

# Entering New Parameters

*Parameter page lore*

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Several options are available for entering new channels to be displayed on a Local Station's parameter page. This note attempts to itemize them.

There are 14 lines available on the parameter page display. The line after the page title is called the "first" line. It has no line immediately preceding it. When entering any text on the screen, the program does not "watch" the characters being typed. It only "reads" from the screen when the user presses the keyboard interrupt button (or ESC key). So it doesn't know what the user typed; it only knows what is displayed on the screen. (It also cannot tell which characters are displayed in inverse video.)

## *Analog device name*

If one types a name of up to 6 characters starting in column 0 (the left-most column) and presses the interrupt button, the parameter page program will try to translate the name into a channel number. It first searches its own local database for a match on the name; if it's not found, it sends the name out to all network nodes via multicast. Each node searches its own database for a match. A node that finds a match (there should only be one) returns its CHAN ident (including its node number). If no match is found, the name is unknown and the line is blanked. If there is a match, the CHAN is accepted for that line, and a new request for database information and data is issued to rebuild the page. The name that is entered must be at least two characters in length, and it must not include a colon character. The program will use the cursor position to limit the characters that it accepts as user input. Hence, one should not move the cursor after entering the name and before pressing the interrupt.

## *Analog channel ident*

The channel ident is represented in ASCII as NNNN:CCCC, where NNNN is the hex node number and CCCC is the hex channel number within that node. If the user types this form at the start of a line, it will be interpreted as a CHAN ident. This case is distinguished from the name case just described by the presence of the colon separator.

There are several variations of this form supported by the parameter page. If a node number is typed alone (including the colon) on an active line (one that currently shows a channel), the new channel ident is formed from the node number typed and the same channel number currently shown. In other words, the same channel in another node is selected. But that's not all. If there are lines *after* this line on the page that are displaying the same node number as is *presently* displayed on this line, then each of *those* lines will be similarly adjusted to refer to the new node number typed. As a degenerate case of this, suppose all 14 lines are displaying a set of channels which are all from the same node. Entering a new node number alone on the first line will cause all the lines to switch to the new node but using the same channel numbers as before.

If the user enters a *channel number* alone without a node part, the local node is the node which is selected. In this case, one must enter a colon followed by the channel number to prevent interpretation as a name. This is especially convenient for a local test station in which there may not even be a network connection, or at least no interest in other network stations.

## *Clear a line*

To clear a line to blanks that is active, merely interrupt with the cursor in column 0 of the line. The line will be blanked and no data will be displayed on that line. The program does not, however, revise its data request at this point. It will continue to receive the data that

was displayed until an addition or change is made to the channels displayed on the page. A by-product of this detail is illustrated by the case when a line is displaying the only channel on the page that is from a node which is not supplying data to the request. (Perhaps it does not exist or is not open onto the network.) If one interrupts at the start of that line, there will still be the error indication (8) displayed reflecting the fact that some data is "missing."

To clear a set of successive lines, enter a name that is all blanks. (Two blanks are sufficient.) Then that line *and all following lines* will be blanked.

### *Sequence of channels*

This case is similar to the one just described for clearing a line, but with rather different effect. If the user interrupts in column 0 of a *blank* line that is preceded by an active line, the CHAN accepted is the next channel number in the same node as that of the preceding active line. In addition, the cursor is advanced to the following line; thus, by interrupting at the start of a blank line which is followed by more blank lines, one can build up a sequence of channels entered all from the same node as the active line just before the first blank line. Also, since an interrupt at the start of an active line blanks that line (without advancing the cursor to the next line), one can enter a sequence of channels *through* a set of lines that include active lines. It just takes an extra interrupt to get rid of each active line. What's more, one can take advantage of the repeat action feature of the little console keyboard hardware and merely press the ESC key continuously to achieve this effect.

### *Sequence of nodes*

One can also enter a sequence of nodes using the same channel number. In this case, an interrupt is made with the cursor in column 1 (the second character position) of a blank line that is immediately preceded by an active line. The CHAN entered is then the same channel number as the preceding active line combined with the next node number (node+1) of the one on the preceding line. In addition, the cursor is advanced to column 1 of the following line. This allows the user to enter a sequence of nodes all with the same channel number on a sequence of blank lines.

If the user interrupts in column 1 of an *active* line, that same active line is changed to select the same channel number in the next node. Successive interrupts step through successive nodes on that same line, as the cursor is not moved.

### *Saving a channel selection*

All the changes described above are *temporary* changes. In order to make the present set of channels displayed into the *permanent* set (the ones which will be used the next time that page is invoked), the user merely types an x in the home position (use the home key on the keyboard) and interrupts with the cursor just after the x. (It would seem that one should get page x by following this procedure, but not in this special case. Besides, the highest page number is v.) The parameter page merely refreshes itself; it does not exit the page. The next time the same page gets called up from another page or the index page, this newly appointed set of channels will be displayed immediately.