
The Wheatstone Router Control System

TV-80 Audio Consoles

Technical Manual
November 1998



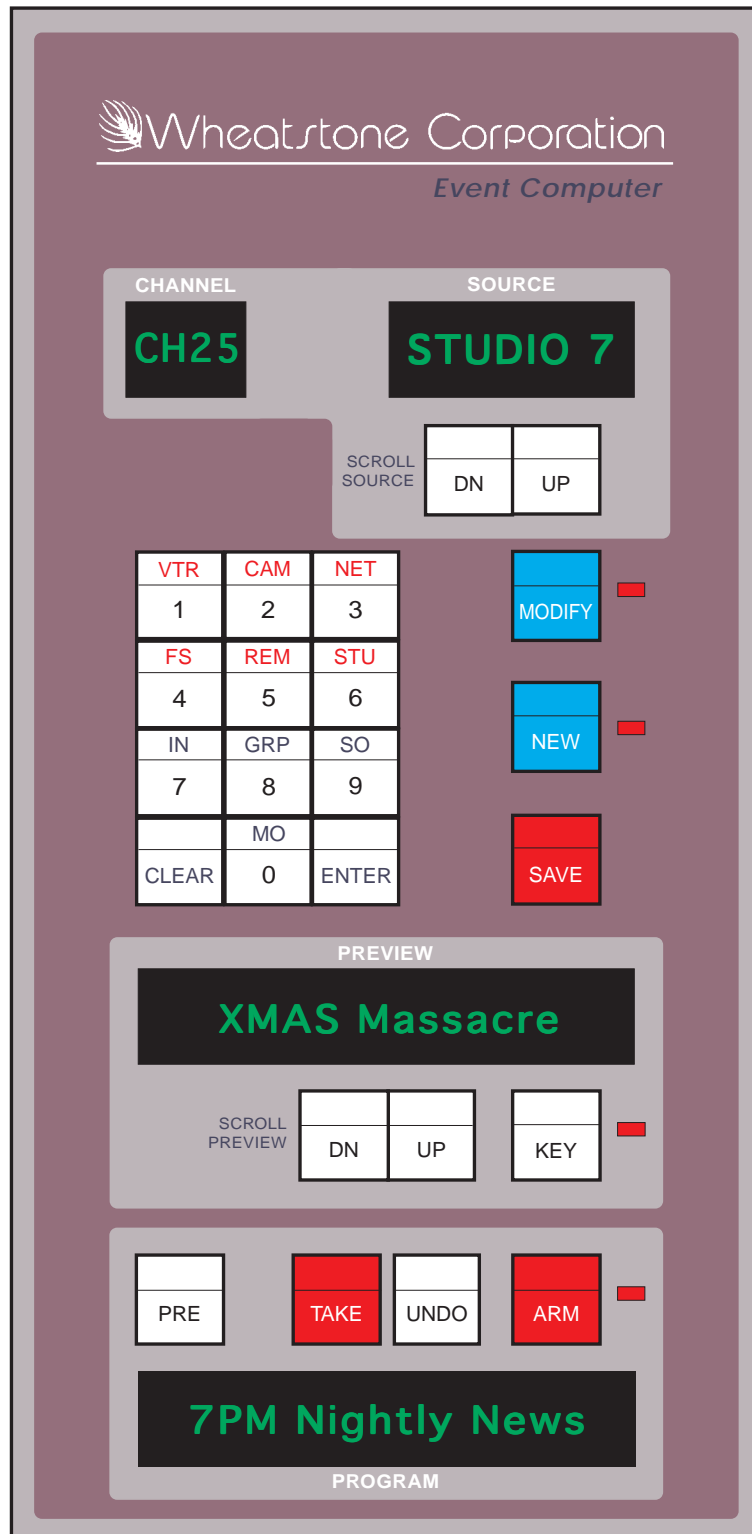
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ROUTER CONTROL SYSTEM



1.0 SYSTEM OVERVIEW

The Wheatstone TV-80 Router Control System provides a degree of automated control of source selection in the console. Smart Select buttons on the meterbridge select 1 of 8 different sources to provide the input signal for their associated Input module. The actual switching of source audio is done in a rackmounted Smart Select Switch module (available for switching mono mic/line or stereo line sources). A row of alpha-numeric displays above the fader panels quickly shows the operator that the right source has been selected. The Smart Select buttons are active only for the primary source for any given input module. If the source is changed to one of the three alternate sources, the display will reflect this change. The source selection on the input module is not under computer control in the TV-80. The Smart Select button selections can be saved for recall at a later time.

The System Access Panel, shown to the left, gives the TV-80 console operator access to the many features of the system.

2.0 INSTALLATION

This section describes the installation of the Wheatstone Router Control System.

2.1 CONSOLE INSTALLATION

The Smart Select Buttons and the System Access Panel use a power supply separate from that used by the rest of the console. This supply is available in a failsafe version with two power supplies. Unpack the supply components and mount the supplies in the equipment rack. Make sure that the power supply switches are in the OFF position, and connect one end of the power cords to the power supplies, and the other end of the cords to the AC supply.



TECH NOTE: To insure proper power sequencing in systems using an Event Computer, we recommend that the PSC-125 Event Computer Power Supply be connected to the same AC power circuit as the PSC-1000 TV-80 Console Power Supply. Further, if you have failsafe power supply pairs and have connected each PSC-1000 to its own separate AC power circuit, as recommended elsewhere in this manual, we recommend that you connect one PSC-125 to each of those circuits. If this is not done and the power to the PSC-125(s) is temporarily interrupted, the console's Smart Select displays could display inaccurate information about the channel sources after the PSC-125(s) restart, requiring the operator to toggle the source on each of the affected channels to correct the display error. No other ill effects will be produced.

A power supply cable connects the supply to the rear of the System Access Panel. (Two cables are provided in the failsafe version.) Connect one end of the cable to the power supply output connector. The other end of the supply cable can now be connected to one of the connectors on the rear of the System Access Panel. If installing the second failsafe supply, connect it in a similar manner, using the other connector on the rear of the System Access Panel. Note that the Smart Select Button basket is powered via a cable connecting a DB-15 connector on the basket to a DB-15 connector on the rear of the System Access Panel.

Further connections to the console components of this system will be made at a later point in the procedure.

A preliminary check can now be made by turning on the power supplies. The Smart Select Buttons will briefly light, and then go blank. The source displays will all show four dots, while the System Access Panel will show the message "Router CONTROL by WHEATSTONE!" in the preview and program windows. The channel and source windows will remain blank, and the System Access Panel LEDs will stay off. The power supply +5 and +12 indicators will light. After verifying correct operation, turn the power supplies off.

2.2 EVENT COMPUTER INSTALLATION

Unpack the Event Computer and mount it in the equipment rack. Connect one end of the line cord to the back of the Event Computer and the other end to the AC power source. If the Event Computer POWER indicator lights, press the POWER switch to turn it off.

Unpack the computer monitor. If desired, snap the swivel base onto the bottom of the monitor. Place the monitor on the counter top where it will be used. Verify that the video cable will reach to the VIDEO port on the back of the Event Computer. Connect the monitor's power cord to the AC power source. If the

monitor power indicator LED at the lower right front corner of the monitor lights, press the monitor POWER switch to turn it off. Connect the monitor video cable to the VIDEO port at the back of the Event Computer.

Unpack the keyboard, plug it in, and place it in a convenient position on the counter.

Further connections to the Event Computer will be made at a later point in the procedure.

2.3 SMART SELECT SWITCH INSTALLATION

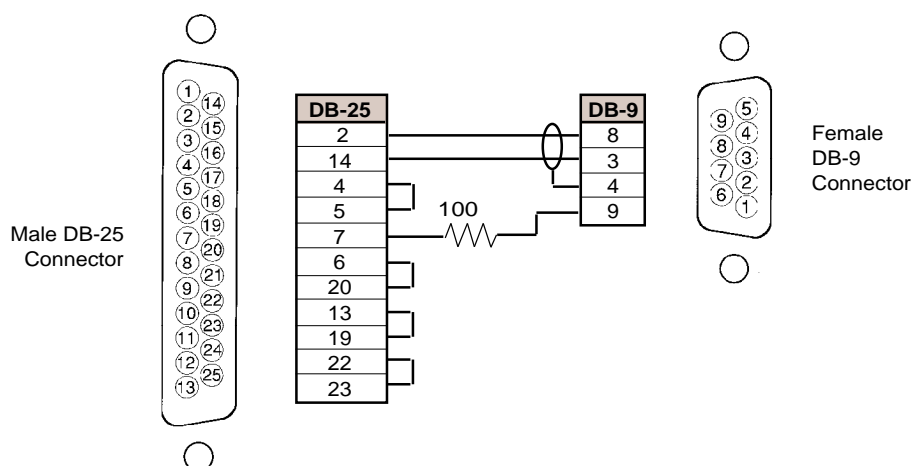
Unpack the Smart Select Switch rack cage. The unit contains the particular configuration of mono and stereo switch boards that were ordered, plus a controller board. One or two (if failsafe option ordered) rack mountable power supplies are provided. Install the unit in the equipment rack. Unpack the power supplies and install them in the equipment rack. Connect the power supply cord to the rear of the supply, and connect the other end of the cord to the AC power supply. Connect the cables supplied between the power supplies and the cage. The unit will power up with all LEDs off on the switch modules. The power supply LEDs will be on.

If your system includes two Smart Select Switch cages, install the second one in the same manner. If two cages are employed, an FSI-B panel is supplied to enable the supply to be connected to both cages. In a two cage failsafe configuration two FSI-B panels are supplied.

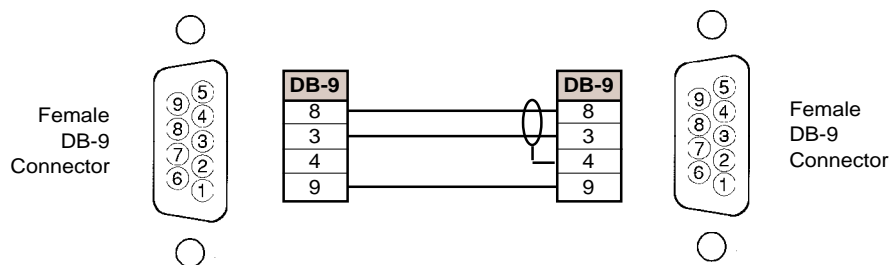
When installation is complete, temporarily disconnect the cages from the AC power supply.

2.4 SYSTEM INTERCONNECTION

To establish a communications link between the Event Computer and the Smart Select devices, several cables are provided. Cable details are shown here for your reference. The first cable used is from the Event Computer to the first peripheral in the chain. The Event Computer end has a female DB-25 connector, while the peripheral end has a male DB-9 connector. The following chart indicates the connections:



The remaining cables connect each peripheral in the chain to the next one, and use a male DB-9 connector on each end. The following chart indicates the connections:



Using the cables described, connect from the Event Computer COMM1 port to one of the I/O ports on the first peripheral, and from the other I/O port of the first peripheral to one of the I/O ports of the second peripheral, and so on until the last peripheral is reached. Note that on all devices there is no difference between the two I/O ports; either port may be used as an input, with the other port used as an output.

2.5 HOUSE SWITCHER

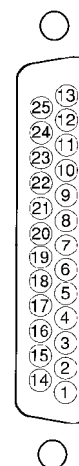
The details of interconnecting to the house switcher are system dependent. See the addendum to this manual for further information.

2.6 AUDIO CONNECTIONS

Using shielded, twisted pairs, connect the audio sources and destinations together as required. The following charts indicate the audio I/O connections for the Smart Select Switches.

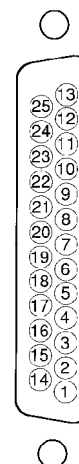
2.6.1 STEREO LINE MODULE

Upper DB-25	Function
13	n/c
25	Channel 1 LT shield
12	Channel 1 LT low
24	Channel 1 LT high
11	Channel 1 RT shield
23	Channel 1 RT low
10	Channel 1 RT high
22	Channel 2 LT shield
9	Channel 2 LT low
21	Channel 2 LT high
8	Channel 2 RT shield
20	Channel 2 RT low
7	Channel 2 RT high
19	Channel 3 LT shield
6	Channel 3 LT low
18	Channel 3 LT high
5	Channel 3 RT shield
17	Channel 3 RT low
4	Channel 3 RT high
16	Channel 4 LT shield
3	Channel 4 LT low
15	Channel 4 LT high
2	Channel 4 RT shield
14	Channel 4 RT low
1	Channel 4 RT high



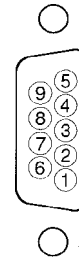
Stereo Line Module
Upper DB-25
Female Connector

Lower DB-25	Function
13	n/c
25	Channel 5 LT shield
12	Channel 5 LT low
24	Channel 5 LT high
11	Channel 5 RT shield
23	Channel 5 RT low
10	Channel 5 RT high
22	Channel 6 LT shield
9	Channel 6 LT low
21	Channel 6 LT high
8	Channel 6 RT shield
20	Channel 6 RT low
7	Channel 6 RT high
19	Channel 7 LT shield
6	Channel 7 LT low
18	Channel 7 LT high
5	Channel 7 RT shield
17	Channel 7 RT low
4	Channel 7 RT high
16	Channel 8 LT shield
3	Channel 8 LT low
15	Channel 8 LT high
2	Channel 8 RT shield
14	Channel 8 RT low
1	Channel 8 RT high



Stereo Line Module
Lower DB-25
Female Connector

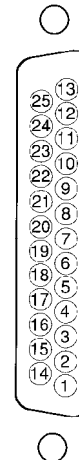
DB-9	Function
5	n/c
9	n/c
4	n/c
8	output, LT shield
3	output, LT low
7	output, LT high
2	output, RT shield
6	output, RT low
1	output, RT high



Stereo Line Module
Female DB-9
Connector

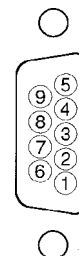
2.6.2 MONO MIC/LINE MODULE

Upper DB-25	Function
13	n/c
25	Channel 1 shield
12	Channel 1 low
24	Channel 1 high
11	Channel 2 shield
23	Channel 2 low
10	Channel 2 high
22	Channel 3 shield
9	Channel 3 low
21	Channel 3 high
8	Channel 4 shield
20	Channel 4 low
7	Channel 4 high
19	Channel 5 shield
6	Channel 5 low
18	Channel 5 high
5	Channel 6 shield
17	Channel 6 low
4	Channel 6 high
16	Channel 7 shield
3	Channel 7 low
15	Channel 7 high
2	Channel 8 shield
14	Channel 8 low
1	Channel 8 high



Mono Mic/Line Module
Upper DB-25 Female
Connector

DB-9	Function
5	n/c
9	n/c
4	n/c
8	output, LT shield
3	output, LT low
7	output, LT high
2	output, RT shield
6	output, RT low
1	output, RT high



Mono Mic/Line Module
Female DB-9 Connector

See the TV-80 manual for the audio I/O connections to the console, and see the appropriate equipment manuals for connection to the house switcher and other equipment.

2.7 SYSTEM STARTUP

The following procedure can be used for an initial check of the system. Reconnect the Smart Select Switch cages to the AC power source. Turn on the Smart Select Button / System Access Panel power supplies. The TV-80 console power supply must also be connected and turned on for this test. Press the POWER switches on the monitor and the Event Computer. The computer will go through a series of tasks that will take close to a minute before the program starts. When the startup process is complete, the following things should have occurred:

- (1) the Smart Select Switch LEDs will light to indicate input selection according to the information defining the first event in the schedule (see section on event editing);
- (2) the Smart Select Buttons will similarly light up according to the event data;
- (3) the Source Displays will indicate the alphanumerics assigned as defaults for the first event;
- (4) the System Access Panel program and preview windows will display the title of the first event list;
- (5) the channel and source windows will remain blank;
- (6) the System Access Panel LEDs will remain off;
- (7) the house switcher, if connected and in operation, will have received commands to effect crosspoint selections based on the event data;
- (8) the console surface switches will be set to select the default power-up source and stereo mode on all inputs, with all other switches off;
- (9) the Event Computer monitor will display the opening screen.

NOTE: The default power-up source 3 (LINE 1) on MIC/LINE modules and source 1 (LINE 1) on LINE modules.

In the event of problems, refer to the troubleshooting section of this manual.

3.0 OPERATION

The following section describes in detail the functions and operation of the Wheatstone Router Control System. Some key definitions are given first, followed by a description of operation from the console. Last, operation of the Event Computer is described.

3.1 DEFINITIONS

Within a definition, a term written in UPPER CASE is one which is defined elsewhere in this section.

DEFAULT - This term refers to the initial data for any EVENT. Each affected channel is set up for a given source, 1 through 8, to be selected, and the alphanumerics appropriate to that DEFAULT source are displayed.

DEFAULT (MODULE) INPUT - The module in a given position in the console can affect the contents of the Source Display. A text file is used to select which of the inputs of a module is the default input for that module. If the default input is selected, the Source Display follows the Smart Select Button selection. If any other input is selected for that module, the display shows the default text for that input, as stored in the same file. See the section on INPUT CONFIGURATION.

DUAL FUNCTION KEYS - To facilitate channel and source selection, the Wheatstone System Access Panel keypad, keys zero through nine, are double function keys. The first time, in the channel or source selection process, that one of these keys is pressed, it is interpreted as the alpha prefix, such as "IN" for channel entry or "VT" for source entry. When the key is pressed again during selection of the same source, the key represents a digit. The keys are stamped with both the digit and the channel or source prefix information.

EVENT - This term refers to any of a number of unique system setups. It is analogous to the terms "program" or "show" in the case of live production.

EVENT COMPUTER - This is the main controller for the Wheatstone Router Control System. It consists of a PC compatible, hard drive, 3 1/2" floppy drive, RS-485 serial port, RS-232 serial port, and video. A VGA monitor and a keyboard are included.

EVENT LIST - As new events are added, they are stored on this list, which is sorted according to the EVENT NUMBER.

EVENT NUMBER - A number generated by the system when a new EVENT is created to identify the event.

HOUSE SWITCHER - This term refers to any routing switcher provided by a manufacturer other than Wheatstone Corporation, to which the Wheatstone Router Control System will interface.

LIVE EDIT - This is the process of changing the setup for a single channel without affecting the rest of the EVENT setup. A channel and source must be selected. If the channel in question is connected to the HOUSE SWITCHER, the new source is assigned to Smart Select Button # 8 for that channel. Since channels not connected to the house switcher have a maximum of eight sources available to them, it is easier to change one of these channels by simply pressing the appropriate Smart Select Button for that channel. Any changes accomplished by this function are not remembered.

MATRIX ID - This term refers to the label by which a source is known to the HOUSE SWITCHER.

PREVIEW - This function allows the user to check, or PREVIEW, the setup for the next event in line (the PREVIEW EVENT), without affecting the status of the current PROGRAM EVENT.

PREVIEW BY KEY - This is the process of selecting the next PREVIEW EVENT by its EVENT NUMBER.

PREVIEW EVENT - This term refers to the EVENT that is next in line after the current event. This event may be selected using the SCROLL PREVIEW or PREVIEW BY KEY functions. When an EVENT is TAKEN, the system is then set up for the event that was named in the preview window, that is, the PREVIEW EVENT.

PREVIEW LOADING - This is the process of sending the data for the PREVIEW EVENT to the SYSTEM ACCESS PANEL, the SMART SELECT BUTTONS, and the SMART SELECT SWITCHES by pressing the PRE key. This is done so that a take can occur as quickly as possible.

PROGRAM EVENT - This term refers to the EVENT that is the current, "on-air" event. For example, if the program window reads "7PM NIGHTLY NEWS", then the system is set up for the news show that occurs at the 7 P.M. time slot, as programmed by the operator.

SAVE - This function allows the user to save changes to the current PROGRAM event, or to create a new event that is a copy of the current PROGRAM event.

SCROLL PREVIEW - This is the process of selecting an EVENT to become the new PREVIEW EVENT. The up key selects items later in the EVENT LIST (events having a higher EVENT NUMBER), while the down key selects items earlier in the EVENT LIST (events having a lower event number).

SCROLL SOURCE - This is one method of selecting a new source for assignment to a channel when doing a LIVE EDIT. The up key selects items later in the SOURCE LIST, while the down key selects items earlier in the source list.

SMART SELECT BUTTON - The modules, located in the TV-1000 console, that enable the console operator to select a new source for an input channel. The sources are predefined for each EVENT, and may represent sources available from the SMART SELECT SWITCHES or from the HOUSE SWITCHER, depending on which type of source is connected to the module's corresponding console channel. Each module has eight buttons, allowing selection of one of eight sources for each module. If the module represents an output from the house switcher, any inputs available to the switcher for that switcher output may be preassigned to one of the Smart Select Buttons. Additionally, button 8 of a house switcher channel can be assigned "on the fly" by using the LIVE EDIT function. Communications from the EVENT COMPUTER to the Smart Select Button is established through a Smart Select Button Controller module.

SMART SELECT SWITCH - This is one of up to eighteen modules contained in a separate rack mount cage. There are two module types available: the stereo line module and the mono mic/line module. Each module is a 1 of 8 source selector, with LEDs to indicate the source selected. Communications from the EVENT COMPUTER to the Smart Select Switch is established through a Smart Select Switch Controller module, located to the right of the last Smart Select Switch module in the cage. A system may employ one or two Smart Select Switch cages.

SOURCE DISPLAYS - These are four digit, 5X7 dot matrix, alphanumeric displays, located in a row above the fader modules. The exact number of displays is dependent on console size, number of modules, and desired number of display positions, but generally would include one display at each input position, and possibly a few at auxiliary positions. The information displayed is the name of the current source, in the case of input channels, but is not limited to this use. The display contents are defined in the EVENT definitions. The system is capable of having different display contents for each Smart Select Button associated with that channel. In the case of console positions that do not have Smart Select Buttons, only one display word is made available per event. The contents of group and output displays may be changed from the System Access Panel.

SOURCE LIST - This is a list, in alphanumeric order, containing all of the source names available for display in the SOURCE DISPLAYS. Included are sources specifically related to the HOUSE SWITCHER, as well as general sources available for all other channels. The list also includes MATRIX ID information. This list can be edited by the user; see the section on CONFIGURING SOURCE INFORMATION.

SYSTEM ACCESS PANEL - This is a module in the TV-1000 console that enables the console operator to call up a predefined group of source assignments, also known as an **EVENT**, and to perform limited editing of the event data. The module contains display **WINDOWS** to show the names of the current **PROGRAM** and **PREVIEW** events, as well as channel and source information used during a **LIVE EDIT**. The module also has four LED indicators to show the status of various module functions, and a total of twenty four keypad switches for function selection and data entry.

TAKE - This is the process of changing the system setup from the one defined by the current **PROGRAM EVENT** to the one defined by the next event in line, the **PREVIEW EVENT**. The preview event then becomes the new **PROGRAM EVENT**.

UNDO - This function is the opposite of **TAKE**, and allows a chance to recover from a premature or erroneous **EVENT** take. For example, assume event A is the **PROGRAM EVENT** and event B is the **PREVIEW EVENT**. A take makes event B the program event. An **UNDO** would then make event A the program event and event B the preview event once again. There is only one level of **UNDO**. If **UNDO** has been done and a subsequent take has not been done, the **UNDO** function will do nothing.

WINDOWS - The System Access Panel has four display windows, one each for channel, source, preview, and program. The program window shows the title of the **EVENT** for which the system is currently configured, and the preview window shows either the title of the current **PROGRAM** event, or the title of an event that has been selected for **PREVIEW**. When performing a **LIVE EDIT**, the channel window shows the name of the channel for which the source is to be altered, and the source window shows the name, and **MATRIX ID**, if applicable, of the new source being selected.

3.2 CONSOLE OPERATION

INITIAL CONDITIONS - In order to describe the operation of the system, we must start with a known condition. The assumption, unless otherwise noted, is that the last operation performed was a **TAKE**. Therefore, the program window contains the name of the program event, the preview window also contains the name of the program event, the Source Displays contain the default alphanumeric for the program event, the Smart Select Buttons are lit according to the default data for the program event, the Smart Select Switches are set according to the default data for the program event, and the house switcher has received the default data for the program event. The channel and source windows are blank, and the System Access Panel LEDs are off.

PREVIEWING AN EVENT - After first selecting an event for preview by scrolling or by key (see below), pressing the **PRE** key on the System Access Panel initiates a **PREVIEW**. The Source Displays will show the source names for

NOTE: In the sections that follow, reference to control buttons and keys on the Router Control Panel and the Event Computer keyboard will always be printed in out-line type. That is, if a button or key under discussion has the legend "ENTER" printed on it, it will be referred to in the text as **ENTER**.

the preview event. These displays will be flashing, as will the preview window display, to indicate that the system is in the preview mode. This allows the operator to check the source names of the preview event without taking the event. Pressing **PRE** again will exit from the preview mode. It is not necessary to exit from the preview mode before performing another function; this will be done automatically.

TAKING AN EVENT - To prevent accidental takes, the **ARM** key must be pressed to arm the take function. Press **ARM** and the ARM LED will flash, indicating that the panel is ready to act on a take (or an undo). Then press **TAKE** when you are ready, and the take process will occur, updating the Source Displays, the preview and program windows, the Smart Select Switches and Buttons, and the house switcher, and turning off the ARM LED. If **TAKE** is not pressed, the ARM LED will go out after about ten seconds, indicating that the system is no longer ready to perform a take or undo.

UNDOING AN EVENT - Should the operator take an event prematurely, or take the wrong event, press **ARM** and **UNDO**. This will return the system to its status prior to the last take, with the last program event being once again the current program event, and the last preview event (the one just taken) becoming the preview event once again. As in the take process, the ARM LED begins flashing when **ARM** is pressed, and goes off when **UNDO** is pressed, or when the arm timeout occurs.

PREVIEW SCROLL - There are two ways of selecting an event for preview. One way is to use the preview scroll keys. The **UP** key ("UP") will select the next event in the event list, and display its name in the preview window. The key may be pressed repeatedly to advance through the event list to the desired event, or the key may be held down, allowing the program to scroll through the list on its own. The **DOWN** key ("DOWN") works in a similar manner. Please note that changing the previewed event means that any preview data loaded to the Source Displays by pressing the **PRE** key is no longer valid. Once the desired preview event is selected, press the **PRE** button. After a slight delay, while the new preview data is loaded, the preview mode is entered, and the new data is now ready for use. If this is not done, the new data will still be loaded when the **ARM** key is pressed prior to the next take. If **PRE** is not pressed, and **TAKE** is pressed immediately after **ARM**, the take will be delayed while the data is being loaded.

PREVIEW BY KEY - The second way of selecting a preview event other than the next one in line is to use the **KEY** key. To use this feature, you must know the unique event number for the event in question. To learn how to determine the event number you need, please see the section describing the Event Computer operation. As an example, suppose you have an event called "FUND RAISER" that has an event number of 142. To call this event up for preview, press **KEY**. The KEY LED will flash. The preview window display changes to prompt you for the three digit event number. Use the numeric keypad above the left side of the preview window to enter the digits 1, 4, and 2. If the number required is less than 100, you only need enter two digits, or one digit for numbers below ten. After

entering the required digits, press **ENTER** on the keypad. The preview window will now show the title of the desired event, and the **KEY LED** will stop flashing. As noted in the above section (**PREVIEW SCROLL**), you should use **PRE** to make sure the data for the new preview event is loaded to avoid delays at take time.

SMART SELECT BUTTONS - The Smart Select Buttons are provided as a way of quickly selecting a new source for a given channel without changing the source assigned to any other channel. When an event is set up with the Event Computer, the primary source for each channel is set up as the default source. This means that when an event is taken, the Smart Select source selected as the default source is the one that will be connected, via the Smart Select Switches or the house switcher, to the input of that channel. The alphanumerics for that same source will be displayed in the Source Display above the fader, if the corresponding module's default input has been selected, and the corresponding Smart Select Button indicator will light. When the operator wants to select one of the other seven available sources, it is only necessary to push the appropriate button. The Smart Select Switch or house switcher will update, the new button indicator will light, and the Source Display will update, depending on the input selected on the corresponding module.

LIVE EDIT - For channels connected to the house switcher, the live edit function provides a way of selecting a source other than the ones defined for Smart Select Buttons 1 through 8 for that channel in the event data.

CHANNEL SELECT - Assume that a new source is to be assigned to channel 36 of the console. Press the dual function key **IN/7**. The channel display shows "IN". Press the **3** key, and the display changes to "IN3". Press the **6** key and the display changes to "IN36". Press **ENTER** and the display flashes, indicating a valid channel entry. If an error is made prior to pressing **ENTER**, press **CLEAR** and start over. If **ENTER** is pressed and then the error is discovered, press **CLEAR** three times, then start over.

SOURCE SELECT - Assume that VT51 is the source to be assigned to the channel. Press the dual function key **VTR/1**. The Source Display will show "VT". Press the **5** key and see "VT5". Press the **1** key and see "SnnnVT51", where "nnn" is a three digit matrix id code for the house switcher. Press **ENTER** and the display flashes, indicating selection of a valid source. **CLEAR** can be used, as above, to allow reentry after errors. If the source is one that is not in a group whose prefixes are found on the dual function source keys (**1** through **6**), then the **SCROLL SOURCE** keys must be used to scroll through the source list to find the appropriate source name. Even if the source is one that can be selected using the dual function keys, the scroll function can optionally be used to select that source.

TAKE THE SELECTION - Once a valid channel and source have been selected, press the **SAVE** key. The channel and source windows stop flashing. The source selected has now been assigned to Smart Select Button 8 for that channel. When the operator is ready, Smart Select Button 8 is pressed to

complete the source assignment. The house switcher will update, as will the Source Display. If the house switcher uses substitute names for sources, the Source Display will show the name tallied by the house switcher.

The live edit feature can also be used to change the alphanumerics of the Source Displays at the group and output positions. Use the appropriate dual function key to start the channel selection process, and use the SCROLL SOURCE keys to find the desired alphanumeric.

SAVING CHANGES TO AN EVENT - The key sequence **MODIFY**, **SAVE**, will save the current status of the console, including Smart Select Buttons, to the current program event. Any changes made using the live edit feature will not be saved.

CREATING A NEW EVENT - The key sequence **NEW**, **SAVE**, will save the current status of the console to a new event. A temporary name is assigned to the new event, and displayed in the program window. The temporary name will be of the format "Event Number nnn" where nnn is the next available event number. The name may be changed from the computer keyboard. Instructions to do this are found in the section **VIEWING AND EDITING EVENTS** under the subtitle **CHANGING THE EVENT TITLE**.

3.2.1 INPUT CONFIGURATION

A configuration file, TV80CHAN.CFG, is used to indicate which input for a given module on the console is wired to the Smart Select System, or to the House Switcher. This input is considered the default for that module, and the corresponding Source Display contents will follow the Smart Select Button for that channel. If a different input is selected, the Source Display will display alternate information as stored in the file.

The following paragraphs describe the file format and give instructions on how to alter the factory configuration.

Here are some typical lines from the file:

```

Ø1>ØØ>X>Ø>
Ø5>Ø1>I>1>INP1>INP2>INP3>INP4>
Ø6>Ø2>I>2>INP1>INP2>INP3>INP4>
16>12>M>1>EXT1>EXT2>EXT3>EXT4>AUX1>AUX2>AUX3>AUX4>AUX5>AUX6>
AUX7>AUX8>MST1>MST2>SUB1>SUB2>SUB3>SUB4>SUB5>SUB6>
SUB7>SUB8

```

The first line is for a channel that does not have a display. The "Ø1" indicates that the information is for the module at position 1 in the console. The "ØØ" indicates that the channel is not mapped to a Smart Select System channel. The "X" indicates that the position doesn't have a display. The "Ø" indicates that there are no default inputs, or none that need to be considered. This description can apply to any module that has no external inputs or to any position that has no display. The ">" characters are used to delineate the line into fields for easier reading on the screen or on paper.

On the second line, the "Ø5" indicates that the information is for the module at position 5 in the console. The "Ø1" indicates that the channel is mapped to Smart Select channel 1, corresponding to the input INØ1 in event listings displayed when using the program's event editing feature. The "I" indicates that the module is an input module. The "1" indicates that input 1 of this module is wired to follow the Smart Select Buttons. If the module has input 2 selected, the Source Display will indicate "INP2", if input 3 is selected the display will be "INP3", and if input 4 is selected the display will be "INP4". If the desired text is less than 4 characters, it must be padded with spaces to be exactly 4 characters in length.

Line 3 is only slightly different in effect than line 2. If input 1 is selected, the display will be "INP1", while if input 2 is selected, the display will follow the Smart Select Buttons. Note that this line applies to the module in console position 6 and is mapped to Smart Select channel 2 (INØ2).

The fourth line shows how to handle a monitor module in position 16 if the position also has a display. Since the monitor module has 24 inputs, this line is longer than the previous lines, to show the alternate display text for all 24 inputs. Note that only 1 character is used to indicate the default input. Use "A" for input 10, "B" for input 11, etc.

To edit the file, any text editor may be used, as long as it has a text-only mode so that no text formatting information is added to the file. The editing should be done while the Event Computer is not running its program. Best results are obtained by having the text editor in overwrite mode. The factory-provided file will have the file lines in numeric order according to console position. Do not change this order. To change the default input number, position the text editor's cursor at the appropriate location and type the desired designation. Use a zero for a channel that has a display but no Smart Select Buttons. If using a letter to indicate an input higher than 9, use upper case letters only. Do not use an input designation higher than the number of inputs available on the module. When typing new display text, always use exactly four characters. Any printable characters may be used, including the ">" character.

Before editing this file, save a copy. If you experience any problems with the edited file, at least you have a usable file as backup.

3.3 EVENT COMPUTER OPERATION

3.3.1 INTRODUCTION

The Event Computer serves as the master controller for the Wheatstone Router Control System, as well as the user interface for creating, editing, scheduling, and maintaining event data. This section contains a detailed explanation of the Event Computer functions and operation.

INSTALLATION - The Event Computer is shipped with the required software installed, and the user will not normally need to deal with this subject. There are, however, two exceptions. First, any future software updates will require installation; details, of course, would be provided at that time. Second, in the event of catastrophic failure, such as hard disk failure, the software must be reinstalled after the hardware repairs have been made. The system is shipped with the disks and documentation for the operating system. This must be installed first, following the instructions provided. Since the Wheatstone

install program will overwrite the operating system AUTOEXEC.BAT and CONFIG.SYS files, choose the operating system install options that leave the choices up to the install program. When the operating system installation is complete, put the ECOM80 install disk in the floppy drive and type A:INSTALL to begin. The procedure is automatic, and requires no user input to run to completion. Consult the factory if any install problems occur.

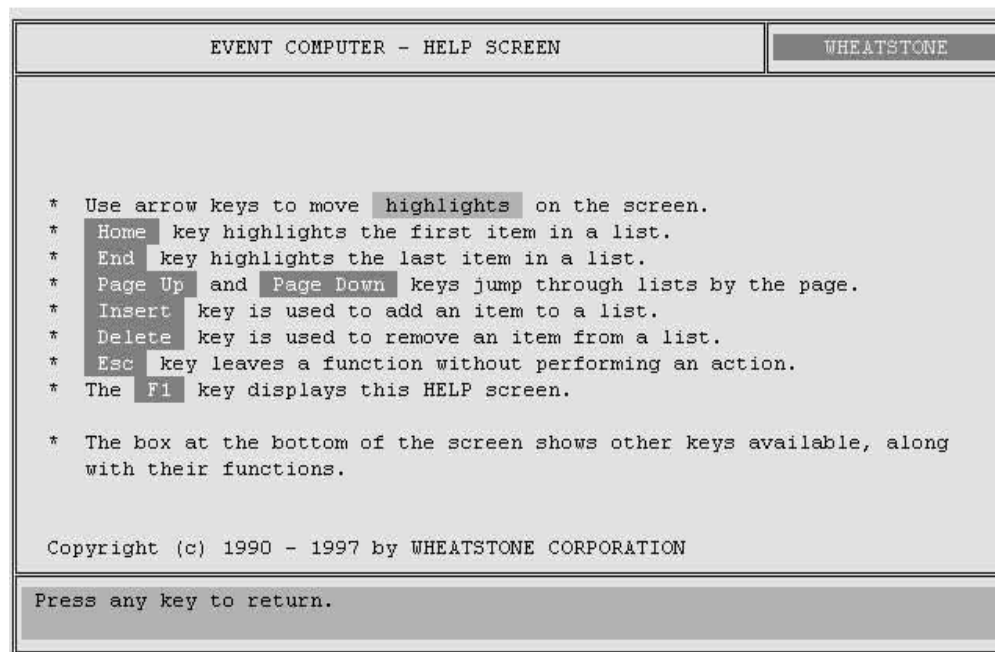
BACK UP YOUR FILES - Since the ECOM80 install program overwrites all event, source, and utility configuration files, make sure you back up your data periodically. See details in the section on MAINTAINING FILES.

THE ECOM80 PROGRAM - The ECOM80 program is a multitasking program, having the ability to perform more than one operation at a time. This allows one operator to perform routine event editing and scheduling while a second operator can be working the console. Certain restrictions to multitasking apply during file maintenance. See the section on MAINTAINING FILES for details.

TASK PRIORITY - The priority task handled by the program is the operation of the console System Access Panel, Smart Select Buttons and Switches, module input switches, and transmission of commands to the house switcher. The System Access Panel keys, the Smart Select Buttons, and the module input switches are constantly interrogated, allowing operator input to be acted upon quickly. During the idle times between these interrogations and actions, the Event Computer keyboard is interrogated, and this operator input is then also acted upon.

SPECIAL KEYS - The program makes use of several control keys for its operation. These will be designated as, for example, **Ctrl-V**, or **Ctrl-Enter**, in the instructions. The first example is entered by holding down either **Ctrl** key (there are two of them on the keyboard) while pressing the **V** key. In the second example, press **Enter** instead of the **V** key. The program makes use of other special keys, too. The **Esc** key is used to cancel an operation; use this if you have started to do something, but have decided for some reason not to finish it. Among function keys **F1** through **F12**, **F1** is used in the program. The **Tab** key is used, as are the comma, **Insert**, **Delete**, **Home**, **End**, **Page Up**, and **Page Down** keys, the four arrow keys, for up, down, left, and right movement, and the **Backspace** key. The function of this last key is NOT the same as the left arrow key previously mentioned, so take care not to confuse the two. The numeric keypad, at the right side of the keyboard, has keys whose function depends on the status of the **Num Lock** key; these keys should not be used unless you become familiar with the way they work relative to the **Num Lock** function. In any event, their use is not required.

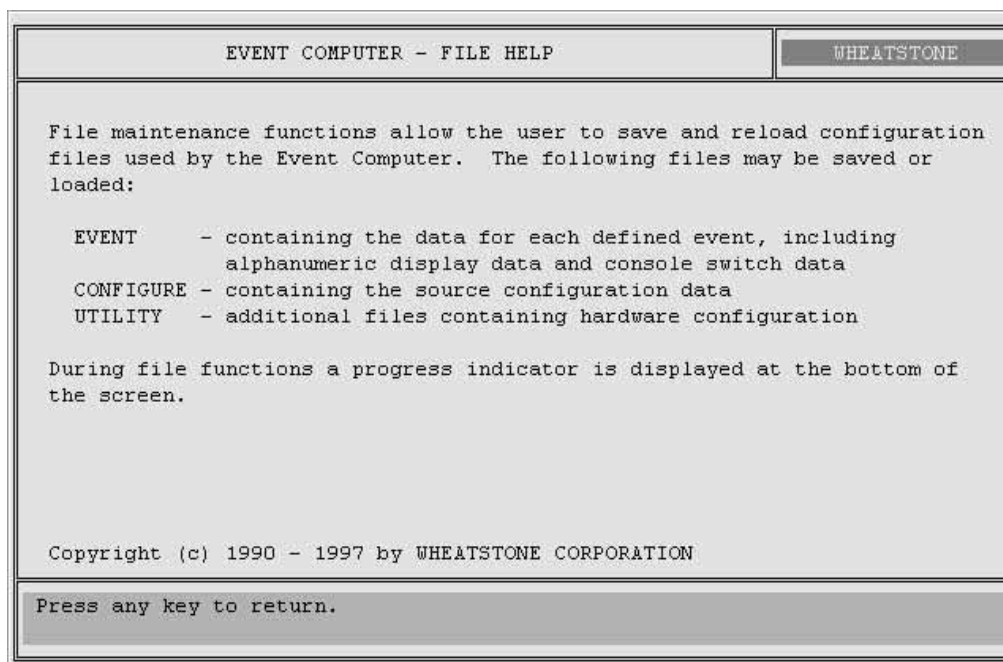
General Help Screen



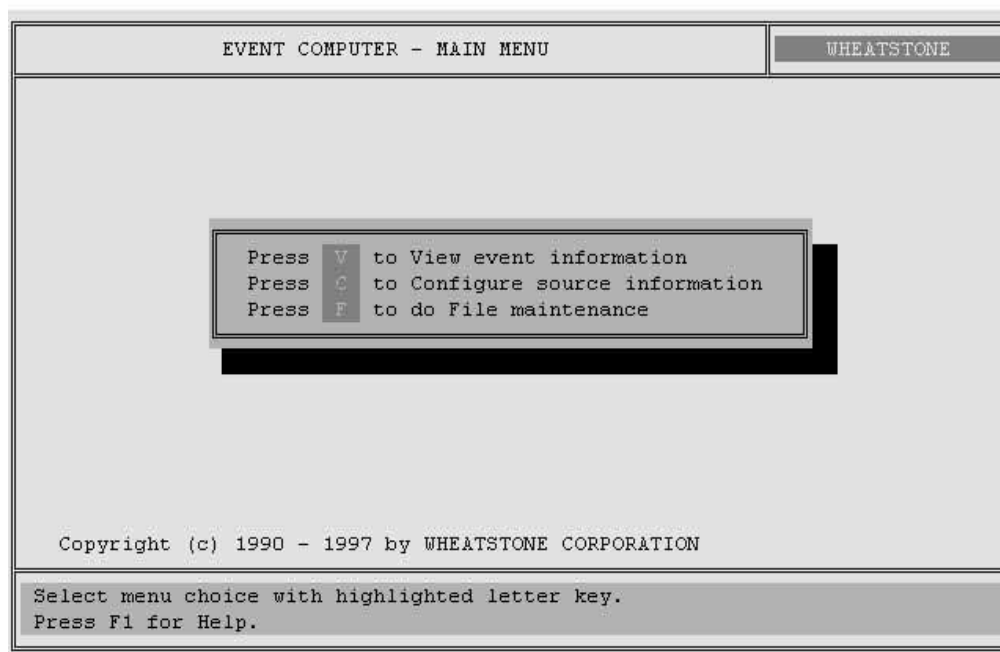
HELP SCREENS -

The program provides a general purpose help screen, available at any time by pressing the **F1** key. If the user is currently in the file maintenance functions, **F1** provides a second help screen that deals specifically with file maintenance.

File Maintenance Help Screen



The Main Menu



MAIN MENU -

The main menu provides the user with three choices:

- (1) viewing and editing events;
- (2) configuring source names and matrix identifications; and
- (3) maintaining event, source configuration, and utility files.

The details of these operations are described in the next section.

3.3.2 VIEWING AND EDITING EVENTS

Pressing **V** at the main menu allows the user to view, and edit, stored events. The view screen presents the user with all of the information for each existing event. The details available are described as follows:

The View Screen

EVENT #: 4 TITLE: Midnight Madness			WHEATSTONE							
CHAN	ID	DEFAULT	SMART PRESELECT ALPHANUMERICS							
			1	2	3	4	5	6	7	8
IN23	S007	CM04	AIR1	CM04	CM05					
IN24		Fred	Fred	Bob	Chuk					
IN25		GRPA	GRPA	GRPB	GRPC	ANK1	ANK2	ANK3		
IN26		MI 1	MI 1	MI 2	MI 3	GRP4				
IN27		MI 9	MI 9	MI10	MI11	MI12	MI13	MI14	MI15	MI16
IN28	S060	RM01	RM01	RM02	RM03	RM04	RM05	RM06		
IN29	S023	CP03	CP01	CP02	CP03					
IN30	S043	HSE1	HSE1	HSE3	HSE4	HSE9				
IN31	S044	HSE3	HSE1	HSE3	HSE4	HSE9				
IN32	S105	UT04	UT01	UT02	UT03	UT04	UT05	UT06	UT07	UT08
IN33	S100	HF01	HF01	HF06						
IN34		Lar	Jeff	Joan	Lar					
IN35	S042	ZONE	ZONE	ZONE						
IN36		Ph 1	Ph 1	Ph 3	Ph 5					
Press Enter to change highlighted preselect. Ctrl-Enter changes default. Ctrl-S Saves. Ctrl-C Copies. Ctrl-V Views another event. F1 for Help.										

EVENT NUMBER - This number, appearing at the upper left corner of the view screen, is the unique number assigned to an event by the program when it is created, and is the computer's index into the event file for that event. This is the number that must be used when doing PREVIEW BY KEY at the console. You can not directly change this number.

EVENT TITLE - This is the name given to the event by the user at the time of creation. The name may be changed when desired.

CHAN - This column shows the reference name for each channel position of the console. Input channel names are "INxx", where "xx" is the channel number, starting with "01" for the first console position. Group modules are designated "GRxx", stereo output modules are "SOxx", and mono outputs are "MOxx". These names are assigned by the program and cannot be changed by the user. Some rows will have this column blank; this indicates a console position that has no input, group, or output channel. If the unnamed position contains a Source Display, data may still be defined for writing to that display. Console positions without a Source Display will not be listed here.

ID - This column shows the matrix identification for the DEFAULT source for that channel. Details of the matrix id data are included under the topic CONFIGURING SOURCE INFORMATION.

SMART PRESELECT ALPHANUMERICS - Each Smart Select Button module has eight button positions, each one of which can represent a preselected source for that channel. The alphanumeric name of each source is listed here, under the appropriate column 1 through 8. Note that these names are the ones that will appear in the console Source Displays when the particular source is selected.

DEFAULT - For each channel, any one of the eight sources can be the DEFAULT source. This is the source that is automatically selected when the event is taken. The DEFAULT column indicates the name of the DEFAULT source for that channel. (Apologies for misspelling DEFAULT on the screen, but it was necessary to make the screen width come out correctly.)

EDITING RESTRICTIONS - You are not allowed to edit the setup data for the current program event, nor are you allowed to edit the current preview event if the console is in the preview mode.

INSTRUCTION AREA - An area at the bottom of the screen is set aside to provide two lines of instructions for the operator.

View Screen
Save Prompts

EVENT #: 22		TITLE: Wash Your Dog		WHEATSTONE							
CHAN	ID	DEFAULT	SMART PRESELECT ALPHANUMERICS								
			1	2	3	4	5	6	7	8	
IN23	S007	CM04	AIR1	CM04	CM05						
IN24		Fred	Fred	Bob	Chuk	ANK1	ANK2	ANK3			
IN25											
IN26											
IN27											
IN28	S										
IN29	S										
IN30	S										
IN31	S										
IN32	S										
IN33	S										
IN34		Lar	Jeff	Joan	Lar						
IN35	S042	TONE	TONE	TONE							
IN36		Ph 1	Ph 1	Ph 3	Ph 5						

Do you wish to save changes made to **Wash Your Dog** before leaving the event editor?

Press **S** to Save changes

Press **L** to Leave the editor without saving

Press **R** to Review changes

Select menu choice with highlighted letter key.
F1 for Help.

SAVE PROMPTS - If you have edited an event and have not saved the changes, and you then attempt to leave the event viewer, or view another event, or create a new event, a prompt will appear to remind you that your changes to the current event have not been saved. You are given three choices: (1) save

EVENT #: 22		TITLE: Wash Your Dog			WHEATSTONE					
		SMART PRESELECT ALPHANumerics								
Choose new SOURCE from list:					3	4	5	6	7	8
Mic5	Mic6	Mic7	Mic8	MONO	CM05					
MST1	MST1	MST2	MST2	NET1	Chuk		ANK2	ANK3		
NET2	NET3	NEWS	Ph 1	Ph 2	GRPC		GRPD			
Ph 3	Ph 4	Ph 5	Ph 6	Ph 7	MI 3	MI 4	MI 5	MI 6	MI 7	MI 8
Ph 8	Ph 9	Ph10	Ph11	Ph12	MI11	MI12	MI13	MI14	MI15	MI16
Ph13	Ph14	Ph15	Ph16	Prod	RM03	RM04	RM05	RM06		
Ralf	RM01	RM02	RM03	RM04	CP03					
RM05	RM06	RM07	RM08	RM09	HSE4	HSE9				
RM10	RM11	RM12	RM13	RR1	HSE4	HSE9				
RR2	S009	SA1	SA2	SA3	UT03	UT04	UT05	UT06	UT07	UT08
SA4	SI 0	SI 1	SI 2	SI 3						
SI 4	SI 5	SI 6	SI 7	SI 8	Lar					
SI 9	SI10	SI11	SI12	SI13						
SPRT	ST 1	ST 2	STDA	STDB	Ph 5					
Highlight desired source label. Press Enter to copy that label to highlighted preselect. F1 for Help.										

CHANGING THE EVENT TITLE - To change the title of the currently displayed event, press **Ctrl-T**. A title of up to sixteen characters can be entered. Title entry is terminated by pressing **Enter**. The Backspace key can be used to fix errors made in title entry. Please note that no provisions are made in the program to prevent the creation of duplicate titles, so take care to avoid using the same title for two different events.

SAVING THE EVENT - Press **Ctrl-S** to save the edited event. If you fail to do this, you will be reminded before you proceed to another task or return to the main menu.

Viewing Another Event

EVENT #: 14		TITLE: Mutated Musicals		WHEATSTONE	
7PM Nightly News Kidz Korner Dance with Drac Vacuous Videos Power of Poetry Talk is Cheep	Headline News Bob's Talk Thing Dogs on Parade Mutated Musicals Hump Day Movie Wash Your Dog	CAGE CONTROL TST Ghastly Gourmet Surgery with Sam Animal Garden Fence Mending	Midnight Madness Party Time Dude Smart Alexander Pete's Pasta Pot Phresh Phish		
Highlight desired event and press Enter. To select by event number, press Tab. Ctrl-C to Copy event. F1 for Help.					

VIEWING ANOTHER EVENT - Press **Ctrl-V** to view another event. A list of existing event titles will pop up; use the arrow keys to find the desired title. If you are looking for a particular event number, instead of a title, press **Tab** and use the up and down arrows to scroll to the number desired. In either case, press **Enter** to bring the selected event into the view screen.

CREATING NEW EVENTS BY COPYING - The Event Computer program comes with several sample events. As you create your own custom events, begin by viewing an event that most closely resembles the event you want to end up with. While viewing the event, press **Ctrl-C**. Your data will be copied to a new event, with its own unique event number. You will be prompted to enter a new title for your new event; do so according to instructions already given above. You can then edit the event as desired.

Deleting Events

EVENT #:		7	TITLE: Ghastly Gourmet					WHEATSTONE		
CHAN	ID	DFAULT	SMART PRESELECT ALPHANUMERICS							
			1	2	3	4	5	6	7	8
IN23	S007	CM04	AIR1	CM04	CM05					
IN24		Fred	Fred	Bob	Chuk	ANK1	ANK2	ANK3		
IN25		GRPA	GRPA	GRPB	GRPC	GRPD				
IN26										
IN27									I 7	MI 8
IN28	S								I15	MI16
IN29	S									
IN30	S									
IN31	S									
IN32	S								T07	UT08
IN33	S100	HF01	HF01	HF06	Lar					
IN34		Lar	Jeff	Joan						
IN35	S042	TONE	TONE	TONE						
IN36		Ph 1	Ph 1	Ph 3	Ph 5					
Select menu choice with highlighted letter key. F1 for Help.										

DELETING EVENTS - You can delete an event by first viewing that event, and then pressing the **Delete** key. You will be prompted to confirm your request. Press **D** to continue with the delete, or **C** to cancel it. If you press **D**, you will be further prompted to confirm the delete; press **Y** to continue the delete, or any other key to cancel. **NOTE: ONCE AN EVENT HAS BEEN DELETED, THE DATA FOR THAT EVENT IS LOST, UNLESS YOU HAVE INCLUDED IT IN A PREVIOUS BACKUP! See the section on MAINTAINING FILES.**

EXITING THE EVENT VIEWER - To leave the event viewer, press **Esc**. If you have made changes to the currently viewed event without saving, you will be prompted to save them now.

3.3.3 CONFIGURING SOURCE INFORMATION

Pressing **C** at the main menu allows the user to configure, or define, the sources to be used in creating events. The configuration screen presents the user with information for each available source. The details are described below (where reference is made to the house switcher, see the addendum to this manual for more details):

The Configuration Screen

EVENT COMPUTER - SOURCE CONFIGURATION										WHEATSTONE	
AlphaNumeric Listing of Source Labels											
Chuk	CM04	CM05	AIR1	ANK1	ANK2	ANK3	ANK4	ATR1	ATR3	Bob	
D2-1	D2-2	D2-3	CM06	CP01	CP02	CP03	CRT1	CRT2	CT L	CT R	
FS03	GRPA	GRPB	D2-4	EDTA	EDTB	EDTC	EDTD	Fred	FS01	FS02	
HSE9	Jeff	Joan	GRPC	GRPD	GRPD	HF01	HF06	HSE1	HSE3	HSE4	
MI 4	MI 5	MI 6	JOE	KWGN	Lar	LOCL	Mary	MI 1	MI 2	MI 3	
MI15	MI16	MI17	MI 7	MI 8	MI 9	MI10	MI11	MI12	MI13	MI14	
Mic2	Mic3	Mic4	MI18	MI19	MI20	MI21	MI22	MI23	MI24	Mic1	
MST2	NET1	NET2	Mic5	Mic6	Mic7	Mic8	MONO	MST1	MST1	MST2	
Ph 7	Ph 8	Ph 9	NET3	NEWS	Ph 1	Ph 2	Ph 3	Ph 4	Ph 5	Ph 6	
Ralf	RM01	RM02	Ph10	Ph11	Ph12	Ph13	Ph14	Ph15	Ph16	Prod	
RM11	RM12	RM13	RM03	RM04	RM05	RM06	RM07	RM08	RM09	RM10	
SI 1	SI 2	SI 3	RR1	RR2	S009	SA1	SA2	SA3	SA4	SI 0	
SI12	SI13	SPRT	SI 4	SI 5	SI 6	SI 7	SI 8	SI 9	SI10	SI11	
			ST 1	ST 2	STDA	STDB	SIDC	STDD	STDE	TONE	

Change Source Label **Net1** or Matrix ID

Type in new Label for highlighted Source. Tab to change Matrix ID.
Ctrl-S Saves. F1 for Help.

SOURCE LABEL - This is the name of the source, as it will be shown in the console Source Displays. In the case of sources to be used in conjunction with the house switcher, the name should be defined as required by the house switcher. In the case of sources to be used in conjunction with the Wheatstone Smart Select Switches, the name may be defined however the user desires.

MATRIX ID - In the case of sources to be used in conjunction with the house switcher, the matrix id is the code by which the house switcher identifies a source when making a crosspoint connection. In the case of sources to be used in conjunction with the Wheatstone Smart Select Switches, the matrix id information is not required, and is best left blank. Should you decide to use the matrix id to hold auxiliary data about the Wheatstone sources, do NOT follow the same format used to define the house switcher matrix ids. The program interprets any source with a matrix id that follows this format to be a house switcher source.

INSTRUCTION AREA - An area at the bottom of the screen is set aside to provide two lines of instructions for the operator.

SOURCE CONFIGURATION AS SHIPPED - The source configuration file shipped with the Event Computer contains some, but not all, of the sources used by the house switcher. In addition, several source names not associated with the house switcher are included. The user will have to edit the source list, adding the remaining sources required by the house switcher, and adding to and deleting from the rest of the list to suit the needs of the installation.

EDITING SOURCE INFORMATION - Move the edit block to the source to be edited. The Source Label window shows the source name, and the Matrix ID window shows the matrix id for that source. If the Source Label window is highlighted, you can type in the desired new name for the source. If the Matrix ID window is highlighted, type in a new matrix id. The highlight is toggled between these two windows by using the **Tab** key. Note that the first item in the source list, as shipped, is a blank label. This is useful when you want an existing display to be blank for any reason.

Editing
Source Information

EVENT COMPUTER - SOURCE CONFIGURATION										WHEATSTONE
AlphaNumeric Listing of Source Labels										
SI 1	SI 2	SI 3	SI 4	SI 5	SI 6	SI 7	SI 8	SI 9	SI10	SI11
SI12	SI13	SPRT	ST 1	ST 2	STDA	STDB	STDC	STDD	SIDE	STONE
TST0	TST1	TST2	TST3	TST4	TST5	TST6	TST7	TST8	UPLK	UT01
UT02	UT03	UT04	UT05	UT06	UT07	UT08	UT09	UT1	UT10	UT11
UT12	UT13	UT14	UT2	UT21	UT22	UT23	UT24	UT3	UT31	UT32
UT33	UT34	UT35	UT36	UT37	UT38	UT39	UT4	UT5	UT6	UT7
UT8	WTHR	XMTR	z199	z200	z201	z203	z204	z205	z206	z207
z208	z209	z210	z211	z212	z213	z214	z215	z216	z217	z218
z219	z220	z221	z222	z223	z224	z225	z226	z227	z228	z229
z230	z231	z232	z233	z234	z235	z236	z237	z238	z239	z240
z241	z242	z243	z244	z245	z246	z247	z248	z249	z250	z251
z252	z253	z254	z255	z256	z257	z258	z259	z260	z261	z262
z263	z264	z265	z266	z267	z268	z269	z270	z271	z272	z273
z274	z275									
Change Source Label <input type="text"/> New <input type="text"/> or Matrix ID <input type="text"/>										
Type in new Source Label.										

Adding Sources

EVENT COMPUTER - SOURCE CONFIGURATION										WHEATSTONE
AlphaNumeric Listing of Source Labels										
SI 1	SI 2	SI 3	SI 4	SI 5	SI 6	SI 7	SI 8	SI 9	SI10	SI11
SI12	SI13	SPRT	ST 1	ST 2	STDA	STDB	SIDC	STDD	SIDE	TONE
TST0	TST1	TST2	TST3	TST4	TST5	TST6	TST7	TST8	UPLK	UT01
UT02	UT03	UT04	UT05	UT06	UT07	UT08	UT09	UT1	UT10	UT11
UT12	UT13	UT14	UT2	UT21	UT22	UT23	UT24	UT3	UT31	UT32
UT33	UT34	UT35	UT36	UT37	UT38	UT39	UT4	UT5	UT6	UT7
UT8	WTHR	XMTR	z199	z200	z201	z203	z204	z205	z206	z207
z208	z209	z210	z211	z212	z213	z214	z215	z216	z217	z218
z219	z220	z221	z222	z223	z224	z225	z226	z227	z228	z229
z230	z231	z232	z233	z234	z235	z236	z237	z238	z239	z240
z241	z242	z243	z244	z245	z246	z247	z248	z249	z250	z251
z252	z253	z254	z255	z256	z257	z258	z259	z260	z261	z262
z263	z264	z265	z266	z267	z268	z269	z270	z271	z272	z273
z274	z275	New								
Change Source Label New or Matrix ID S053										
Type in new Matrix ID.										

ADDING SOURCES - Press the **Insert** key to enter Insert Mode. The edit box will move to the end of the source list, and you will be prompted to enter a new source label. When you terminate source label entry by pressing the **Enter** key, you will be prompted to enter a matrix id. For Smart Select Switch channel sources, you can terminate matrix id entry immediately, without entering any matrix id data, by pressing **Enter**. Once the complete entry is done, you are prompted to enter another source label, and then matrix id. To exit from the Insert Mode, press the **Esc** key.

SOURCE LIST SORTING - The source list will be sorted in alphanumeric order when it is saved. If two entries are made that have the exact same source label, but different matrix id information, the matrix id that will be used with that source name is unpredictable. This is an undesirable situation. However, it is an easy matter, once the list has been saved, to search it for duplicate names, since they will appear consecutively in the list. Remove any duplicate names by following the procedure below for deleting sources.

Deleting Sources

EVENT COMPUTER - SOURCE CONFIGURATION										WHEATSTONE
AlphaNumeric Listing of Source Labels										
SI 1	SI 2	SI 3	SI 4	SI 5	SI 6	SI 7	SI 8	SI 9	SI10	SI11
SI12	SI13	SPRT	SI 1	SI 2	STDA	STDB	SIDC	STDD	SIDE	TONE
TST0	TST1	TST2	TST3	TST4	TST5	TST6	TST7	TST8	UPLK	UT01
UT02	UT03	UT04	UT05	UT06	UT07	UT08	UT09	UT1	UT10	UT11
UT12	UT13	UT14	UT2	UT21	UT22	UT23	UT24	UT3	UT31	UT32
UT33									6	UT7
VI8									06	z207
z208									17	z218
z219									28	z229
z230									39	z240
z241									50	z251
z252									61	z262
z263	z264	z265	z266	z267	z268	z269	z270	z271	z272	z273
z274	z275	New								
Change Source Label New or Matrix ID S056										
Select menu choice with highlighted letter key										

DELETING SOURCES - Move the edit box to the source you want to remove and press the **Delete** key. You will be prompted to continue the delete by pressing the **D** key, or cancel the delete by pressing the **C** key. If you continue with the delete, the item being deleted disappears and is replaced by the last item in the source list. This leaves the list out of order, but it will be sorted once again when it is saved.

Exiting the Source Configuration Function

EVENT COMPUTER - SOURCE CONFIGURATION										WHEATSTONE	
AlphaNumeric Listing of Source Labels											
SI 1	SI 2	SI 3	SI 4	SI 5	SI 6	SI 7	SI 8	SI 9	SI10	SI11	
SI12	SI13	SPRT	SI 1	SI 2	STDA	STDB	STDC	STDD	SIDE	TONE	
TST0	TST1	TST2	TST3	TST4	TST5	TST6	TST7	TST8	UPLK	UT01	
UT02	UT03	UT04	UT05	UT06	UT07	UT08	UT09	UT1	UT10	UT11	
UT12									31	UT32	
UT33									6	UT7	
UT8									06	z207	
z208									17	z218	
z219									28	z229	
z230									39	z240	
z241									50	z251	
z252									61	z262	
z263									72	z273	
z274	z275	New									
Change Source Label New or Matrix ID S056											
Select menu choice with highlighted letter key. F1 for Help.											

EXITING THE SOURCE CONFIGURATION FUNCTION - Press **Esc** to exit this function. If you have made changes that have not yet been saved, you will be prompted to save them now.

3.3.4 MAINTAINING FILES

Pressing **F** at the main menu allows the user to **SAVE** or **LOAD** utility data files. To save a file is to make a backup copy of the file on a floppy disk, while to load a file is to replace the file with one already saved on a floppy disk. It is a good idea to save your files to a floppy whenever you make major changes. In fact, it is an even better idea to maintain two separate floppies, each with a copy of your data files, since a floppy disk is also subject to failure. Should you have a major system malfunction, or should you receive an updated version of the software, you will need to load in your backup files. The ECOM80 install disk has copies of all the necessary files, but these are as shipped, and do not include any changes you might have made. The files handled by this maintenance utility are discussed below:



EVENT FILE - This file contains all of the data for the events, as described in the section on **VIEWING AND EDITING EVENTS**. The data saved in this file is the hardest to reproduce if lost, so make every effort to back up your events on a regular basis.

CONFIGURE FILE - This file contains all of the source configuration data, as described in the section on CONFIGURING SOURCE INFORMATION.

UTILITY FILES - One utility file used by the program contains channel setup data, including channel names and data to indicate correspondence between a console channel and its source Smart Select Switch or house switcher destination port. A second utility file contains switcher name substitution data. Other utility files may be used to store additional configuration information. These files are not normally accessible to the user, but the ability to save and load them is provided as a convenience.

The Initial File Menu

The screenshot shows a graphical user interface window titled "EVENT COMPUTER - MAIN MENU" with a "WHEATSTONE" logo in the top right corner. In the center, a dialog box asks "Do you wish to SAVE or LOAD files?". Below this question, three options are listed: "Press S to Save files", "Press L to Load files", and "Press X to eXit file maintenance". The letter 'S' in the first option is highlighted with a grey background. At the bottom of the main window, there is a copyright notice: "Copyright (c) 1990 - 1997 by WHEATSTONE CORPORATION". Below the copyright notice, a grey bar contains the instructions: "Select menu choice with highlighted letter key." and "Press F1 for Help."

EVENT COMPUTER - MAIN MENU

WHEATSTONE

Do you wish to SAVE or LOAD files?

Press S to Save files

Press L to Load files

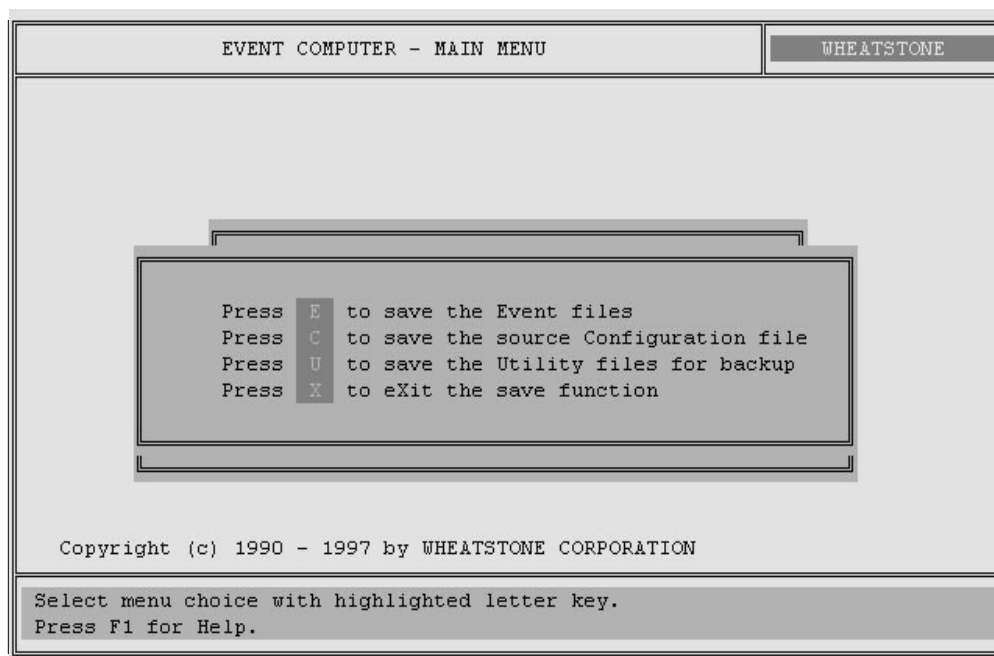
Press X to eXit file maintenance

Copyright (c) 1990 - 1997 by WHEATSTONE CORPORATION

Select menu choice with highlighted letter key.
Press F1 for Help.

INITIAL FILE MENU - Upon entry into the file maintenance utility from the main menu, the initial file menu is encountered, offering three choices. Press S to save files to a floppy disk, press L to load files from a floppy disk, or press X to exit the file maintenance utility.

The File Save Menu



FILE SAVE MENU - Pressing **S** at the initial file menu causes display of the file save menu, which offers four choices. Press **E** to save the event file, press **C** to save the source configuration file, press **U** to save the utility channel and substitution files, or press **X** to exit the save function and return to the initial file menu.

FILE LOAD MENU - Pressing **L** at the initial file menu causes display of the file load menu, which also offers four choices. Press **E** to load the event file, press **C** to load the source configuration file, press **U** to load the utility channel and substitution files, or press **X** to exit the load function and return to the initial file menu.

INSTRUCTION AREA - An area at the bottom of the screen is set aside to provide two lines of instructions for the operator. Read this area to determine if a file operation was or was not successful.

FLOPPY DISKS - The Event Computer is provided with a 3.5" floppy drive. Use standard, double sided, 3.5" floppy disks for saving your data files. You can use high density floppies, but if you use the program's disk format function, they will not be formatted as high density disks, and you will lose the extra disk space advantage that high density disks offer. In any case, a complete save of all the data files will nowhere near fill up a standard double density disk, so high density disks have no real advantage in this situation.

SAVING FILES - Before attempting to save files to a floppy, the floppy must be installed in the disk drive, it must be a formatted floppy, it must not be write protected, and there must be sufficient room for the file to fit on the disk.

WRITE PROTECTED DISKS - Look at the floppy disk with the labeled side away from you. In one corner you will see the write protect tab. If the tab is pushed close to the edge of the disk, so that you can see through the write protect notch, the disk is write protected. You cannot save data to the disk when it is write protected. Slide the tab so that it covers the notch. The disk may now be used for saving data.

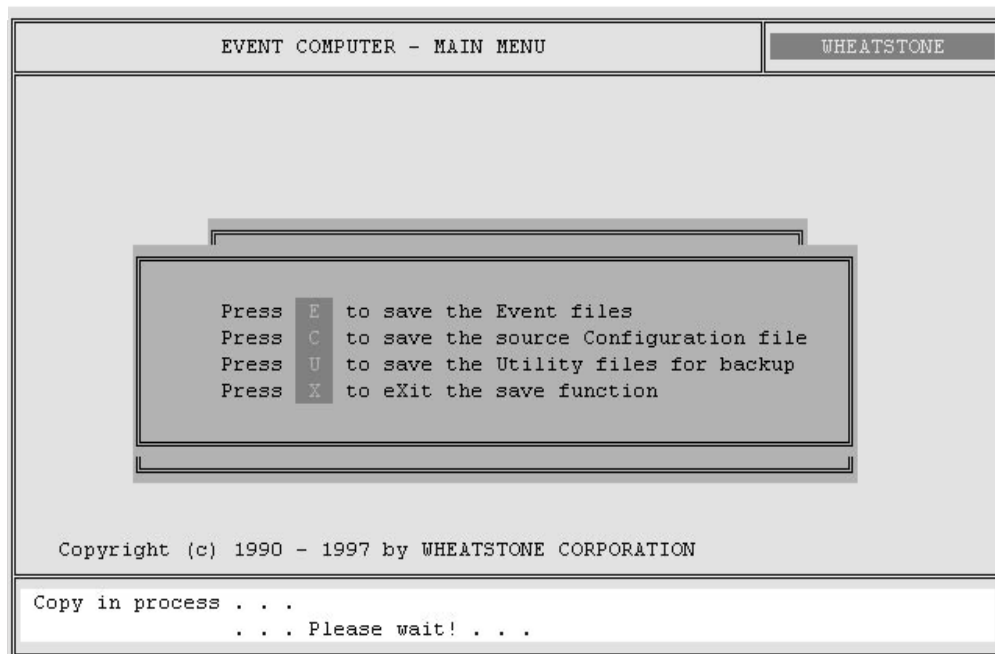
INSTALLING THE FLOPPY - Hold the floppy in your right hand with the label towards you, and with the write protect notch at the lower left corner. Tilt the disk forward and insert it into the opening in the floppy drive. Push the disk in until you feel it seat itself, and you see the eject button pop out below the disk. NOTE: Depending on the actual computer provided, the floppy drive may be oriented horizontally or vertically. The drive has an eject button. Orient the floppy so that the side without a label is facing the eject button.

BEGINNING THE SAVE - Select the desired file choice from the menu and press the appropriate letter key. The program will read the file and attempt to write it to the floppy. If you have not installed a floppy, the instruction area of the screen will notify you that the program could not find a floppy disk. This message could also be displayed if the floppy is not functional.

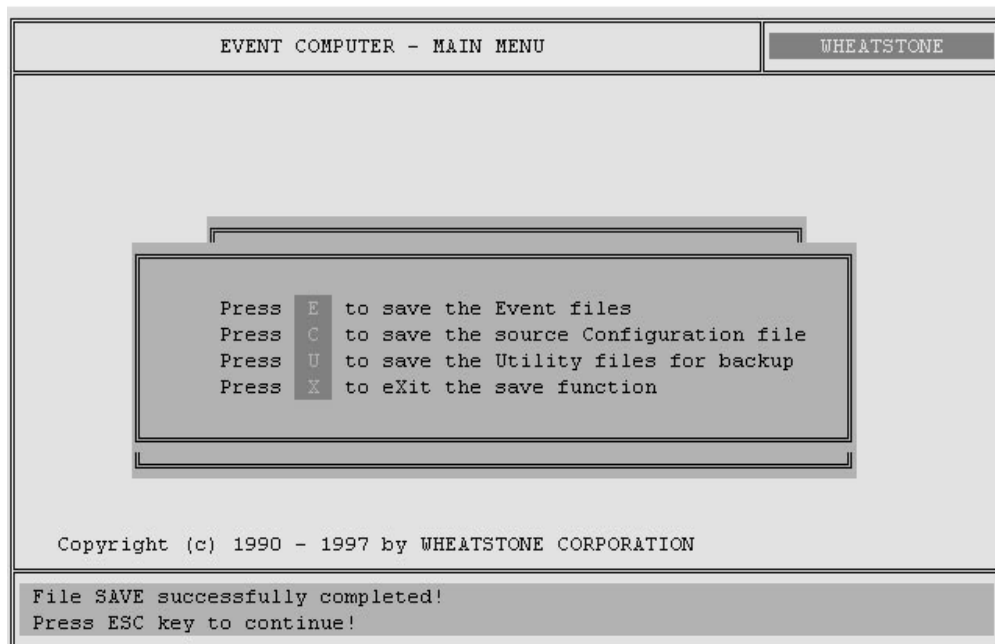
FORMATTING - If the floppy has not been formatted the save operation is terminated. You are offered the option of pressing the **F** key to format the floppy, or any other key to end the save attempt. After the format operation is complete, you are returned to the save menu; press the appropriate letter key to begin the save again.

DISK ROOM - The program compares the size of the file to be saved with the amount of room available on the floppy disk. If there is not enough room, a message is displayed to let you know, and the save operation is terminated. If you keep your data backups on floppies that are not used for any other purpose, and contain no other files, you will never see this message.

Copy Indication



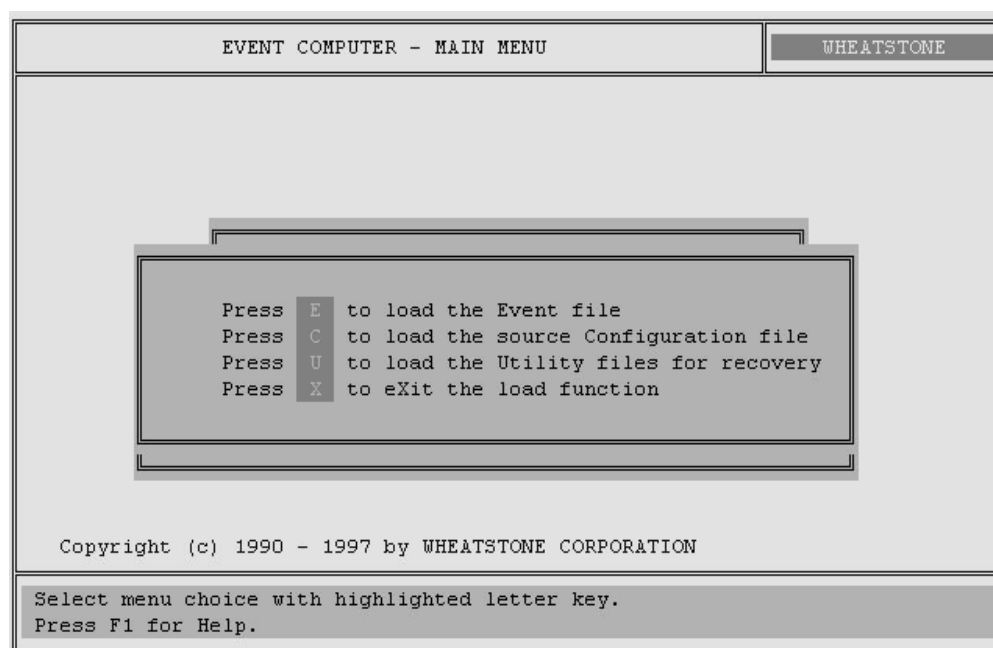
Save Completed



COPY INDICATION - If the required conditions are met, the file save will begin. The instruction area of the screen will display a message to tell you that the save is in process, and the computer will beep occasionally during the process to let you know it is still working. When the save is complete, a message is displayed to indicate that the save has been accomplished.

WHEN THE SAVE IS DONE - While in the save menu, you may save one or more of the other files by following the instructions outlined above. When you are through saving files, remove the disk by pressing the eject button and then pulling the disk completely out of the drive. Put the disk in a safe place. Excessive heat, cold, or magnetic fields will destroy the data or the disk itself. Your operating system documentation also contains hints on the care and handling of floppies. Press the **X** key to return from the save menu to the initial file menu.

Loading Files



LOADING FILES - Most of the information from the SAVING FILES section above also applies to the load process. There are some differences, though. First, the data files on the Event Computer are located in two different places. The permanent version of the file is located on the hard disk, while a temporary version of the file is loaded to a RAM disk at program startup. The version in the RAM disk is the version used by the program, since it takes less time to retrieve the data from RAM than it does to get it from the hard disk. When files are saved, the data is transferred from the RAM disk to the floppy disk. But when data is loaded, it must be loaded to two places, the RAM disk and the hard disk. Therefore the load operation takes more time than the save operation.

Another difference between saving and loading is that, if you are attempting to load from an unformatted floppy, there is no point in formatting the disk, since the data you are looking for will still not be there. For this reason, the format option is not offered from the load utility.



IMPACT OF FILE OPERATIONS ON PROGRAM MULTITASKING - Due to the nature of the file operations, they cannot be interrupted to service the console System Access Panel keys, the Smart Select Buttons, or the module input switches. Therefore, it is not a good idea to do file maintenance immediately before an event take is to be done. This is especially true of the format function, which can take two or three minutes. Note also that Smart Select Button, System Access Panel, and module input switch presses are stored at their respective locations until the Event Computer requests the information. If a format is begun and a Smart Select Button then pressed, or **ARM** and **TAKE** pressed on the System Access Panel, the action expected from that button press will eventually occur, when the format is completed.

4.0 HARDWARE CONFIGURATION

There are several dipswitches and jumpers that may need to be configured. This is done prior to shipment, but reconfiguration may be required at some time.

4.1 SMART SELECT BUTTON MODULES

Each Smart Select Button module has dipswitches to set the module address, which should agree with the module's console position. Hold the module with the buttons pointing up and the component side of the circuit board toward you; the dipswitches are at the lower right corner of the board. A dipswitch position is OFF if the end of the switch lever at the side of the switch labeled OFF is pressed down; the switch is ON if the numbered side of the lever is pressed down. The following chart indicates, with an "X", the switch positions that are to be ON for each module address number:

ADDRESS	1	2	3	4	5	6	7	8	ADDRESS	1	2	3	4	5	6	7	8	ADDRESS	1	2	3	4	5	6	7	8
1		X	X	X	X	X	X	X	33		X	X	X	X	X	X		65		X	X	X	X	X	X	
2	X		X	X	X	X	X	X	34	X		X	X	X	X	X		66	X		X	X	X	X	X	
3			X	X	X	X	X	X	35			X	X	X	X	X		67			X	X	X	X	X	
4	X	X		X	X	X	X	X	36	X	X		X	X	X	X		68	X	X		X	X	X	X	
5		X		X	X	X	X	X	37		X		X	X	X	X		69		X		X	X	X	X	
6	X			X	X	X	X	X	38	X			X	X	X	X		70	X			X	X	X	X	
7					X	X	X	X	39				X	X	X	X		71				X	X	X	X	
8	X	X	X		X	X	X	X	40	X	X	X		X	X	X		72	X	X	X		X	X	X	
9		X	X		X	X	X	X	41		X	X		X	X	X		73		X	X		X	X	X	
10	X			X	X	X	X	X	42	X		X		X	X	X		74	X		X		X	X	X	
11				X	X	X	X	X	43				X	X	X	X		75			X		X	X	X	
12	X	X			X	X	X	X	44	X	X			X	X	X		76	X	X			X	X	X	
13			X		X	X	X	X	45		X			X	X	X		77		X			X	X	X	
14	X				X	X	X	X	46	X				X	X	X		78	X				X	X	X	
15					X	X	X	X	47					X	X	X		79					X	X	X	
16	X	X	X	X		X	X	X	48	X	X	X	X		X	X		80	X	X	X	X		X	X	
17		X	X	X		X	X	X	49		X	X	X		X	X		81		X	X	X		X	X	
18	X		X	X		X	X	X	50	X		X	X		X	X		82	X		X	X		X	X	
19			X	X		X	X	X	51			X	X		X	X		83			X	X		X	X	
20	X	X		X		X	X	X	52	X	X		X		X	X		84	X	X		X		X	X	
21		X		X		X	X	X	53		X		X		X	X		85		X		X		X	X	
22	X			X		X	X	X	54	X			X		X	X		86	X			X		X	X	
23				X		X	X	X	55				X		X	X		87				X		X	X	
24	X	X	X			X	X	X	56	X	X	X			X	X		88	X	X	X			X	X	
25		X	X			X	X	X	57		X	X			X	X		89		X	X			X	X	
26	X			X		X	X	X	58	X		X			X	X		90	X		X			X	X	
27				X		X	X	X	59			X			X	X		91			X			X	X	
28	X	X				X	X	X	60	X	X				X	X		92	X	X				X	X	
29		X				X	X	X	61		X				X	X		93		X				X	X	
30	X					X	X	X	62	X					X	X		94	X					X	X	
31						X	X	X	64						X	X		95						X	X	
32	X	X	X	X	X		X	X	64	X	X	X	X	X	X	X		96	X	X	X	X	X	X	X	

If you have Source Displays at positions in the console that have input modules or monitor modules, and those positions do not appear to have Smart Select buttons, please note that the associated blank Smart Select panel does house active electronics, including switches to select the panel's address.

4.2 SMART SELECT BUTTON CONTROLLER

The Smart Select Button Controller has ten jumper positions, with jumpers installed at the J1, J2, J3, J5, and J10 positions. Communications link characteristics may require the removal of the jumper at J10 (shield ground).

4.3 SMART SELECT SWITCH MODULES

Each Smart Select Switch module has dipswitches to set its address, which should normally equal the module's position in the cage. Hold the module with the LEDs pointing up and the component side of the circuit board toward you; the dipswitches are at the upper left corner of the board. A dipswitch position is OFF if the end of the switch lever at the OFF side of the switch is pressed down; the switch is ON if the numbered side of the lever is pressed down. The following chart uses an "X" to indicate the switch positions that are ON for each module address number:

ADDRESS	1	2	3	4	5	6	7	8	ADDRESS	1	2	3	4	5	6	7	8	ADDRESS	1	2	3	4	5	6	7	8
1		X	X	X	X	X	X	X	7				X	X	X	X	X	13		X			X	X	X	X
2	X			X	X	X	X	X	8	X	X	X		X	X	X	X	14	X				X	X	X	X
3				X	X	X	X	X	9		X	X		X	X	X	X	15					X	X	X	X
4	X	X		X	X	X	X	X	10	X		X		X	X	X	X	16	X	X	X	X		X	X	X
5			X	X	X	X	X	X	11			X		X	X	X	X	17		X	X	X		X	X	X
6	X			X	X	X	X	X	12	X	X			X	X	X	X	18	X		X	X		X	X	X

The Smart Select Switch mono mic/line module also has eight dipswitches to program the gain of the input stage for each of the eight inputs. Switch gain settings of 20 dB, 40 dB, and 60 dB are clearly marked on the board. To set up the input for a gain of 20 dB, press down the numbered end of the 20 dB position of the dipswitch, and press down the OFF end of the 40 dB and 60 dB positions. A gain of 40 or 60 dB can be achieved by pressing down the numbered end of the appropriate dipswitch position and pressing down the OFF end of the other two gain positions. For unity gain, press down the OFF end of all three gain positions. Programmed gains are not additive. That is, you can't achieve a gain of 80 dB by setting the 20 and 60 dB positions. Instead, this switch combination would result in a gain of about 60.1 dB.

A fourth dipswitch position controls phantom power for that input; if the numbered end of the +48V dipswitch position is pressed down, phantom power will be applied to that input. Press down the OFF end of the +48V dipswitch position to prevent the application of phantom power to the device connected to that input.

4.4 SMART SELECT SWITCH CONTROLLER

The Smart Select Switch Controller has six jumper positions, with jumpers installed at the J2, J3, and J5 positions. Hold the module with the component side of the board toward you and the edge fingers pointing to the left. The J1 position, at the lower right corner of the board, has a jumper installed to connect the center and right pins. The unlabeled jumper position next to resistor network RN2 needs a jumper if the controller is used in the second of two cages in a system. Communications link characteristics may require the removal of the jumper at J5 (shield ground).

5.0 TROUBLESHOOTING

This section is provided to give basic troubleshooting hints in the case of system startup problems or future system difficulties.

5.1 POWER PROBLEMS

Even the most professional installer or operator may on occasion overlook the obvious, especially when confronted with a complex system. Make sure all devices are connected to AC power, that all power switches are on, and that all power indicators are lit. In the case of the Event Computer monitor, a perfectly operating monitor can appear to be dead if the Brightness control is all the way down.

5.2 COMMUNICATIONS PROBLEMS

The Event Computer utilizes an RS-485 link to communicate with the Wheatstone peripherals, and an RS-232 link to communicate with the house switcher. When the program sends a message to one of these devices, it expects, and waits for, a return message before going on to its next task. Timeouts are generally employed, so that a failed return message will not stall the program forever, but a failure in one of the communications lines can make the program appear sluggish. Additionally, any peripherals that are not receiving their messages will, of course, not operate properly. As described in the section on SYSTEM INTERCONNECTION, shielded cable should be used, with the shield connected at one end of the cable only. If the shield has been connected at both ends, it may be necessary, in the Smart Select Switch or Button Controller, to remove the jumper that provides connection between the cable shield and ground, as described in the section on HARDWARE CONFIGURATION.

Another communications related problem would occur in a system having two Smart Select Switch cages if the controller card in both cages had a jumper installed at the address jumper position J8, or if the address jumper J8 was not installed in either card. In both cases, the two controller cards would have the same address, and attempt to answer messages at the same time. The Event Computer would not be able to sort out the messages it received from these controllers, and would probably hang up in the attempt.

Communications problems can sometimes be analyzed by determining which peripherals are operating and which are not, and comparing this information to the order in which the communications link is connected from the Event Computer on to the last peripheral in the string. Look for loose connectors, incorrectly wired cables, or, in the case of the Smart Select Switches, cables connected to the wrong connector.

Occasionally, a peripheral will fail to operate properly if it is powered up while communications are occurring on the link, or if the link connection is interrupted and remade while communications are going on. To this end, please note that the Event Computer constantly queries the Wheatstone peripherals, so that communications are happening whenever that program is running. Even so, if the peripheral fails, it may be possible to reset it by turning it off and back on. If doing this, allow thirty seconds or so before repowering. If this technique does not work, it may be necessary to reboot the Event Computer by pressing the RESET switch on the front panel. This will result in the system being set up according to event number 1.

5.3 OTHER PROBLEMS

Schematic diagrams are provided to aid in the troubleshooting of the Wheatstone peripherals. Use normal troubleshooting procedures. The Wheatstone peripherals contain static sensitive integrated circuits, so normal static protection techniques should be employed. Integrated circuits should NOT be removed from or replaced in sockets while a module is powered up. If replacing a module with another one, make sure all the pertinent jumpers and dipswitches are set as required.

ADDENDUM

CUSTOMER SUPPLIED COMPUTER INSTALLATION

When a customer supplied computer is to be used in lieu of the stock Wheatstone Event Computer, the following hardware/software configuration must be completed to insure proper operation of your system.

GENERAL

The EVENT COMPUTER used in the Wheatstone Router Control System is designed to be a dedicated controller. Running any other software, such as word processors, Windows, etc. is not recommended and may result in faulty operation of your system. An IBM PC compatible 286/16Mhz or better with 4 megabyte of RAM is required. Increasing the amount of installed RAM has no effect on system performance and increasing to a 486/66Mhz has only a limited effect on system performance. Most basic off the shelf "PC clones" should work. Should you experience trouble getting your system running contact Wheatstone customer support at 252-638-7000.

HARDWARE REQUIREMENTS

286, 386, or 486 PC (PENTIUM PC's have not been tested)
4 MB RAM
VGA monitor
40 MB Hard disk drive or larger
1.44 MB Floppy disk drive
No mouse installed (remove any driver)
RS-485 serial interface card set to COM1 (card supplied by Wheatstone)
RS-232 serial port set to COM2 (optional interface to customer house router)
1 empty slot

INSTALLING THE HARDWARE

- 1) Remove any mouse, or other serial device connected to COM1 on your PC.
- 2) Disable COM1 on your PC (Refer to your hardware manual for jumper setting).
- 3) Install the Wheatstone supplied RS-485 in an empty slot.
- 4) Connect the Wheatstone supplied DB-25 female cable labeled "A" to the RS-485 port.

INSTALLING THE SOFTWARE

- 1) Follow the instructions for installing the DOS operating system on your PC. Hint: install only the basic DOS and don't install any optional programs or networking functions as they are not required for proper router system operation, and may, in fact, interfere with proper operation.
- 2) Make a backup copy of the WHEATSTONE ECOM80 disk.
- 3) Place the WHEATSTONE ECOM80 disk in the A: drive
- 4) From the root directory COMMAND PROMPT (usually C:\>) type exactly:
A:INSTALL
- 5) Remove the disk and reboot your system (hold down ALT-CTRL-DEL).
- 6) After 15 seconds or so the WHEATSTONE MAIN MENU should appear on the monitor. Refer to the ROUTER CONTROL SYSTEM manual for details on using the software.
- 7) If you are installing a DOS operating system not supplied by Wheatstone, you may need to alter the ramdrive program call in CONFIG.SYS. Consult the factory for details.

ADDENDUM

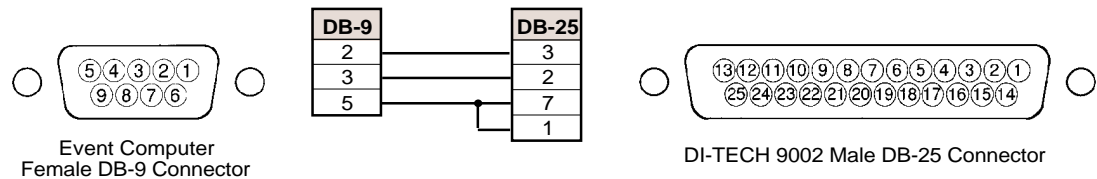
DI-TECH SWITCHER

A-1.0 ROUTER DEPENDENT ADDENDUM:

This addendum contains information relating to the interfacing of the Wheatstone Router Control System with a DI-TECH Routing Switcher, using the DI-TECH Model 9002 serial controller. Please refer to DI-TECH documentation for further details.

A-1.1 INTERCONNECTION

To establish a communications link between the Event Computer and the DI-TECH 9002 serial controller, a cable must be made. The Event Computer end requires a female DB-9 connector, while the 9002 end requires a male DB-25 connector. The following chart indicates the connections:



Connect the 9 pin connector to the Event Computer COM2 port. Connect the 25 pin end of the cable to the DI-TECH 9002 EXT CPU port.

A-1.2 9002 DIPSWITCH SETTINGS

The 9002 has several dipswitches for setting various communications parameters. Two of these are pertinent here; their settings are indicated in the chart below, with "X" indicating a switch set to the ON position:

SWITCH	FUNCTION	1	2	3	4	5	6	7	8
S1	EXTERNAL CPU UART					X		X	
S6	CPU BAUD			X					

A-1.3 9002 MATRIX IDENTIFICATION

SOURCE NAMING - The DI-TECH system for naming and identifying sources (and destinations) uses two identifications for each source. The first is the default name number, which corresponds to the alphanumeric name that will be displayed in the Wheatstone Source Displays when that particular source is selected. Examples are "CP01" and "VT56". The second identification represents the physical input or output number for the switch matrix, and is what is referred to in this manual as the matrix identification number, or matrix id. These are typically given by the letter "S" (for a source, or "D" for a destination) followed by a three digit code. Examples are "S021" and "S165". Please note that the DI-TECH documentation will include a complete list of source names and matrix id's.

DUAL FUNCTION KEYS - To facilitate selection of certain source families (groups of sources sharing a common alpha prefix, such as "VT01" and "VT32") for the DI-TECH system, the Wheatstone System Access Panel keypad, keys 1 through 6, are double function keys. The first time, in the source selection process, that one of these keys is pressed, it is interpreted as the alpha prefix, such as "VT". When the key is pressed again during selection of the same source, the key represents a digit. The keys are stamped with both the digit and the source family information.

SOURCE SUBSTITUTION - The DI-TECH can utilize, for some sources, a dual name system that allows a source to be accessed using two different names. For example, the names "VT56" and "HF06" refer to the same source. The Event Computer is shipped with a utility file that contains a blank name substitution list for your system.

ENTERING SUBSTITUTE SOURCES - When you are using the source configuration function of the Event Computer program to build your source list, you do not have to be cognizant of the substitutions. Simply enter the source name and the matrix id indicated in the DI-TECH documentation. The program takes care of the substitution details. You will notice, however, that when substitution is done, the Source Display name will be the same as the name tallied by the DI-TECH system, and is not necessarily the name you selected. The correct source is connected. For example, the matrix id for "VT56" is "S165" while the matrix id for "HF06" (the substitute name for "VT56") is "S110". When configuring the sources, use "S110" as the matrix id for "HF06" and "S165" for "VT56", exactly as indicated in the list provided by DI-TECH. The name substitution file will make sure that the alphanumerics displayed when "VT56" is selected will be "HF06". In this way, the Wheatstone and the DI-TECH systems tally back the same source alphanumerics.

DESTINATION NAMES - The DI-TECH system is configured so that the outputs connected to the Wheatstone console are designated "WS01" through "WS12" (for example, if twelve outputs are connected). This destination naming is included in the channel configuration utility file.

ADDENDUM

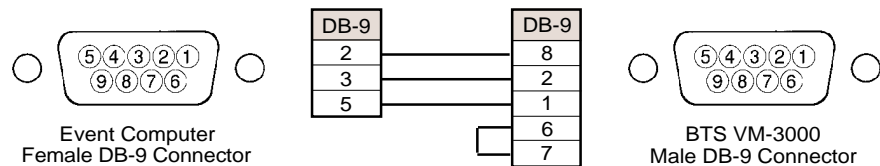
BTS SWITCHER

A-2.0 ROUTER DEPENDENT ADDENDUM:

This addendum contains information relating to the interfacing of the Wheatstone Router Control System with a BTS Routing Switcher, using the BTS VM-3000 matrix controller, and employing the JUPITER ASCII protocol. Please refer to BTS documentation for further details.

A-2.1 INTERCONNECTION

To establish a communications link between the Event Computer and the BTS VM-3000 controller, a cable must be made. The Event Computer end requires a female DB-9 connector, while the VM-3000 end requires a male DB-9 connector. The following chart indicates the connections (refer to the BTS documentation for further details):



Connect the 9 pin female connector to the Event Computer COM2 port. Connect the 9 pin male connector to the appropriate serial port on the BTS VM-3000. Please note that the VM-3000 must have a software configuration downloaded to it in order to make a pair of ports respond to the ASCII protocol employed in the link. See the BTS documentation for details.

A-2.2 VM-3000 SWITCH SETTINGS

The BTS VM-3000 has two rotary switches which must be set to the "F" position for this application.

A-2.3 SOURCE IDENTIFICATION

SOURCE NAMING - Within the context of the ECOM80 program, BTS sources are identified by an alphanumeric NAME, such as VTR1, etc., and by a matrix ID number, such as 045. In order for the program to identify a source as being associated with the BTS system, the correct matrix ID number, prefixed by the letter "S", must be entered in the source configuration section of the program.

DUAL FUNCTION KEYS - To facilitate selection of certain source families (groups of sources sharing a common alpha prefix, such as "VT01" and "VT32") for the BTS system, the Wheatstone System Access Panel keypad, keys 1 through 6, are double function keys. The first time, in the source selection process, that one of these keys is pressed, it is interpreted as the alpha prefix, such as "VT". When the key is pressed again during selection of the same source, the key represents a digit. The keys are stamped with both the digit and the source family information.

A-2.4 JUPITER CONFIGURATION FILES

Certain configuration files are required to interface your Jupiter router to the Wheatstone Eventcom software. These configuration files map the house router destination numbers and levels to be switched to specific Wheatstone console input channel strips. The two files to be configured are:

c:\e80cfg\tv80chan.cfg and

c:\e80cfg\switch.cfg

You can use the DOS text editor to display and edit these files. Press and hold <ALT> then <DW> to exit Eventcom, next type EDIT at the DOS prompt to open the text editor.

Warning! Incorrect editing of these files will cause system malfunction. Make backup copies before editing and contact Wheatstone customer support if you are unsure about what to do.

CHANNELS.CFG FILE

Only edit this file if you are moving house router output audio (destination) to a different Wheatstone console input module. This file is responsible for designating up to 56 input channel strips as local Wheatstone Smart Select or House Router input channels. The format and an example file are described below.

Format: This file defines the mapping of console channels to Smart Cage positions and house router destinations. The file has a row of data for each place in the console that could be related to a position on a display card. Thus, if the console has seven display cards, the file will have 56 data lines. Each data row consists of a four character slot designator, a two character card type designator (MI or SI, unused by the system), a character that maps the channel to a cage or the house router (1 for cage 1, 2 for cage 2, H for house), four characters designating either the card position in the cage or an alias to the house destination, and two characters that indicate the display card number and the position of the display on that card that shows that channel's source. The fields within a row are delimited with [RS] and the row ends with [US]. The file ends with [ETX]. The ">" character is used as a delimiter for purposes of this example. When editing be sure not to erase or move the delimiters in the file or else it will not work. The following example shows a partial file for a system with four display boards.

Example of a **partial** channels.cfg file:

```
IN01>MI>1> 1>11> Reads: Input card 1, Mono input, SmartCage1, display card#1, 1st display
IN02>MI>1> 2>12>
IN03>MI>1> 3>13>
IN04>MI>1> 4>14>
IN05>MI>1> 5>15>
IN06>MI>1> 6>16>
IN07>MI>1> 7>17>
IN08>MI>1> 8>18>
IN09>MI>1> 9>21>
IN10>MI>1> 10>22>
IN11>SI>2> 1>23>
IN12>SI>2> 2>24>
IN13>SI>2> 3>25>
IN14>SI>2> 4>26>
IN15>SI>2> 5>27>
IN16>SI>2> 6>28>
IN17>SI>2> 7>31>
IN18>SI>2> 8>32>
IN19>SI>2> 9>33>
IN20>SI>2> 10>34>
IN21>SI>H>WS01>35>
IN22>SI>H>WS02>36>
IN23>SI>H>WS03>37>
IN24>SI>H>WS04>38> Reads: Input card24, Stereo Input, House , WS04 alias, display card #3, 8th display
>
```

SWITCH.CFG FILE

This file is responsible for mapping specific Jupiter destinations to the input channel aliases defined in channels.cfg. The physical house router levels that will be switched are also defined in this file. The format and an example line are described below.

File name: switch.cfg

This file maps the input channel aliases (e.g. WS01) to the corresponding house router destination (output) number and desired level(s) to switch. The data format shown below is used for all house router makes/models. The level information, and thus the exact file contents, depends upon the house router model.

FORMAT: "WSnn>OOO>LLLLLLL"

WSnn

is the house router channel name (alias) as used by the Event Computer program, where nn starts at 01 and goes through xx, where xx is the number of house router input channels in the particular console. The alias is first defined in the channels.cfg file.

OOO

is the corresponding house router destination number in decimal format. The value used here must correspond to the actual destination (output) numbers as used by the house router and leading zeroes must be used to ensure the number is comprised of three digits.

Example: If the house router destination is 7, then enter "007" for the destination number.

LLLLLLL

represents the house router levels that will be switched. The Jupiter uses the digits 1 to 7 to represent the 7 physical router levels. To switch audio on levels 5 and 6, the digit s "56" would be used, leading zeroes are not required for levels. To switch audio on all levels the digit string, "1234567" would be used.

Example switch.cfg file for 8 Wheatstone console channels. The input channel aliases are WS01 through WS-08. The destinations are 12 through 19 and the physical levels are 2 and 3. The ">" character is used as a delimiter for purposes of this example. When editing be sure not to erase, move or change the delimiters in the file or else it will not work.

```
WS01>012>23>
WS02>013>23>
WS03>014>23>
WS04>015>23>
WS05>016>23>
WS06>017>23>
WS07>018>23>
WS08>019>23>
>
```

ADDENDUM

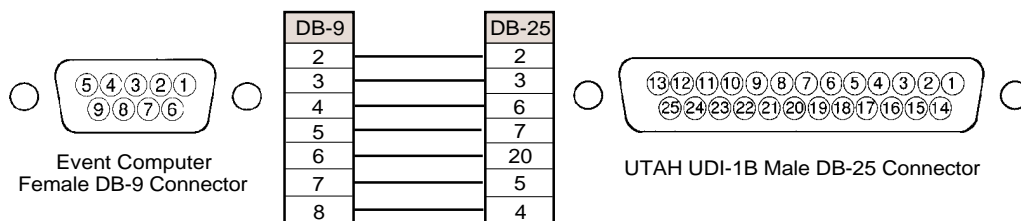
UTAH SWITCHER

A-3.0 ROUTER DEPENDENT ADDENDUM:

This addendum contains information relating to the interfacing of the Wheatstone Router Control System with a UTAH Routing Switcher, using the UTAH UDI-1B Universal Data Interface. Please refer to UTAH documentation for further details.

A-3.1 INTERCONNECTION

To establish a communications link between the Event Computer and the UTAH UDI-1B, a cable must be made. The Event Computer end requires a female DB-9 connector, while the UDI-1B end requires a male DB-25 connector. The following chart indicates the connections (refer to the UTAH documentation for further details):



Connect the 9 pin female connector to the Event Computer COM2 port. Connect the 25 pin male connector to the mating connector on the UTAH UDI-1B. The UDI-1B must also be connected, via coax, to a UTAH switcher or to the UTAH switcher emulator. See the UTAH documentation for details.

A-3.2 UDI-1B SWITCH SETTINGS

The UTAH UDI-1B has two rotary switches which must be set appropriately. One of these is labeled BAUD and should be set to the "F" position for a baud rate of 19.2k. The other is labeled AUX and should be set to position 0, 1, or 2, depending on the Party Line protocol used in your system. Please refer to UTAH documentation for further details.

A-3.3 SOURCE IDENTIFICATION

SOURCE NAMING - Within the context of the ECOM80 program, UTAH sources are identified by an alphanumeric NAME, such as VTR1, etc., and by a matrix ID number, such as Ø45. In order for the program to identify a source as being associated with the UTAH system, the correct matrix ID number, prefixed by the letter "S", must be entered in the source configuration section of the program.

DUAL FUNCTION KEYS - To facilitate selection of certain source families (groups of sources sharing a common alpha prefix, such as "VTØ1" and "VT32") for the UTAH system, the Wheatstone System Access Panel keypad, keys 1 through 6, are double function keys. The first time, in the source selection process, that one of these keys is pressed, it is interpreted as the alpha prefix, such as "VT". When the key is pressed again during selection of the same source, the key represents a digit. The keys are stamped with both the digit and the source family information.

A-3.4 UTAH CONFIGURATION FILES

Certain configuration files are required to interface your UTAH router to the Wheatstone Eventcom software. These configuration files map the house router destination numbers and levels to be switched to specific Wheatstone console input channel strips. The two files to be configured are:

c:\e80cfg\tv80chan.cfg and
c:\e80cfg\switch.cfg

You can use the DOS text editor to display and edit these files. Press and hold <ALT> then <DW> to exit Eventcom, next type EDIT at the DOS prompt to open the text editor.

Warning! Incorrect editing of these files will cause system malfunction. Make backup copies before editing and contact Wheatstone customer support if you are unsure about what to do.

CHANNELS.CFG FILE

Only edit this file if you are moving house router output audio (destination) to a different Wheatstone console input module. This file is responsible for designating up to 56 input channel strips as local Wheatstone Smart Select or House Router input channels. The format and an example file are described below.

Format: This file defines the mapping of console channels to Smart Cage positions and house router destinations. The file has a row of data for each place in the console that could be related to a position on a display card. Thus, if the console has seven display cards, the file will have 56 data lines. Each data row consists of a four character slot designator, a two character card type designator (MI or SI, unused by the system), a character that maps the channel to a cage or the house router (1 for cage 1, 2 for cage 2, H for house), four characters designating either the card position in the cage or an alias to the house destination, and two characters that indicate the display card number and the position of the display on that card that shows that channel's source. The fields within a row are delimited with [RS] and the row ends with [US]. The file ends with [ETX]. The ">" character is used as a delimiter for purposes of this example. When editing be sure not to erase or move the delimiters in the file or else it will not work. The following example shows a partial file for a system with four display boards.

Example of a **partial** channels.cfg file:

```
IN01>MI>1> 1>11> Reads: Input card 1, Mono Input, SmartCage1, display card#1, 1st display
IN02>MI>1> 2>12>
IN03>MI>1> 3>13>
IN04>MI>1> 4>14>
IN05>MI>1> 5>15>
IN06>MI>1> 6>16>
IN07>MI>1> 7>17>
IN08>MI>1> 8>18>
IN09>MI>1> 9>21>
IN10>MI>1> 10>22>
IN11>SI>2> 1>23>
IN12>SI>2> 2>24>
IN13>SI>2> 3>25>
IN14>SI>2> 4>26>
IN15>SI>2> 5>27>
IN16>SI>2> 6>28>
IN17>SI>2> 7>31>
IN18>SI>2> 8>32>
IN19>SI>2> 9>33>
IN20>SI>2> 10>34>
IN21>SI>H>WS01>35>
IN22>SI>H>WS02>36>
IN23>SI>H>WS03>37>
IN24>SI>H>WS04>38> Reads: Input card24, Stereo Input, House , WS04 alias, display card #3, 8th display
>
```

SWITCH.CFG FILE

This file is responsible for mapping specific UTAH router destinations to the input channel aliases defined in channels.cfg. The physical house router levels that will be switched are also defined in this file. The format and an example file are described below.

File name: switch.cfg

This file maps the input channel aliases (e.g. WS01) to the corresponding house router destination (output) number and desired level(s) to switch. The data format shown below is used for all house router makes/models. The level information, and thus the exact file contents, depends upon the house router model.

FORMAT: "WSnn>OOO>LL"

WSnn

is the house router channel name (alias) as used by the Event Computer program, where nn starts at 01 and goes through xx, where xx is the number of house router input channels in the particular console. The alias is first defined in the channels.cfg file.

OOO

is the corresponding house router destination number in decimal format. Numbers must correspond to the actual destination (output) numbers as used by the house router and leading zeroes must be used to ensure the number is comprised of three digits.

Example: If the house router destination is 7, enter "007" for the destination number.

LL

represents the house router levels that will be switched. The characters "@" and the capital letters "A through O" are used to encode the levels to be switched as detailed in the accompanying chart on the following page.

The Utah UDI-1B and the PL3-20 for the AVS-1B router use a pair of letters (or a letter and the @ sign) to encode the 8 physical router levels. To switch audio on levels 1 and 2 for instance, "C@" would be entered.

Example switch.cfg file for 8 Wheatstone console channels. The input channel aliases are WS01 through WS-08. The destinations are 12 through 19 and the physical level is 8. The">" character is used as a delimiter for purposes of this example. When editing be sure not to erase, move or change the delimiters in the file or else it will not work.

```
WS01>012>@H>
WS02>013>@H>
WS03>014>@H>
WS04>015>@H>
WS05>016>@H>
WS06>017>@H>
WS07>018>@H>
WS08>019>@H>
>
```

UTAH ROUTER LEVEL ENCODING CHART

The following chart is provided as a reference for editing the "level" section of the switch.cfg file.

1st Level Character	Enables Level(s)	2nd Level Character	Enables Level(s)
@	none	@	none
A	1	A	5
B	2	B	6
C	1 & 2	C	5 & 6
D	3	D	7
E	1 & 3	E	5 & 7
F	2 & 3	F	6 & 7
G	1, 2 & 3	G	5, 6 & 7
H	4	H	8
I	1 & 4	I	5 & 8
J	2 & 4	J	6 & 8
K	1, 2 & 4	K	5, 6 & 8
L	3 & 4	L	7 & 8
M	1, 3 & 4	M	5, 7 & 8
N	2, 3 & 4	N	6, 7 & 8
O	1, 2, 3 & 4	O	5, 6, 7 & 8

ADDENDUM

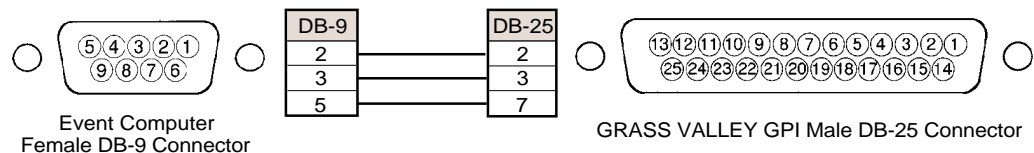
HORIZON SWITCHER

A-4.0 ROUTER DEPENDENT ADDENDUM:

This addendum contains information relating to the interfacing of the Wheatstone Router Control System with a GRASS VALLEY HORIZON Routing Switcher, using the Grass Valley General Purpose Interface (GPI) controller, and employing the Grass Valley Horizon protocol. Please refer to Grass Valley documentation for further details.

A-4.1 INTERCONNECTION

To establish a communications link between the Event Computer and the Grass Valley GPI controller, a cable must be made. The Event Computer end requires a female DB-9 connector, while the GPI end requires a male DB-25 connector. The following chart indicates the connections (refer to the Grass Valley documentation for further details):



Connect the 9 pin female connector to the Event Computer COM2 port. Connect the 25 pin male connector to the appropriate serial port (J8 or J9) on the Grass Valley GPI. Please note that the GPI must be configured using a maintenance terminal connected to it according to the instructions in the Grass Valley documentation. Any channels in the Horizon switcher that will be sources for the Wheatstone console must be configured as controllable outputs. See the Grass Valley documentation for details.

A-4.2 SOURCE IDENTIFICATION

SOURCE NAMING - Within the context of the ECOM80 program, HORIZON sources are identified by an alphanumeric NAME, such as VTR1, etc., and by a matrix ID number, such as Ø45. In order for the program to identify a source as being associated with the HORIZON system, the correct matrix ID number, prefixed by the letter "S", must be entered in the source configuration section of the program.

DUAL FUNCTION KEYS - To facilitate selection of certain source families (groups of sources sharing a common alpha prefix, such as "VTØ1" and "VT32") for the HORIZON system, the Wheatstone System Access Panel keypad, keys 1 through 6, are double function keys. The first time, in the source selection process, that one of these keys is pressed, it is interpreted as the alpha prefix, such as "VT". When the key is pressed again during selection of the same source, the key represents a digit. The keys are stamped with both the digit and the source family information.

A-4.3 HORIZON CONFIGURATION FILES

Certain configuration files are required to interface your Horizon router to the Wheatstone Eventcom software. These configuration files map the house router destination numbers and levels to be switched to specific Wheatstone console input channel strips. The two files to be configured are:

c:\e80cfg\tv80chan.cfg and
c:\e80cfg\switch.cfg

You can use the DOS text editor to display and edit these files. Press and hold <ALT> then <DW> to exit Eventcom, next type EDIT at the DOS prompt to open the text editor.

Warning! Incorrect editing of these files will cause system malfunction. Make backup copies before editing and contact Wheatstone customer support if you are unsure about what to do.

CHANNELS.CFG FILE

Only edit this file if you are moving house router output audio (destination) to a different Wheatstone console input module. This file is responsible for designating up to 56 input channel strips as local Wheatstone Smart Select or House Router input channels. The format and an example file are described below.

Format: This file defines the mapping of console channels to Smart Cage positions and house router destinations. The file has a row of data for each place in the console that could be related to a position on a display card. Thus, if the console has seven display cards, the file will have 56 data lines. Each data row consists of a four character slot designator, a two character card type designator (MI or SI, unused by the system), a character that maps the channel to a cage or the house router (1 for cage 1, 2 for cage 2, H for house), four characters designating either the card position in the cage or an alias to the house destination, and two characters that indicate the display card number and the position of the display on that card that shows that channel's source. The fields within a row are delimited with [RS] and the row ends with [US]. The file ends with [ETX]. The ">" character is used as a delimiter for purposes of this example. When editing be sure not to erase or move the delimiters in the file or else it will not work. The following example shows a partial file for a system with four display boards.

Example of a **partial** channels.cfg file:

```
IN01>MI>1> 1>11> Reads: Input card 1, Mono input, SmartCage1, display card#1, 1st display
IN02>MI>1> 2>12>
IN03>MI>1> 3>13>
IN04>MI>1> 4>14>
IN05>MI>1> 5>15>
IN06>MI>1> 6>16>
IN07>MI>1> 7>17>
IN08>MI>1> 8>18>
IN09>MI>1> 9>21>
IN10>MI>1> 10>22>
IN11>SI>2> 1>23>
IN12>SI>2> 2>24>
IN13>SI>2> 3>25>
IN14>SI>2> 4>26>
IN15>SI>2> 5>27>
IN16>SI>2> 6>28>
IN17>SI>2> 7>31>
IN18>SI>2> 8>32>
IN19>SI>2> 9>33>
IN20>SI>2> 10>34>
IN21>SI>H>WS01>35>
IN22>SI>H>WS02>36>
IN23>SI>H>WS03>37>
IN24>SI>H>WS04>38> Reads: Input card24, Stereo Input, House , WS04 alias, display card #3, 8th display
>
```

SWITCH.CFG FILE

This file is responsible for mapping specific Horizon router destinations to the input channel aliases defined in channels.cfg. The physical house router levels that will be switched are also defined in this file. The format and an example file are described below.

File name: switch.cfg

This file maps the input channel aliases (e.g. WS01) to the corresponding house router destination (output) number and desired level(s) to switch. The data format shown below is used for all house router makes/models. The level information, and thus the exact file contents, depends upon the house router model.

FORMAT: "WSnn>OOO>LLLL"

WSnn

is the house router channel name (alias) as used by the Event Computer program, where nn starts at 01 and goes through xx, where xx is the number of house router input channels in the particular console. The alias is first defined in the channels.cfg file.

OOO

is the corresponding house router destination number in decimal format. Numbers must correspond to the actual destination (output) numbers as used by the house router and leading zeroes must be used to ensure that the number is comprised of three digits.

Example: If the house router destination is 7, then enter "007" for the destination number.

LLLL

represents the house router levels that will be switched. One to four digits are used to represent the levels to be switched.

The Horizon uses the digits 0 to 3 to represent the 4 physical router levels one through four. To switch audio on physical levels 1 and 2, enter "01". Note that there are two different ways to represent switching on all four levels; "0123" or "4".

Example switch.cfg file for 8 Wheatstone console channels. The input channel aliases are WS01 through WS-08. The destinations are 12 through 19 and the physical levels are 2 and 3. The ">" character is used as a delimiter for purposes of this example. When editing be sure not to erase, move or change the delimiters in the file or else it will not work.

```
WS01>012>23>
WS02>013>23>
WS03>014>23>
WS04>015>23>
WS05>016>23>
WS06>017>23>
WS07>018>23>
WS08>019>23>
>
```

ADDENDUM

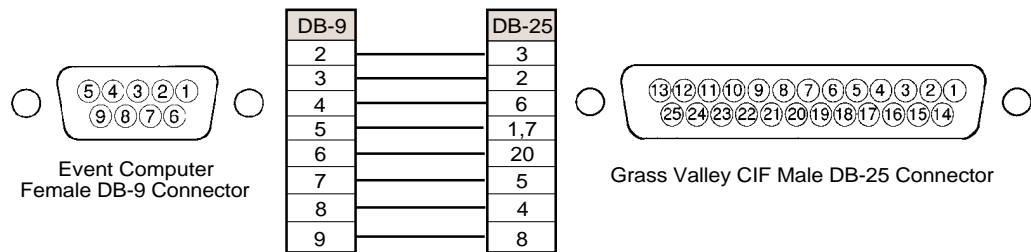
SMS7000 SWITCHER

A-5.0 ROUTER DEPENDENT ADDENDUM:

This addendum contains information relating to the interfacing of the Wheatstone Router Control System with a Grass Valley SMS7000 Routing Switcher, with Communications Interface (CIF) module, and employing the Grass Valley Series 7000 Native Protocol. Please refer to Grass Valley documentation for further details.

A-5.1 INTERCONNECTION

To establish a communications link between the Event Computer and the Grass Valley CIF module, a cable must be made. The Event Computer end requires a female DB-9 connector, while the CIF end requires a male DB-25 connector. The following chart indicates the connections (refer to the Grass Valley documentation for further details):



Connect the 9 pin female connector to the Event Computer COM2 port. Connect the 25 pin male connector to the appropriate serial port on the Grass Valley CIF. Please note that the switcher must be configured using a maintenance terminal connected to it according to the instructions in the Grass Valley documentation. Any channels in the SMS7000 switcher that will be sources for the Wheatstone console must be configured as controllable outputs. See the Grass Valley documentation for details.

A-5.2 SOURCE IDENTIFICATION

SOURCE NAMING - Within the context of the ECOM80 program, SMS7000 sources are identified by an alphanumeric NAME, such as VTR1, etc., and by a hex matrix ID number, such as 04E. In order for the program to identify a source as being associated with the SMS7000 system, the correct matrix ID number, prefixed by the letter "S", must be entered in the source configuration section of the program. The source ID number may be no higher than S0FF. The SMS7000 sources are "zero based" in the Grass Valley Software. This means that physical source 1 equals 0, source 2 equals 1, etc. You need to subtract 1 from the source number then convert the result to its hexadecimal equivalent.

DUAL FUNCTION KEYS - To facilitate selection of certain source families (groups of sources sharing a common alpha prefix, such as "VT01" and "VT32") for the SMS7000 system, the Wheatstone System Access Panel keypad, keys 1 through 6, are double function keys. The first time, in the source selection process, that one of these keys is pressed, it is interpreted as the alpha prefix, such as "VT". When the key is pressed again during selection of the same source, the key represents a digit. The keys are stamped with both the digit and the source family information.

A-5.3 SMS7000 CONFIGURATION FILES

Certain configuration files are required to interface your SMS7000 router to the Wheatstone Eventcom software. These configuration files map the house router destination numbers and levels to be switched to specific Wheatstone console input channel strips. The two files to be configured are:

c:\e80cfg\tv80chan.cfg and

c:\e80cfg\switch.cfg

You can use the DOS text editor to display and edit these files. Press and hold <ALT> then <DW> to exit Eventcom, next type EDIT at the DOS prompt to open the text editor.

Warning! Incorrect editing of these files will cause system malfunction. Make backup copies before editing and contact Wheatstone customer support if you are unsure about what to do.

CHANNELS.CFG FILE

Only edit this file if you are moving house router output audio (destination) to a different Wheatstone console input module. This file is responsible for designating up to 56 input channel strips as local Wheatstone Smart Select or House Router input channels. The format and an example line are described below.

Format: This file defines the mapping of console channels to Smart Cage positions and house router destinations. The file has a row of data for each place in the console that could be related to a position on a display card. Thus, if the console has seven display cards, the file will have 56 data lines. Each data row consists of a four character slot designator, a two character card type designator (MI or SI, unused by the system), a character that maps the channel to a cage or the house router (1 for cage 1, 2 for cage 2, H for house), four characters designating either the card position in the cage or an alias to the house destination, and two characters that indicate the display card number and the position of the display on that card that shows that channel's source. The fields within a row are delimited with [RS] and the row ends with [US]. The file ends with [ETX]. The ">" character is used as a delimiter for purposes of this example. When editing be sure not to erase or move the delimiters in the file or else it will not work. The following example shows a partial file for a system with four display boards.

Example of a **partial** channels.cfg file:

IN01>MI>1> 1>11> Reads: Input card 1, Mono input, SmartCage1, display card#1, 1st display

IN02>MI>1> 2>12>

IN03>MI>1> 3>13>

IN04>MI>1> 4>14>

IN05>MI>1> 5>15>

IN06>MI>1> 6>16>

IN07>MI>1> 7>17>

IN08>MI>1> 8>18>

IN09>MI>1> 9>21>

IN10>MI>1> 10>22>

IN11>SI>2> 1>23>

IN12>SI>2> 2>24>

IN13>SI>2> 3>25>

IN14>SI>2> 4>26>

IN15>SI>2> 5>27>

IN16>SI>2> 6>28>

IN17>SI>2> 7>31>

IN18>SI>2> 8>32>

IN19>SI>2> 9>33>

IN20>SI>2> 10>34>

IN21>SI>H>WS01>35>

IN22>SI>H>WS02>36>

IN23>SI>H>WS03>37>

IN24>SI>H>WS04>38> Reads: Input card24, Stereo Input, House , WS04 alias, display card #3, 8th display

>

SWITCH.CFG FILE

This file is responsible for mapping specific SMS7000 router destinations to the input channel aliases defined in channels.cfg. The physical house router levels that will be switched are also defined in this file. The format and an example file are described below.

File name: switch.cfg

This file maps the input channel aliases (e.g. WS01) to the corresponding house router destination (output) number and desired level(s) to switch. The data format shown below is used for all house router makes/models. The level information, and thus the exact file contents, depends upon the house router model.

FORMAT: "WSnn>OOOO>LLLLLLLL"

WSnn

is the house router channel name (alias) as used by the Event Computer program, where nn starts at 01 and goes through xx, where xx is the number of house router input channels in the particular console. The alias is first defined in the channels.cfg file.

OOOO (outputs are zero based)

is the corresponding house router destination number in HEXADECIMAL format. Numbers must correspond to the actual destination (output) numbers as used by the house router. The SMS7000 destinations are "zero based" in the Grass Valley Software. This means that physical output 1 equals 0, output 2 equals 1, etc. You need to subtract 1 from the destination number then convert the result to its hexadecimal equivalent and enter that here. Repeat for each destination.

Example: If the house router destination is 125, subtract 1, then convert the difference, 124, to HEX (x007C); next enter 007C for the destination number.

LLLLLLLL (levels are 1 based)

represents the house router levels that will be switched. The number entered on the line must be in hexadecimal notation and consist of 8 characters.

The SMS7000 uses a "bitmapped" system to encode the 32 physical router levels. There are 32 bit positions (i.e. 0000 0000 0000 0000 0000 0000 0000 0000) and each physical level corresponds to a single bit position. This can be considered a 32 bit binary "word". To switch audio on level 1, the binary "word" would equal: 0000 0000 0000 0000 0000 0000 0001, its hexadecimal equivalent would be x00000001 and "00000001" would be entered for the level value in this file. (Note that the leading zeroes are required by the software). To switch audio on levels 1,2, 3, 4, 31 and 32, the binary "word" would be: 1100 0000 0000 0000 0000 0000 0000 1111 and the hexadecimal equivalent would be xC000000F. "C000000F" would be entered for the level value.

Example switch.cfg file for 8 Wheatstone console channels. The input channel aliases are WS01 through WS08. The destinations are 12 through 19 and the physical level is 8 ; (SMS7000 bitmap = 0000 0000 0000 0000 0000 0000 1000 0000 = decimal 128 = hex x00000080). The ">" character is used as a delimiter for purposes of this example. When editing be sure not to erase, move or change the delimiters in the file or else it will not work.

```
WS01>000C>00000080>
WS02>000D>00000080>
WS03>000E>00000080>
WS04>000F>00000080>
WS05>0010>00000080>
WS06>0011>00000080>
WS07>0012>00000080>
WS08>0013>00000080>
>
```

ADDENDUM

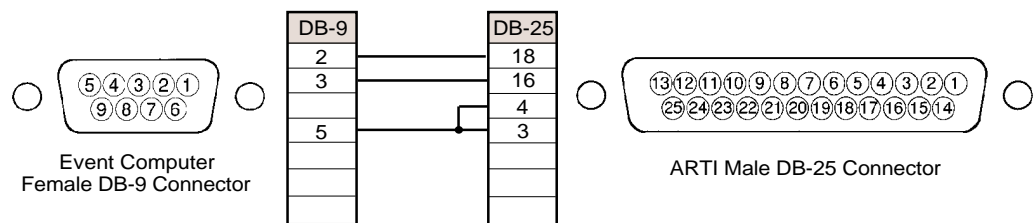
ARTI INTERFACE

A-6.0 ROUTER DEPENDENT ADDENDUM:

This addendum contains information relating to the interfacing of the Wheatstone Router Control System with an ARTI Interface. Please refer to ARTI documentation for further details.

A-6.1 INTERCONNECTION

To establish a communications link between the Event Computer and the ARTI Interface, a cable must be made. The Event Computer end requires a female DB-9 connector, while the ARTI Interface end requires a male DB-25 connector. The following chart indicates the connections (refer to the ARTI documentation for further details):



Connect the 9 pin female connector to the Event Computer COM2 port. Connect the 25 pin male connector to the mating connector on the ARTI Interface. See the ARTI documentation for further interconnect instructions.

A-6.2 SOURCE IDENTIFICATION

SOURCE NAMING - Within the context of the ECOM80 program, ARTI sources are identified by an alphanumeric NAME, such as S7Ø1, etc., and by a matrix ID number, such as Ø45. In order for the program to identify a source as being associated with the ARTI system, the correct matrix ID number, prefixed by the letter "S", must be entered in the source configuration section of the program.

DUAL FUNCTION KEYS - To facilitate selection of certain source families (groups of sources sharing a common alpha prefix, such as "VT01" and "VT32"), the Wheatstone System Access Panel keypad, keys 1 through 6, are double function keys. The first time, in the source selection process, that one of these keys is pressed, it is interpreted as the alpha prefix, such as "VT". When the key is pressed again during selection of the same source, the key represents a digit. The keys are stamped with both the digit and the source family information. In the case of the ARTI interface, the 4 key is the only key programmed for this function.