

# HPC Access and Software run

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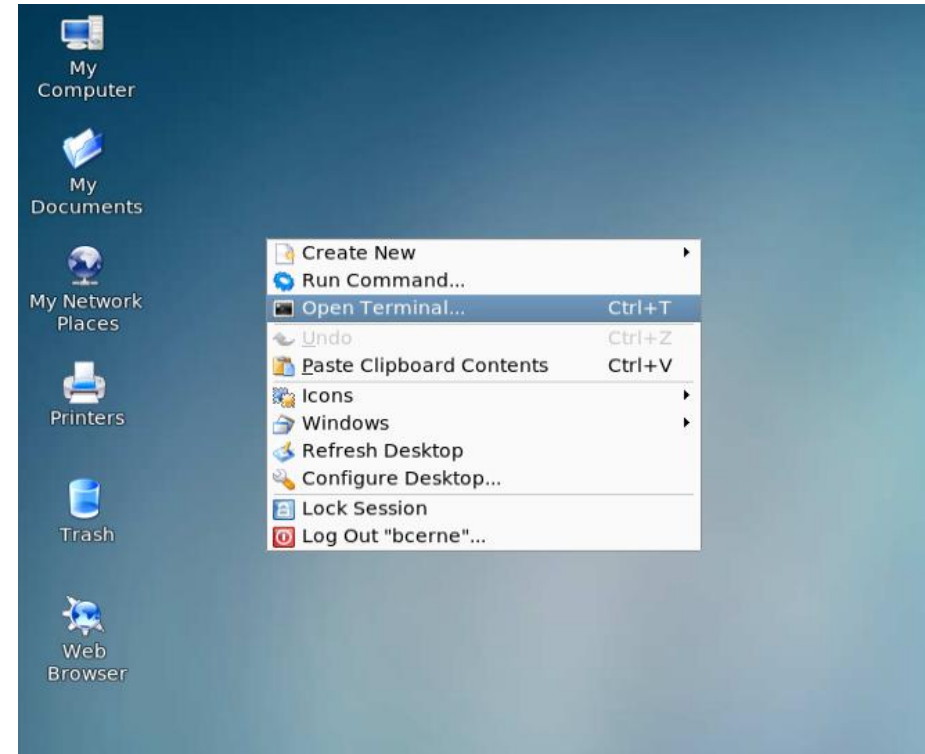


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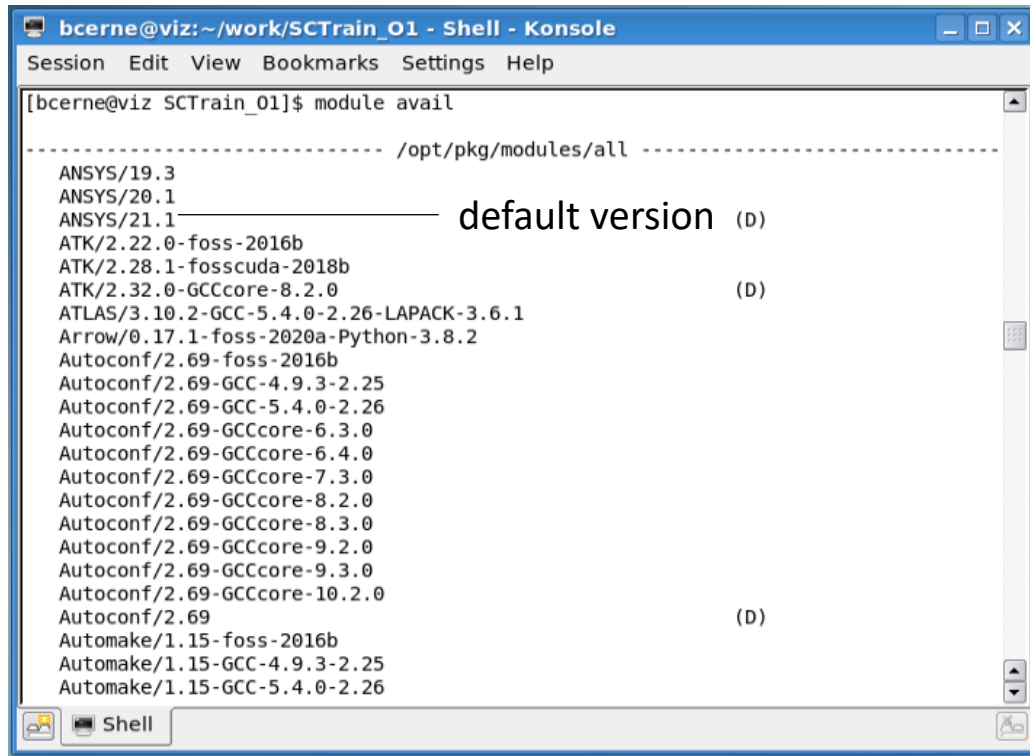
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- In Linux OS most of the work handled via the terminal > Ctrl-T
- Some basic commands:
  - `pwd` – plot your current directory path
  - `ls` – content in current directory
  - `cd` – go to a specific directory (e. g. `cd ..` – go to one directory above current)
  - `mkdir <dirname>` – make new folder
  - `rmdir <dirname>` – delete empty directory
  - `rm <filename>` – delete specific file in folder
  - `rm -r <dirname>` - delete folder containing files
  - `touch <filename>` - create new file
  - `man <command>` - manual info for specific command (also can use `<command> -help`)
  - `cp` – copy
  - `cat` – plot the content of a file



<https://maker.pro/linux/tutorial/basic-linux-commands-for-beginners>

- Check available modules (software)

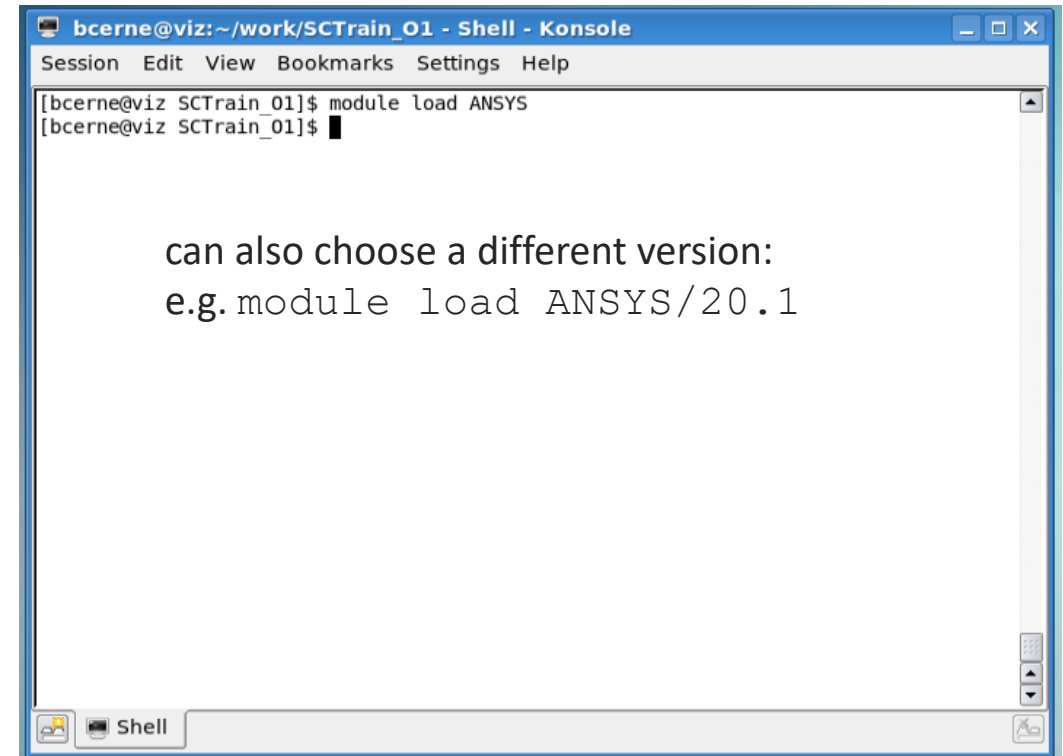


```
bcerne@viz:~/work/SCTrain_O1 - Shell - Konsole
Session Edit View Bookmarks Settings Help

[bcerne@viz SCTrain_O1]$ module avail

----- /opt/pkg/modules/all -----
ANSYS/19.3
ANSYS/20.1
ANSYS/21.1 ----- default version (D)
ATK/2.22.0-foss-2016b
ATK/2.28.1-fosscuda-2018b
ATK/2.32.0-GCCcore-8.2.0 (D)
ATLAS/3.10.2-GCC-5.4.0-2.26-LAPACK-3.6.1
Arrow/0.17.1-foss-2020a-Python-3.8.2
Autoconf/2.69-foss-2016b
Autoconf/2.69-GCC-4.9.3-2.25
Autoconf/2.69-GCC-5.4.0-2.26
Autoconf/2.69-GCCcore-6.3.0
Autoconf/2.69-GCCcore-6.4.0
Autoconf/2.69-GCCcore-7.3.0
Autoconf/2.69-GCCcore-8.2.0
Autoconf/2.69-GCCcore-8.3.0
Autoconf/2.69-GCCcore-9.2.0
Autoconf/2.69-GCCcore-9.3.0
Autoconf/2.69-GCCcore-10.2.0 (D)
Autoconf/2.69
Automake/1.15-foss-2016b
Automake/1.15-GCC-4.9.3-2.25
Automake/1.15-GCC-5.4.0-2.26
```

- Load required module

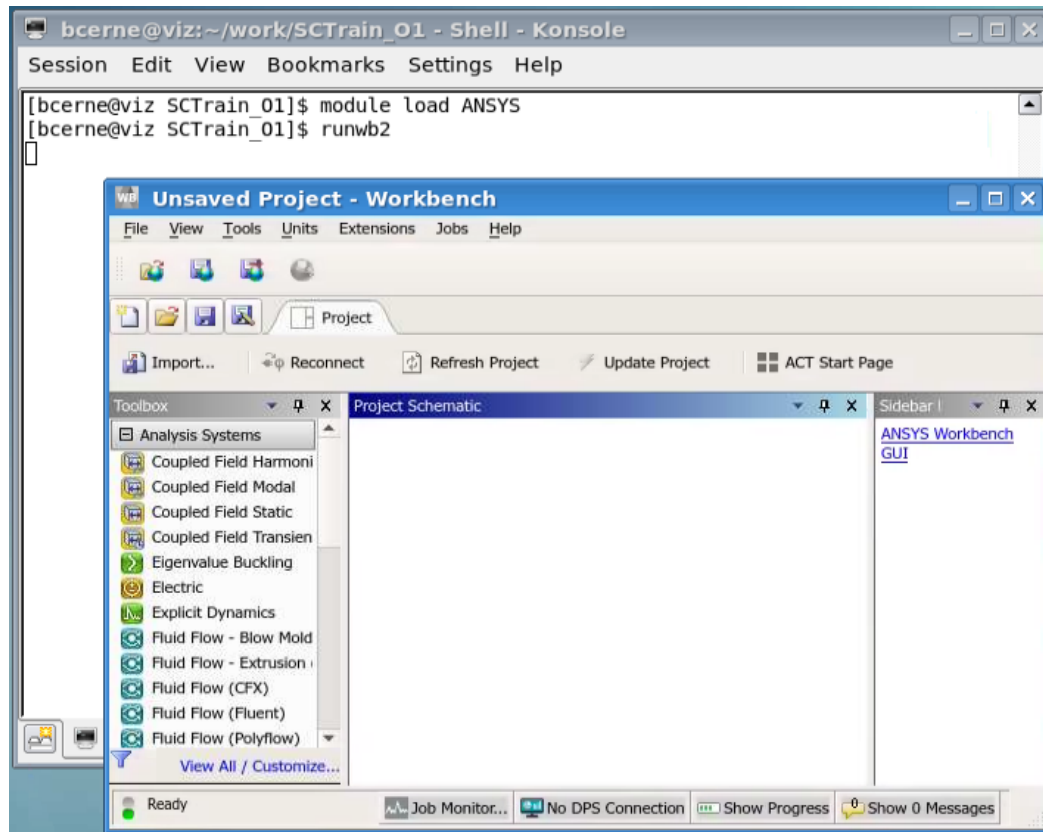


```
bcerne@viz:~/work/SCTrain_O1 - Shell - Konsole
Session Edit View Bookmarks Settings Help

[bcerne@viz SCTrain_O1]$ module load ANSYS
[bcerne@viz SCTrain_O1]$
```

can also choose a different version:  
e.g. `module load ANSYS/20.1`

- Run module in GUI



- To allocate different module use:

```
[ ]$ salloc
```

or

```
[ ]$ salloc --partition=haswell -  
alternatively use westmere
```

- check which node (if any) is available

```
[ ]$ ssh -X cn<XY> - cnXX denotes the  
available node
```

```
[bcerne@viz SCTrain_01]$ salloc  
salloc: Granted job allocation 55917  
salloc: Waiting for resource configuration  
salloc: Nodes cn80 are ready for job  
[bcerne@viz SCTrain_01]$ ssh -X cn80  
Warning: Permanently added 'cn80,10.0.2.180' (ECDSA) to the list of known hosts.  
Last login: Mon May 24 09:13:17 2021 from 10.0.2.99  
[bcerne@cn80 ~]$ █  
  
[bcerne@cn80 ~]$ module load ANSYS  
[bcerne@cn80 ~]$ runwb2
```

Thank you for your attention!

<http://sctrain.eu/>

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