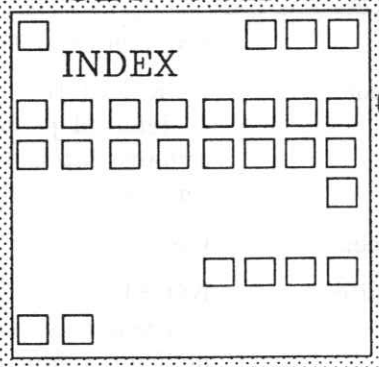
Index Panel

SLC Control Program



Slac's Software Engineering newsletter

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Status Display Summary

January 25, 1989

Author: *L. Moss & R. Johnson* **Subsystem:** *All* **User Impact:** *Major*
Panel Changes: *Few* **Documents:** *No* **Help File:** *Yes*

The Status Display Summary (SDS) is a major upgrade to the super summary display. It is intended to help identify new problems more rapidly, and to track the status and severity of problems once they have been noted.

The changes fall into two categories:

- Improvements to the summary display itself;
- A new SCP display and touch panel to provide information on, and control of, the individual devices corresponding to a summary box.

Summary Display Changes. Several new states have been added for the summary boxes in this display, the meaning of some of the old states has been revised slightly, and some new colors have been added to identify the new states. The possible states and their meanings are now defined as follows:

Color	State
Flashing red	NEW_PROB A new problem has occurred, i.e., a device has changed from a status of OK (or NO_SEV) to an error or warning status. This state is latched for a "flash time" of 2 minutes.
Red	PND_PROB A problem is still pending. If a new problem has not been dealt with by the operator during the flash time, it automatically enters this state, which is latched for an additional "pending time" of 5 minutes.
Red	PROBLEM A continuing problem. If a pending problem has not been dealt with by the operator during the pending time and has also not cured itself, it enters this state, which has essentially the same meaning as the "red" state in the previous version of the super summary. The PROBLEM state is unlatched, so if the problem spontaneously disappears the state will automatically revert to OK.
Yellow	ACK_PROB An acknowledged problem. This state can only be entered by operator intervention, and remains latched until the operator changes the state again. A problem should be acknowledged by the operator to indicate either that repair is in progress or that the

problem cannot be repaired immediately and is serious, i.e., is likely to affect operations.

Cyan — DFR_PROB
A deferred problem. This state also can only be entered by operator intervention and remains latched indefinitely. If a problem cannot be repaired immediately but is not serious, it may be deferred.

Green — OK

White — NO_SEV
There is no severity information available. This state is unlatched and may occur when a device is offline or when there is a micro or other problem which causes the STAT value to be zero. It also is entered temporarily when an operator clears the state of a device; the state will then change to OK or NEW_PROB (or possibly remain as NO_SEV) on the next loop through the monitoring process (currently, about once every 30 seconds).

The color for a box is the color for the "worst" state of any of the devices summarized by the box (the above list of states is ordered from "worst" to "best"). Latching only applies to individual devices and not to the summary boxes. Thus, if one device has been set to the ACK_PROB state and then another device corresponding to the same summary box goes from OK to NEW_PROB, the color of the box will change from yellow to flashing red.

In addition to these new colors and states, two other changes have been made to the summary display:

- A window has been added at the bottom of the screen to identify the five most recent devices to enter the NEW_PROB state.
- A problem count has been added to the summary boxes. This count includes all states other than OK or NO_SEV. Thus, for example, if the devices behind a particular summary box include one in the NEW_PROB state and 5 in the DFR_PROB state, the problem count will be 6.

SCP Facilities. A new SDS device list display has been added to list the individual devices corresponding to a single summary box, a column of boxes, a row of boxes, or all the boxes on the summary screen. Within the chosen set of boxes the devices to be listed may be further limited to those in particular states (e.g., all acknowledged problems or all "red" problems) or all of the devices may be included.

The format for a device list is as follows:

```
          Status Display Summary -- Device List

                                        SDS          Current
     Prim Micr Unit Channel  Severity     STAT Severity
  1 LGPS FF11    1          OK           0061
  2 LGPS FF11    2          ACK_PROB     0041
  3 LGPS FF11    3          DFR_PROB     0041
  4 LGPS FF11    4          OK           0041

                                .
                                .
                                .
 29 QUAD FF11 8450            PROBLEM      1008
        - - -  E n d  o f  D i s p l a y  - - -
```

The numbers at the left are line numbers (relative to the current page of the list) and are used when selecting devices (see below). The line number, primary, micro, unit, channel, and SDS severity fields are color coded using the color mapping described above. The last two fields, current STAT and severity (the last of which is presently always blank), are color coded according to the usual mapping found in other displays (including yellow for WARNING, etc.). Note that the last two fields may sometimes revert to green while the rest of

the line remains latched in a "problem" state.

This display may be requested from the Status Display Summary Control panel, which is selected via a button in the lower left corner of the Special Display panel. The procedure for using this panel is as follows:

- Choose the summary boxes of interest by pressing one each of the "Region Select" and "Device Class Select" switches. These two switches correspond to the columns and rows, respectively, of the summary display. For example, pressing "`Small Mags`" chooses the boxes in row 2 of the summary screen. All columns can be selected by pressing "`All Regns`"; likewise, all rows by pressing "`All Classes`".

- Once a box or set of boxes have been chosen, one of the "`Disply`" buttons may be pressed. For example, "`Disply New Probs`" will display all devices in the chosen boxes which have developed problems in the last couple of minutes. Similarly, "`Disply Red Probs`" will display devices in all three "red" states (NEW_PROB, PND_PROB, and PROBLEM), "`Disply All Devs`" will display all devices (in the chosen boxes) regardless of state, etc. The button "`Disply Summry Screen`" will display the summary screen rather than a device list.

- To change the state of one or more devices you must first select the devices from the current page of a device list by pressing "`Select Device`". You will be prompted to specify the devices by entering a comma-separated list of single line numbers or ranges. A range is specified by entering the first and last line number separated by a hyphen. The entire screen may also be selected by entering an asterisk, or the selection may be aborted by pressing carriage return without entering a list. Note that only devices currently visible on the screen may be selected.

  The selected devices will be indicated in the display by placing a right angle bracket (>) to the left of the line; after selecting lines 2, 3 and 29 in the above example (e.g., by entering "`2-3, 29`" in response to the prompt), the screen would be updated to appear like this:

```
                Status Display Summary -- Device List

                                          SDS          Current
     Prim Micr Unit Channel               Severity     STAT Severity
       1 LGPS FF11    1                   OK           0061
  >    2 LGPS FF11    2                   ACK_PROB     0041
  >    3 LGPS FF11    3                   DFR_PROB     0041
       4 LGPS FF11    4                   OK           0041
                                  .
                                  .
                                  .
  >   29 QUAD FF11 8450                   PROBLEM      1008
          - - -  E n d   o f   D i s p l a y   - - -
```

- The state of the selected devices may then be changed by pressing "`Ack Problem`", "`Defer Problem`", or "`Clear Problem`". **NOTE: Devices set to the ACK_PROB or DFR_PROB state will remain in that state until explicitly cleared by an operator.**

  If a request is made to clear a problem when the device still appears to show a fault (see line 29 in the above example), a warning will be issued and you will be asked whether you want to abort the request. If you choose to continue, the state of the device will be temporarily set to NO_SEV, but will probably be changed again to NEW_PROB at the next loop through the monitor process.

- A device selection may be cancelled by pressing "`Cancel Select Device`", by scrolling the list ("`First Page`", "`Prev Page`", or "`Next Page`"), or by changing the display, either by pressing one of the "`Disply`" buttons or by changing the column or row.

- A printed report may be generated by pressing "`Print`". If a device selection is in effect, the report will include only the currently displayed page; otherwise, the entire device list will be printed.

More Model Twiss Plots Available

January 16, 1989

Author: *Mark Woodley* **Subsystem:** *Modeling* **User Impact:** *Small*
Panel Changes: *Few* **Documents:** *No* **Help File:** *None*

More types of Twiss parameter plots are now available from the Model OPTICS panel. One can now see plots of energy, phase, and alpha in addition to the usual beta and eta plots. Pressing the "SELECT PLOT TYPE" button repeatedly will toggle through the various plot types available (the "default" plot type is now beta instead of eta).

New COMFORT Process Installed

January 16, 1989

Author: *Mark Woodley* **Subsystem:** *Modeling* **User Impact:** *None*
Panel Changes: *None* **Documents:** *No* **Help File:** *None*

A new version of the online COMFORT process has been installed. This new version incorporates changes in the protocol by which SCPs and COMFORT communicate. These changes will be needed in the future by the online lattice matching software currently being developed; at the moment these changes should be completely "transparent" to the user. A new version of the OPTICS shareable image has also been released which contains the modifications needed for SCPs to communicate with the new COMFORT.

CUD SCP Activity Display

January 19, 1989

Author: *Jim Hodges* **Subsystem:** *CUD* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *No* **Help File:** *None*

In response to Cater 5441, the SCP Activity display, accessed from the CUD panel, has been updated. CUD now uses new disk logical names, such as USER_DISK, CTRL_DISK, etc. to get information about disks, and the device name has been cropped to display only DUAxx:.

The standard processes display has been modified so that missing processes will blink, in addition to being magenta in color.

Current Backup Schedule for the VAXen in MCC

January 20, 1989

Author: *L. Stein* **Subsystem:** *MCC VAXen* **User Impact:** *Minor*
Panel Changes: *None* **Documents:** *This is it* **Help File:** *None*

The following disks are being backed-up:

Logical Name	Disk Name
DISK1:	SLCCTRL
DISK11:	VMSRL5
DISK13:	SLCLIBRARY
DISK20:	SLCUSERDISK
DISK21:	MCCUSERDISK
DISK23:	MCCCONTROL

The schedule is as follows:

1. Daily incremental backups are done Tuesdays, Wednesdays and Fridays; the tapes are kept in the MCC VAX room. A set of two-weeks' worth of tapes is maintained, then the tapes are recycled.

2. Weekly incremental backups are done twice per week on Mondays and Thursdays and the tapes are kept in a vault on-site. These weekly backups each cover seven days; therefore, they overlap by at least three calendar days. These weekly tapes are not recycled. Two copies of these tapes are made and one copy is shipped off-site.

3. Monthly full backups are done the first working day after the beginning of the month. These tapes are also shipped off-site. These monthly tapes are not recycled; they constitute a permanent record.

Enhancement to Touch Panel File (.PNL) Capabilities

January 23, 1989

Author: *Tom Himel* **Subsystem:** *Touch Panels* **User Impact:** *None*
Panel Changes: *None* **Documents:** *No* **Help File:** *No*

Each touch panel is described in a separate file with extension .PNL. There is a line for each button which describes what text should be used to label the button, what variables should be set, and what subroutines should be called when the button is pressed. Previously, one continuation line was allowed for each button which allowed three extra variables to be set. Now three continuation lines are allowed which can set nine extra variables. This will give added flexibility in the design of touch panels. Note that there is still a limitation that no more than 130 non-comment lines can be included in a single .PNL file.

Feedback

January 25, 1989

Author: *Rudy Wong* **Subsystem:** *Feedback* **User Impact:** *Some*
Panel Changes: *Few* **Documents:** *None* **Help File:** *None*

Three Feedback panels in the SCP and the Feedback process have been modified to implement the usage of the public BPM calibration. In the past, for each beam switch operation, a BPM measurement definition had to be defined and a new BPM calibration had to be copied for Feedback's use. With the arrival of the public BPM calibration, this process is no longer necessary. The operator should select the mode of operation for the Feedback group and the appropriate BPM calibration will be applied.

A new [ENTER OPERAT MODE] button to select the mode of operation (SLC, SPEAR and PEP) has been added to the Feedback Group Select Panel. The [ENTER GROUP BEAM] button used to select the beam for the selected group has been eliminated.

On the Feedback Unit Select Panel, the [TEST RUN PANEL] has been relocated to be aligned with the buttons of similar functions.

On the Feedback Test and Run Panel, the [ENTER GROUP BEAM] and [COPY CALIB FILE] buttons have been eliminated.

NOTE: BUTTON MACRO USERS–

Existing button macros which use these old buttons will not work. They should be modified to use the `ENTER OPERAT MODE` instead of the `ENTER GROUP BEAM` button to setup the proper BPM calibration for the current beam.

SLC COMMISSIONING CALENDAR †

	THURSDAY Jan. 26	FRIDAY Jan. 27	SATURDAY Jan. 28	SUNDAY Jan. 29	MONDAY Jan. 30	TUESDAY Jan. 31	WEDNESDAY Feb. 1
OWL	NPI $e^- \rightarrow$ESA $e^- \rightarrow$SPEAR	NPI $e^- \rightarrow$ESA $e^- \rightarrow$SPEAR	NPI $e^- \rightarrow$ESA $e^- \rightarrow$SPEAR	"	" S1 RF Process	" S1 RF Process 06–1800 SPEAR Mach. Physics	" S1 RF Process
DAY	" 1300 DBGEN	" Modify S2–3 PPS	"	"	NPI $e^- \rightarrow$ESA $e^- \rightarrow$SPEAR	NPI $e^- \rightarrow$ESA $e^- \rightarrow$SPEAR	NPI $e^- \rightarrow$ESA $e^- \rightarrow$SPEAR
SWING	NPI $e^- \rightarrow$ESA $e^- \rightarrow$SPEAR	NPI $e^- \rightarrow$ESA $e^- \rightarrow$SPEAR Checkout S2–3 PPS PPS Certification	"	"	"	"	"

† This calendar is provided for informational purposes only. Neither the Software Engineering Group nor the SLC management accept any responsibility for its accuracy. Schedule subject to change without notice. All departures are from NPI at 120 times per second.