

EEE Viewer v 1.5

EEEViewer software was developed with Java SE6, and Java Plug-in must be installed to use it. The program has been tested with Windows OS.

EEEViewer comes in the "EEEViewer" folder containing:

- a) EEEViewer.jar
- b) Readme.txt
- c) "Lib" subfolder

To run the program:

- Fase 1. Run the EEEpulseWidthConverter program on the .bin file that you want to visualize. The EEEpulseWidthConverter is part of the usual distribution of the EEE software
- Fase 2. Click on the EEEViewer.jar icon
- Fase 3. Click on the menu: *Setting Detector* and write the distance between the chambers and Left and Right Cable length. Click SaveSettings (the settings will be saved in the file setup.conf in the folder lib)
- Fase 4. Click on the menu: *File OpenFile* and select the -pw-time.txt file that you want to visualize and that was produced during step 1.
- Fase 5. Wait a few seconds for the data to be loaded
- Fase 6. Press play and enjoy!

Note: Exception Java heap space

If you want to download a big data file (the max size allowed is a file with 1000000 events and depends on the PC's RAM memory) you need to run the program in the MSDOS shell using the command line with option that specifies the maximum size, in bytes, of the memory allocation:

```
java -Xms100M -Xmx700M -jar EEEViewer.jar
```

or click on the **avvio.bat** file

Description:

The panel "MRPC" shows the detector and data in 2D.

When the string "GPS Event" is displayed, this means the event was generated by the acquisition of a GPS signal.

In the central part of the panel the chambers with strips (S0, S5, ...) seen from top are shown.

When you look at the events one after the other (pressing the "play" button), if a signal was received only in one of the two strips ends, the program represents the correspondent half strip cyan painted. If there is a signal on both sides of strip, the program represents the correspondent strip blue painted and if the computed hit position along it is compatible with the length of the chamber, a red point marks the hit.

If in every chamber there are from one to four hits, the program computes and displays the best straight line track. For events where more than four hits in a single chamber are present, the fit is

not performed.

The panel "Eventi" shows a table with data, the last column is checked if the event represents a good track.

The panel "Info" shows some information.

If you want to jump directly, for example, to the event numbered 700, you must click in panel "Eventi" on the event number 699, then press the next button and return to panel "MRPC". The "Distrib" button shows the hits distribution of hit corresponding to the best straight line track. The "Print" button writes to file "dati.txt" certain information to a separate processing (these data can be used to determine the offset –see the article "Multigap Resistive Plate Chambers for EAS study in the EEE Project" 30TH International Cosmic Ray Conference - These offset included in the panel *Setting Offset* improves the reconstruction of the track).