Learning to play with the LDC/ILD software

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Google

My island is populated by a lot of DØ cannibals...

Getting started with ILCSIM(2)

Got account from Lynn very quickly, can log on....

Found first oddity....

[ilcsim2] setup lcio
[ilcsim2] setup mokka
[ilcsim2] setup marlin
[ilcsim2] setup cmake ← **AVAILABLE**

[ilcsim] setup lcio
INFORMATIONAL: Product 'lcio' (with qualifiers ''), has no current chain (or may not exist)
[ilcsim] setup mokka (also sets up lcio....)
[ilcsim] setup marlin
[ilcsim] setup cmake
INFORMATIONAL: Product 'marlin' (with qualifiers ''), has no current chain (or may not exist)

Getting started with ILCSIM(2)

Lynn can fix this very easily... But this may happen again, learn what to do

[ilcsim] ups list -a lcio
[ilcsim] ups list -a marlin

gives you a list of versions and qualifiers which are available

which ones are right ?

On ilcsim you may need QCC3_4_3 as qualifier (check for Flavor=Linux+2.4-2.3.2), and probably you need the most recent release

[ilcsim] setup lcio v01-08-03
[ilcsim] setup marlin -q GCC3_4_3 v00-09-09

Difference between ILCSIM & ILCSIM2

ILCSIM is 32 bit (Scientific Linux 3), ILCSIM2 is 64 bit (Scientific Linux 4)

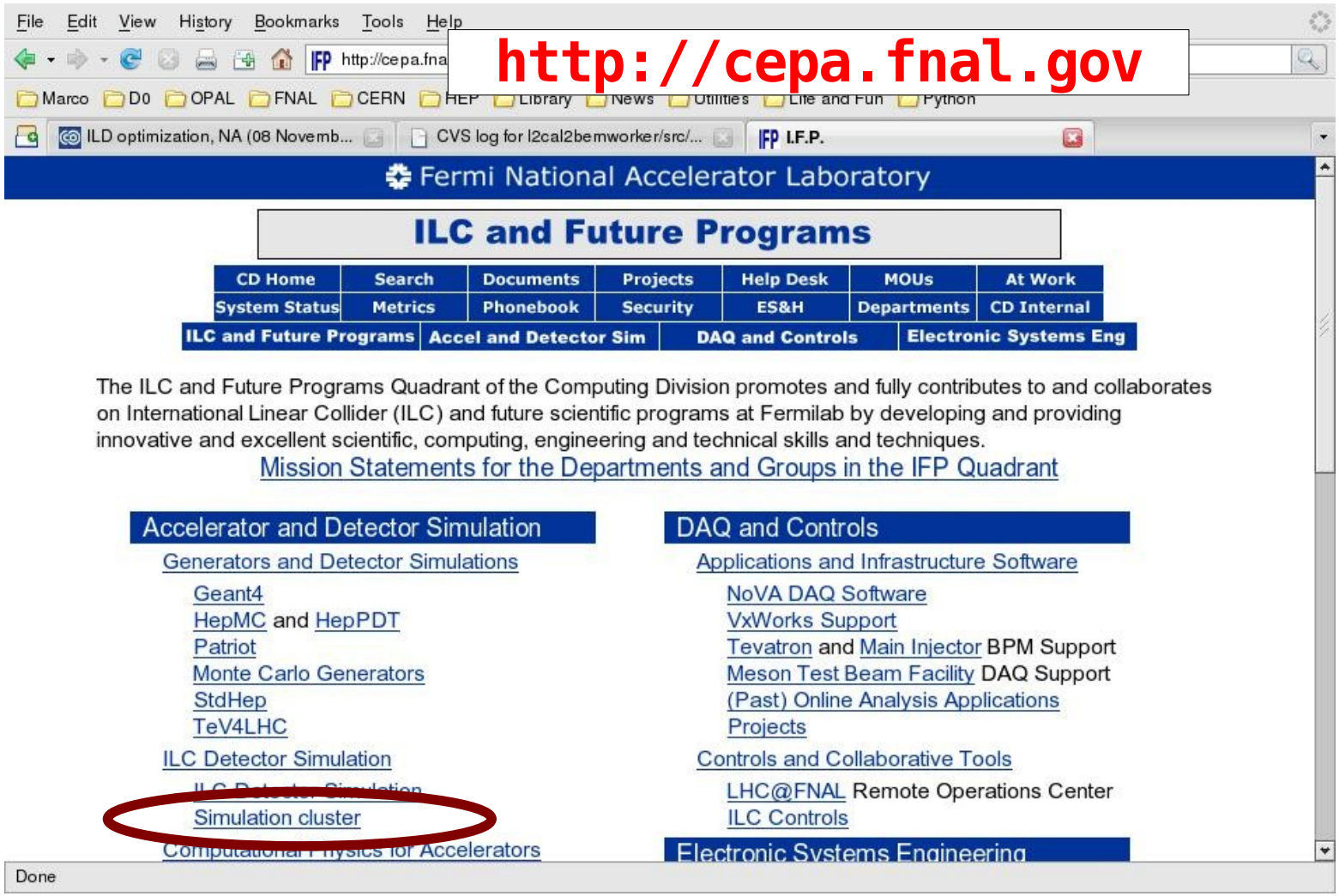
What are the Grid nodes running ? Do we need to worry about that (i.e. If you run in batch on the Grid you need to compile your code only on ILCSIM2 ?)

.... For the moment I'm not there yet

But I did register for the Grid

Has anybody tried registering for the Grid from outside Fermilab ? I tried from home and I have the impression that there are some protections which prevent you from doing that (does they allow Joe.User@Some.University.EDU to register ?)

Registering with the Grid



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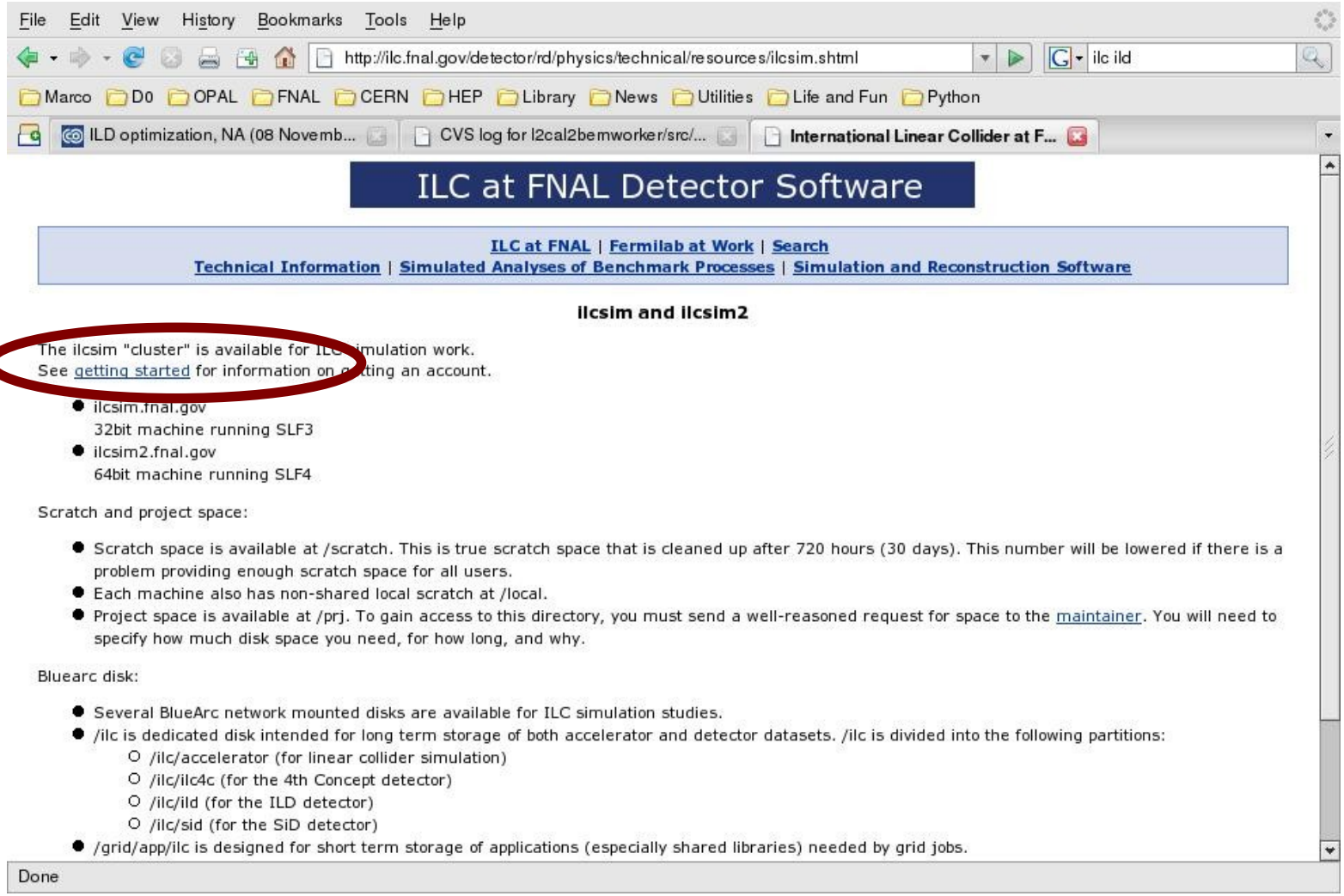

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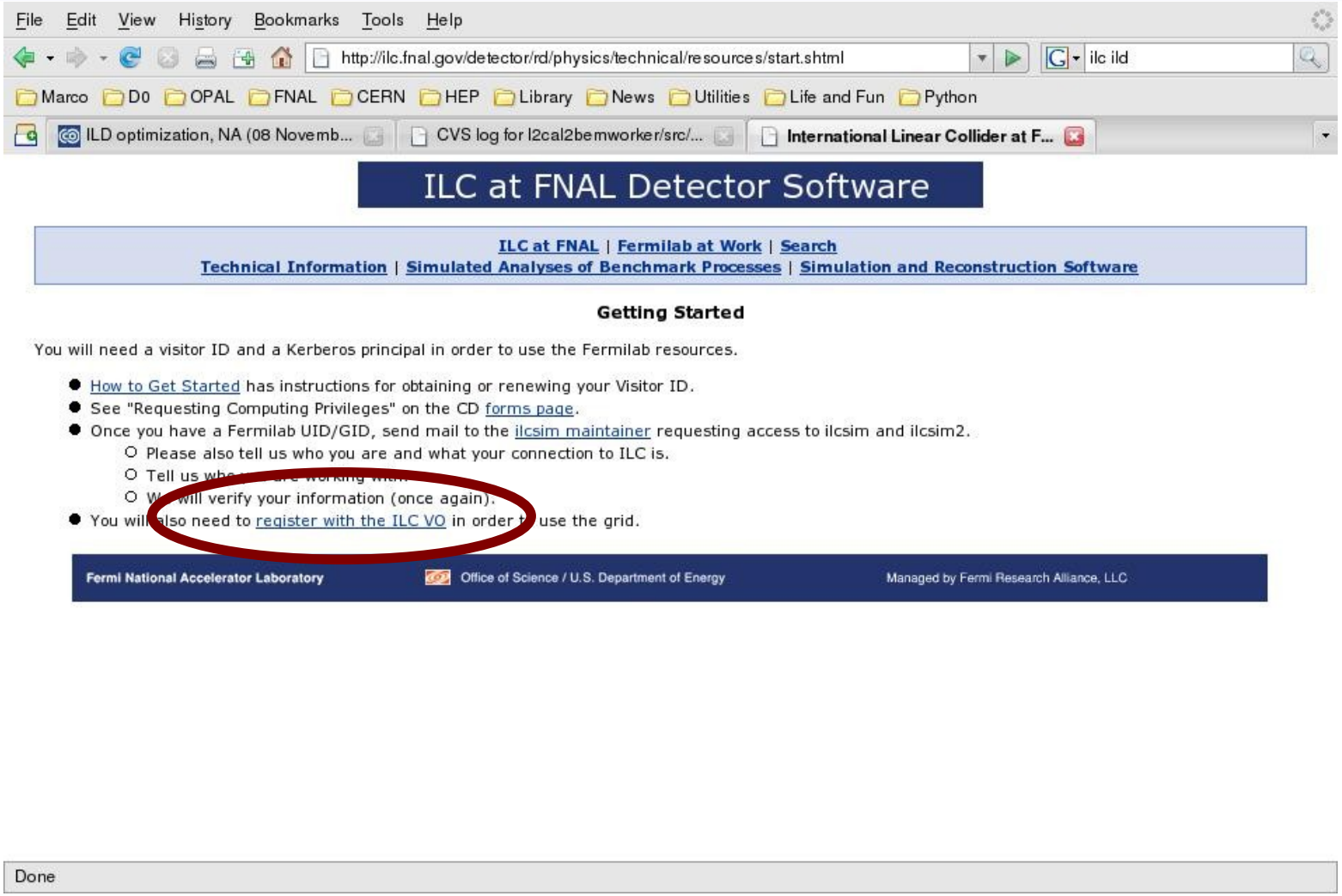

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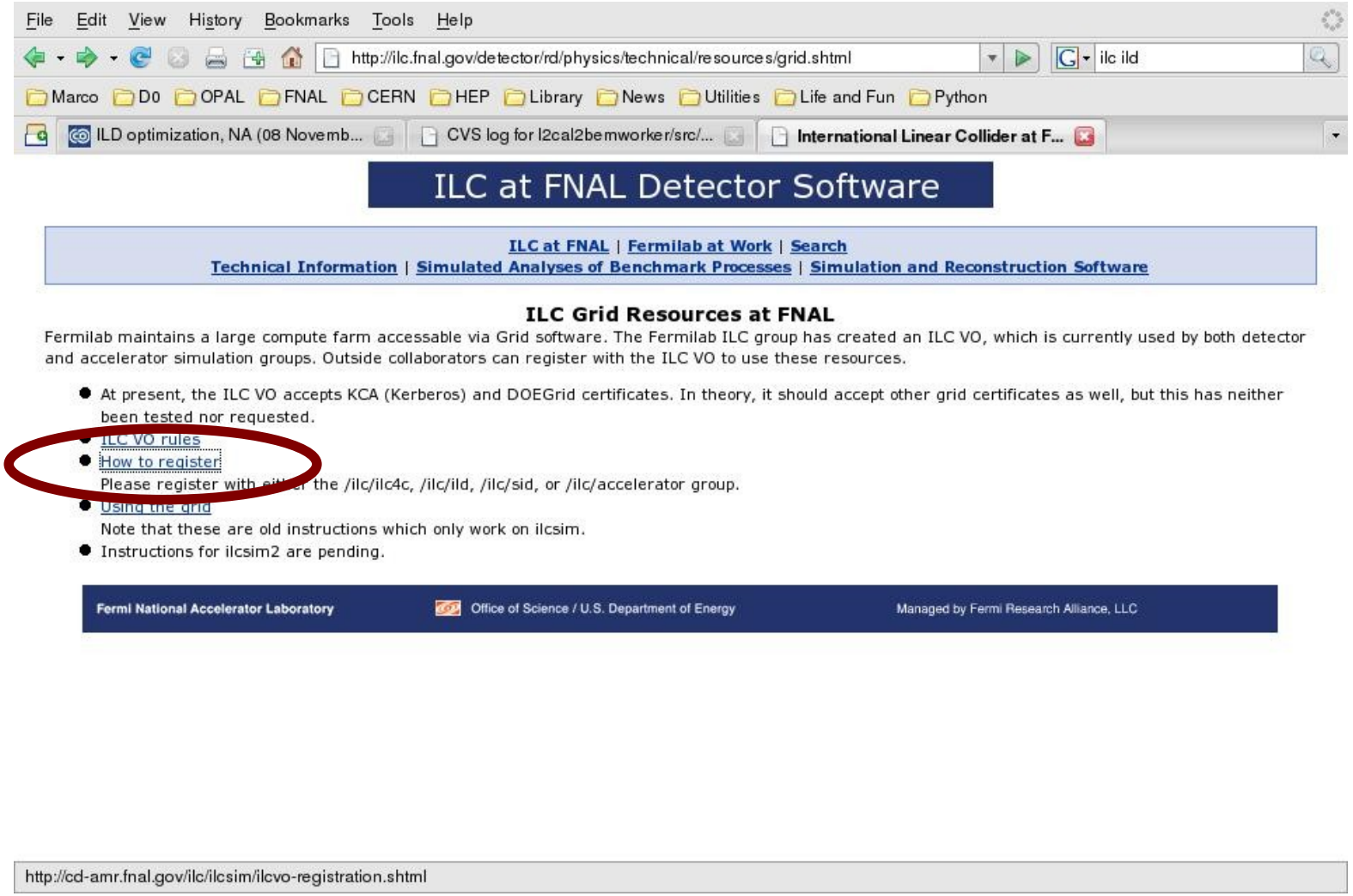

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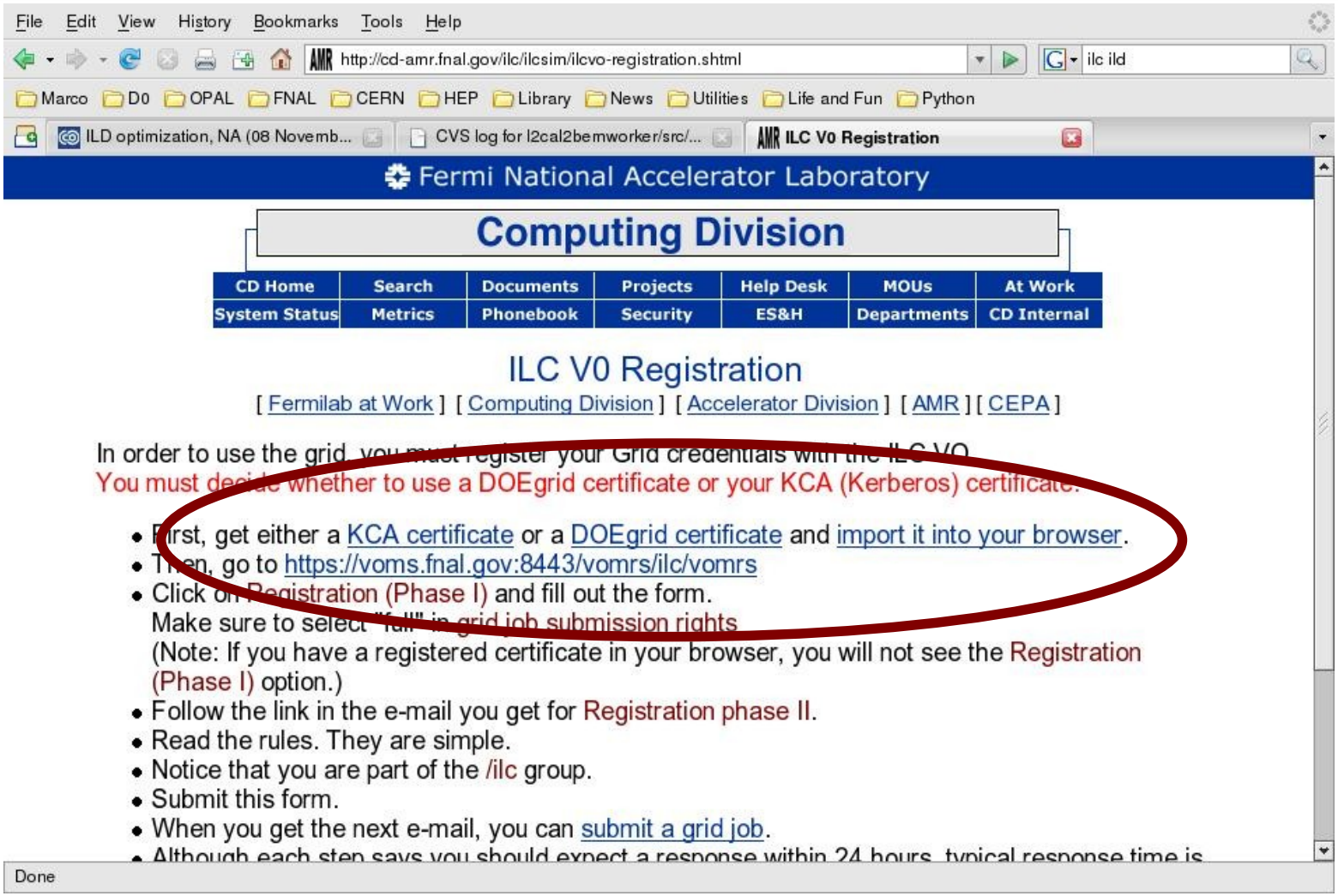

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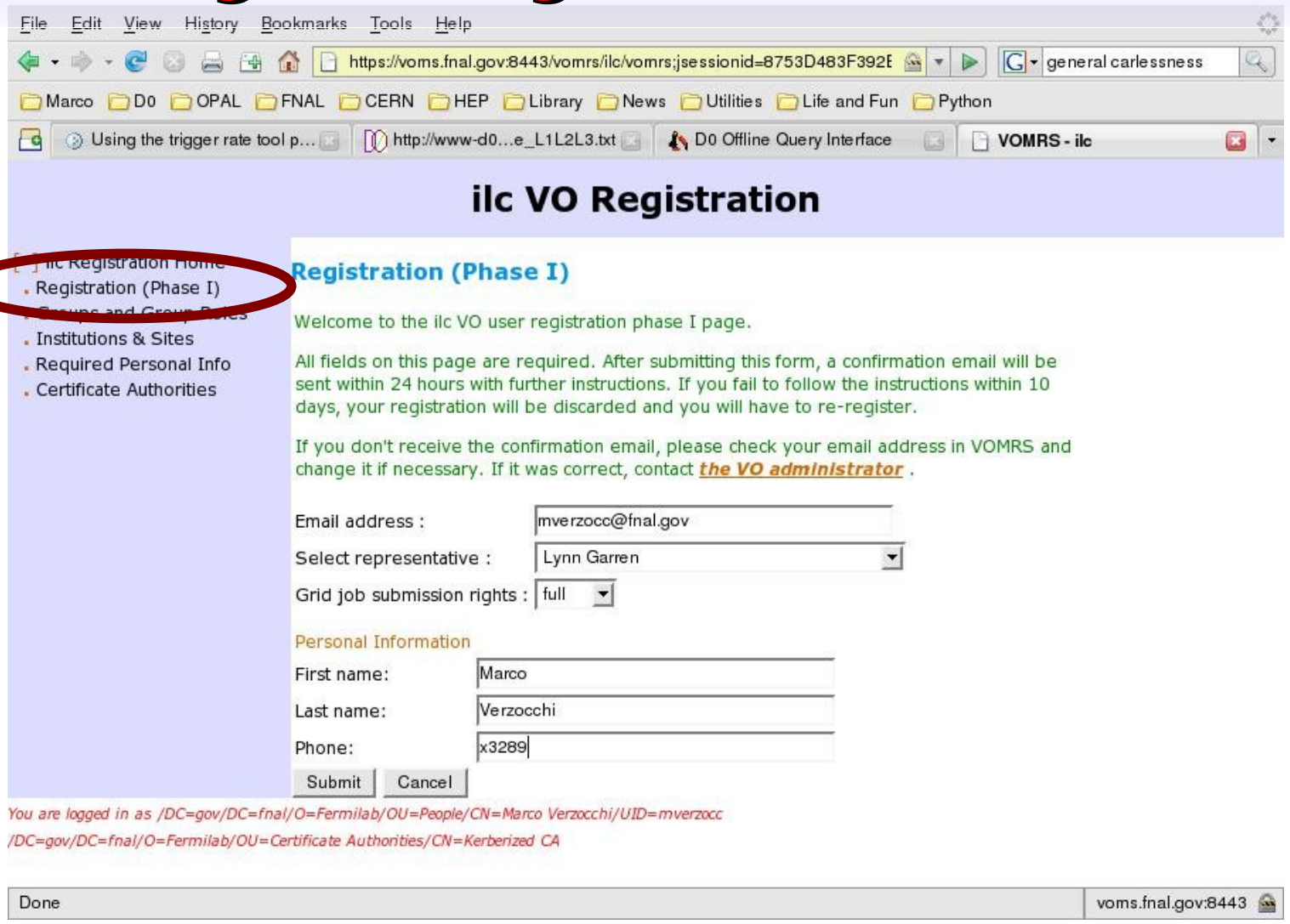

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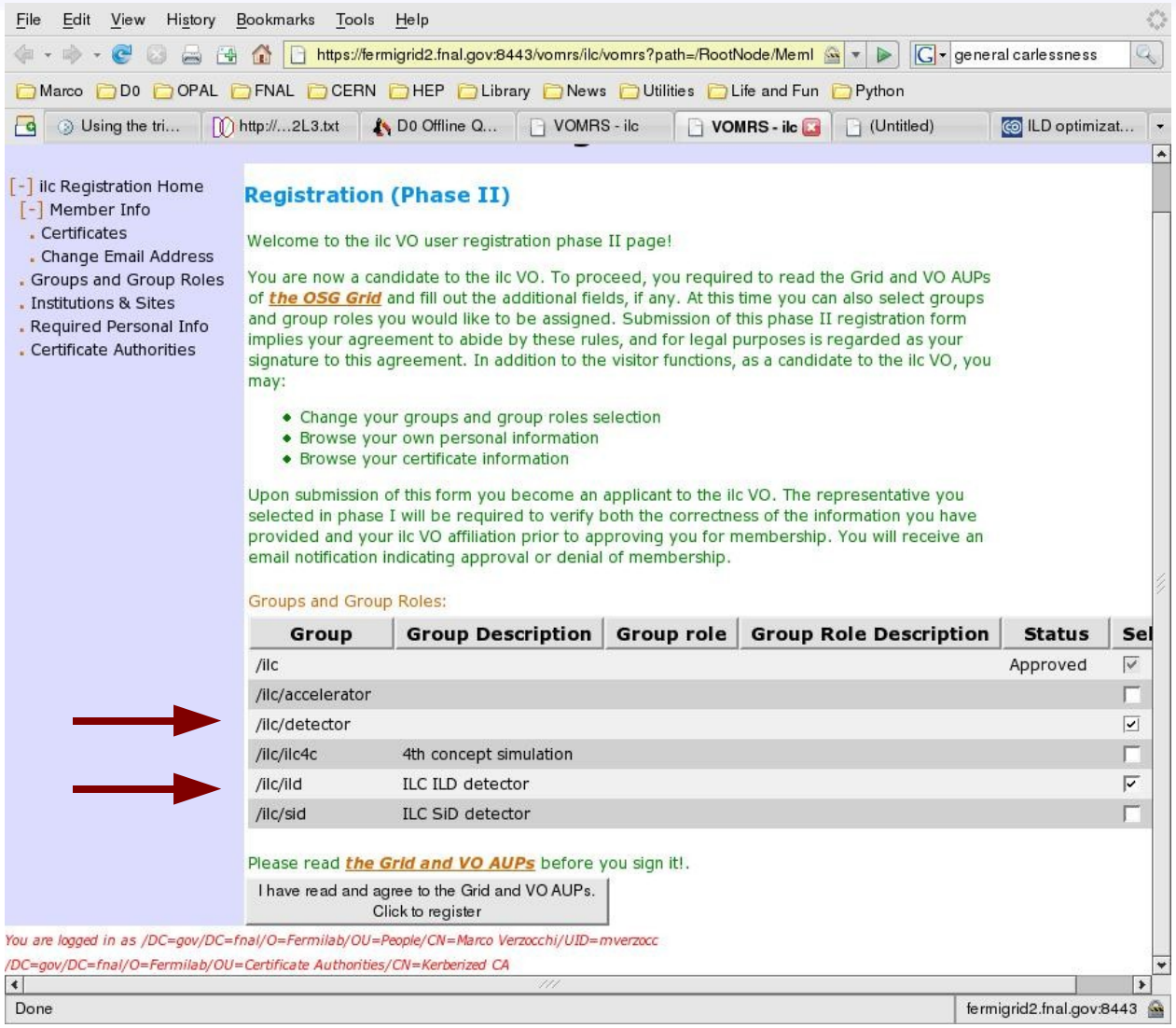

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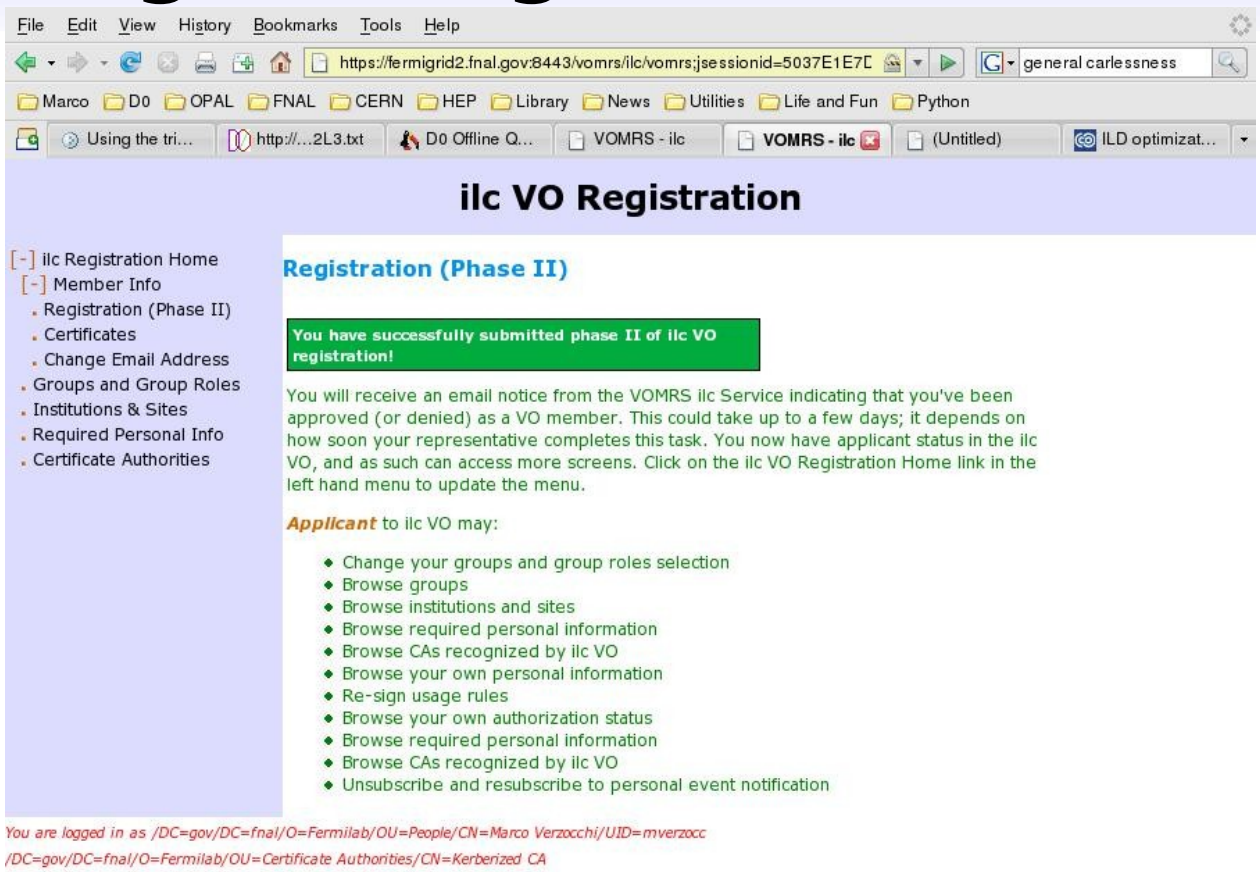

I had no problem at all, and Lynn was very fast in registering me once she got the request via the web forms

Getting some random data

Mark Thompson has some data available on his web page (for his students, but the example programs don't work.....)

Copied to /ilc/ild/mverzocc/reconstruction

uds200_00_bighcal.slcio
uds91_00_LDC00.slcio
zh500_01_pandora.slcio
zh500_02_pandora.slcio

Mark's code in /home/mverzocc/markt (modified only steering file zh.xml and copied also GEAR files)

I honestly don't know what's in these files (and it's not too relevant)

Could not use Mark's code as a starting point ....
Could not dedicate too much time to this (D0's work ....)

Trying to get going

Copied example from Marlin

```
[ilcsim2] setup lcio,mokka,marlin,cmake
[ilcsim2] mkdir mymarlin
[ilcsim2] cd mymarlin
[ilcsim2] cp -r $MARLIN/examples/mymarlin/* .
```

Now how do I compile this ?

```
[ilcsim2] cmake .
```

Should build the appropriate makefile, then I would have to do only

```
[ilcsim2] make
```

and I should be ready to run....

Banging my head on the wall ....

```
[ilcsim2] cmake .
-- Looking for doxygen...
-- Looking for doxygen... - found /usr/bin/doxygen
-- Looking for dot tool...
-- Looking for dot tool... - NOT found
CMake Error:
Sorry, could not find MacroCheckDeps.cmake...
Please set CMAKE_MODULE_PATH correctly with: cmake
-DCMAKE_MODULE_PATH=<path_to_cmake_modules>
-- Configuring done
```

(no Makefile built....)

Google: MacroCheckDeps.cmake
turns out 3 entries
2 tutorials + slides from Jim Hunt (Cornell) who's been banging his head before me....

I did it this morning.....

From the slides it appears that
cmake -DCMAKE_MODULE_PATH=
/afs/desy.de/group/it/ilcsoft/CMakeModules/v-****
is the right thing to do.....

Do we have it on ilcsim(2) ?

After some poking around.... yes....

But we may need to define environmental variables properly and maybe tweak a few things, in the end this works:

[ilcsim2] cmake -DCMAKE_MODULE_PATH=
$MARLIN_DIR/CMakeModules/v01-04 -Dmarlin_HOME=
$MARLIN -DLCIO_HOME=$LCIO

creates my build files....

I have only 40 minutes.... damn....

Clearly the example is not meant to work for dumb users...

[ilcsim2] gmake all

results in tons of errors....

Ok, maybe it's not the fault of the example... Need the dependencies file to pick up “streamlog” properly..... Cannot understand whether it's a problem with cmake or whether it's a problem with the installation of Marlin

Suspect that it's a problem with the option list passed to cmake....

Back to Mark's code.....

Finally found the files which I needed to compile Mark's code unmodified....

Actually it turns out that I was dumb.... had I done
[ilcsim2] setup marlin
[ilcsim2] gmake all

Mark's code would have compiled....

And now that Mark's code compiles, it does crash on the 1st event.... but at least I should be in familiar territory....

And now that Mark's code compiles, I am astonished that the mymarlin example doesn't (the way files are included should tell it how to find streamlog)

Somehow the MARLIN environmental variable is not passed properly to gmake....

Where I am now....

Finally found the files which I needed to compile Mark's code unmodified....

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Somehow the MARLIN environmental variable is not passed properly to gmake.... (starting from scratch doesn't help)

Conclusions.....

Too early to claim success (too little time dedicated to this)
I may have been too ambitious trying to use cmake

Got one code running (and crushing immediately)

There may still be issues with cmake environment (and it's a new beast to tame....)

Will try to make more progress early next week (but then away from Dec 12 to Dec 19, cannot be there for next meeting, but if I make progress I will prepare some slides and more instructions)

Next steps (once code compiles)

- **provide detailed examples for other users**
- **learn to run simulation and reconstruction**
- **learn to use Grid for running jobs**
- **learn to pull files from DESY**