

These buttons function identically to the Unit A variety. If the button

PLOT
UNIT
B vs A

 is selected, a two dimensional plot will be made with the "B" data plotted along the vertical axis and the "A" data plotted along the horizontal axis.

Another button exists to control the new plot. Selecting

ENTER
PULSE
OFFSET

 prompts for a Pulse Offset to be entered. For each measurement of Unit A to plot, a corresponding measurement of Unit B is found which was made on a beam pulse different than the Unit A beam pulse by the value of Pulse Offset. A typical use of this offset would be to set Unit A to a scavenger electron beam intensity and Unit B to a positron beam intensity. By setting the offset to 1 (for 120 Hz operation), the plot of Unit B vs Unit A will compare the intensity of each positron bunch with the intensity of the electron bunch which initially made it. The Pulse Offset is initialized to zero but its current value is displayed on the button. Keep in mind that this offset refers to beam pulses and not "Pulse I.D."

The other functionality added was an option to dump the collected data to a file in MATLAB format rather than ASCII. A button was added

TOGGLE
FILE
FORMAT

 to allow selection of either the new MATLAB format or the original ASCII format. The MATLAB file consists of 1-D vectors for each of the data items selected. They are appropriately labeled for MATLAB to assign variable names to them. Refer to the help file for a list of the labels used.

Another button was added to aid in plot reading. The button

TOGGLE
PLOT
LINES

 will control the use of lines to connect adjacent points on either the plot of Unit A vs time or the plot of Unit B vs A. This avoids having to go to the HandyPak panel to control that function.

To make room for the new buttons, several of the existing buttons were moved and the button

SPEAR
BPM
MEAS

 was eliminated. Hopefully, everyone will find the new layout convenient.

One last item is that a Reset of HandyPak is now made before each of the display operations is done so that the display will not be left in some strange state from a previously used panel.

EDITDBS

November 12, 1990

Author: *Lawrence Searcy*
Panel Changes: *None***Subsystem:** *Database*
Documents: *Yes***User Impact:** *Small*
Help File: *Yes*

Several new features have been added to the The EDITDBS command. In addition, some of the default responses to the questions have been changed, and the code has been improved to run faster.

EDITDBS will now allow you to look at a database file if you do not want to reserve it. When you answer "no" to the "Do you want to reserve this?" prompt, it will ask, "Do you want to look at it?". If you answer "Yes", it will present you with a read-only (unmodifiable) version of the file in the EVE editor. This will allow you to look at the file but will ignore any modifications you try to make. The read-only format will also allow you to exit EVE normally with a Ctrl-Z.

It is also possible to look at the differences between your edited file and the original database file after you have finished editing your copy. If you skip over the editing session you will not be prompted to do this. This will allow you to see how you have modified the database file.

The default response to some of the questions have been changed. The default for "Do you want to do a TESTDBGEN?" has been changed to "no". EDITDBS will ask you if you want to make a new Miniedit file if it finds the Miniedit file in the current directory. The default for this has also been changed to "no".

After DBGENing, EDITDBS used to automatically check with CMS to see if you had the file reserved before giving you the replacement prompt. It will no longer do this if you have reserved the file in the current session.

One Important note for the casual user: EDITDBS will allow you to make multiple reservations of a file. This is because EDITDBS only looks in your current directory for the file before assuming that you have not reserved it. If you reserve it, change working directories and then re-enter EDITDBS, it will assume that you have not reserved the file and will give you the reservation prompt. Fortunately, CMS will tell you if you already have reserved the file and will ask you if you want to continue. You should generally answer "no". If you do so, EDITDBS will clean up and drop you out so that you can put the file in your current directory.

For additional information type \$EDITDBS.

Video Distribution System

November 14, 1990

Author: *Ken Underwood*
Panel Changes: *Many***Subsystem:** *Video*
Documents: *Yes***User Impact:** *Small*
Help File: *Yes*

The Video Distribution software has been upgraded to support the manual distribution hardware. There are also several changes to the VCAM transmit frequency selection as well as the addition of a SHADOW touch panel button to display the current settings. The touch panel HELP has been updated to reflect these changes. These changes and the yet to be specified second stage improvements are described in more detail in the file DOC\$DESIGN:RF_VIDEO_MODS.

The basic flaw in the original implementation of the video distribution system control was the lack of support of the several manual video distribution systems. The VCAM maintenance touch panels were used to display video on these manual systems. This confused the automated video distribution software because it was unaware of these changes.

All requests for the manual and automated video distribution systems are now monitored and coordinated by the software. Since there is no way to actually monitor or control any of the manual systems, they are all considered to be just one system. Consequently, you may experience some conflicts if more than one person is trying to set up a manual distribution system.

The algorithm for selecting a transmit frequency for a VCAM module has been modified. You may select a specific frequency or allow the software to automatically select one for you. If you do select a frequency then that frequency will always be used for any VCAM, so set the frequency selection back to **AUTO** when you are finished. For the automatic select the software will try to find a transmit frequency in the following order:

1. If the VCAM is already transmitting on a frequency, then keep the same frequency.
2. If any online frequency is unused, then allocate that frequency.
3. If the current distribution system is already using a frequency, then reuse that frequency.
4. Prompt the user for the frequency to use.

This frequency selection scheme will permit the absolute selection of a high quality video channel when necessary, while minimizing the degree of user intervention with automatic frequency selection.

The current default setting for the distribution system, cable, channel, and monitor can be displayed on the touch panels. Those panels that reference the video distribution system and have space available, will be modified to display this information.