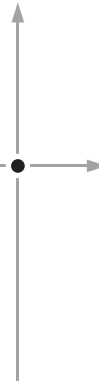


Maestro

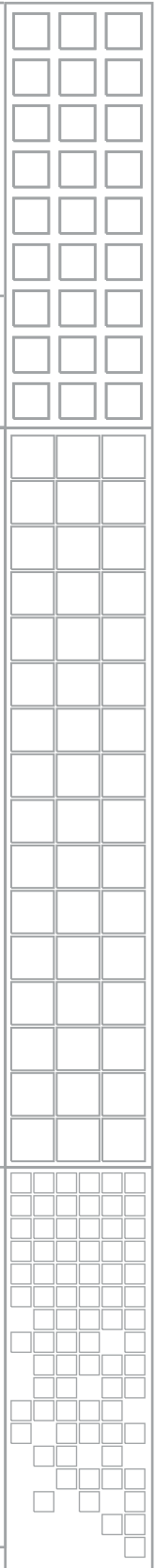
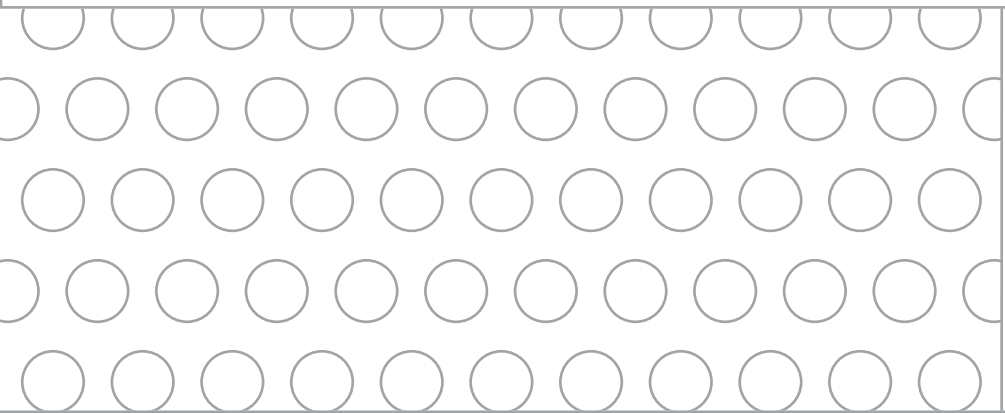
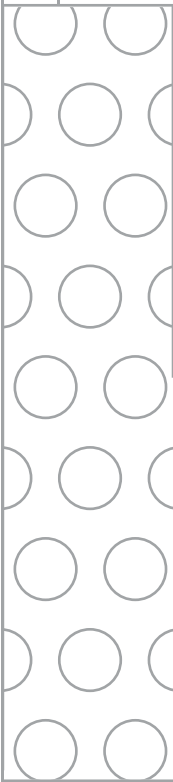
MULTI-FORMAT MASTER CONTROL

Release Notes



SOFTWARE VERSION 1.400

071850604
October 24, 2007



Contacting Grass Valley

International Support Centers	France 24 x 7	+800 8080 2020 or +33 1 48 25 20 20 +800 8080 2020 or +33 1 48 25 20 20	United States/Canada 24 x 7	+1 800 547 8949 or +1 530 478 4148
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		Australia and New Zealand: +61 1300 721 495	Central/South America: +55 11 5509 3443	
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Grass Valley Web Site

The www.thomsongrassvalley.com web site offers the following:

Online User Documentation — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

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END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

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For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Canada please call 800-547-8949 or 530-478-4148, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.thomsongrassvalley.com/environment



Maestro Release Notes

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Purpose

This document provides software installation instructions for the 1.400 software release of the Maestro Master Control System. This release provides additional functions and corrects certain software problems associated with the previous release. However, some functions are not yet available, as noted in the Release Notes Addendum, part no. 071850704. The Release Notes Addendum also provides a list of software corrections included with this release.

Applicability

All Maestro systems.

Interoperability Requirements

- Encore version 1.7 or newer, or
- Jupiter version 4.2 or newer, or
- Jupiter version 7.4.1c or newer (for LAN connection).

Upgrade Requirements

- The software installation procedure must be followed as described. This includes uninstalling the previous version of software before installing v1.4 software (as described on page 19).
- Some systems may require special Telnet procedures to complete the update. Because of this possibility, installers should obtain a copy of Field Modification Note 075079500, *Maestro Processor Backup Battery, CP Server, and CP FPGA Telnet Upgrade* before proceeding.

Features Added

1. DVE is now supported. For more information, please see page 8.
2. GPI trigger input (“Action: Transition”) and GPO trigger output (“Action: Transition in Progress”) for use with external devices is now available. See page 10.
3. In previous software versions, there was a potential for conflict if both an automation system and an Emergency Alert System wanted to control the same resources. To avoid this problem, Maestro v1.400 restricts certain automation operations for any keyer(s)/audio over(s) specified in the Background Buttons table as having a fixed assignment. For more information, refer to the *Maestro Automation Interface Protocol Technical Reference Manual*, part no. 071847204, September 21, 2007.
4. The automation keyer command
`MAESTRO_KEYER_SOURCE_REQUEST`
...now has an option to remove assignments (similar to `MAESTRO_AUDIO_MIXER_SOURCE_REQUEST`). (Reference: CR 76352)
5. The Deployment Control Center now provides feedback to the user that the system is creating a tar file drop down list. (Ref: CR 82213)

6. It is now possible to use Telnet and the VxWorks command “ixGetBatteryStatus” to check the status of the NVRAM backup battery on the Maestro rear panel. For more information, refer to Field Modification Note 075079500, *Maestro Processor Backup Battery, CP Server, and CP FPGA Telnet Upgrade*.

Caveats

1. The "Panel Server IP" address and the "Local IP" address for the Maestro GUI must now use control LAN addresses only. In previous releases, the GUI application would connect and run over the facility LAN; this is no longer possible with version 1.400. To ensure that the GUI application is set for the correct addresses, an address check step has been added at the end of the software installation procedure (page 27).
2. Network issues are presently the most common cause of problems in the field. Network installation and configuration must follow Grass Valley recommendations. Ref: CR 79518.
3. All Maestro processors connected to the same Maestro deployment PC and comprising a single system (all processors interconnected via the same facility and control LANs) must have the same software version and configuration deployed to them. Having disparate software versions/configurations deployed within a single system is not supported and may result in communication/configuration incompatibilities and system failure.

Materials Supplied

Table 1. MAE-HD-SW Bill of Materials

MAE-HD-SW Maestro Software Upgrade		
Quantity	Description	Part number
1	CDROM, Maestro HD Software Program, v1.400 (1.400.2537.887)	063825804
1	Release Notes, Maestro v1.400	071850604
1	Release Notes Addendum, Maestro v1.400	071850704
1	Maestro Documentation CD	071851704

Table 2. MAE-SD-SW Bill of Materials

MAE-SD-SW Maestro Software Upgrade		
Quantity	Description	Part number
1	CDROM, Maestro SD Software Program, v1.3 (1.400.2537.887)	063825904
1	Release Notes, Maestro v1.400	071850604
1	Release Notes Addendum, Maestro v1.400	071850704
1	Maestro Documentation CD	071851704

Additional Documentation

Release Notes/Addendums

Maestro v1.400 Release Notes Addendum 071850704*

Maestro v1.3 Release Notes 071850603 and Release Notes Addendum 071850703*

Maestro v1.2 Release Notes 071850602 and Release Notes Addendum 071850702*

Maestro v1.1 Release Notes 071850601 and Release Notes Addendum 071850701*

Field Modification Notes

Field Modification Note 075078901, *DVE Option**

Field Modification Note 075079500, *Maestro Processor Backup Battery, CP Server, and CP FPGA Telnet Upgrade**

Manuals

Maestro Installation Planning Guide, v1.2, 071838401*

Maestro Installation and Service Manual, v1.2, 071842301*

Maestro User Manual, v1.2, 071848201*

Note The above manuals are presently being revised to include v1.3 and v1.4 enhancements.

Maestro Automation Interface Protocol Technical Reference Manual, v1.4, 071847204*

Concerto Multi-format Router Instruction Manual, 071813806†

Encore Installation and Service Manual, 071810304†

Jupiter CM-4000 Installation and Operating Manual, 071826104†

Jupiter VM-3000 Installation and Operating Manual, 071830503†

Sonata Series Planning and Installation Manual, 071860901

Engineering Change Orders

ECO 730P, Maestro v1.4 HD/SD software

*A copy of this publication is provided on the documentation CD supplied with this release.

†A copy of this publication is provided on the Router Products documentation CD supplied with this release.

DVE

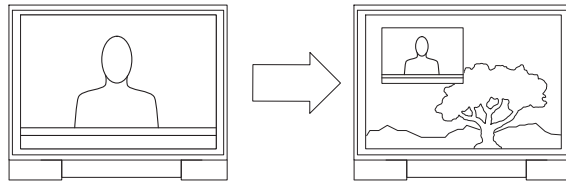
The DVE option allows one background bus (audio and video) and its selected upstream keys to be in a squeeze window with another background bus and its selected upstream keys serving as the background. The AUX bus is fully utilized with this release.

A DVE effect is entered by selecting the desired effect and pressing **Take**. While the DVE effect is active, a variety of audio/video transitions may be performed (also by pressing **Take**). A DVE effect is exited by selecting one of the available exit modes and pressing **Take**.

When a DVE effect is active, the content of the squeeze window is the PGM bus. The content of the background is the AUX bus.

An example is shown in Figure 1.

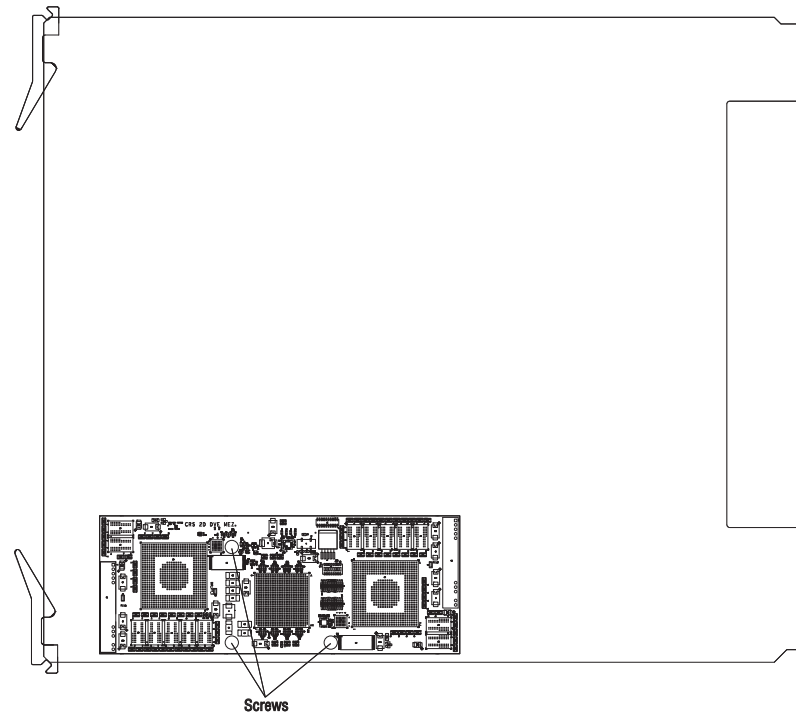
Figure 1. Example of a Maestro DVE Effect



Transition type (cut, fade, or wipe) and transition speed are selected using the control panel.

The DVE hardware consists of a mezzanine board that mounts on the main processor board (see Figure 2), and, in some cases, an AES-to-MADI converter.

Figure 2. Top View of Processor Showing DVE Mezzanine Board



The DVE option requires three background video sources (BGA, BGB, and BGC).

The DVE option also requires three background audio sources:

- If the Maestro will use embedded audio, no additional hardware is required for DVE operation.
- If the system includes a Grass Valley Apex audio router, no additional hardware is required for DVE operation since Apex includes AES-MADI conversion as a standard feature.
- If the Maestro will use AES audio inputs, then an optional 1 RU AES to MADI Converter unit must be used to provide the third background audio source. The planner should specify “SON-AU2MADI” (Sonata AES 75 ohm unbalanced to MADI) or “SON-AB2MADI” (Sonata AES 110 ohm balanced to MADI) units. When these Sonata converters are installed, the corresponding AES inputs on the Maestro rear panel are not used.

For DVE installation and operating instructions, please refer to Field Modification Note 075078902, *DVE Option*.

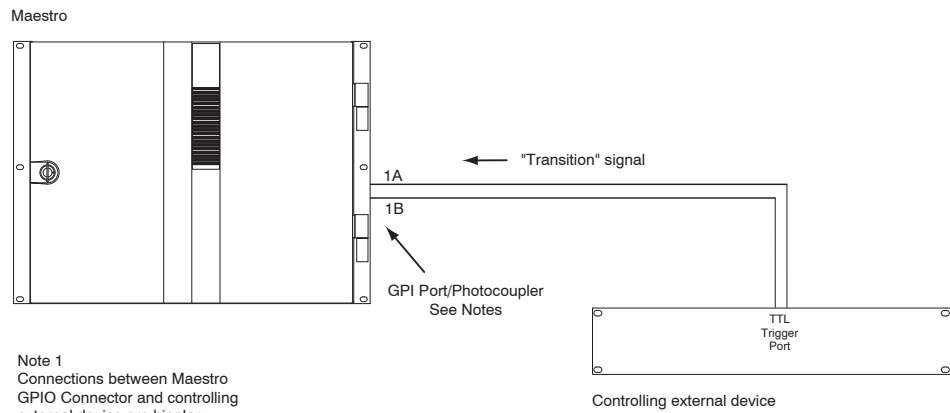
For Sonata installation instructions, please refer to publication 071860901, *Sonata Series Planning and Installation Manual*.

General Purpose “Transition” Input/Output

With this release, the GPIO connector on the Maestro rear panel can be used to receive an “Action: Transition” signal from a controlling external device (Figure 3), or to transmit an “Action: Transition in Progress” signal to a controlled external device (Figure 4).

Maestro Controlled by External Device

Figure 3. GPI Connections to External Controlling Device



Note 1
Connections between Maestro
GPIO Connector and controlling
external device are bipolar.

Note 2
Maximum current through Maestro photocoupler = 4.25 mA
"High" range for photocoupler = 3-10 V

Maestro Controlling External Device

When used to control an external device, all present Maestro systems require installation of a leakage-current swamping resistor in the GPO circuit. This resistor is used to prevent leakage current from reaching the external device when the Maestro GPO relay is open. The resistor is always placed across the input relay of the external device.

Figure 4 and Figure 5 show examples of connections to controlled external devices containing a small mechanical or solid-state relay, along with a suggested location and value for the swamping resistor. A supply voltage greater than +5 V can be used (up to +10 V), but in that case the power rating of the resistor would need to be increased accordingly.

Figure 4. GPO Connections to External Controlled Device (Example 1)

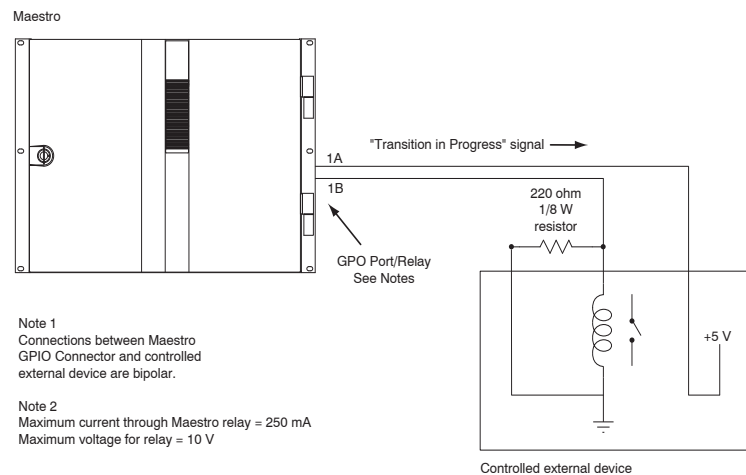
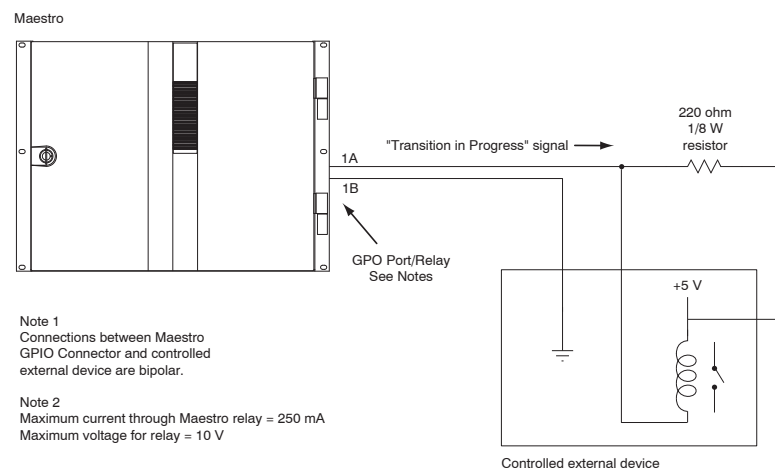


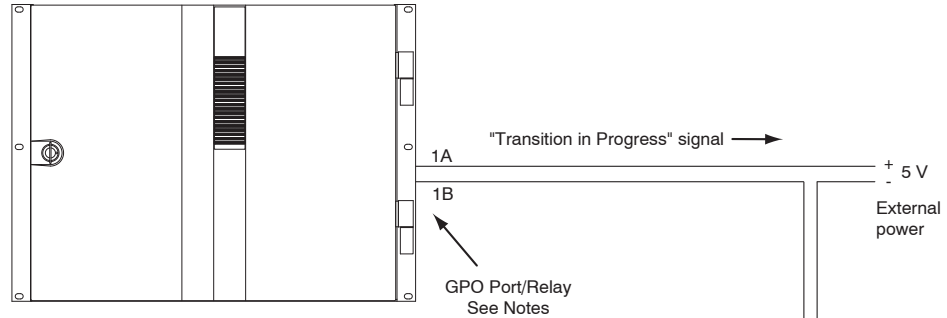
Figure 5. GPO Connections to External Controlled Device (Example 2)



It is also possible for one Maestro to control another. See Figure 6.

Figure 6. Maestro-to-Maestro GPIO Connections

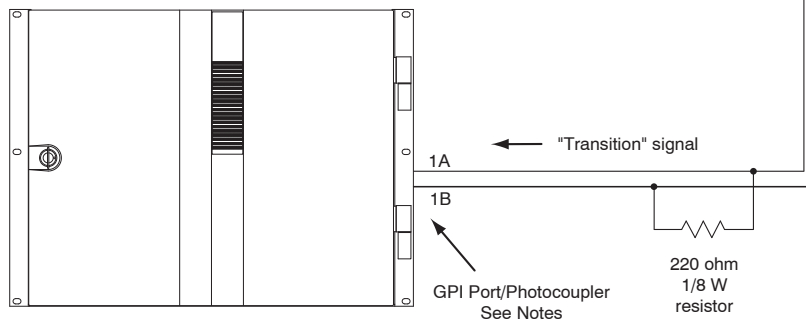
Controlling Maestro



Note 1
Connections between Maestro
GPIO Connector and controlled
external device are bipolar.

Note 2
Maximum current through Maestro relay = 250 mA
Maximum voltage for relay = 10 V

Controlled Maestro



Note 3
Maximum current through Maestro photocoupler = 4.25 mA
"High" range for photocoupler = 3-10 V

The controlling Maestro would be configured to send a "Transition in Progress" signal (i.e., by closing a GPO port relay) to indicate that the Maestro has initiated a Take.

The controlled Maestro would be configured to accept a "Transition" signal and respond by executing a Take command.

For pinouts of the GPIO connector, refer to the "GPIO" columns in Table 3. For a representative schematic of the GPIO port, refer to Figure 7.

Table 3. Maestro Rear Panel, GPIO 44-pin Connector Pinouts

Shielded 44-Pin D; socket contacts	Pin	GPIO	Pin	GPIO
	1	1A	23	10A
	2	1B	24	10B
	3	2A	25	GND
	4	2B	26	11A
	5	GND	27	11B
	6	3A	28	12A
	7	3B	29	12B
	8	4A	30	GND
	9	4B	31	13A
	10	GND	32	13B
	11	5A	33	14A
	12	5B	34	14B
	13	6A	35	GND
	14	6B	36	15A
	15	GND	37	15B
	16	7A	38	16A
	17	7B	39	16B
	18	8A	40	GND
	19	8B	41	NC
	20	GND	42	NC
	21	9A	43	LTC RX IN+
	22	9B	44	LTC RX IN-

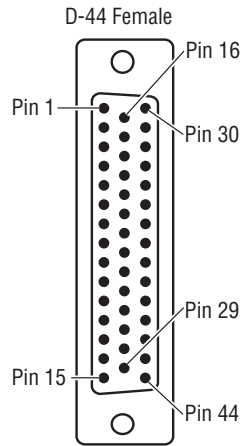
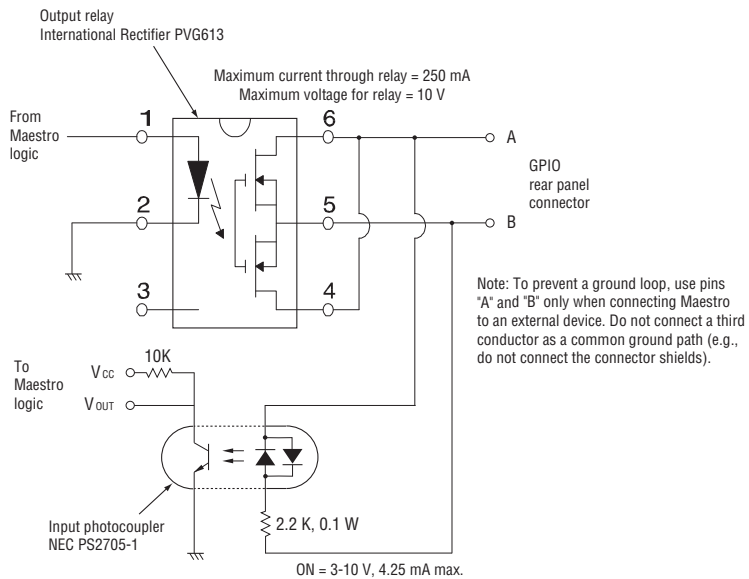


Figure 7. GPIO Port Circuitry



Maestro Configuration

The GPIO Definition table is used to configure the GPIO ports on the rear panel of the Maestro. The table is located in the Input/Output Sets group of the Maestro Configurator (“4th Step”). When the GPIO Definition table is first opened, the editor will open a set panel. Create a name for the GPIO table, select an Input Set, then select “New.” (The table is assigned to a Maestro channel using the Channel Setup table.)

External Device Control of Maestro (Action: Transition)

In this application, an external device can send a Transition (Take) command to the Maestro. See Figure 8.

Figure 8. GPIO Definition table for “Transition” Trigger to Maestro

Define GPIO functionalities.

Device Type	Identifier	Sub System	Purpose	Trigger Type	Trigger Duration	Trigger Sense
MaestroGPI	1	Action	Transition	Level	0:00	High

Specify the trigger type. This field cannot be blank.

OK Apply Cancel Find Text

Device Type

For this application, select “MaestroGPI.”

Identifier

The numbers in this column refer to the 16 ports on the GPIO connector. Any port from 1 to 16 can be selected in any order.

Sub System

Select “Action.”

Purpose

“Transition” is the only choice when “MaestroGPI is the device type.

Trigger Type

Trigger Type can be “Level” or “Pulse.” If Pulse, the input pulse duration must be one field or more.

Trigger Duration

This column is not used in this application.

Trigger Sense

Select "High" if the external device is normally low and will send between 3 and 10 V to assert "Transition." Select "Low" if the external device is normally high and will present zero V to assert "Transition."

When finished configuring the table, select "Apply" or "OK." The Name of the GPIO Definition set will now appear in the set panel. The set is assigned to the appropriate Maestro channel (Processor) using the Channel Setup table.

Maestro Control of External Device (Action: Transition in Progress)

In this application, Maestro can send a Transition in Progress signal to an external device. See Figure 9.

Figure 9. GPIO Definition table for "Transition" Trigger to Maestro

Define GPIO functionalities.

Device Type	Identifier	Sub System	Purpose	Trigger Type	Trigger Duration	Trigger Sense
MaestroGPO	1	Action	Transition In Progress	Level	0:00	High

Specify the trigger type. This field cannot be blank.

OK Apply Cancel Find Text

Device Type

For this application, select "MaestroGPO."

Identifier

The numbers in this column refer to the 16 ports on the GPIO connector. Any port from 1 to 16 can be selected in any order.

Sub System

Select "Action."

Purpose

“Transition in Progress” is the only choice when “MaestroGPO” is the device type.

Trigger Type

“Level” is the only choice when “MaestroGPO” is the device type. When a transition begins, the GPIO contact will go to the state selected in the Trigger Sense column (described below).

Trigger Duration

This column is not used in this application.

Trigger Sense

Selections are:

- High - *close* the contact when a transition begins and *open* when the transition is complete), or
- Low - *open* the contact when a transition begins and *close* when the transition is complete.

When finished configuring the table, select “Apply” or “OK.” The Name of the GPIO Definition set will now appear in the set panel. The set is assigned to the appropriate Maestro channel (Processor) using the Channel Setup table.

Software Upgrade Procedure

CAUTION Portions of this procedure will interrupt video and audio signals passing through the system. Users of this equipment should consult with Grass Valley Technical Support personnel before proceeding.

Maestro Deployment PC

Note In some installations, the “deployment PC” will be the same as the GUI PC.

Requirements

- A period of time where the Maestro system can be taken off-line (externally bypassed).
- Windows XP Service Pack 2.
- In order to upgrade the Maestro software, the Maestro configuration computer will need access to the installation CD or downloaded installation files.
- The configuration from the existing operational Maestro system will be used to complete the Maestro upgrade.

Checking the Boot ROM Versions

Version 1.4 requires the Processor and hardware control panel boot ROMs to be current. (Older versions of the boot ROMs will operate under v1.4 but this would require the deployment PC and system software to be active at all times.)

1. In the Maestro Deployment Control Center window, select the Processor with the boot ROM you wish to check. The row for the selected Processor will have a dark background.
2. Select the **Telnet** button.

Note Only one Telnet session to a Processor can be open at a time.

3. In the Telnet window, type:

d 0x50004710 [Enter]

If the Boot ROM is current, the first two rows of the display will indicate a date of December 14, 2006:

```
50004710: 576f 726b 7335 2e35 2e31 0044 6563 2031 *Works5.5.1.Dec 1*  
50004720: 3420 3230 3036 2c20 3037 3a32 383a 3037 *4 2006, 07:28:07*
```

- If the Boot ROM version checks OK, go to Step 4 below.
 - If you see an older date, or no date at all, the Boot ROM should be updated. Contact Grass Valley Technical Support for update instructions.
4. If there is another Processor (channel) in the system, repeat Step 1 above and following. If not, go to Step 5.
 5. In the Maestro Deployment Control Center window, select the control panel with the boot ROM you wish to check.

For a hardware control panel, this will actually be a CP Panel Server board. For a GUI control panel, this will actually be a PCI Panel Server board.

6. Select the **Telnet** button.

Note Only one Telnet session to a Panel Server can be open at a time.

7. In the Telnet window, type:

d 0x50004710 [Enter]

If the Boot ROM is current, the first two rows of the display will indicate a date of December 14, 2006:

```
50004710: 576f 726b 7335 2e35 2e31 0044 6563 2031 *Works5.5.1.Dec 1*  
50004720: 3420 3230 3036 2c20 3037 3a32 383a 3037 *4 2006, 07:28:07*
```

- If the Boot ROM version checks OK, go to Step 8 below.
 - If you see an older date, or no date at all, the Boot ROM should be updated. Contact Technical Support for update instructions.
8. If there is another control panel in the system, repeat Step 5 above and following. If all boot ROMs check OK, go to *Installing the Maestro Software Package* below.

Installing the Maestro Software Package

Perform this procedure only after checking the Boot ROM versions.

Note It is recommended that all default values be used during the installation.

1. Make a copy of the current configuration set:
 - a. Launch the Maestro Configuration Editor by going to “Start > All Programs > Thomson > Maestro Configuration Editor.”
 - b. Use “File > Open” to open the current configuration set.
 - c. Use “File > Save As” to create a copy of the set.
As a suggestion, add “v13” to the name.
 - d. Use “File > Save As” again to create another copy of the set.
As a suggestion, add “v1400” to the name.
 - e. Close all Maestro applications.

2. The previous version of Maestro **must be uninstalled**:

CAUTION If you are uninstalling v1.3 software, you must use the Administrator account (login). If you are uninstalling v1.2 or prior software, you must use the account (login) used when that software was installed.

- a. Using the Windows Control Panel, select Add or Remove Programs.
- b. Remove the Maestro Software Package.
This will not remove user data.
- c. Close the Windows Control Panel.

3. Insert the new Maestro software CD.

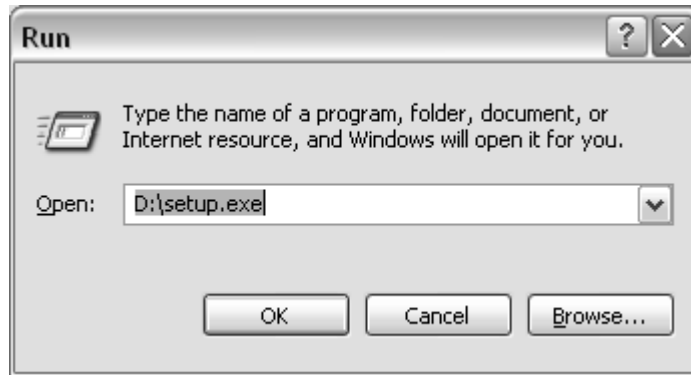
A popup will appear that asks if the install should continue. Click on **Next**. Go to Step 4.

If the installation does not automatically start, the process will have to be started manually:

- a. Select **Start > Run**.

A window similar to that shown in Figure 10 should appear.

Figure 10. Run Dialog Box



- b. Enter "D:\setup.exe" where D: is the CD Drive.
- c. Click the **OK** button.

A popup will appear that asks if the install should continue; select **Next**.
Go to Step 4.

- 4. A popup will indicate the default destination folder. Select **Next**.
- 5. For Setup Type, select **Complete**.
- 6. When the "Ready to Install" menu appears, select **Install**.

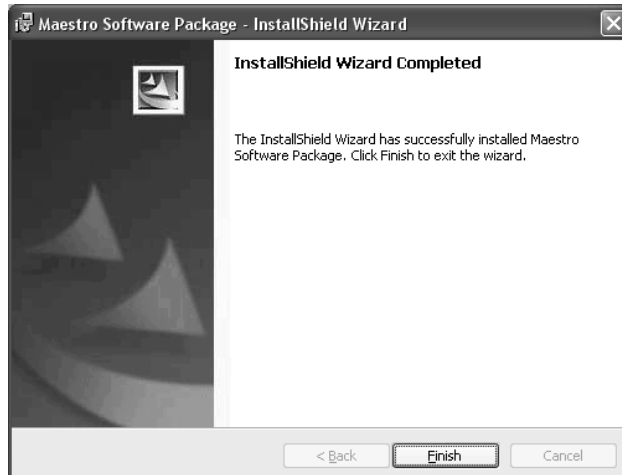
The window shown in Figure 11 will appear.

Figure 11. Installing Maestro Software Package



When this step is complete, the window shown in Figure 12 will appear.

Figure 12. Maestro Software Package Installation Complete



7. Select **Finish**.

Installation of the Maestro Software Package on the PC is now complete.

Note If the installation fails to complete and you see the error message "Error 1001 -- the specified service already exists," you may need to manually remove the Maestro Jupiter Router Service software. Refer to *Manually Removing the Maestro Jupiter Router Service Software* on page 22.

8. Proceed to *Re-compiling the Configuration File* on page 23.

Manually Removing the Maestro Jupiter Router Service Software

Perform this procedure only if you see the error message "Error 1001 -- the specified service already exists" referred to in the Note on page 21.

1. Go to "Control Panel > Administrative Tools > Services."
2. Right click on "MaestroJupiterRouterService" and select **Stop**.
3. Go to "Start > Run" and enter "regedit."
4. Go to "HKEY_LOCAL_MACHINE > SYSTEM > CurrentControlSet > Services."
5. Highlight "MaestroJupiterRouterService." Right click and delete this item.
6. Close all windows and reboot. Repeat Step 1 above and confirm that MaestroJupiterRouterService is not listed.
7. Proceed with re-installation of the new software, starting with Step 3 on page 19.

Re-compiling the Configuration File

This step is required because changes have been made to the structure of the Monitor Follow configuration table

1. Launch the Maestro Configuration Editor by going to “Start > All Programs > Thomson > Maestro Configuration Editor.”
2. Select the Maestro configuration set to be re-compiled by going to “File > Open > Thomson” and selecting the set.

This should be the configuration set created for v1.400 use (Step d on page 19).

3. If the system displays a Validation Report, you must check the indicated table(s) and make corrections as indicated.

You can use the links in the Description column to display the table(s).

4. Save the configuration file.
5. Compile the file by going to “File > Compile Channel Data.”
6. Proceed to *Updating the System Configuration and Software* below.

Updating the System Configuration and Software

1. Launch the Maestro Deployment control center by selecting “Start > All Programs > Thomson > Maestro Deployment Center.”

A Maestro Deployment Control Center window similar to that shown in Figure 13 should appear.

Figure 13. Maestro Deployment Control Center (example)

Board Name	Facility LAN IP Address	Uptime	Status	Recommend Action	Board Configuration		Version			Active Configuration		
					Parent Name	Time Stamp	Application	FPGA	OS	File Name	Time Stamp	
Deployment >>	192.168.190.190	0:00:51			FrameProcessor						BET9_24_07DVE.x ml	09/23/07 8:58 AM
					ControlPanel							
EAST	192.168.190.192	15.06:14:54	STARTED	Running >>	BET9_24_07DVE.x ml	09/23/07 8:43 AM	1.3.2134.849	34	21	BET9_24_07DVE.x ml	09/23/07 8:43 AM	
					Pending >>	BET9_24_07DVE.x ml	09/23/07 8:43 AM	1.3.2134.849	34	21	BET9_24_07DVE.x ml	09/23/07 8:43 AM
JAZZ	192.168.190.198	15.05:46:09	STARTED	Running >>	BET9_24_07DVE.x ml	09/23/07 8:43 AM	1.3.2134.849	34	21	BET9_24_07DVE.x ml	09/23/07 8:43 AM	
					Pending >>	BET9_24_07DVE.x ml	09/23/07 8:43 AM	1.3.2134.849	34	21	BET9_24_07DVE.x ml	09/23/07 8:43 AM
BETE	192.168.190.194	00:35:01	STARTED	Running >>	BET9_24_07DVE.x ml	09/23/07 8:43 AM	1.3.2134.849	34	21	BET9_24_07DVE.x ml	09/23/07 8:43 AM	
					Pending >>	BET9_24_07DVE.x ml	09/23/07 8:43 AM	1.3.2134.849	34	21	BET9_24_07DVE.x ml	09/23/07 8:43 AM
BETJ	192.168.190.196	58.22:20:16	STARTED	Running >>	BET9_24_07DVE.x ml	09/23/07 8:43 AM	1.3.2134.849	34	21	BET9_24_07DVE.x ml	09/23/07 8:43 AM	
					Pending >>	BET9_24_07DVE.x ml	09/23/07 8:43 AM	1.3.2134.849	34	21	BET9_24_07DVE.x ml	09/23/07 8:43 AM

2. (Optional) Select **Show Log** to provide detailed monitoring of the update process.
3. In the Configuration box:
 - a. Verify that the Folder field has the correct path to the Maestro configuration directory. (Default = C:\Thomson)
 - b. In the “File:” drop down field, select the Maestro configuration set to be activated.

This should be the configuration set updated and compiled for v1.400 use (Step 5 on page 23).

- c. Click the **Update Only** button.

This will update the contents of the “Pending>>” rows in the Board Configuration and Active Configuration columns.

The Configuration box contains two buttons: **Update Only** and **Update and Apply**.

Update Only - Activates the configuration and downloads it to the boards, but does not apply it as the running configuration.

Update and apply - Activates the configuration, downloads it to the boards and applies it as the running configuration.

CAUTION The following step will interrupt the video and audio signals passing through the system for about 1 minute.

- d. Click the **Update and Apply** button.

The pending Configuration files will load and execute.

This will also update the contents of the “Running>>” rows in the Board Configuration and Active Configuration columns.

4. In the Software Application box:

- a. The “Folder” field should indicate “C:\MaestroEmbedded.”

- b. In the Frame Processor Tar File Name field:

--For LTC systems (those using Linear Time Code) select “MaestroMC_1.400.2537.887.LTC.tar.” (When used, LTC is connected to pins 43 and 44 of the GPIO connector on the rear panel.)

--For VITC systems (those using Vertical Interval Time Code) select “MaestroMC_1.400.2537.887.VITC.tar.”

- c. In the **Control Panel Tar File Name**, field, select “MaestroCP_1.400.2537.887.tar.”

5. Click the **Select All** button (lower right corner of menu).

Alternatively, each board can be updated independently by clicking on the “Board Name” field or all at the same time by using the “Select All” button.

6. In the Software Application box:

- a. Click the **Update Only** Button.

This will update the contents of the “Pending>>” rows in the Version columns.

CAUTION The following step will interrupt the video and audio signals passing through the system for about 1 minute.

- b. Click the **Update and Apply** Button.

The pending software files will load and execute.

This will also update the contents of the “Running>>” rows in the Version columns.

- 7. Verify that the new Configuration and Application versions are “Running” as seen in Figure 14.

Figure 14. Maestro Deployment Control Center Software Version Status

The screenshot shows the Maestro Deployment Control Center interface. At the top, there are two main sections: 'Software Application' and 'Configuration'. The 'Software Application' section includes fields for 'Folder' (C:\MaestroEmbedded), 'Frame Processor Tar File Name' (MaestroMC_1.400.2537.887.VITC.tar), and 'Control Panel Tar File Name' (MaestroCP_1.400.2537.887.tar). The 'Configuration' section includes 'Folder' (C:\Thomson), 'Current' (CONF_D_v14_BET01), and 'File' (CONF_D_v14_BET01). Below these are 'Update Only' and 'Update & Apply' buttons for both sections. On the right side, there are buttons for 'About', 'Reset', 'Telnet', 'Apply Pending', and 'Clear NVRam'.

The main area contains a table with the following columns: Board Name, Facility LAN IP Address, Uptime, Status, Recommend Action, Board Configuration (Parent Name, Time Stamp), Version (Application, FPGA, OS), and Active Configuration (File Name, Time Stamp). The table lists several boards: Deployment>>, EAST, JAZZ, BETE, and BETJ. Each board has multiple rows representing different components (FrameProcessor, ControlPanel) and their status (STARTED, Running>>, Pending>>).

At the bottom of the table, there are checkboxes for 'In "Uptime" column, Show StatTime' and buttons for 'Refresh', 'Select All', and 'Unselect All'. A 'Show Log' button is located at the bottom left, and an 'Exit' button is at the bottom right.

Board Name	Facility LAN IP Address	Uptime	Status	Recommend Action	Board Configuration			Version			Active Configuration	
					Parent Name	Time Stamp	Application	FPGA	OS	File Name	Time Stamp	
Deployment>>	192.168.190.190	1:05:42			FrameProcessor		1.400.2537.887	37	25			
					ControlPanel		1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/8/2007 2:38:10 PM	
EAST	192.168.190.192	00:04:55	STARTED	Running>>	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	
					CONF_D_v14_BET01.xml	10/08/07 2:38 PM	1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	
JAZZ	192.168.190.198	00:04:55	STARTED	Running>>	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	
					CONF_D_v14_BET01.xml	10/08/07 2:38 PM	1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	
BETE	192.168.190.194	00:04:48	STARTED	Running>>	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	
					CONF_D_v14_BET01.xml	10/08/07 2:38 PM	1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	
BETJ	192.168.190.196	00:04:48	STARTED	Running>>	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	
					CONF_D_v14_BET01.xml	10/08/07 2:38 PM	1.400.2537.887	37	25	CONF_D_v14_BET01.xml	10/08/07 2:38 PM	

- 8. Proceed to *Checking the GUI Control Panel for Proper LAN Settings* on page 27.

Checking the GUI Control Panel for Proper LAN Settings

The “Panel Server IP” address and the “Local IP” address for the Maestro GUI must now use control LAN addresses only. In previous releases, the GUI application would connect and run over the facility LAN; this is no longer possible with version 1.400.

The following steps should be taken to ensure that the GUI application is set for the correct addresses:

1. With Maestro’s GUI up and running, press the “Settings” button. This will open the Application Settings window.
2. Double-click (or select and press Alter) the “Panel Server IP” setting.
3. Specify the control LAN address of the Panel Server card associated with the GUI.

This will switch the view back to the first Application Settings window.

To look up the GUI control LAN address, go to “Maestro Configuration Editor > Network Description Table.” Then check the Board Type “GUI” row and the “Control LAN IP Address” column.

4. Double-click (or select and press Alter) the “Local IP” setting.
5. Select the control LAN address of the PC associated with the GUI.

This will switch the view back to the first Application Settings window.

To look up the PC control LAN address, go to “Start > Control Panel > Network Connections.” Double-click on the the card used for the control LAN. Then go to Properties > Internet Protocol > Properties. .

6. Close the Application Settings window. The GUI should then connect and work properly.

Note If you continue to have difficulty with this change, please contact Technical Support.

7. Proceed to *Updating FPGAs/CPLDs* on page 28.

Updating FPGAs/CPLDs

(FPGA = Field Programmable Gate Array. CPLD = Complex Programmable Logic Device.)

1. Updating FPGAs/CPLDs on the Processor board(s):

Note Some of the FPGAs on the Processor are updated using the Software Version **Update and Apply** procedure described above. The remaining FPGAs on the Processor are updated using the procedure below.

- a. In the board Status section of the Maestro Deployment control center, select the Processor to update.
- b. Right-click on the “Running” FPGA field for this Processor. See Figure 15.

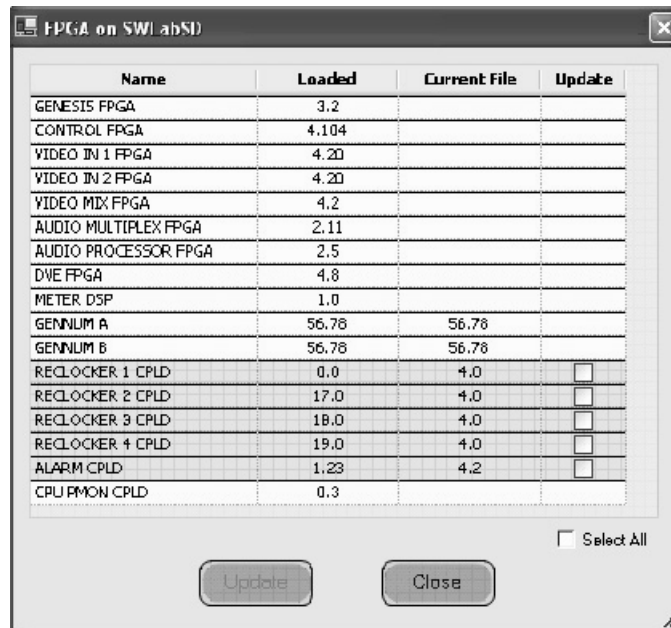
Figure 15. “Running” FPGA Field

The screenshot shows the Maestro Deployment Control Center interface. At the top, there are sections for 'Software Application' and 'Configuration'. Below these is a table with columns: Board Name, Facility LAN IP Address, Uptime, Status, Board Configuration, Version, Active Configuration, and Board CFG on Deployment PC. The 'FrameProcessor' row is expanded to show 'ControlPanel' and '887 Direct Mxc Test.xml' entries. A red circle highlights the '37' value in the 'FPGA' column of the '887 Direct Mxc Test.xml' row.

Board Name	Facility LAN IP Address	Uptime	Status	Board Configuration	Version	Active Configuration	Board CFG on Deployment PC				
			Recommend Action	Parent Name	Application	FPGA	DS	File Name	Time Stamp	File Name	Time Stamp
Deployment >>	10.16.86.154	1:09:45		FrameProcessor	1.400.2537.887	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM		
				ControlPanel	1.400.2537.887	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM		
SWLabSD	10.16.86.50	01:07:55	STARTED	Running >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM	008009012346_Fd.xml	09/27/07 2:14 PM
				Pending >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM		
SWLabHD	10.16.86.51	01:08:05	STARTED	Running >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM	008009012394_Fd.xml	09/27/07 2:14 PM
				Pending >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM		
SWLabPrdSvr	10.16.86.52	01:08:00	STARTED	Running >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM	00800901235A_KD.xml	09/27/07 2:14 PM
				Pending >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM		
SWLabHW_CP	10.16.86.53	01:08:00	STARTED	Running >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM	0080090152EA_CP.xml	09/27/07 2:14 PM
				Pending >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM		
SWLab5x2	10.16.86.54	01:08:02	STARTED	Running >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM	008009012382_CP.xml	09/27/07 2:14 PM
				Pending >>	887 Direct Mxc Test.xml	37	25	887 Direct Mxc Test.xml	09/27/07 2:14 PM		

This will display the FPGA/CPLD update menu. See Figure 16.

Figure 16. FPGA/CPLD Update Menu (Example for Processor)



This menu shows the names of all FPGAs/CPLDs on the Processor and the version number of the gateware now running (“Loaded”) in each device. Certain of the FPGA-type components and all of the CPLD-type components can be updated using this menu, and if a newer (“current”) version of gateware is available for those components the menu will indicate the new version number and display a check box.

Note A Current version may have a smaller number than the corresponding Loaded version.

c. Check the “Select All” box.

Note Do not check “Gennum A” or “Gennum B” if no DVE board is installed. Doing so will cause the update to fail.

d. Select **Update**.

You will be asked to confirm the update.

CAUTION The following step will interrupt the video and audio signals passing through the system.

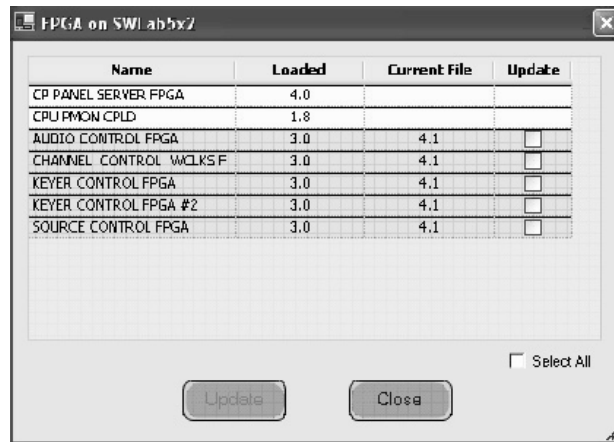
e. Answer **Yes**.

f. From this point there are two possibilities:

- A popup will show that the Processor update was successful. Repeat Step 1 above if another Processor is present. Otherwise, go to Step 2 below.

- An error message may indicate that the “physical JTAG chain is broken.” If this message appears, the FPGAs/CPLDs on the Processor cannot be updated. Discontinue the v1.400 installation and contact Technical Support.
2. Updating FPGAs/CPLDs on the hardware control panel(s):
 - a. In the board Status section of the screen, select the hardware control panel to update.
 - b. Right-click on the FPGA field for this control panel.
This will display the FPGA/CPLD update menu. See Figure 16.

Figure 17. FPGA/CPLD Update Menu (Example for Hardware Control Panel)



This menu shows the names of all FPGAs/CPLDs on the control panel and the version number of the gateway now running (“loaded”) in each device. Certain FPGA-type components and all of the CPLD-type components can be updated using this menu, and if a newer (“current”) version of gateway is available for those components the menu will indicate the new version number and display a check box.

- c. Check the “Select All” box.
- d. Select **Update**.

You will be asked to confirm the update.

CAUTION The following step will cause the control panel to become inoperative while the update is in progress.

- e. Answer **Yes**.
- f. From this point there are several possibilities:

- A popup will show that the control panel update was successful. Repeat Step 2 above if another control panel is present. When all FPGAs/CPLDs have been updated, the v1.400 upgrade is complete.
- An error message may indicate that the “physical JTAG chain is broken.” The CP Panel Server board, which is located within the control panel, may need to be replaced. This procedure is described in Field Modification Note 075079500, *Maestro Processor Backup Battery, CP Server, and CP FPGA Upgrade*. For more information, contact Technical Support.
- An error message may indicate that a module (sub panel) on the hardware control panel “reported an incorrect module ID.” In this case, refer to Field Modification Note 075079500, *Maestro Processor Backup Battery, CP Server, and CP FPGA Upgrade*.

