

Pixel FEC Supervisor Low Level GUI

Souvik Das
(Cornell University)

Features

- Allows one to drill down through the FEC Board, mFEC, mFECChannel, Hub, Port, ROC... to the pixels and DACs.
- Knows which mFEC, mFECChannel, Hub, Port, ROCs are being used from the DetectorConfiguration file
- Communicates all ROC commands by AJAX, so the browser window doesn't need to refresh. No submit buttons. Control in realtime.
- DAC controls represented by sliders.
- Pixel trims and masks can be written as you would write an entry into a spreadsheet of 4160 cells. Click “ProgPix” radio button first.
- Click “Calibrate using Capacitor”/”Calibrate using Sensor Bumps” and then click any pixel to send a calibration pulse. Pixel goes green for capacitor calibrate. Goes red for sensor calibrate.
- Demo: <http://cmsfpix2.cern.ch:1973/>

Bugs, Issues, To Do List

- Does not work with Internet Explorer. Cannot pop-up windows using Javascript. Damn thing doesn't have a Javascript error console, so don't know what its problem is!
- Initial DAC settings, Pixel Trims and Masks not read from the Configuration Objects yet and neither are they written out to them. Will need to hack the Configuration Objects. (Very important)
- CalPix sends calibration pulses to crossed pixels too – not obvious on the GUI.
- ClrCal makes the browser pause the first time it is executed.
- Enabling, disabling double columns not implemented. Double columns are always on.
- A button for ROC reset is required. WBC doesn't update itself unless we reset.
- A TBM GUI