

CDAS2ADST converter

+ cmake compilation of CDAS

Ioana C. Mariş

February 17, 2011

Why?

- en.wikipedia.org/wiki/Cmake
- allows out of source compilation
- easy to install, clear output
- very well documented with lots of examples on the web
- easy to implement dependencies (for example mysql)
- google search "cmt help" vs "cmake help" : 1690 to 21100

Installation

- `apt-get-install cmake` (Linux)
- www.cmake.org/cmake/resources/software.html (Mac)

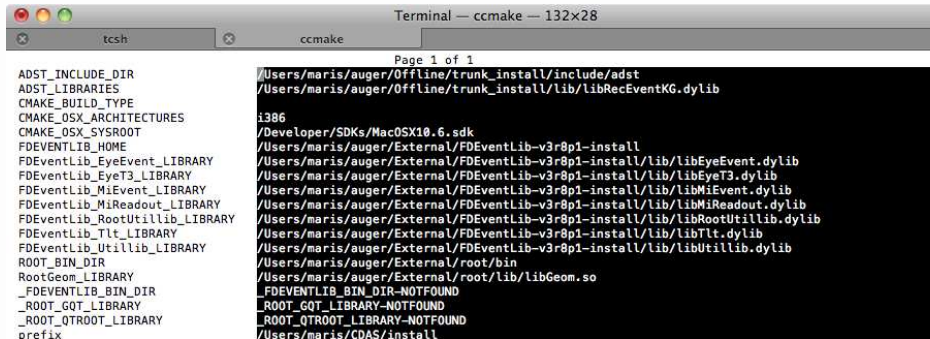
Installing CDAS beta version

CMake

- `svn co`
`https://devel-ik.fzk.de/svn/CDAS/branches/cdas-v4r8-beta`
- `setenv CDAS_INSTALL YourCDASInstallationDirectory`
- `mkdir build` (the build folder which can be deleted at the end, contains the .o files, etc)
- `cd build`
- `cmake ../CDAS`
- `make install (-jX, for X parallel compilations)`
- add the `${CDAS_INSTALL}/lib` to you library path
- add the `${CDAS_INSTALL}/bin` to you `${PATH}`

Dependencies

- only root required
- can be compiled with IoFd or FdEventLib
- if ADSTs are installed compiles CDAS2ADST converter
- one folder (\$CDAS_INSTALL/lib, \$CDAS_INSTALL/bin)



```
Terminal — cmake — 132x28
tssh  ccmake
Page 1 of 1
ADST_INCLUDE_DIR      /Users/maris/auger/Offline/trunk_install/include/adst
ADST_LIBRARIES        /Users/maris/auger/Offline/trunk_install/lib/libRecEventKG.dylib
CMAKE_BUILD_TYPE      i386
CMAKE_OSX_ARCHITECTURES /Developer/SDKs/MacOSX10.6.sdk
CMAKE_OSX_SYSROOT     /Users/maris/auger/External/FdEventLib-v3r8p1-install
FDEventLib_EyeEvent_LIBRARY /Users/maris/auger/External/FdEventLib-v3r8p1-install/lib/libEyeEvent.dylib
FDEventLib_EyeT3_LIBRARY /Users/maris/auger/External/FdEventLib-v3r8p1-install/lib/libEyeT3.dylib
FDEventLib_MiEvent_LIBRARY /Users/maris/auger/External/FdEventLib-v3r8p1-install/lib/libMiEvent.dylib
FDEventLib_MiReadout_LIBRARY /Users/maris/auger/External/FdEventLib-v3r8p1-install/lib/libMiReadout.dylib
FDEventLib_RootUtilLib_LIBRARY /Users/maris/auger/External/FdEventLib-v3r8p1-install/lib/libRootUtilLib.dylib
FDEventLib_Tlt_LIBRARY /Users/maris/auger/External/FdEventLib-v3r8p1-install/lib/libTlt.dylib
FDEventLib_UtilLib_LIBRARY /Users/maris/auger/External/FdEventLib-v3r8p1-install/lib/libUtilLib.dylib
ROOT_BIN_DIR         /Users/maris/auger/External/root/bin
RootGeom_LIBRARY     /Users/maris/auger/External/root/lib/libGeom.so
_FDEVENTLIB_BIN_DIR _FDEVENTLIB_BIN_DIR-NOTFOUND
_ROOT_GQT_LIBRARY    _ROOT_GQT_LIBRARY-NOTFOUND
_ROOT_QTRROOT_LIBRARY _ROOT_QTRROOT_LIBRARY-NOTFOUND
prefix              /Users/maris/CDAS/install
```

ADST_INCLUDE_DIR: Path to a file.

Press [enter] to edit option

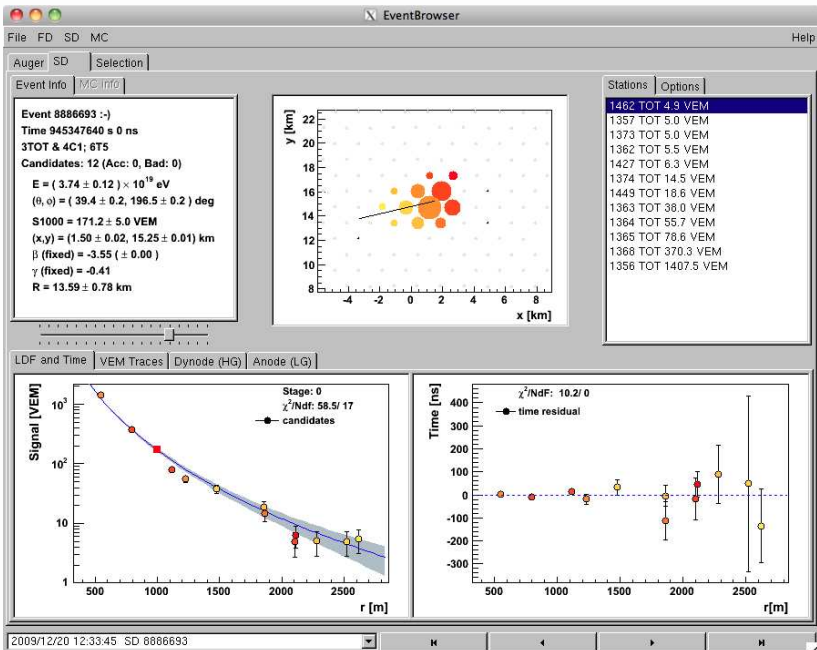
Press [c] to configure

Press [h] for help Press [q] to quit without generating

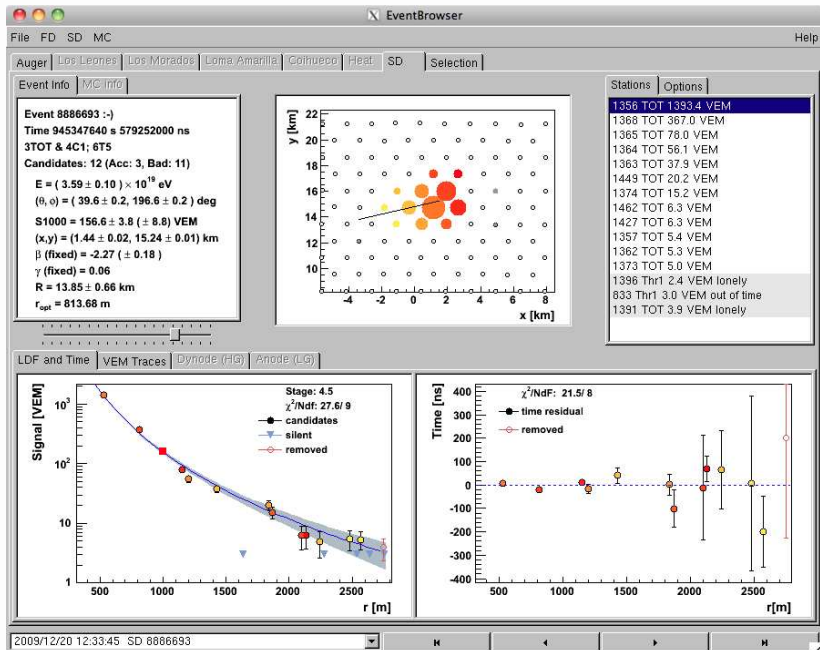
Press [t] to toggle advanced mode (Currently Off)

CMake Version 2.6 - pat

The converter (CDAS event)

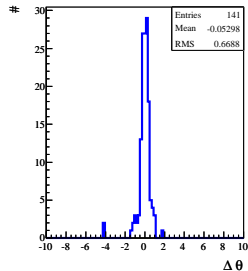
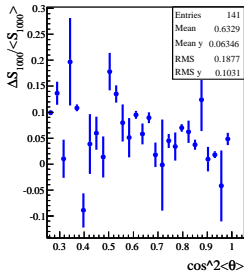
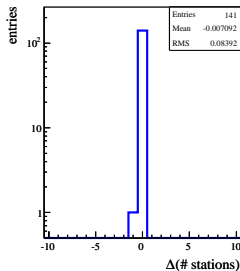
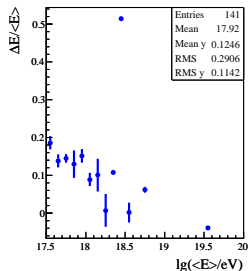
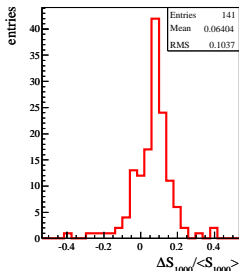
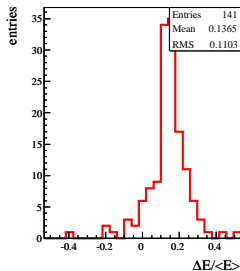


Make comparisons easy (Offline event)



Example of output from ADST utilities

SD reconstruction



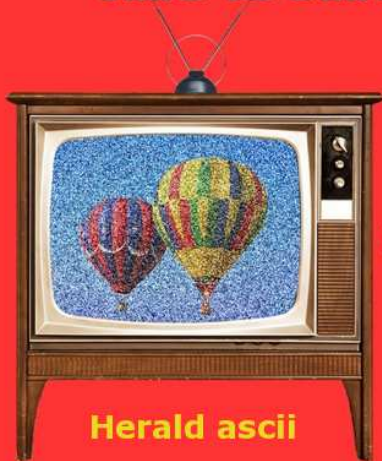
Conclusions

- cmake build system: flexible and easy to understand and use
- one installation folder

Converter:

- almost all the information is stored
- easy comparisons between reconstruction (different versions of Herald/ Observer) up to trace level
- thanks to the CDAS developpers/users for their help and to the Offline developers for the CMake development inspiration
- check `CDAS2ADST/v0r0/cdas2adstExample.cc` on how to use it with your own reconstruction
- looking forward for your feedback

Experience the Benefits



Herald ascii



Herald ADST (?)