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SLC Control Program

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CUD Klystron Display

June 18, 1987

Author: *Miguel Flores (MICK)* **Subsystem:** *Klystrons* **User Impact:** *Wonderful*
Panel Changes: *None* **Documents:** *First of July document* **Help File:** *None*

The CUD Klystron display is now available in a "first pass" form. For now, the only information presented is the STATus color coding and if the klystron is on at least one beam which a non-zero rate. When a klystron is "green" and "on a beam" then the green box is omitted. The ideal display is then a screen full of magenta slashes. The information presented is always current at the time of display since a klystron check function is performed to every online micro for each update.

Also worth a mention: the CUD monitor near COW 3 is now supported by the COW 3 micro, instead of duplicating the COW 2 CUD monitor. So, now you can have the Klystron display and the Status display both showing in the Control Room.

BPM vs Z Difference Display

June 17, 1987

Author: *J. Bogart* **Subsystem:** *SLC* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *Yes* **Help File:** *None*

A new special display is available from the BPM Measurement panel. It displays the difference in X, Y and TMIT for your favorite pair of measurement definitions. The two measurement definitions must have the same display group.

To bring up the display, press [SETUP SPECIAL DISPLAY] and answer the prompts. Then press [START-STOP DATA].

For more complete instructions see [slc.doc.spec]bpmdiff.doc.

Injection

June 17, 1987

Author: *Lou Sanchez-Chopitea* **Subsystem:** *SLC* **User Impact:** *Small*
Panel Changes: *Few* **Documents:** *No* **Help File:** *None*

The Injection software has been modified to ignore bunches not relevant to a region and the user will NOT be prompted for either configuration number or BPM measurement definition button number for them. The proper configuration name is now selected when the user cycles the direction. The Injection region name has been added to the numeric result display. Also the number of BPMS selected is done on a per plane basis since more readings (or different ones) can be bad in either plane.

Damping Ring Vacuum Devices

June 18, 1987

Author: *John Silva* **Subsystem:** *Damping Rings* **User Impact:** *Medium*
Panel Changes: *Many* **Documents:** *No* **Help File:** *No*

The database, touch panels, and summary displays that are related to the control and display of vacuum devices for the SLTR, SDR, SRTL, NLTR, NDR, and NRTL have been extensively changed. The modifications consist primarily of changes of unit numbers and "aliases" (common names) to reflect the current hardware labels, drawings and nomenclature lists.

A detailed list of changes will be distributed later. Until then, call John Silva at x2197 for information.

Model Utilities for Wire Scanner

June 17, 1987

Author: *Lou Sanchez-Chopitea* **Subsystem:** *FF* **User Impact:** *None*
Panel Changes: *None* **Documents:** *No* **Help File:** *None*

The transfer vectors necessary for the access of the model utilities needed by the wire scanner code were moved from MODUTIL to UTILSHR, necessitating a minor release of UTILSHR, a major release of MODUTIL, and relinking APPSHR, MAGSHR, MODSHR, OPTICS, STRSHR and the SCP. The opportunity was taken to increase the storage allocation for the modelling selection arrays.

Modelling Selection

June 17, 1987

Author: *Lou Sanchez-Chopitea* **Subsystem:** *SLC* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *No* **Help File:** *None*

The input of the files defining the modelling sections, regions and lines was more fully protected to ensure trapping of internal inconsistencies which would have saved time in the past (and will hopefully in the future). Error messages noted on the first time the model system index or power steering are selected can indicate corrupted initialization files and should be reported immediately since they can be fixed with no code changes or releasing of shareables.

ARC Misc Panel

June 16, 1987

Author: *Nobu Toge* **Subsystem:** *ARCs* **User Impact:** *Moderate*
Panel Changes: *Many* **Documents:** *No* **Help File:** *None*

ARC MISC panel has been substantially upgraded to make it more similar to BPMO MEAS panel. There the user has an access to BPMO MEAS DEF selection, update interval, MOV correction on/off, # of scans for averaging.

1. The [WR.ARC TOPDRW] button allows to record the acquired BPMO data onto a disk file, which SCP can transfer to the SLC VAX.

2. The ID of such data files can be modified with [ARCTDR FILE] button.

3. Difference orbit display is available by saving an orbit in an internal buffer with [STORE REF. ORBIT], then switching over to DIFF mode with [ABS/DIF MODE] button. (Note that the function of [WR.ARC TOPDRAW] respects this ABS/DIFF mode. When write a data file, the mode should be usually set to ABS!)

ARC Steering

June 16, 1987

Author: *Nobu Toge* **Subsystem:** *ARCs* **User Impact:** *Small*
Panel Changes: *Few* **Documents:** *No* **Help File:** *None*

It is possible to steer the beam in the ARCs (with 1-1ARC or MULARC) onto an off-canonical orbit, in x or in y. To modify the steering offsets (whose default values are, of course, (0, 0)), go to ARC STR PARAMS panel from STEER panel. There, use [X OFFSET] or [Y OFFSET] button (unit is mm).

1. Note that this function is prepared mainly for ARC optics studies. Normally the ARC beam should be steered to (0, 0) in (x, y).

2. The Gold Orbit facility is not available in the ARCs yet.

3. The buttons are disabled in standard Linac/DR/FF sections to avoid confusion.

Magnet Diagnostics Panel

June 17, 1987

Author: *Nobu Toge* **Subsystem:** *Magnets* **User Impact:** *Small*
Panel Changes: *One* **Documents:** *Yes* **Help File:** *None*

A new button TRIM FUNC has been added to the MAGNET DIAGNOSTICS panel. It toggles between TRIM ENABLE and TRIM DISABLE, and switches the relevant HSTA bit of each unit. The motivation is to use this button to disable certain ARC magnet movers, e.g. stuck units and units attached to half magnets. Previously MAGNET STATUS (ONLINE/OFFLINE) button has been used for such purposes. From now on TRIM ENABLE/DISABLE should be used instead. For more details, see ARC22 TEX on TOGE 191 (VM).

Data acquisition code for long (two-ended) BPM's at the IP.

18-JUN-1987

Author: *Tony Gromme* **Subsystem:** *IP BPM's* **User Impact:** *Yes*
Panel Changes: *None* **Documents:** *None yet* **Help File:** *None*

A "dev" image (BPMDEV.I86) is now running in FB69 (only), which contains new code for the IP BPM's. Booting FB69 in the usual way will get this image; this code will be incorporated into the standard image in a few days. This code supports both calibration and beam measurement.