

Software Projects

- Beam Abort Data Mining.
- SunRay and Linux testing.
- Aida – Matlab development.

Beam Abort Data Mining

- Abort data should be processed and sent to the Web.
- RF Fault Files (Matlab generates HTML files.)
- TFB GUI plots.
- Selected EPICS archived data as color-bar plots.

Abort Data

- Abort Logger: New abort logger machines in the queue. Data can be saved to NFS and processed by Matlab scripts.
- DVR MPEG auto saved. Also, image processed to give quantitative measurement of blow up.
- Labview (Light Monitors) generated abort information (work with A. Fisher).

RF Fault Files

- Generate other RFgui plots: i.e. Drive plot for all HER stations.
- Talk to RF experts and copy some of their tools to RFgui.

EPICS Archived Data

- Vacuum spike algorithm for last abort.
- Bellow's resonance algorithm.
- BLMs plots.
- Any other temperature analog: calculate $\text{delta-Temperature} / \text{delta-Time}$ and show worst offenders.

EPICS GPIB

- Save instrument waveform to EPICS channel archiver. i.e. tunes spectrum analyzers, plic scopes, other... Needs software IOC.
- Displays to show these waveforms.

SunRan and Linux testing

- MCC may use SunRay, Linux, PCs, and Mac workstations (As far as I can tell...).
- We need to make sure we can do everything we need to do from all these platforms.

Aida – Matlab

- Aida allows Matlab users to get control system data as well as EPICS channel archived data. (BPM measurements coming soon).
- Aida will allow users to control devices from Matlab.
- Work with PEP physicists to integrate these new tools.