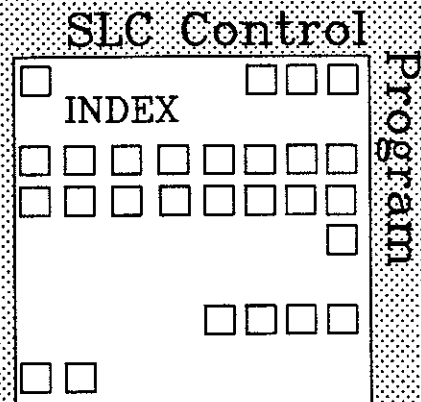


Index Panel

SLAC's Software Engineering Newsletter



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All that Fits is News to Print

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New Feedback Exceptions Display

April, 9, 1991

Author: Ed Miller

Subsystem: SCP

User Impact: Few

Panel Changes: No

Documents: Yes

Help File: No

A new "Feedback Exceptions" display is now available from the

EXCEPT
UNIT
DISPLY

button located on the

main Feedback panel. This display is intended to list all of the feedback loops (SLOW, OLD FAST, and FAST) which are not in their normal (or "higher") operating states. For example, a loop which is designated normally to be in the "FDBK" state will appear on this display if its actual state is not "FDBK". In another example, if a loop is normally in "SAMPLE" mode, then it would be displayed if it were actually "OFF", but would not be displayed if it were in "FDBK" mode. Further details are available from the Help button.

This new display is in the same format as the existing displays "ACTIVE UNIT DISPLY" and "ALL* UNIT DISPLY". These two displays have been augmented to include the new FAST loops as well as the SLOW and OLD FAST loops.

New PHYS Yield Correlation Plots Variables

March 28, 1991

Author: L. Sanchez-Chopitea

Subsystem: Correlation Plot

User Impact: Small

Panel Changes: None

Documents: None

Help File: None

The Correlation Plot PHYS variables have been expanded to include selected Yields as measured by a ratio of toroid values. This enhancement was requested by the Positron Task Force to facilitate studies of the positron system throughput.

New PHYS secondaries allow the user to select either Absolute Yields or Subyields for any of the toroids used to calculate Subyields on the Positron Yield (PYIELD) display. The list of toroids to be used is specified in the database under the LSBM (Linac and Sources BeaM) primary. For each toroid in the list, the Absolute Yield is with respect to the first toroid in the list. The Subyield is with respect to the preceding toroid. They are selected by entering PHYS, micro, and either ABSPunit or SUBPunit where the micro and unit specified are those of the Toroid to be used in the numerator of the ratio. The P after ABS or SUB indicates that the beam to be measured is positrons. The

available Help from the Correlation Plot prompt will list the micros with valid PHYS variables or the valid secondary names for a PHYS micro. Users should consult the LSBM database or the PYIELD display to determine the ranges of the subyields.

As with all Correlation Plots including BPM or Toroid data, the proper BPM measurement definition must be selected before starting a data acquisition. For Positron yield measurements, the All Toroid definition on the BPM Cal Panel will cover the maximum number of toroids. This definition also provides the pulse delay required so that toroids before and after the South Damping Ring read the same pulse before and after being damped. The data acquisition is optimized so that each referenced device is read only once and all devices are read on the same pulse.

Improved Handling for DLWG Temperatures

March 29, 1991

Author: *N. Phinney, K. Jobe*
Panel Changes: *None*

Subsystem: *Linac*
Documents: *Yes*

User Impact: *Medium*
Help File: *None*

An analysis of Summary Display errors has identified poor handling of Disk Loaded WaveGuide temperatures as a source of many unnecessary error messages. When the klystron which provides power to a section of the accelerator is on, the waveguide temperature must be maintained within a tight tolerance of one degree. When the klystron stops delivering power, the waveguide temperature drops by about five degrees, generating an error status and message.

To eliminate these spurious errors, the micro software which monitors these analog temperatures has been modified to monitor the klystron feeding the section of waveguide. If the klystron is not delivering RF power, the low temperature tolerance is widened by ten degrees. When the klystron recovers, a five minute timer is started to allow the temperatures to come to equilibrium before the tight tolerances are enabled. A bit is set in the Status for each channel to indicate that LOW_RF tolerances are being used.

Analog status displays for these channels have been modified to show the loosened tolerances. On the standard analog status display and on the Summary Displays, the devices should remain Green when a klystron cycles. On the Display Micro Diagnostic display, when appropriate, a looser tolerance is shown along with the text string "RF".

The full Diagnostic display has the following new text labels:

"%dlwgtemp"	to indicate the channel association
"%LowRF_Tols"	if the Low RF tolerances are used
"PTR:..."	to indicate klystron unit number for each channel
"isoplane=..."	to identify the channel's isoplane

This last feature now appears for all Thermocouple channels.

SCP Print Control Enhancements

April 9, 1991

Author: *Ed Miller*
Panel Changes: *Few*

Subsystem: *SCP*
Documents: *No*

User Impact: *Small*
Help File: *Yes*

Two additional printers have been added to the printers accessible from the SCP: LWMCC1 (the Apple Laserwriter in the Main Control Room) and IMEL1 (a VM Imagen in Bldg. 24). These (and other) printers may be selected from the Print Control Panel (reachable from Index Panel via the Special Displays Panel) or by the use of the SETUP_PRINT command (either in your LOGIN.COM or at the DCL prompt). For more information on how to use the SETUP_PRINT, issue that command from DCL (without parameters): \$ SETUP_PRINT.

When the LWMCC1 Laserwriter is used from the SCP, it can print both graphics and text. Since this is intended to be a light-duty printer, flag pages will not be printed to identify the output on this printer. It is also possible to print files from the VAX to this printer without using the SCP. In this case, you must use the proper PRINT command depending on whether the file being printed is a PostScript (graphics) file or a text file. Example commands for printing on this printer include:

\$ PRINT/QUEUE=LWMCC1/FORM=PS.PRINT *postscript filename*

\$ PRINT/QUEUE=LWMCC1/FORM=formname *text filename*

F or text files, the choices for "formname" are as follows:

LTR_12 - 12-pitch with margins (portrait, 80 cols.)

LTR_10 - 10-pitch, no margins (portrait, 80 cols.)

LPT_PLAIN - Line printer format (landscape, 132 cols.)

LPT_GRAY - Line printer format with gray bars (landscape, 132 cols.)

X-CalFs with white background

March 26, 1991

Author: *Tom Himel*
Panel Changes: *None*

Subsystem: *SCP*
Documents: *No*

User Impact: *Small*
Help File: *No*

The X-Calf now has an option which gives a white background with black and colored text instead of the usual black background with white and colored text. Some people think this is more readable particularly in an environment where glare is a problem. It also makes the Macintosh cut and paste utilities more useful.

To use this, simply start the SCP by answering **W** (for White) instead of **X** in response to the COWID prompt. Of course this should only be done from an X-windows device like a VAXstation or a Mac running Mac-X.

Since there are now many possible responses to the COWID prompt, an explanation of acceptable entries is provided when any invalid response is given.

Finally, all the colors have been slightly modified to make them more readable. In particular, red and blue are now brighter so they show up better and yellow and green are easier to distinguish. To do this, the accuracy of the colors has been slightly sacrificed (*e.g.* red looks a bit like salmon). These color changes effect all X devices (summary displays and X-COWs,) and not just the calves.