New Cluster Introduction

Replacing Jalapeno

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New Hardware

364 Cores
12 K class 12GB GPUs

3 Management Hosts
(Web and software hosting)

2 Remote Desktop Hosts
2 Compute + 4 GPU Hosts

288 Cores
12 A class 12GB GPUs
2 H class up-to 80GB GPUs
Accessing Ood

Connecting to and using

• Open On Demand - https://ood.fmrib.ox.ac.uk
  Web based VNC
• SSH - via clint.fmrib.ox.ac.uk
• SFTP/SCP/rsync - via sftp.fmrib.ox.ac.uk (or file transfer via Ood)
• No legacy X11/VNC
Changes

Software

• Rocky Linux 9 (Red Hat clone) (Jalapeno is 7.3) - very old software may no longer work
• All research software distributed by a much faster mechanism via different locations
  No /opt/fmrib - Check your .bashrc to see if you setup Conda from /opt/fmrib
  Ask computing-help@win.ox.ac.uk if you have Conda environments you use regularly on the cluster - central installation could speed up running
  MATLAB much faster to launch
• Software configured using ‘module’ command
  Only fsl_sub loaded by default (a few system configuration modules too)
• Some module names may have changed (use `module avail` to list)
• Older software versions may no longer be installed
Changes

Cluster

• SLURM (https://slurm.schedmd.com/)
• Queues mirror BMRC’s cluster:
  veryshort.q + short.q > short (1 day 6 hours)
  long.q + verylong.q + bigmem.q > long (10 days)
  interactive.q > interactive (10 days) - only to be used via OOD
  
  gpu.q >
  
  %s
  
  gpu_short (4 hours)
  gpu_long (2.5 days)
• Recommend fsl_sub -T is used to specify number of minutes required
• Use fsl_sub -R <GB> to request more than default 16GB per slot
• /tmp is private to each job
• No K40 GPU class
• No ‘infinite’ queues
Changes

Remote desktop environment

• Runs as a cluster job
• Xfce (jalapeno is lxqt)
• Session is limited in CPU (core equivalents) and memory - programs requesting more than you have requested may be killed
• /tmp is private to the session (cannot access files from other sessions or users)
• GPUs available for CUDA tasks - please use sparingly
Documentation

Links

• Overview: https://www.win.ox.ac.uk/research/it/latest-win-it-news/ood_cluster
• OOD: https://www.win.ox.ac.uk/research/it/i-want-to/wfh/remote-desktops/fmrib-remote-desktops/fmrib-ondemand
• SSH connections: https://www.win.ox.ac.uk/research/it/i-want-to/wfh/ssh
• Cluster: https://www.win.ox.ac.uk/research/it/i-want-to/analyse-my-data/use-hpc-compute-resources/fmrib-compute-cluster
• Environment modules: https://www.win.ox.ac.uk/research/it/i-want-to/analyse-my-data/environment-modules
• BASH Customisation: https://www.win.ox.ac.uk/research/it/i-want-to/analyse-my-data/bashprofile
• Python/Conda: https://www.win.ox.ac.uk/research/it/i-want-to/analyse-my-data/python_conda