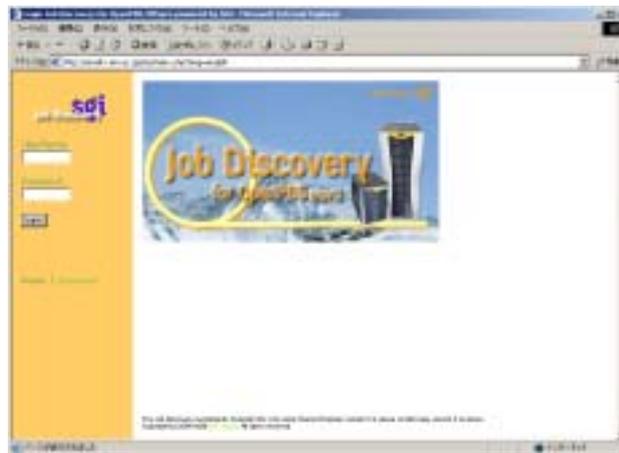
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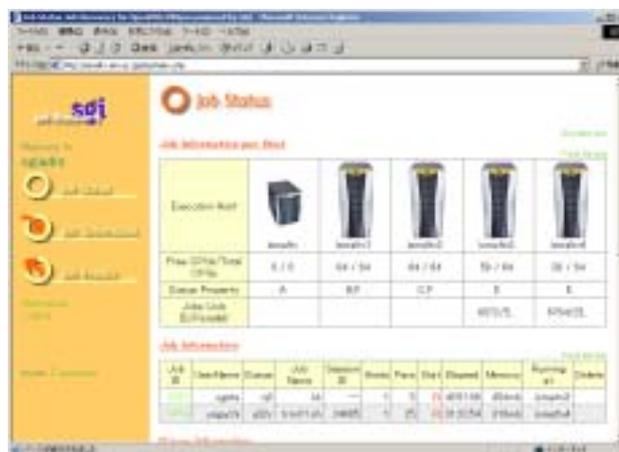
# 1 How to login

The URL is <http://ismaltx.ism.ac.jp/pbs/index.php?lang=english>

The following screen is displayed by accessing this URL.



Type your username and password for ismaltx and click the “login” button. If the login is successful, the screen for referring job status will be displayed.



## 2 Job Status

When you click the “JobStatus” button, the screen for referring the jobs appears, and you can refer the status of the hosts, jobs, queues and the amount of CPU and the memory used.

The status of the Execution hosts is described as follows:

|                        |   |
|------------------------|---|
| Execution host         |  <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="660 987 823 1099"> <p><b>offline</b><br/>(in maintenance)<br/><b>down</b><br/>(out of order)</p> </div> <div data-bbox="900 987 1078 1066"> <p><b>free</b><br/>(In empty, you can<br/>execute new jobs.)</p> </div> <div data-bbox="1134 987 1342 1088"> <p><b>full / busy</b><br/>(In full state, new jobs<br/>are waiting for the<br/>vacant state.)</p> </div> </div> |
| Free CPUs / Total CPUs | Display the number of free CPUs against. total CPUs for each host.  |
| Queue Property         | The job will be executed at the host which has the same property for each queue's (in job information).   |
| Jobs (Job ID/Parallel) | When Job ID is 200 and parallelization(ncpus) are 8 for example, it is displayed as 200/8.  |

The status of jobs is described as follows:

|            |  |
|------------|--|
| Job ID     | Unique number in PBS supercluster. (When you click this, you can see the details of the job.)                              |
| UserName   | User Name of the Altix systems.  |
| Queue      | Name of a Queue to which you want to submit a job.(Each queue could specify different execution hosts and resource limits) |
| Session ID | The ID which manages all processes in the job.   |
| Hosts      | The number of execution host.(When waiting, it number are the same as that of parallel executins.                          |
| Para       | The number of parallel executions you specified (you cannot  |

|            |  |
|------------|--|
|            | excess the maximum number defined in the queue.)   |
| Stat       | The status of the job<br><u>Regular status</u><br><b>R</b> : Job running<br>Q : Job waiting<br>E : In progress of the termination<br><u>The status for error or administration</u><br>W : File transfer error has occurred.<br>S : Job suspension with unknown reason<br>H : job suspension with qhold |
| Elapsed    | Current elapsed time for the running job   |
| Memory     | The maximum memory size used by the job  |
| Running at | A host which the job is running on   |
| Delete     | For deleting your job  |

The status of queues is described as follows:

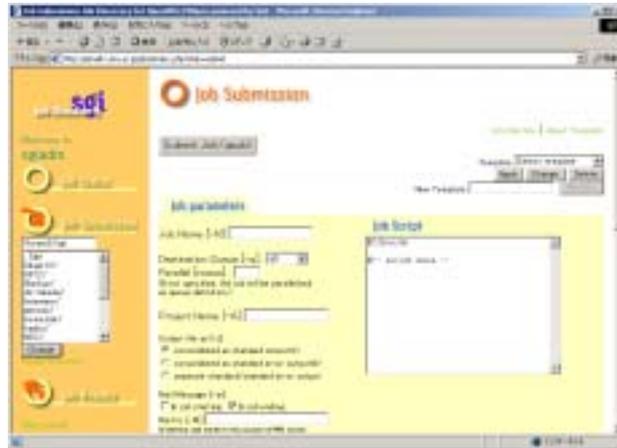
|  |  |
|--|--|
| Queue  | Name of a Queue to which you want to submit a job (Each queue could specify different execution hosts and resource limits.   |
| Number of Jobs                                       | For the Total(Tot), Wait, Run and Transfer(Trn) states.  |
| Qsub<br>(Submission enabled),<br>go(Running Enabled) | When qsub shows , you can submit your job.<br>When go shows , your job will be actually allocated to the execution host.   |
| Max Jobs   | Tot : maximum number of the submitted jobs per queue (including running jobs)<br><b>Run</b> : The maximum number of the running job<br>Group : The maximum number of the running job per group.<br>User : The maximum number of the running job per user |
| Resource limit                                       | Maximum parallel execution (Para), Maximum elapsed time(Elapsed) and Maximum memory usage(Memory) for each job   |
| Property   | The job is executed in the same property as that of its host's.  |

The status of the PBS server is described as follows:

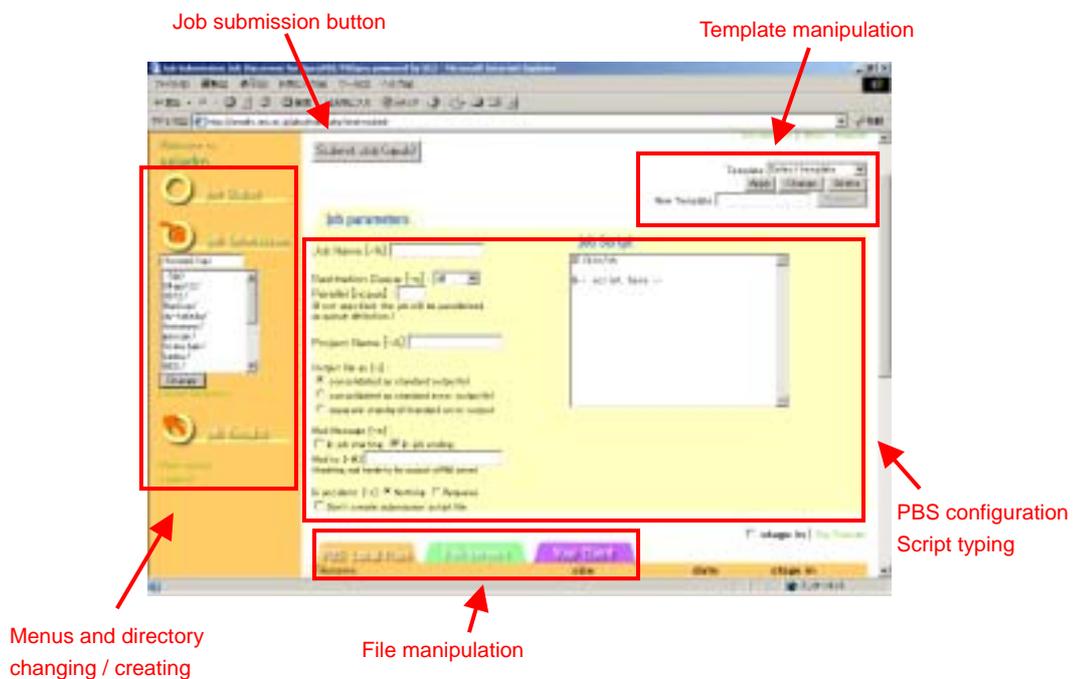
|             |  |
|-------------|--|
| interactive | Resources for login usage via telnet, ssh and so on. (Including system resources.) |
| batch(PBS)  | Resources used by all PBS Jobs.  |

### 3 Job Submission

When you click the “Job Submission” button, the screen for submitting jobs is displayed.



The following picture is the details of each menu. The name of the current directory and the list of directories are displayed under the “Job Submission”, so move to the directory you want to submit job.



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If you want to create a new directory, you can create it by clicking the “Create Directory” button.

Subsequently, please input parameters and script of PBS. After finishing the configuration, click the “Submit Jobs(qsub)” button. The job will be submitted and the script file will be created based on the configuration and the script name is created with the job name and job ID.

The PBS parameters are described as follows:

|                                  |  |
|----------------------------------|--|
| Jobname                          | Since you see it in "job status" output, it is recommended that the name should be something related to the job contents (within 15 alphanumeric characters.)  |
| Submission queue name            | Select the queue in the queue list on the bottom of the screen.  |
| The number of parallel execuions | Specify the number of parallel. It must be the same or below the number of parallel of the queue. Default is the number of parallel of the queue.  |
| Output file                      | Specify the conosolidation format for the standard output/error files of the job.  |
| Mail transfer                    | When there is a server failure or your job has reached the resource limits, the notification is sent to the user via e-mail. It is possible to notify the job start and finish time to the user.                             |
| Mail to                          | Optionally, transfer the message of the job not only the local account but also to specified mail address.   |
| Project name (Account name)      | Specify a project name when you collect project account statistics per user. No need to specify here if your site does not use projects.   |
| At error (In accident)           | When execution server failure occurs, the job being executed is terminated and deleted from the queue. If you check "requeue" checkbox in advance, the jobs could be re-queued from the beginning after the server recovery. |

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## 4 File forwarding, File editing

There are “PBS Local files” tab, “File Servers” tab and “Your Client” tab in the lower part of the screen. You can modify files on the servers, send a file from your PC terminal and configure the file forwarding from other file servers. On the Altix system, you need not to use the “File Servers” and “Stagein” checkboxes.

### PBS Local Files

The list of files (file name, size, last modification date) in the current directory is displayed.

**Attention)** If you are using Internet Explorer, the dialog which asking whether you want to save the file or not will be appeared. If you click the “Open” button, some error like the contents of the file not displayed will be occurred. Before opening the file, save the file.

If you are using Netscape Navigator, the dialog which asks whether you want to save or not. In case of right ckicking, it attempts to save the file with the name “down.php” as the default. There are no problems in the file itself, so please change the name of it.



You can edit the file that is smaller than 1MB. You can edit cofigulation files and so on.



The file which has the icon is a PBS script. You can use PBS job scripts which was used in the past as a template. When you click the icon, you can configure the parameters based on the files. You may use this function when you create a new job based on the previously used jobs.

### Your Client

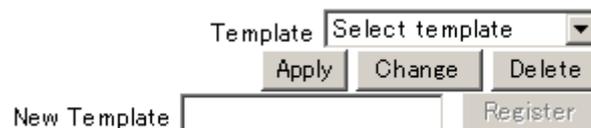
You can transfer files from the client PC/WS the browser is running on. Max 10 files, 4MB in total.

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## 5 Using templates

When you submit jobs with similar parameters, you can create template for PBS parameters and scripts.

When you click the “Register” button after you set the parameters, the new template is registered to the template list. Save your template files under pbstmpl directory in your home directory.



The screenshot shows a web interface for managing templates. At the top, there is a dropdown menu labeled "Template" with the text "Select template" and a downward arrow. Below the dropdown are three buttons: "Apply", "Change", and "Delete". To the left of these buttons is a text input field labeled "New Template". To the right of the input field is a button labeled "Register".

The name of template which is registered by user is displayed in black.

There are other templates of which names are displayed in red. These templates are called system templates and you can input parameters which specialized for some applications other than scripts in the right part of PBS configuration screen.



The screenshot shows the same web interface as above, but with the "Apply" button clicked. The dropdown menu is now open, displaying a list of templates. The first item is "Select template" in blue. Below it are three items in black text: "sgiadm : BasicScript", "sgiadm : sample1", and "sgiadm : testtemp". The last item, "BasicScript", is highlighted in red. The "New Template" input field is empty. A yellow horizontal bar is visible at the bottom of the screenshot.

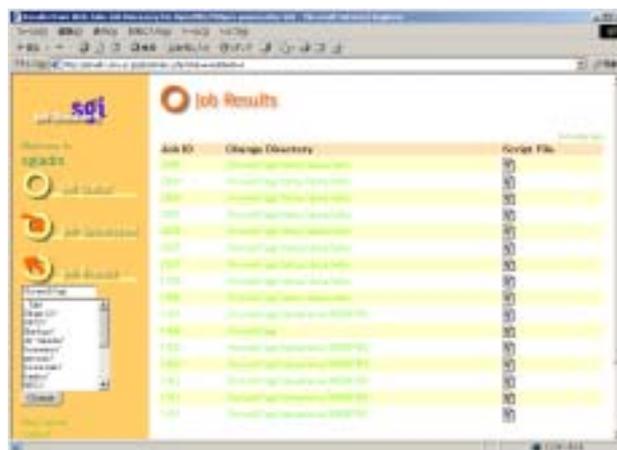
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## 6 Job results

When you want to refer to the list of the results, click the “Job Results” button.

You can not only refer to the list of jobs, also can download or delete files.

When you access the “Job Result”, the list of max 20 jobs which submitted recently.



Submitted job id, the directory where you submit the job and the icon of job script are displayed. When you want to download the file, please click the directory name or change current directory by using directory navigation in the left side of the screen.

Click the file name in the file list when you want to download.

And please check the checkboxes of the files or directories and click the “Delete” button when you want to delete them.

When you click the “Compression(tar.gz)” button, the file is compressed with the name of “pbsweb.tar.gz”.