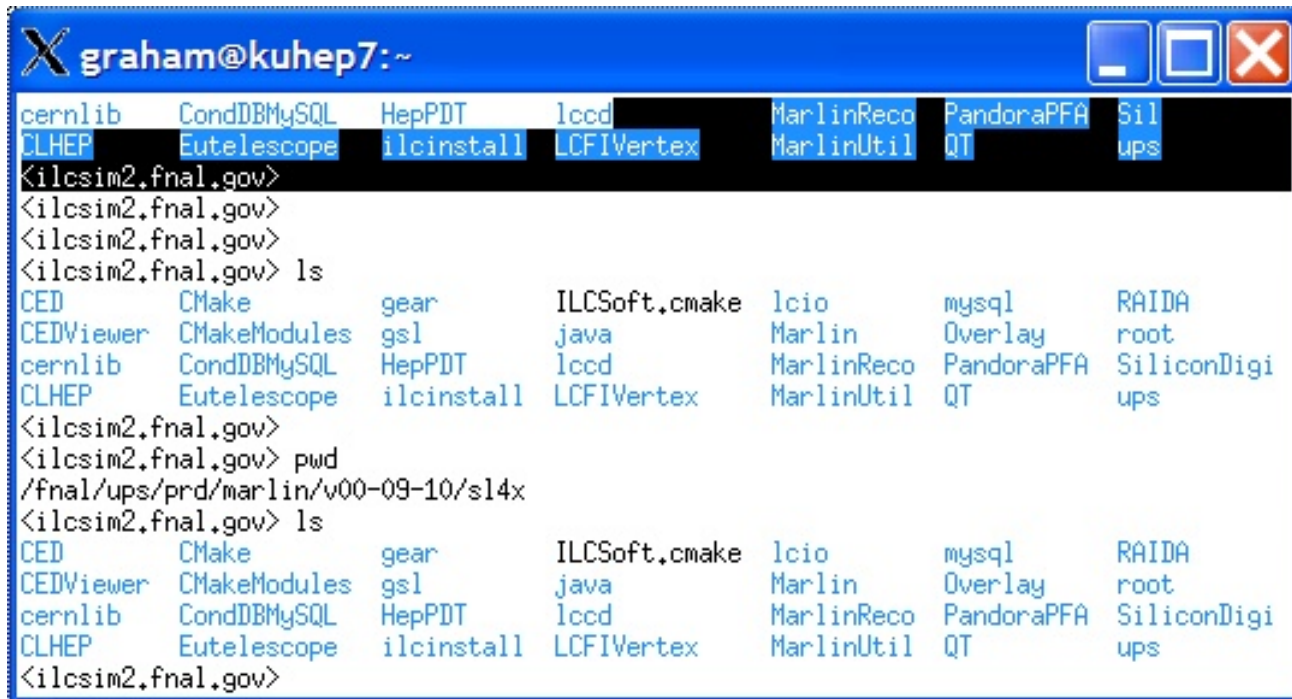


# Initial experience with ILD related software (mainly Marlin)

Graham W. Wilson

# What's available

- Lynn has things installed as of Tuesday.
  - v00-09-10 built with cmake.



A terminal window titled "graham@kuhep7:~" showing the output of an 'ls' command in a directory. The output lists various software packages installed on the system, including cernlib, CLHEP, CondDBMySQL, Eutelescope, HepPDT, ilcinstall, lcccd, LCFIVertex, MarlinReco, MarlinUtil, PandoraPFA, QT, Silups, and ups. The terminal also shows the current directory path: /fnal/ups/prd/marlin/v00-09-10/s14x.

```
graham@kuhep7:~  
cernlib  CondDBMySQL  HepPDT  lcccd  MarlinReco  PandoraPFA  Sil  
CLHEP    Eutelescope  ilcinstall  LCFIVertex  MarlinUtil  QT          ups  
<ilcsim2.fnal.gov>  
<ilcsim2.fnal.gov>  
<ilcsim2.fnal.gov>  
<ilcsim2.fnal.gov> ls  
CED      CMake      gear      ILCSOFT.cmake  lcio      mysql      RAIDA  
CEDViewer  CMakeModules  gsl      java          Marlin    Overlay    root  
cernlib    CondDBMySQL  HepPDT  lcccd        MarlinReco  PandoraPFA  SiliconDigi  
CLHEP     Eutelescope  ilcinstall  LCFIVertex  MarlinUtil  QT          ups  
<ilcsim2.fnal.gov>  
<ilcsim2.fnal.gov> pwd  
/fnal/ups/prd/marlin/v00-09-10/s14x  
<ilcsim2.fnal.gov> ls  
CED      CMake      gear      ILCSOFT.cmake  lcio      mysql      RAIDA  
CEDViewer  CMakeModules  gsl      java          Marlin    Overlay    root  
cernlib    CondDBMySQL  HepPDT  lcccd        MarlinReco  PandoraPFA  SiliconDigi  
CLHEP     Eutelescope  ilcinstall  LCFIVertex  MarlinUtil  QT          ups  
<ilcsim2.fnal.gov>
```

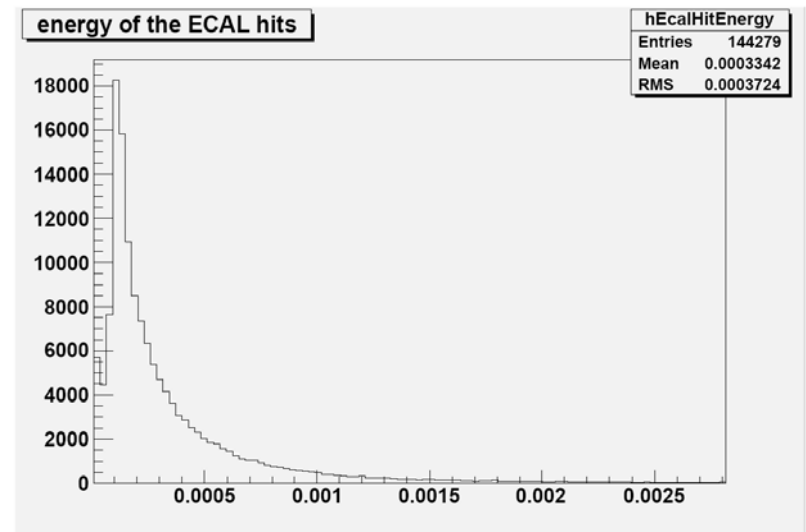
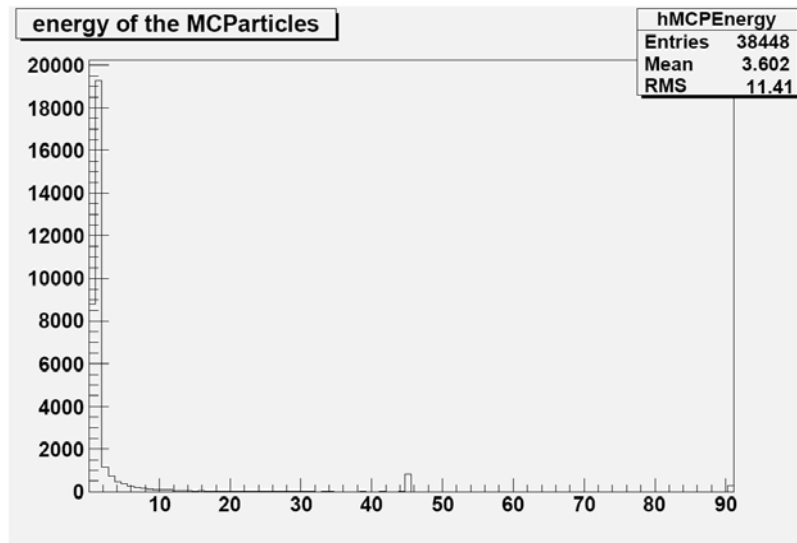
# Standard example – works almost out of the box.

- How to get started.
- Follow the instructions ([ilcsoft.desy.de](http://ilcsoft.desy.de)) in the README.
- For FNAL:
- `setup marlin`
- `cp -rp $MARLIN/examples/mymarlin .`
- `cd mymarlin`
- `mkdir build`
- `cd build`
- `cmake -C ../BuildSetup.cmake ..`
- `make`
- `make install`
- `cd ..`
- `export MARLIN_DLL="$PWD/lib/libmymarlin.so"`
- `mkdir MyExample`
- `cd MyExample`
- `$MARLIN/bin/Marlin -x >example.xml`

# To do something useful

- Need to build it with support for eg. RAIDA (ROOT implementation of AIDA), GEAR etc.
- So I've turned on the GEAR, LCCD, RAIDA and CLHEP options in my version of the .cmake file (`~/mymarlin/BuildSetup_withalloptions.cmake`).
- Directories `~graham/mymarlin/Example1`
- and                     `Example3`
- have .xml files that run OK and create one or two histos in a ROOT file with the specified processors.
- - have not had success with the `MyRead_Stdhep_Try1` example.
  - Frank Gaede is encouraging me to try using the DESY afs installation as

# Couple of Histograms



EcalBarrelCollection  
(LDC01\_05Sc)

# What's in the LCIO files ?

- Use the LCIO Command Line tool to view.
- Some dumps are in `~graham/lciodumps` for the various data-sets.

# What next

- Need to start engaging with eg. PandoraPFA etc.
  - MarlinReco documentation looks like a good starting point.
  - Much of the doc is out of date.
  - Need to make certain that all this is set up reasonably.
- Get event display working.
- Get analysis job working.
- Get reconstruction job working.
- Get simulation job working.

# Datasets

- In addition to those mentioned by Marco. V.
- There is also a local copy of the  $Z \rightarrow qq$  with latest Mokka model LDC01\_05Sc from Mark. T. in `/ilc/ild/graham/datasets/Mokka`.