# Appendix C.5: The ToF Quick-Look Operator Manual
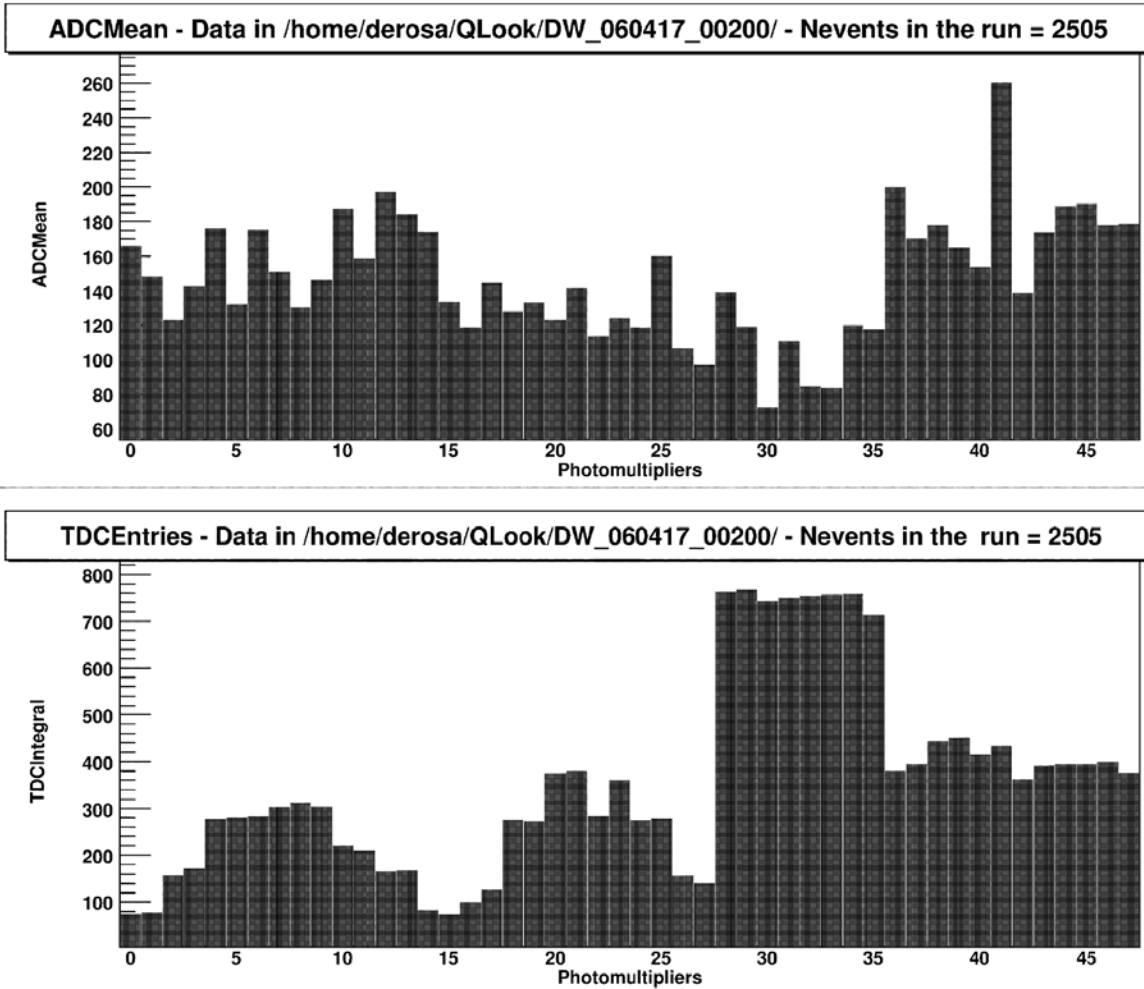20th April 2006

## Scripts

There is one basic script for the ToF System quicklook: **TOFScan**

The output consists of a postscript file (containing 14 pages of pictures) that describes the performances of the ToF system on the basis of time and charge distributions of the 48 channels (PMTs), corresponding to the 24 strips of scintillator (the sum on 6 ToF layers) read by 2 sides (A and B).

*Description of "basic" figures*:

## FIGURE at Page 13

◆ **Description**: is composed by 2 plots (see figure below): the first (top) shows the mean value of the ADC charge distribution over all events and for each PMT, the second (bottom) shows the number of events recorded by each PMT's TDC. The order of the histogram bins, from 1 to 48, is chosen following the order of the ToF planes and that of the strips on the same plane by putting near side A and B of the same strip (for ex. S11-1A, S11-1B, S11-2A, S11-2B …. and so on). Run number and total event number in the run are shown in the title box on the top of the picture.

◆ **NOMINAL/STANDARD**: all channels have values different from zero. The events distribution for TDCs has the structure shown in figure that accounts for the acceptance of the single ToF planes.

◆ **NON-STANDARD**:
   • In the top plot, relative to ADC mean, a bin too low could indicate a bad performance of that channel.
   ➔ ACTION: Check the corresponding plot with the ADC single channel distribution at **Page#n (n=1,12).** If the histogram has a different shape: **Call specialist.**
   • A shape different from the one in the figure below for the TDC event distribution could indicate problems in the TDC channels.
   ➔ ACTION: **Call specialist.**
   • A missing bin indicates a dead channel.
   ➔ ACTION: **Call specialist.**

ADCMean - Data in /home/derosa/QLook/DW_060417_00200/ - Nevents in the run = 2505



TDCEntries - Data in /home/derosa/QLook/DW_060417_00200/ - Nevents in the run = 2505

*Description of "expert" figures:*

## FIGURE AT PAGE#n (n=1,12):

◆ **Description**: is composed by 2 rows of 4 plots each. Each row contains all the information relative to a scintillator strip: ADC charge distribution side A and B, TDC time distribution side A and B. On the **TDC** the selection is **700<output<1500**, on the **ADC  0<output<700**. Each file contains the information relative to 2 strips, so **Page#1** describes S11-1 and S11-2, then **Page#2** describes  S11-3 and S11-4 and so on. The number of events inside the scale range (0-4095) is shown in the title box on the top of the picture.

◆ **NOMINAL**: The ADC distributions should be Landau distributions and the TDC distributions should be quite symmetrical distributions around a peak value (~ 1000)

◆ **STANDARD**: Some TDC plots relative to the S3 layer show a different behaviour **(double peak)**. This is due to the trigger formation.
➔ **NO ACTION to be taken**

◆ **NON-STANDARD**: Any occurrency different from described before.
➔ **ACTION:  Call specialist.**

**Specialists**:

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**Reference people for Quicklook software**:

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