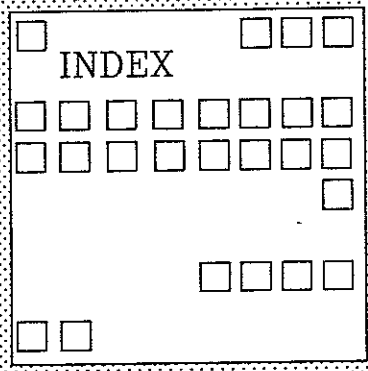
Index Panel

SLC Control Program



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Schedule for SLC Database Installations

April 25, 1990

Author: *Terri Lahey*
Subsystem: *Database*
User Impact: *Small*
Panel Changes: *None*
Documents: *No*
Help File: *No*

The schedule for Database Installations on MCC is:

Database Install	Data Due
10 May, Thursday	3 May, Thursday
24 May, Thursday	17 May, Thursday

Please note that this announcement supercedes the estimated May schedule that was previously published.

To get typical devices into the database, please submit all data by the "Data due" date, or sooner if at all possible. Database changes should be send via electronic mail to TEL@SLACSLC or LAHEY (on VM) or in writing to BIN 55.

New Arc MPS Displays (and Panel)

April 25, 1990

Author: *Daniel Van Olst*
Subsystem: *MPS*
User Impact: *Small*
Panel Changes: *Few*
Documents: *None*
Help File: *Yes*

Eight new displays have been created to aid in determining the cause of an Arc MPS trip. All these displays are located on the new "ARC MPS DISPLAYS" panel (which can be reached from the ARC INDEX panel and the ARC MPS panel). This panel can be used to track down MPS faults that prevent the machine from getting an arc permit at MCC BIR 1182 channel 50.

The bottom of the touchpanel has diagnostic displays for tracking down the fault. The top of the touchpanel has panels useful for resetting the fault, in a rough correspondence to the displays.

To determine the cause of an Arc trip, start with the "COMMON MPS DISPLAY". If a logic path leads off the display, you may be able to choose a new display to diagnose the fault further. Note that it may be necessary to press a reset (such as "NORTH ILOCK RESET", "SOUTH ILOCK RESET" or "SUMMARY ILOCK REST") to force a display to reflect the *mixing* logic of its inputs.

Batch Mode Calibration and Standardizing of Magnets

April 23, 1990

Author: *Karey Krauter* **Subsystem:** *Magnet* **User Impact:** *Medium*
Panel Changes: *None* **Documents:** *None* **Help File:** *None*

Magnet functions that may take several minutes to execute have now been changed to run in the background in batch mode. This allows the SCP to be free while a long magnet operation is in progress. The new Batch execution has been implemented for both the Standardize and Calibrate functions, except for the special handling of the sector one blowtorch quads which operates as before.

After pressing the STANDARDIZE or the CALIBRATE buttons, the operator will see the message "STDZ [CALB] request submitted to batch queue." Control of the SCP is then returned to the operator. Minutes later, when the magnet function has completed, the status of the completion will appear on the SCP error window. Any errors that may have occurred during the operation are also signalled to the requesting SCP.

As part of this implementation, the ACCESS program which is used to turn Off or On various regions of the machine has also been enhanced so that any errors detected during execution of an Access sequence will be signalled to the SCP which requested the procedure.

Modifications to Correlation Plot Physics Variables

April 23, 1990

Author: *Linda Hendrickson* **Subsystem:** *Correlation Plots* **User Impact:** *Small*
Panel Changes: *No* **Documents:** *No* **Help File:** *Online*

Software for correlation plot Physics variables (PHYS) has been modified to specify the micro name separately from the "pseudosecondary" name. In the previous version of the software, the user entered the PHYS primary and an 8-character pseudosecondary identifier. Most of the previous pseudosecondary names gave an indication of the associated micro for the calculation. In the current version, the user specifies the micro name separately and the pseudosecondary names have been modified accordingly. For example, the previous software specified the electron X deflection angle at the interaction point with "PHYS IPEXDEFL". The current software expects a specification of "PHYS FB69 E_X_DEFL" for the same quantity. In another example, previous software expected "PHYS EP02ESPD" for the energy spread in EP02, whereas current software uses "PHYS EP02 E_SPREAD".

Help for PHYS variable names is available when the user enters a question mark. If a valid micro has been entered, the help outputs a list of valid secondaries for that micro. Otherwise a list of valid PHYS micros is displayed.

The wild card capability for PHYS variables allows selection of more than one secondary. In the new software, the user may enter "ALL*" or "*" to get all secondaries for the given micro. Or as in previous software the user may enter the first few characters of the secondary followed by an asterisk and the software will fill in correlation plot variables with all matching characters. For example "PHYS FB69 P_Y*" selects all positron Y deflection variables for FB69.

Previous software selected a TWSS mode based on a hardcoded list of modes for each type of PHYS calculation. The software has been modified to select an appropriate TWSS mode based on the currently selected BPM definition. For energy calculations in FF01 and FF11, this should result in correct calculations for both incoming and outgoing beam, which previous software did not handle correctly.

Enhancements to Printer Control Facility

May 2, 1990

Author: *Ed Miller* **Subsystem:** *SLC* **User Impact:** *Small*
Panel Changes: *Few* **Documents:** *None* **Help File:** *Yes*

The new SCP printer control facility, as described in the March 29, 1990 issue of the Index Panel, is now in production. Since the time of that writing a few enhancements have been made to the software.

- Support for more printers. The list of standard printers now includes SLC Imagen, MCC Imagen, Bldg. 15 Imagen, Bldg. 34 Imagen, MCC Color, and the following VM printers: IMMCC1, IMCGB1, IMMAZE, IMTL2, IMB15.
- A toggle button to optionally HOLD print jobs in the print queue, rather than have them immediately printed. (One example where this may be useful: submitting print jobs for the MCC Color printer at a time when you are unable to verify that it is set up properly.)
- The COLLECT toggle button has been changed to an ON/OFF switch to make it easier to use it with button macros.

Note that the VM print queues may behave somewhat differently from the other print queues when printing a COLLECTion of files: the order of the printed files may not be preserved, and may even be mixed with the output from other unrelated print jobs; the (single) flag page itself may not appear in the correct order; the orientation of graphics pages may be inverted relative to text pages.

Multiple Achromat ARC Steering

May 2, 1990

Author: *Stephanie Allison* **Subsystem:** *SLC* **User Impact:** *Small*
Panel Changes: *Few* **Documents:** *No* **Help File:** *None*

In order to speed up steering in the ARC's, the MULARC steering method has been changed so that multiple achromats may be steered at one time. Steering setup is the same as before, except that the user can now steer either one or two consecutive ARC sections at one time. For example, one may steer achromats 8 to 14 and 15 to 19 in the North ARC at one time by choosing those sections on the MODEL APPLICATIONS panel. Once in the STEERING panel, the user can then adjust the achromat range, if desired, within the chosen region using the ACHRO RANGE button. It is no longer necessary to provide an achromat and unit range for MULARC steering when the CALC PREDCT TRAJEC or SCAN CALC TRIM button is pressed.

Power steering in the ARCs now uses the MULARC method instead of 1-1ARC. The two power steering regions containing achromats 15 to 19 and 20 to 23 in the North ARC have been combined into one region (15 to 23). Similarly, the two regions containing achromats 14 to 18 and 19 to 23 in the South ARC have been combined into one region (14 to 23). Once a region is selected, the user may then adjust the achromat range, if desired, by using the ACHRO RANGE button.

New BPM Acquisition for FB29 and FB31

May 2, 1990

Author: *N. Phinney, F. Rouse* **Subsystem:** *Feedback* **User Impact:** *Small*
Panel Changes: *Few* **Documents:** *No* **Help File:** *None*

The Fast Feedback micros FB29 and FB31 have been upgraded to run in full 80286 mode. Previously, these micros were still running in 8086 compatibility mode. As part of this upgrade, the micro software has been

converted to use the new FB69 style BPM acquisition. This software allows other users to read BPMs at the same time as they are being read by feedback. With the new BPM software, it is no longer necessary to suspend Feedback before calibrating BPMs and releasing a new Public calibration. Any Button Macros which suspend Feedback before a BPM calibration for FB29 or FB31 should be modified. The only other visible sign of this change is that users will also notice some new Feedback connect messages when booting these micros.

Improvements to Saving Micro Memory

April 23, 1990

Author: *Karey Krauter* **Subsystem:** *Micro Diagnostics* **User Impact:** *None*
Panel Changes: *None* **Documents:** *None* **Help File:** *Same*

Several improvements have been made to the software for saving the micro memory.

- The input micro name is verified by the SCP, instead of waiting for the dump process to do the verification.
- The Dump Micro Memory button on the IPL Micros Panel now flashes 'DUMPING' while a save is in progress.
- If the micro fails to respond to the dump command, it is reset automatically and the dump is retried. It is usually not necessary to do a reset before requesting a dump. However a micro may get so sick that it cannot respond to a dump command until it is reset.

Klystron Golding BPM Definition Selection

April 23, 1990

Author: *Linda Hendrickson* **Subsystem:** *SCP* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *No* **Help File:** *No*

The Klystron Golding facility has been modified to automatically select the BPM definition based on the currently defined machine operating mode (such as SLC, PEP, SPEAR, etc). Previous software based the BPM definition selection on the selected TWSS mode. In the near future, it is expected that the TWSS mode selection software will be modified to limit selection options to those associated with the current machine mode.

More Complex Touch Panels Now Allowed

May 1, 1990

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

In the past there was a limit of 130 lines that could be used to define a touch panel. This limitation had hindered people in making some MPS panels which had many buttons that set many variables. The limit has now been increased to 258 lines.