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SLC Control Program

SLAC's Software Engineering Newsletter

March 1, 1995 | **All that Fits is News to Print** | Vol. 9, No. 3

Error Metering Reset

February 28, 1995

Author: *Kenneth Underwood* **Subsystem:** *SLC Micros* **User Impact:** *Small*
Panel Changes: *One* **Documents:** *None* **Help File:** *None*

An Error Metering Reset function has been added to the SLC micros that forces all currently metered messages to produce their summary message, then restarts error metering from scratch. New messages will then come out with their full informative content until error metering again takes over. This reset function does not reset any fast feedback error metering.

The Error Metering facility selectively limits the quantity of error messages seen by the user by allowing some number of them to be allowed through then counting and dropping any additional ones. This prevents a continuing flood of error messages from masking other messages. A periodic summary message is issued until the metered error message has not occurred for some time.

Unfortunately, these summary messages provide only statistics concerning the frequency of the errors that are being metered, while the original message content is lost. This can prevent an ongoing problem from being identified because of the infrequent and uninformative summary messages.

The Error Meter Reset button can be found on the SLCNET Diagnostics touch panel. From the Main Index push the [NETWRK INDEX] button. Select the desired micro using the dynamic button selections on the SLCNET Micro touch panel. Push the [MICRO DIAG-NOSTIC] button to select the SLCNET Diagnostics touch panel. Pushing the [ERROR METER RESET] will cause the selected micro to reset the current error metering statistics.

FB31 energy timeslot differences

February 15, 1995

Author: *Grossberg, Mackenzie* **Subsystem:** *Feedback* **User Impact:** *Small*
Panel Changes: *Few* **Documents:** *No* **Help File:** *No*

Calculations for timeslot energy differences have been added to the FB31 fast feedback loop. Elements have been added to the end of the FB31 feedback's actuator vector to convey this information; they are labeled "ENGY- TS DIFF" and "ENGY+ TS DIFF". The current values of these elements have been added to the SLCORBIT CUD display and are labeled "BSY TS DIFF".

In addition, history plots are available from the fast feedback actuator panel, accessible through the fast feedback STATE panel. The values on the history plots are exponentially averaged over 1 second. Finally, plots of the timeslot differences are available from the CANNED PLOT panel, labeled "TS DIFF & BEAM DUMP".

Automatic control of FB31 timeslot energy differences is not supported. However, functionality is available for manual control of electron timeslot differences. Although this functionality is not in current use, it could easily be reenabled if necessary.

FF UT Wire Scan Mode

February 22, 1995

Author: *Kenneth Underwood* **Subsystem:** *Wire Scanners* **User Impact:** *Small*
Panel Changes: *Few* **Documents:** *No* **Help File:** *No*

A new wire scan mode called FFUT has been added to the existing EMIT and SKEW wire scan modes. Unlike the other modes which scan only one micro at a time, the FFUT wire scan mode scans the selected wires in both the FF01 and FF11 micros while lowering the SLD HV only once. Each selected wire is scanned across the incoming beam and the data is passed to Correlation Plots.

The FFUT scan mode buttons can be found on the North and South ETA/WS4 Wire Panels. Pushing the [FFUT MULTI-WIRE] button will lower the SLD HV, scan the selected wires in FF01 and FF11, put the scan data into Correlation Plots, then raise the SLD HV. Please note that the FFUT wire scan mode looks only at FF01 and FF11 wires and both micros are always scanned regardless of which ETA/WS4 touch panel you are on.

The wires to be scanned are selected from the [WIRE MAP PANEL] touch panel just as for the EMIT and SKEW wire modes. Toggle the [BIT MAP MODE] button until the FFUT scan mode is displayed. Select FF01 or FF11 micro and the desired wire scanner. Toggle the desired wire(s) to YES or NO to modify the current setup. The current Wire Map setup as well as the initial setup from the database can be viewed by pushing the $\boxed{\begin{array}{c}\text{DISPLY}\\\text{MICRO}\\\text{MAP}\end{array}}$ button.