

Wikiprint Book

Title: System usage

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System usage

The system can be used through the PBS based batch system that is also used for the DEEP Cluster and Booster. You can request cluster nodes on the SDV with an interactive session like this:

```
srun --partition=sdv -N 4 -n 8 --pty /bin/bash -i
srun ./hello_cluster

Hello world from process 6 of 8 on deeper-sdv07
Hello world from process 7 of 8 on deeper-sdv07
Hello world from process 3 of 8 on deeper-sdv05
Hello world from process 4 of 8 on deeper-sdv06
Hello world from process 0 of 8 on deeper-sdv04
Hello world from process 2 of 8 on deeper-sdv05
Hello world from process 5 of 8 on deeper-sdv06
Hello world from process 1 of 8 on deeper-sdv04
```

When using a batch script, you have to adapt the `—partition` option within your script: `—partition=sdv`

Filesystems and local storage

The home filesystems on the SDV are provided via GPFS/NFS and hence the same as on the DEEP System. The local storage system of the SDV running BeeGFS is available at

```
/sdv-work
```

This is NOT the same storage being used on the DEEP system. Both, the DEEP System and the DEEP-ER SDV have their own local storage. On the DEEP nodes it is mounted to `/work` on the deeper-sdv nodes it can be found in `/sdv-work`. In addition both systems provide a work filesystem via GPFS, which is called `/gpfs-work` and shared for both systems. But it should not be used for performance relevant applications since it is much slower than the local storages.

Using /nvme

During job startup, all files of non-privileged users within `/nvme` are removed. If you want to keep your files across consecutive jobs on a particular SDV node, add a list of filenames to `$HOME/.nvme_keep`:

```
/nvme/tmp/myfile.A
/nvme/tmp/myfile.B
```

This will keep the files `/nvme/tmp/myfile.{A,B}` across two or more job runs in a row.

Multi-node Jobs

Please use

```
module load extoll
```

to run jobs on multiple nodes.