

# Salloc from one cluster to another

Do this when using salloc with the -M flag to another cluster, such as from a Magnus login node into Topaz.

When running salloc to get an interactive session, we often want the user environment to be taken through to the interactive session. This is not a good idea when moving between clusters, as they have different operating systems and modules.

## Background

salloc always runs a command. Most users do not specify one, in which case it runs one set in the SLURM configuration. The SallocDefaultCommand is the variable, which you can see on Magnus by:

```
> scontrol show config |grep alloc
SallocDefaultCommand = srun --mem-per-cpu=0 --gres=craynetwork:0 --pty --preserve-env --mpi=none $SHELL
```

The SallocDefaultCommand is slightly different on each cluster.

Adding SallocDefaultCommand on the command line is equivalent to not specifying a command. The below are equivalent:

```
> salloc --partition=workq --account=pawsey0001
> salloc --partition=workq --account=pawsey0001 srun --mem-per-cpu=0 --gres=craynetwork:0 --pty --preserve-env
--mpi=none $SHELL
```

## Step-by-step guide

1. To not pass the environment into the interactive srun session, you need to pass --export=NONE as is done in sbatch. To do this, copy the SallocDefaultCommand and insert --export=NONE.
2. In addition to the above, you also need to add -l or --login to the \$SHELL so that the Pawsey configuration scripts are run. This is similar to how you need to add this flag at the top of a sbatch jobscript.

```
salloc -M zeus -p workq --account=pawsey0345 srun --mem-per-cpu=0 --gres=craynetwork:0 --pty --preserve-env --
export=NONE --mpi=none $SHELL -l
```



SallocDefaultCommand will not be modified to include "--export=NONE" and "\$SHELL -l", since most users salloc to the cluster they are on and want to keep the environment they have on the login node.

## Related articles

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- [Exceeded job memory limit](#)
- [More processors requested than permitted](#)
- [slurmstepd: error: execve\(\): executable : No such file or directory](#)