

Linux Environment

Nothing new since LUM 10/2013

see: <https://indico.desy.de/event/9022>

Changes since SL5

- SL6, EL7, Ubuntu
 - No hepix environment
 - No ini
 - No /opt/products
- No Application SW Updates for SL5



desygroupset

- To set the group environment temporarily:
 - `desygroupset zml`
 - If `desygroupset` is not defined: `source /etc/groupset.sh zml`
- To set the group environment permanently:
 - `desygroupadd zml # currently on pal only`
 - Will add setup to `.bashrc`, `.cshrc`, `.zshrc`
 - `desygroupprm # to get rid of it. Currently on pal only.`
- Define a host-specific default group environment if needed
 - `desygroupset <default> in /etc/profile.d/99-<default>.(c) sh`
 - Easily deployed via puppet
- Might need some small adjustments in the group-environment
 - Path `/etc/local/group` → `/afs/desy.de/group`
 - No AFS → no Group environment (hasn't changed really)



ini → modules

- **module**

- `module avail / help / whatis`
- `module load matlab` will define the most recent version as the default version
- **Expand MODULEPATH to place modules in arbitrary places, for example in group-environment**
- `export MODULEPATH=/afs/desy.de/group/it/modulefiles:$MODULEPATH`
- `$HOME/.modulerc` to load modules at login (has some drawbacks)

- **module-files are simple (tcl-)scripts:**

```
%Module 1.0
module-whatism "Setup myware "
prepend-path    PATH                /afs/desy.de/group/it/sw/bin
proc ModulesHelp { } {
    puts stdout  "Add myware to PATH"
}
```

- **In batch environment `module` or `desygroupset` might not be defined**

- `zsh/bash` per design come with a clean environment
- Conscious choice of the environment
- `Source /etc/profile.d/module.sh and/or /etc/profile.d/02-desygroupset.sh if needed`

/opt/products

- Might be still present
 - Ignore it! Completely outdated!
 - Major products like idl, matlab, mathematica, maple, compiler install in /opt/
 - Actually links to afs-based installation
 - Some wrapper installed in /usr/local/bin, like matlab_R2014b
 - All come with modules
- Ubuntu
 - To get a similar environment under Ubuntu as SL6/EL7
 - apt-get install dl-optafs idl.8.4-afs idl.8.4-alias ...

Licensing

- MPG and UNI-HH (and XFEL) have separate license server for matlab, mathematica, ...
 - They can get licenses at a fraction of the price we have to pay!
 - If you are a member of MPG or UNI-HH PLEASE use the appropriate license server
- Configuration
 - Netinstall takes care of it for windows
 - Most Linux hosts are configured appropriately as well
 - Won't work on public nodes, Macs etc
 - For matlab: define `MLM_LICENSE_FILE` pointing the proper matlab license file
 - For mathematica: place a `mathpass` in `$HOME/.Mathematica/Licensing`
 - We really don't want to block the license server for ip-ranges, users or groups.
- Details:
 - https://linux.desy.de/distributions/scientific_linux_at_desy/software/downloads/mathematica/
 - https://linux.desy.de/distributions/scientific_linux_at_desy/software/downloads/matlab