Read EPIO data in C++

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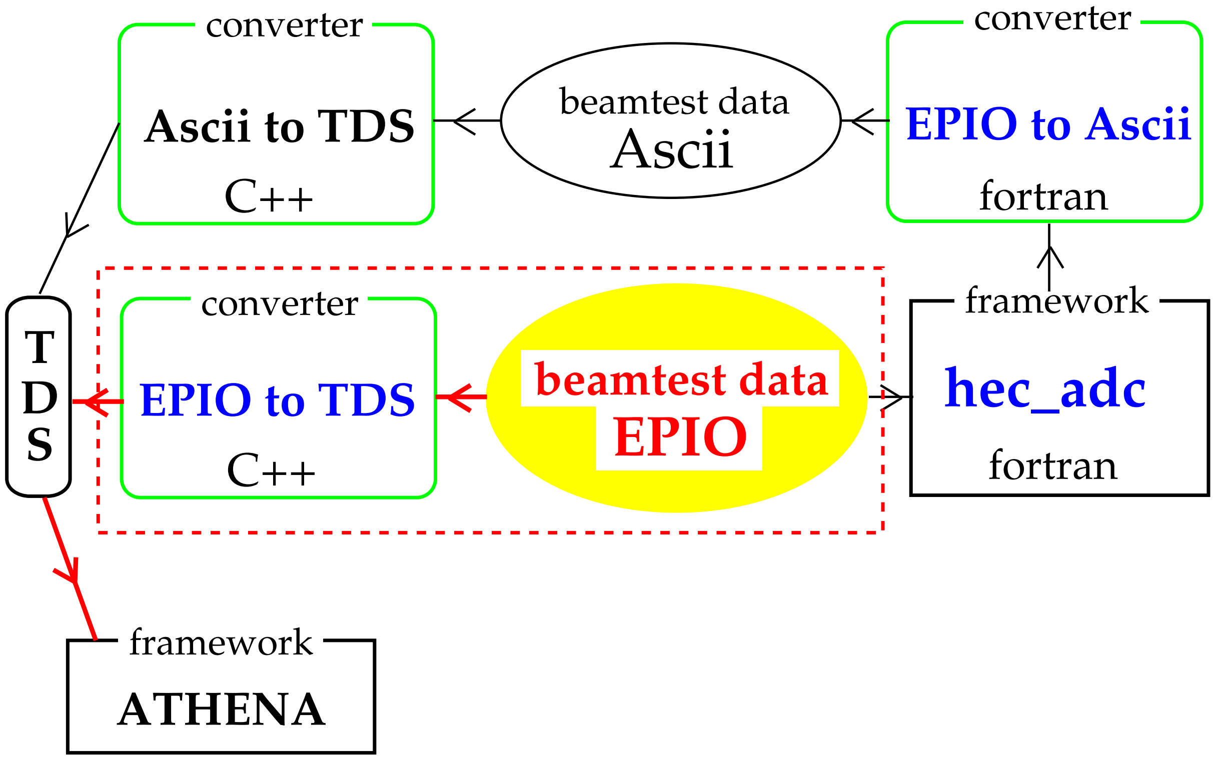

To analysis beamtest data in ATHENA framework

Step 1 Read beamtest data (EPIO format) in C++

Step 2 Unpack EPIO bank
(pedestal subtraction, fit, calibration....)

Step 3 Convert data to TDS

Step 1

Read EPIO data in C++

Make a C++ interface to EPIO functions (FORTRAN).

(see http://home.cern.ch/ blist/c++.)

Wrapper file : epio.h

```
#ifndef H_EPIO
#define H_EPIO
#include "FTypes.h"
extern "C" {
   void epread_ (
                    FInteger *lun,
                    FInteger *mod,
                    FInteger *nwrd,
                    FInteger2 irec[],
                    FInteger2 ibuf[],
                    FInteger *ierr ) ;
}
inline void epread ( int lun,
                     int mod,
                     FInteger &nwrd,
                     FInteger2 irec[],
                     FInteger2 ibuf[],
                     FInteger &ierr ) {
    epread_ ( &lun, &mod, &nwrd, irec, ibuf, &ierr ) ; }
```

Typedef's to be used for interfacing FORTRAN routines to C++.

```
void f()
{
    int lun = 51;
    int nw, ierr;
    short irec[40000], ibuf[6120];

    .............
    epread(lun, 2, nw, irec, ibuf, ierr);
    .............
}
```

- The only EPIO functions used in **hec_adc** are wrapped.
- Read and convert EPIO data to detector level.
  (Compare them with output from FORTRAN program.)
- The code is made for a specific data ('00 Aug.)