

Table of Contents

USE OF THE INFORMATION ON THIS PAGE IS AT YOUR OWN RISK !.....	1
Notes on running CMSW on ubuntu hardy heron.....	2
Running on ubuntu.....	2
Running kerberized CVS.....	2
ssh to lxplus using kerberos token forwarding.....	3
CRAB.....	3
Links.....	3
PYTHON.....	4
readline.....	4
Personal remarks.....	4
Misc.....	4
Mounting windows network filesystems.....	4
Links.....	4
USE OF THE INFORMATION ON THIS PAGE IS AT YOUR OWN RISK !.....	5

**USE OF THE INFORMATION ON THIS PAGE IS
AT YOUR OWN RISK !**

Notes on running CMSSW on ubuntu hardy heron

- on ubuntu, by default, when running `scramv1`, one sees errors like

```
[ : 71: ==: unexpected operator
```

This is due to the fact that `/bin/sh` is linked to `/bin/dash` instead of `/bin/bash` (see also [this link](#)). One can set this back to bash by running `sudo dpkg-reconfigure dash` and selecting the appropriate answer.

- `scramv1` complained about missing `Template.pm`. Doing `sudo apt-get install libtemplate-perl` seems to make this warning go away.
- At least with `CMSSW_1_6_12`, `scramv1 b` did not build anything even though it should have. Running `scramv1 --debug b` showed that it wanted to run `gmake` which does not exist on ubuntu. A softlink `~/bin/gmake -> /usr/bin/make` (where `~/bin` is in the path) made the building work.
- To get from `cmstools` `import *` or `import readline` to work: After creating the project area (assuming `python2.4` is configured for the `CMSSW` version), softlink it from the local python installation, e.g. by doing:

```
ln -s /usr/lib/python2.4/lib-dynload/readline.so $CMSSW_BASE/lib/$SCRAM_ARCH/
```

Running on ubuntu

- To start `openafs`, do `sudo /etc/init.d/openafs-client start`. If the `OpenAFS` kernel module does not exist (for the kernel version in use), this will complain.
- To build the `OpenAFS` kernel module, follow the instructions in `/usr/share/doc/openafs-client/README.modules` which are essentially the following ones:

```
sudo apt-get install module-assistant
sudo module-assistant prepare openafs-modules
sudo module-assistant auto-build openafs-modules
```

You should get a message like: `Done with /usr/src/openafs-modules-....deb.` Install this deb file using `sudo dpkg -i /usr/src/openafs-modules-....deb.`

Note that this needs to be redone when you install a new kernel version.

Running kerberized CVS

- make sure the package `krb5-user` is installed (for `kinit`)
- Make sure `/etc/krb.conf` exists and contains the appropriate lines for CERN. If it doesn't exist, it's probably easiest to copy it from `lxplus/lx32slc4`.
- Copy `/etc/krb5.conf` and `/etc/krb.realms` from `lxplus/lx32slc4` after making a backup of your existing `/etc/krb5.conf` and `/etc/krb.realms`. (yes, it

looks like we need krb5 files despite only getting a ticket for krb4...)

- Copy `/usr/bin/cvs` from `lxplus/lx32slc4` and make sure you put it in a directory where it is found before the standard `cvs` (e.g. into `~/bin` and make sure that `~/bin` comes before `/usr/bin/` in your `PATH`).
- Get a token using `kinit -4 xyz@CERN.CH`.
- work with CVS

ssh to lxplus using kerberos token forwarding

- Obtain a kerberos token:

```
kinit xyz@CERN.CH
```

- At least on hardy heron, the ssh client is affected by a bug with round robin DNS hosts such as `lxplus`.
 - ◆ In order to have token forwarding, one must use the option `GSSAPIDelegateCredentials yes` (either on the command line or put it in `~/.ssh/config`)
 - ◆ If you login to an explicit `lxplus` node (e.g. `lxplus123`), you won't be affected by the DNS round robin bug. Otherwise, use the option `GSSAPITrustDNS yes`. See also this link and this link.

CRAB

- make sure you have a file `/etc/redhat-release`. If not, copy it from `lxplus`.
- setup the environment (for `bash/zsh`):

```
source /afs/cern.ch/cms/LCG/LCG-2/UI/cms_ui_env.sh
eval `scramv1 runtime -sh`
source /afs/cern.ch/cms/ccs/wm/scripts/Crab/crab.sh
```

(see also here).

- in order to get `voms-proxy-init` to work, one needs `libexpat.so.0` (e.g. `/usr/lib/libexpat.so.0` from `lx32slc4` in my case). I copied this into the directory from which I submit the crab jobs and added `$PWD` at the end of the environment variable `LD_LIBRARY_PATH`.
- see also Storage element interaction in general
- see here for CERN storage element for CASTOR

Links

- CMSSW in chrooted SL4 (or SL3) system Nice, but re-mounting the `afs` filesystem in the chrooted environment is somewhat ugly...
- installing CMSSW rpms on an unsupported distribution

PYTHON

readline

- copy /usr/lib/libreadline.so.4 from lx32slc4/lxplus, into a directory which is contained in \$LD_LIBRARY_PATH\$.

Personal remarks

The following are not related to Ubuntu in general but more to my personal configuration.

- The auto library loader under root (FWLite) seems not to work in my (default) setup, this seems to be due to spurious libraries in the LD_LIBRARY_PATH. I get:

```
Error: Symbol G__exception is not defined in current scope (tmpfile):1:
```

Executing the following seems to fix it:

```
export LD_LIBRARY_PATH=$(echo $LD_LIBRARY_PATH | tr ':' '\n' | grep -E "/afs/cern.c
```

Misc.

- For my machine, copy binaries from lx32slc4, not from lxplus

Mounting windows network filesystems

Assume you want to mount your Windows (NICE) network home directory on your Linux machine. In the following example, the mount point is /tmp/mnt (which you must create if it does not exist). Assuming your Nice login name is johndoe, try mounting your home directory as:

```
sudo mount -t smbfs -o username='CERN\johndoe' -o uid=$(id -u) -o gid=$(id -g) '//cernhomej/j
```

(note that the servername is cernhome + the first letter of Nice login name).

Links

- CMSSW on Ubuntu in the CMS SWGuide

-- AndreHolzner - 10 Jul 2008

USE OF THE INFORMATION ON THIS PAGE IS AT YOUR OWN RISK !

This topic: Main > AndreHolzner CMSWnUbuntu
Topic revision: r12 - 2009-11-12 - AndreHolzner



Copyright © 2008-2019 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.

Ideas, requests, problems regarding TWiki? Send feedback