

Software



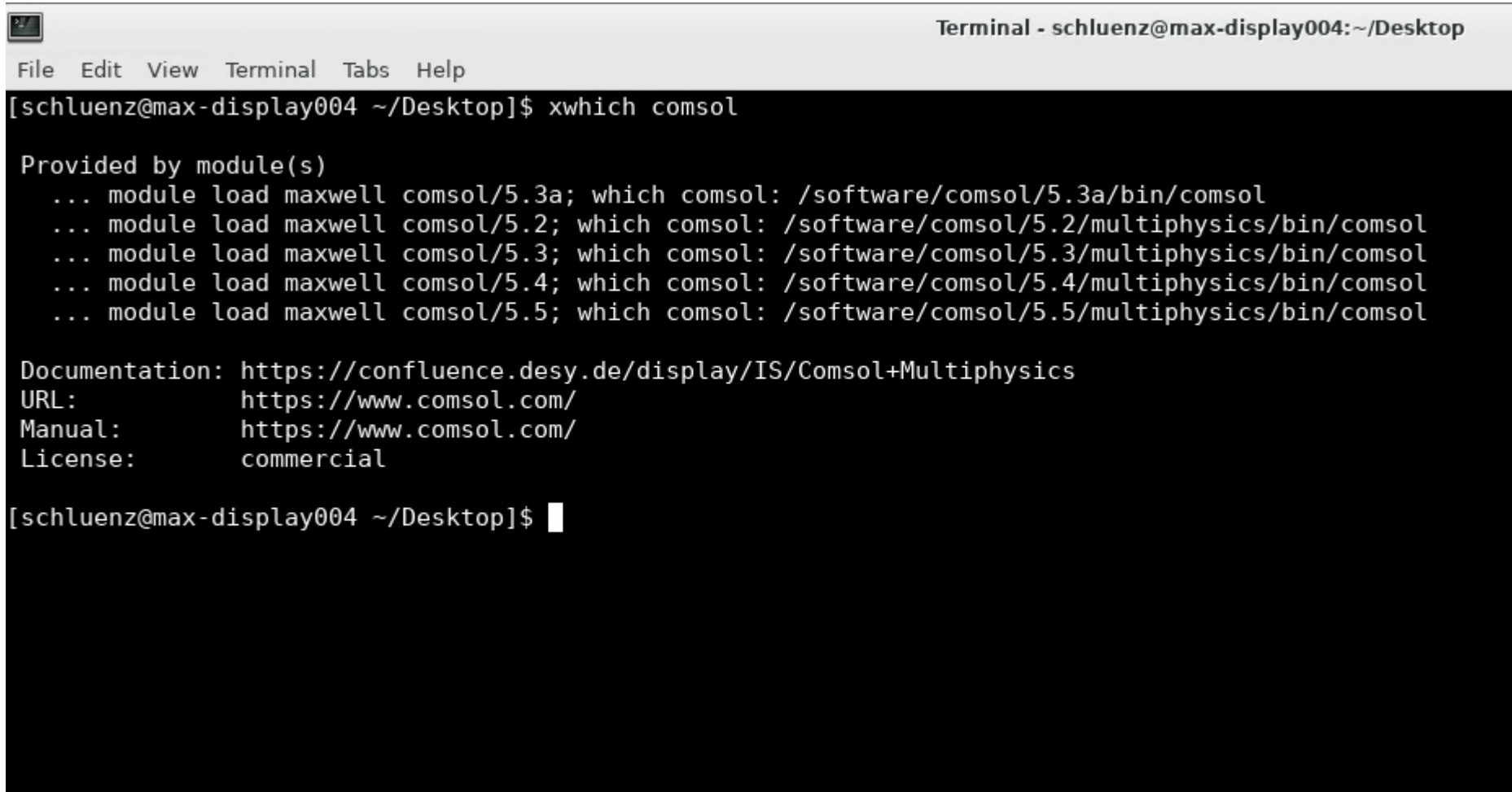
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Software in general

See <https://confluence.desy.de/display/IS/Software>

usually a good idea to check for available versions & setup. On Maxwell cluster:



```
Terminal - schluenz@max-display004:~/Desktop
File Edit View Terminal Tabs Help
[schluenz@max-display004 ~/Desktop]$ xwhich comsol

Provided by module(s)
... module load maxwell comsol/5.3a; which comsol: /software/comsol/5.3a/bin/comsol
... module load maxwell comsol/5.2; which comsol: /software/comsol/5.2/multiphysics/bin/comsol
... module load maxwell comsol/5.3; which comsol: /software/comsol/5.3/multiphysics/bin/comsol
... module load maxwell comsol/5.4; which comsol: /software/comsol/5.4/multiphysics/bin/comsol
... module load maxwell comsol/5.5; which comsol: /software/comsol/5.5/multiphysics/bin/comsol

Documentation: https://confluence.desy.de/display/IS/Comsol+Multiphysics
URL:          https://www.comsol.com/
Manual:       https://www.comsol.com/
License:      commercial

[schluenz@max-display004 ~/Desktop]$
```

Utilities - mounting

- <https://confluence.desy.de/display/IS/Utilities>
 - mount-winhome umount-winhome
 - mount-wingroup umount-wingroup
 - mount-desycloud umount-desycloud

```
[someuser@pal54 ~]$ /usr/local/bin/mount-winhome # /usr/local/bin/ shouldn't be necessary, would usually be in your PATH
Username [someuser]:
Password:
... successfully mounted ntapwin1.desy.de/someuser$ under $XDG_RUNTIME_DIR/gvfs/smb-share:server=ntapwin1.desy.de,share=someuser$
... accessible under /tmp/someuser/winhome/

someuser@pal54 ~]$ ls -l /tmp/someuser/
total 4
lrwxrwxrwx 1 someuser it 69 Dec  8 21:08 winhome -> /run/user/3904/gvfs/smb-share:server=ntapwin1.desy.de,share=someuser$/

[someuser@pal54 ~]$ ls -l /tmp/someuser/winhome/ | head -2
total 510119
drwx----- 1 someuser it      0 Oct  4 14:02 AppData/

[someuser@pal54 ~]$ /usr/local/bin/umount-winhome
*** Unmounted smb://ntapwin1.desy.de/someuser$

[someuser@pal54 ~]$ ls -l /tmp/someuser/
total 0
```

Utilities - mounting

- <https://confluence.desy.de/display/IS/Utilities>: some hints for krb/afs handling, upload cloud (confluence)

```
# You first need to create a personal keytab. Whoever has access can generate a kerberos-ticket on your behalf so keep it save.
# cd $HOME/.ssh
ktutil
  ktutil: addent -password -p your-username@WIN.DESY.DE -k 1 -e aes256-cts
  Password for username@WIN.DESY.DE: [enter your password]
  ktutil: wkt windows.keytab
  ktutil: quit

# try it out
[someone@node ~]$ klist
klist: No credentials cache found (filename: )

[someone@node ~]$ kinit -f someone@DESY.DE -k -t $HOME/.ssh/windows.keytab -c $HOME/.ssh/someone.cc
[someone@node ~]$ KRB5CCNAME=FILE:$HOME/.ssh/someone.cc

[someone@node ~]$ klist
Ticket cache: FILE:/afs/desy.de/user/s/someone/.ssh/someone.cc
Default principal: someone@WIN.DESY.DE

# ticket can be used to authenticate for smbclient
[someone@node ~]$ smbclient //ntapwin1.desy.de/someone$ -k
smb: \> ls
[...] # works!
smb: \> quit

# unfortunately currently doesn't work for smb-mounts with gio/gvfs ...
```

Utilities - resources

```
Terminal - schluenz@pal51:~
File Edit View Terminal Tabs Help
[schluenz@pal51 ~]$ my-resources
```

Resource	Access	URL	Comments
General Resources			
desycloud	yes	https://desycloud.desy.de	
afs	yes	/afs/desy.de/s/schluenz	
oracle	yes	https://it.desy.de	
Compute Resources			
bird/naf	yes	https://bird.desy.de	
maxwell	yes	https://maxwell.desy.de	
exfel@maxwell	no	https://maxwell.desy.de	please contact it-support@xfel.eu
upex@maxwell	yes	https://maxwell.desy.de	
cfel@maxwell	yes	https://maxwell.desy.de	
ps@maxwell	yes	https://maxwell.desy.de	
psx@maxwell	yes	https://maxwell.desy.de	
cssb@maxwell	no	https://maxwell.desy.de	please contact it@cssb-hamburg.de
petra4@maxwell	no	https://maxwell.desy.de	please contact MPY admins
xfel@maxwell	yes	https://maxwell.desy.de	
Atlassian Tools			
confluence	yes	https://confluence.desy.de	
jira	yes	https://agira.desy.de	
stash	yes	https://stash.desy.de	
bamboo	yes	https://bamboo.desy.de	

```
yes: you have access. no: you don't have access.
Administrators: check http://www-it.desy.de/support/cgi-bin/admins
[schluenz@pal51 ~]$
```


Utilities - licenses

```
Terminal - schluenz@pal51:~
File Edit View Terminal Tabs Help
[schluenz@pal51 ~]$ my-licenses
usage: my-licenses [-ah] [-p product]
  -a | --all           Show all licenses currently in use by schluenz
  -p | --product PRODUCT show license status for PRODUCT, which can be one of
                        ansys,avizo,cadence,comsol,cst,idl,maple,mathematica,matlab,origin
  -h | --help         Display help
[schluenz@pal51 ~]$ my-licenses -p mathematica

License Overview for mathematica
=====
Mathematica      Available   in Use   Free
MathKernel      61         45      16

[schluenz@pal51 ~]$
```

Commercial Software

Commercial software in DESY repositories

- Not a problem if
 - Software is redistributable
 - Doesn't require „personal“ agreement to terms
- Access from outside DESY
 - Almost never an option
 - Licenses usually tied to campus computer and accounts (at least when academic)