# *Access to Information from SICB*

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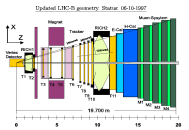
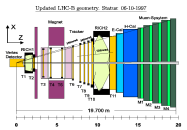
LHCb / CERN



# *SRT structure (1)*

- Try to emulate the BaBar SRT structure
  - Very limited functionality - no CVS
- The source directory is /afs/cern.ch/user/b/binko/event/*
- The idea is, that user
  - Copies minimum of the sources
  - Creates links for the remaining used sources
  - (see Marco's script)



# *SRT structure (2)*

- Important directories / packages
  - AnalMain - main programs and user analysis routines
  - etc - GNUmakefile structure

- Supporting directories / packages
  - TransientEvent high level event structure
    - Starting point for class hierarchy
  - Class_B - SICB classes (1:1 with SICB banks)
  - LHCb - main include file (contains main definitions)
  - TransientStore - other definitions

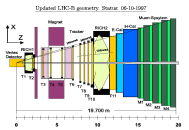
# *Package AnalMain*

- Contains 2 main programs
  - readFileMain.cpp
  - generMain.cpp
- User analysis functions
  - suinit - initialization of user analysis
  - suanal - analysis
  - sulast - termination of user analysis
- Steering cards
  - sicb.dat
- GNUmakefile

# *readFileMain.cpp*

- Recommended main program

```
main() {
  int nwgean = NWGEAN;
// Initialization
  gzebra_( &nwgean );
  HLIMIT( -NWPAW );
  udinit_();
  suinit_();
// Event loop ----------------------------------------
  for(int i=0; i<10; i++) {
    ubin_("GETX",4);
    suanal_();
  }
// Termination
  sulast_();
  udlast_();
  return 0;
}
```



# *generMain.cpp*

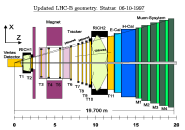
```
main() {
  int nwgean = NWGEAN;
// Initialization
  gzebra_( &nwgean );
  HLIMIT( -NWPAW );
  uginit_();

  grun_();

  uglast_();
  return 0;
}
```

- Only if one wants to run SICB and do the analysis directly
  - Without writing into a file





# *sicb.dat*

- Standard steering cards, which define GETX streem:

```
      'GETX' 'X' '//job=7186!'
C     'GETX' 'X' '$LHCBHOME/data/mc/mub01.dat!'
```

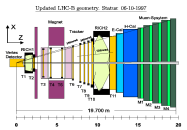
# *GNUmakefile (1)*

- Define source file names

```
##############################################################################
# Source files
##############################################################################
#-------------------------------------
# Persistent source files (optional) (used in ${LHCB_ETC_DIR}/LHCb.mk)
#-------------------------------------
# SCHEMA_DDL =PresistentTemplate1.ddl PresistentTemplate2.ddl

#-------------------------------------
# Transient C++ source files (optional)
#-------------------------------------
APPL_SRCS  =suinit.cpp suanal.cpp sulast.cpp

#-------------------------------------
# FORTRAN source files (optional)
#-------------------------------------
# FTN_SRCS   =FortranSource1.f FortranSource2.f
```



# *GNUmakefile (2)*

```
#-------------------------------------
# C++ executable name (optional).  (The source file name is ${MAIN}.${CPP_EXT}.)
#-------------------------------------
MAIN       =readFileMain
# MAIN       =generMain

#############################################################################
# Include the LHCb Project GNUmakefile and optionally its customization
#############################################################################
include ${LHCB_ETC_DIR}/LHCbProject.mk
```

- Customization possible
  - Standard customization file is in “etc” directory