UNIKASSEL VERSITÄT

Linux Cluster | quick reference

Hessisches Kompetenzzentrum für Hochleistungsrechnen

File Systems

Path	Shell variable	Purpose	Quota	Back-ups
/home/users/<lab>/<username>	$HOME	non-reproducible data, data with high reproduction cost	10 GB per user, larger on request	nightly
/home/groups/<group_ressource>		non-reproducible data, data shared with small group, data with high reproduction cost	on request	nightly
/local/home/work	$HPC_LOCAL	temporary data, large files, intermediate results, easily recomputable results	1,7 TB shared with all users	none; unused data will be automatically deleted after 30 days
/scratch or /work	$HPC_SCRATCH	temporary data, large files, intermediate results, easily recomputable results	8 TB shared with all users	none; unused data will be automatically deleted after 30 days

Partitions

Partition name	Limits	Restrictions
public	--time=10-00:00:00	N/A
public2	--time=2-00:00:00	N/A
public3	--time=6-00:00:00	only one node per job
<partition_name>	--time=infinite	only specified group(s), only owned hardware

Access

```
$ ssh -Y <username>@its-cs1.its.uni-kassel.de
```

- Everyone with UniAccount (students, staff, guests)
- Headnodes are reachable from internet
- Home- and group directories are reachable from intranet or VPN, see uni-kassel.de/go/linuxcluster

Module System

Hint: Load *all* required modules inside your job scripts! `module purge` should be your first command!

Common commands:

- `module [un]load <name of module>`: Load / unload a particular module
- `module purge`: Unload all modules (use in job script as first `module` command)
- `module list`: List all currently loaded modules
- `module avail`: List all currently loadable modules

SLURM commands

For details refer to the man pages or the Slurm website: https://slurm.schedmd.com

Most important commands:

- `sbatch, scancel, squeue, srun`

`sbatch` examples

- Submit a jobscript:

```
$ sbatch <job script>
```

`scancel` examples

```
$ scancel <jobid>
```

- **Note**: `skill` is *not* a slurm command!

`srun` examples

- **Note**: `srun` is used *either* inside a job script (to start subtasks) or to start an interactive job (should only be done sparingly / for testing!).

```
srun [-N <number of tasks>] /path/to/application
```

`squeue` examples

- Show running and pending jobs of a user (for yourself, you can also use `squeue -u $USER`)

```
$ squeue -u <username>
```

Default

Parameter	Default value
--partition	public
--time	0-00:05 (5 min)
--mem-per-cpu	960M

Help

Online documentation:
uni-kassel.de/go/linuxcluster

Support contact:
ttsclust@uni-kassel.de

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