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SLC Control Program

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Updating Selected Wire GADCs

November 16, 1993

Author: *Lee Ann Yasukawa*
Subsystem: *Wires*
User Impact: *Small*
Panel Changes: *One*
Documents: *No*
Help File: *No*

Some wire scanners have multiple devices (readout with GADCs) to detect scattered particles and hence measure how much beam is hitting the wire. In the past a DBEDIT was required to change the GADC that the SCP used. Now it can be selected from the SCAN OPTIONS panel.

The [Disply GADC Readout] button will prompt the user for the unit number of the desired wire and the display on the graphics screen will show the list of available GADC devices with the currently selected device in green. If the current micro is one of the final focus micros, FF11 or FF01, the user will be prompted for the micro and beam for which they want a display. For final focus wires, the FF Wires panel has both FF11 and FF01 wires so the user must specify which they want to display. The beam can either be the incoming or outgoing.

The [Select GADC Readout] button will prompt the user for the number of the GADC they want to use as the selected device. The display will be updated to reflect the newly selected GADC device. This new selection will be used by the SCP where it was selected until it is changed again. Nothing has yet been saved to the database, so no other SCPs are affected. To get back to the default settings stored in the database, select the [Reinit DB Values] button.

The [Save GADC Readout] button will prompt the user for the unit number of the wire of interest and update the database with the locally selected GADC. This makes the change affect other SCPs once they get fresh values from the database.

Creating Reference Orbits from Acquired BPM Data

November 15, 1993

Author: *Lee Ann Yasukawa* **Subsystem:** *BPM* **User Impact:** *Small*
Panel Changes: *BPMO REF ORBITS* **Documents:** *No* **Help File:** *Yes*

There is a new button on the BPMO REF ORBITS panel, SAVE INSTNT REFRNC which will move the acquired BPM data to the Reference Orbit data area. Currently, to acquire data, one has to use the SAVE REFRNC ORBIT button to save the data to a file in one of the configuration directories and then use the LOAD REFRNC ORBIT button to reload the data in the file.

This new feature will allow the user to delete the steps which create a file, save the data to a file and reload the file; it will move the data directly to the reference orbit data area. The same checks are performed for this feature as with the current save and load file feature which means there must be a configuration directory setup before the data can be moved.

TMVAs Supported in Multiknob Files

November 29, 1993

Author: *Lee Ann Yasukawa* **Subsystem:** *Multiknobs* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *No* **Help File:** *No*

The multiknob facility has been enhanced to support TMVAs (Timing Values). The syntax for a TMVA in a multiknob file is

```
DEF/DEV=(TMVA,xxxxxxxxxxxx)
```

where `xxxxxxxxxxxx` is a TMVA name up to 12 characters long.

Before the timing value is changed at each knob turn, a check is made to ensure that a feedback loop does not have control over this TMVA. If a feedback loop does have control, an error message will be displayed to the user and the TMVA will not be changed.

Assorted Changes to the New MPS System

December 2, 1993

Author: *S. Allison, D. Van Olst* **Subsystem:** *New MPS* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *No* **Help File:** *Yes*

Several small changes and enhancements have been made recently to the MPS SCP interface and to the MPSFAULT CUD process. This article summarizes these changes and enhancements.

- The Faults Display on the SCP and the MPSFAULT CUD Display precede any faults with a description of the rate at which the faults are occurring. Formerly, just the 8-character rate-limiting-type was used in this situation (*i.e.* "Faults at FULLRATE:"). Now the longer text description used when displaying current and requested rates is also used in this situation (i.e., "Faults at FULLRATE (Full rate everywhere):").
- When using the "Change MPS State" button, the SCP now gives the user the option of also turning on the Beam Permit if the new MPS State is ON.
- When using the "Beam Permit ON" button, the SCP now checks for conditions that would prevent the beam permit from turning ON (such as MPS being in a non-ON state). If the Beam Permit cannot be turned ON, the user will be informed right away.
- The displays that show bypassed devices now also display a warning at the top of the display if any APs are bypassed.
- The "Module Status Display" and the "Module Configure Display" on the MPS Module Panel now display text versions of HSTA and STAT, instead of the raw numeric values.

RPN Calculator from the SCP

5 November 1993

Author: *Janice Nelson* **Subsystem:** *SCP* **User Impact:** *None*
Panel Changes: *Few* **Documents:** *No* **Help File:** *Yes*

A touch panel calculator is now available from the SCP and may be invoked with the [RPN CALC PANEL] button from the "Special Displays" or the "Operator Maintenance" Panel, or with the F1 key from any COW. The calculations are done in reverse polish notation (*i.e.* $2 + 3 = 5$ is gotten by 2 (ENTER) 3 +). The stack is 50 deep and the bottom two stack entries are shown on the panel. Help files exist for all buttons.

Some non-intuitive buttons include:

- **INV**: A toggle to access the alternate function on buttons which support two functions. The alternate function on these buttons is the one in small font across the bottom.
- **pi**, **e**, and $\mathbf{q_e}$ buttons put the constants π, Euler's constant, and electron charge in coulombs on the stack.

- **Clear Entire Stack** deletes all entries.
- **Clear Last Entered** deletes the bottom entry.
- **Delete Last Character** deletes the last digit entered.
- **E** enables you to enter an exponent.

New PF Key Assignments for COWs

5 November 1993

Author: *Janice Nelson* **Subsystem:** *SCP* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *No* **Help File:** *Yes*

Due to popular requests from the operators, the following PF key assignments have been made for the network COWs:

- F1 = Select Calculator Panel
- Shift F1 = Spawn MATLAB
- F2 = Select BPM Buffered Data Acq Panel
- Shift F2 = Spawn Allphone
- F3 = Restore Knob
- F10 = Halt All Display

Similar key assignments have been made for the X-COWs with the exception of Shift F2 as the accounts on these X-COWs (MCCSCP) do not have the privilege to access the allphone information.

This information on PF keys is available from the "Help for PF Keys" button on the Special Displays panel.

Automatic Popup of Decterm Windows

November 4, 1993

Author: *R. Johnson, T. Himel* **Subsystem:** *X SCPs* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *No* **Help File:** *No*

Have you ever lost the DECTERM from which you started a SCP and had to search under all your other windows to find it? Search no more. Now it will just pop right up for you. Details follow.

Generally when using an X SCP, the touch-panel and graphics windows get the most use and the message window is sometimes needed. The DEC-terminal window from which you started the SCP usually gets buried or iconified. For some actions though, the SCP puts itself to sleep and *spawns* a process to do something. This process puts its output (and accepts its input) to the terminal from which the SCP was started. If you can't find this terminal or don't know that the program is waiting for you to answer a prompt, it is annoying. Some examples of situations which cause a process to be spawned are: IPLing a micro, submitting an *access* procedure to turn a section of the accelerator on or off (these often prompt you for confirmation), getting a list of the active access procedures, and spawning MATLAB or CATER.

Now when the SCP spawns something it will *typically* pop your terminal window to the top so you can see what is going on. When the spawned job finishes, the graphics, touch-panel, and message windows are automatically popped back up. This all works even if you had iconified the terminal window.

You may be wondering why we said "typically" in the previous paragraph. It turns out one doesn't want to *always* popup the terminal window when the SCP spawns something. For example when you press a button to setup a GPIB controlled oscilloscope it typically spawns a CAMCOM job to do the work. This is quite fast and needs no interaction from the user, so we have chosen not to popup the terminal window in such cases. Since there are many (about 50) different things that the SCP spawns (and more are always being added), we have provided an easy way to tell the SCP whether it should popup the terminal window. Most spawns are generated with a `SPAWN` line in the PNL file which defines the touch-panel. By default, such a `SPAWN` line will popup the terminal window, do the spawn, and immediately pop the window back down. To prevent the popping, the following continuation line can be added after the `SPAWN` line.

```
>               ,NOPOP   ,POPUP    ,
```

In some cases the spawned command puts up a display and it is nice to have a chance to look at it before the window gets popped back down. To force a prompt of "Hit carriage return to continue" and a subsequent delay of the popping back down until carriage return has been hit, the following continuation line can be added after the `SPAWN` line.

```
>               ,PROMPT  ,POPUP    ,
```

For all existing SPAWN lines in all the touch-panels we have attempted to do the right thing. If you add a SPAWN line, you may need to add one of these continuation lines.

It is a little tricky for the SCP to figure out which terminal window you used to start the SCP. We have implemented a method which should always work if you start the SCP from the APPLICATIONS menu as described in the Aug 12, 1993 issue of the INDEX PANEL, or if you type SCP on a **DECterm** running on a VAXstation or an NCD Xterminal. This whole system does NOT work on a MAC or PC and hasn't been tested on other platforms (SUNs...), so you should assume it won't work. On platforms where it doesn't work, you can still run the SCP, however, the terminal window won't automatically pop up.

Problems with the Keypad Enter Key

November 5, 1993

Author: *Ralph Johnson* **Subsystem:** *SLC* **User Impact:** *Small*
Panel Changes: *None* **Documents:** *No* **Help File:** *No*

There have been reports of problems with using the "Enter" key of the numeric keypad on NCD terminals. The problems occur when interacting with a SCP, and cause the SCP to hang or crash. In these cases, the following procedure may be used to reset the default keyboard setup and fix the problem:

1. Select the keyboard options from the options menu of the session manager window.
2. Change the bell volume slightly (or some other parameter), click apply, and click ok.
3. Select the save session from the options menu of the session manager window.
4. End your session (Go back to the DEC login screen.).
5. Log back into the session.

If you still experience problems, call Ralph Johnson at ext. 2558.