

# Extraordinary Resource Requests

On **rare occasions** it may be necessary to bypass the standard job queuing and prioritisation on Pawsey supercomputers. For example, interactively debugging a 1000-core job during business hours, running a rare job that exceeds the default maximum walltime, or urgently generating results for a conference presentation. Send a request with justification to the Pawsey [Helpdesk Service](#). Requests are evaluated on a case by case basis. The frequency and usage of past requests are also taken into account.

There are several methods employed:

## Priority boosting

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Priority boosting sets a job into a "high" priority mode, bypassing the normal prioritisation of jobs based on fairshare, job age and job size. Priority boosting is best used for normal jobs that are required to be run urgently, such as for a conference presentation, or for running short test jobs.

Users are able to perform this priority boosting themselves, see [High Priority Mode](#). Users must be aware that there are limits to this, so if high priority mode is not available to you, you will need to contact the helpdesk and make an extraordinary request with justification for the priority boosting.

## Job resource request changes

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The resource request associated with a job can be modified by system administrators once the job is in the queue. For example, running a job once-off that will exceed the default maximum walltime.

For this mechanism, send the request and justification to the helpdesk. If the request is approved, you will be asked to submit the job and reply with the jobid.

## Reservations

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In a reservation, specific nodes are reserved at a specific time. Reservations are best suited for activities such as interactive debugging on many nodes, where you want to run at a certain time of day rather than waiting an unknown amount of time for your session to start.

Reservations must be booked at least 72 hours in advance. Reservations must be scheduled to start during Pawsey office hours, so that they can be monitored for usage and to have started correctly. Consult the user guide on how to submit jobs to a reservation.

The entire time of the reservation will be charged against your project, unless you contact the Pawsey helpdesk requesting the reservation be cancelled and the helpdesk acts on this. The helpdesk makes no guarantees on how quickly it can respond. The use of reservations is discouraged because of this potential waste of resources.

Since reservations are for specific nodes, they are susceptible to node issues. If one node is lost before the reservation begins, then the whole reservation becomes invalid and will need to be rescheduled for another day. Reservations are also discouraged because they interfere with the efficient scheduling of the jobs of other users.