grass valley

Series 7000

SIGNAL MANAGEMENT SYSTEM

Release Notes

SOFTWARE VERSION 8.2

071030111
SEPTEMBER 2003

the most watched worldwide

A THOMSON BRAND

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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.

FAQ Database — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

Software Downloads — Software updates, drivers, and patches can be downloaded.

Contents

Version 8.2

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Series 7000 Release Notes

Introduction

This document details new enhancements and information in Software Version 8.2 for the Series 7000 Signal Management System and related matrix interfaces. Any last minute changes to the software release will be documented in a readme.txt file found on the Software CD-ROM.

The procedure for a new system software installation is in the *Series 7000 Installation Manual*. An archive of Release Notes documentation is maintained on the Routing Products Documentation CD-ROM. The archive is also available on the web at www.thomsongrassvalley.com.

All systems running on version 7.x to 8.x software can use the upgrade procedure in the 8.2 Release Notes. Use the 8.2 software procedure with the 8.2 CD-ROM to upgrade the system to 8.2.

When the software was upgraded to version 7.x, the System Software was changed to be compatible with Windows95. At this point we started using Xitami as the ftp application. System Software version 7.x to 8.x will not run on the same platform as version 6.x. The requirements and procedures to upgrade a system running on version 6.x software are in the 7.0 Release Notes. Use the 7.0 software procedure with the 8.2 CD-ROM to upgrade the system to 8.2.

To upgrade a system running on version 5.*n* or earlier, requires firmware and/or hardware changes. (To obtain the necessary firmware and/or hardware contact Customer Service using the information on the back of the title page.) The changes are documented in the 6.4 Release Notes. After the firmware and/or hardware changes are complete, then use the 7.0 Release Notes to upgrade the software.

Software Version 8.2 can be loaded on Windows2000 and WindowsNT PC-compatibles. The procedure to create a SLIP connection from the GUI to a SMS-64V Compact systems has changed, see *Software Upgrade Installation Procedures* on page 9.

Enhancements

Trinix Support

Version 8.2 enables the SMS7000 Router Control System to control the Trinix routing matrix via the Broadlinx Controller.

Version 8.2 fully supports current Trinix capabilities including, but not necessarily limited to:

- Trinix Sources and Destinations can be configured to control panels in the Series 7000 controlled system,
- Matrix configuration procedures for a Trinix is the same as the configuration procedure for any wideband video matrix using the Series 7000 Configuration Editor Graphical User Interface (GUI),
- The Series 7000 Master Control Processing Unit (MCPU) has the same level of communication via commands from either a hyperterminal or Telnet to a Trinix matrix as to any other supported matrix,
- Video output reclocking is available for 1.485 Gbs,
- Supported frame types include; 128x128, 256x256, and 512x512, and
- Series 7000 GUI can send and retrieve Trinix configuration data via the MCPU.

Trinix and Concerto Feature Support

Additional features implemented in Version 8.2 include:

- Chops can be initiated using Concerto or Trinix Sources and Destinations,
- ID function that identifies a selected active node controller by continuously flashing a light on the selected module. This feature is accessed on the GUI under the **Online/Active Node Controllers/** to open an Active Node Ctrlr -- Actions window,

Note The Concerto controller and the Trinix Broadlinx are treated as node controllers by the Series 7000 GUI.

- Matrix alarms include; Power Supply 1 (error/ok), Power Supply 2 (error/ok), Fan/Over Temperature (error/ok), Reference (missing/present), and module added or deleted with corresponding slice information,
- True Tally status reporting (on/off),
- Diagnostic command support for Power Supply status, and

- Diagnostic command (`ver nc`) support for Concerto Controller and Trinix Broadlinx application version reporting.

Configuration Editor Graphical User Interface Enhancements

Trinix-specific options have been added to the GUI. For general configuration instructions see the version 8.0 *Configuration Manual* for the Series 7000 Signal Management System.

Trinix Frame/Board Settings

For Trinix-specific frame board configuration details, see *Trinix-Specific Configuration of Series 7000* on page 7.

Trinix-Specific Configuration of Series 7000

This section covers only those procedures which are unique to, or required by Trinix. Trinix-specific procedures are covered here in the order you would create a configuration. See the *Series 7000 Configuration Manual* for details about the other configuration steps and procedures.

Configuration on the Trinix matrix is done using physical settings via DIP switches, jumpers, etc., Series 7000 settings done via the GUI will not override the Trinix settings. Before configuring the Series 7000 to control a Trinix matrix, configure the Trinix. Then use the settings on the Trinix to create the Series 7000 configuration.

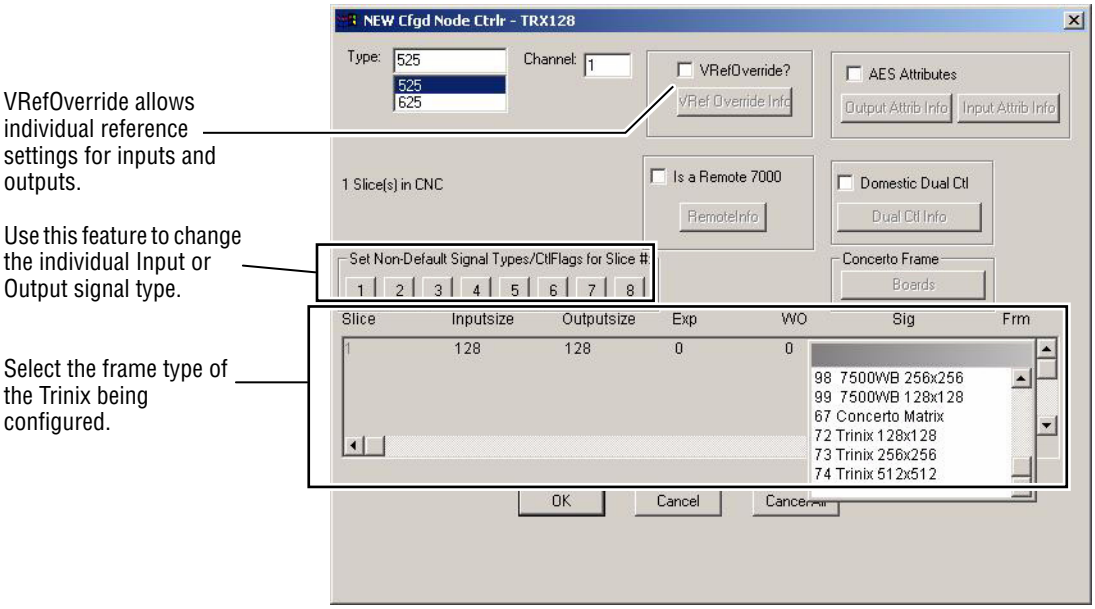
Note For configuration of the Trinix see the *Trinix Installation Manual*.

Most of the Trinix configuration procedures are the same as for earlier Grass Valley matrices. After setting Enables and Limits, begin configuring a Trinix Broadlinx by choosing **Node Controllers** on the **Setup** menu. Step through the various settings documented in the Node Controller Configuration section of the version 8.0 *Series 7000 Configuration Manual*.

Remember that for the Trinix, **Inputsize** and **Outputsize** must be in multiples of 32 and can not exceed 512, **Exp** must always be set to 0 (no expansion), and **W/O** must always be set to 0 (outputs 1-128). Ensure that you specify a **Sig**(nal) type appropriate for the Broadlinx in the slice you're configuring.

When choosing the Frame type for a Trinix, scroll to the bottom of the drop down list under the **Frm** column and double-click frame one of the Trinix frame types(Figure 1).

Figure 1. Choosing the Trinix Frame



Version 8.2 Software Overview

Series 7000 software is delivered on a CD-ROM. Release 8.2 software can upgrade systems currently running 7.x or 8.x software. If the system to be upgraded is running software other than 7.x or 8.x, firmware and/or hardware upgrades may be required. Refer to the *Introduction* (page 5) for information on upgrading systems not running software 7.x.

The CD-ROM contains installation files for the Configuration Editor Graphical User Interface (GUI), the Visual Status Display (VSD), the PrintConfig, third party software (FTP Daemon), and archive files of older software releases. The CD has an autostart feature. If autostart fails, select **Run** from the start menu and type `d:\setup.exe` (where `d` is the drive letter of the CD-ROM).

Software Upgrade Installation Procedures

The Series 7000 Signal Management System software upgrade installation consists of five major procedures:

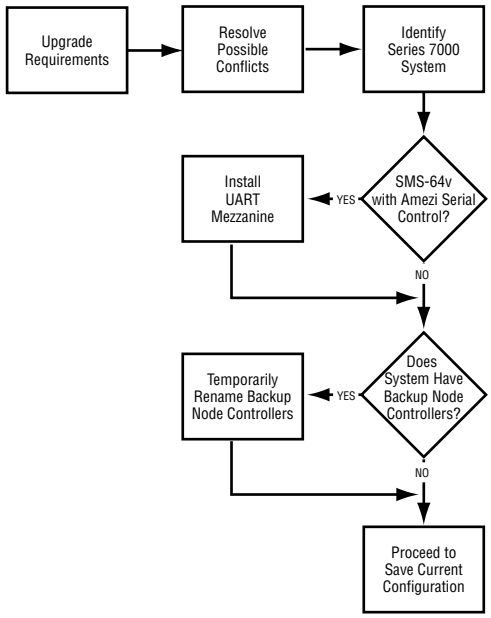
- *Prepare for Upgrade* (page 9)
- *Save Current Configuration* (page 14)
- *Install Application Software* (page 16)
- *Connect to Router* (page 19)
- *Complete Upgrade* (page 27)

Each major procedure has sub-procedures which are tailored to the different types of systems and situations. At the beginning of each major procedure there is information (text, flowcharts, and/or tables) to help identify which of the sub-procedures need to be performed.

Prepare for Upgrade

Preparation will help a software upgrade proceed smoothly. To avoid delays verify that everything needed for the upgrade is available, resolve any possible conflicts prior to starting the upgrade, and identify the Series 7000 system. Depending on the components of the Series 7000 system, the system may need to have an UART Mezzanine installed and/or backup Node Controllers temporarily renamed.

Table 1. Prepare for Upgrade Flowchart and Sub-Procedures

Flowchart	Sub-Procedure	
	*Upgrade Requirements* (page 10)	
	Resolve Possible Conflicts (page 11)	
	Identify Series 7000 System (page 11)	*Install UART Mezzanine* (page 11) SMS-64V with Amezi Serial Control Only
		Temporarily Rename Backup Node Controllers (page 13) Systems with Backup Node Controllers Only

Upgrade Requirements

Upgrade requirements are dependent upon whether the PC-compatible is running on Windows95/98 or WindowsNT. Windows2000 is not supported.

- For Upgrade to Windows2000:
  System software needed to run Windows2000
  PC-compatible Pentium or faster
  66MHz or faster processor
  16MB of RAM (minimum)
  250 MB or larger harddrive
  3.5inch 1.44MB diskette drive
  CD-ROM or DVD-ROM drive (prefer fast)
  VGA or higher-resolution monitor
  FTPD utility (provided on SMS 7000 CD-ROM)
  Ethernet Interface Module or Serial Port to use SLIP with a compact frame SMS-64V
- For Upgrade to WindowsNT:
  System software needed to run WindowsNT
  Administrative authority to install software
  PC-compatible Pentium or faster
  16-32MB of RAM
  250 MB or larger harddrive
  3.5inch 1.44MB diskette drive
  CD-ROM or DVD-ROM drive (prefer fast)
  VGA or higher-resolution monitor
  FTPD utility (provided on SMS 7000 CD-ROM)
  Ethernet Interface Module or Serial Port to use SLIP with a compact frame SMS-64V

Additional Requirements

- -02 Release Control Frame (092844-02) with Ethernet power modification, or a SMS-DV64X64 with MCPU, or a SMS-64V Compact System with Controller that is configured and operational
- For SMS-64V Compact systems the required UART Mezzanines
- NC Expansion option requires 062938-01 Release Node Controller Expansion Boards (062938-00 modules do *not* work)
- A dumb terminal (or equivalent) connected to the Series 7000 **MCPU CTL** port to be used as the system terminal
- Series 7000 Documentation*: Installation Manual*, *Configuration Manual, and Release Notes*
- *Series 7000 CD-ROM Release 8.2*
- Cables and connectors needed to connect the PC-compatible and terminal to the Series 7000.

Resolve Possible Conflicts

Defaults have been assigned in an effort to simplify the installation. It is strongly recommended that there be no deviation from these defaults. The Series 7000 Signal Management System is designed to operate on a point-to-point (closed) network with dedicated hardware components, including the PC-compatible and dumb terminals.

CAUTION Deviating from the assigned defaults or trying to use a PC-compatible on an open network to operate the Series 7000 can cause possible IP address and/or system conflicts leading to system failures. All procedures required for software installation must be completed in their entirety. Incomplete installation can cause system conflicts and failures.

Deviations from the recommended upgrade installation should be identified and resolved before starting to install new software.

During the entire upgrade procedure all backup MCPU and Node Controllers will be disabled and all SMS-64V matrices that communicate using the Amezi Mezzanine will be unavailable.

CAUTION If the Series 7000 System to be upgraded contains a Series 7000 Alien Matrix Control System there are special steps that must be taken before upgrading. See the *Series 7000 Alien Matrix Control System Instruction Manual* for details.

Identify Series 7000 System

If the system is a SMS-64V Compact system it must have a UART Mezzanine installed. If the system has backup Node Controllers, the backup Node Controllers need to be temporarily renamed.

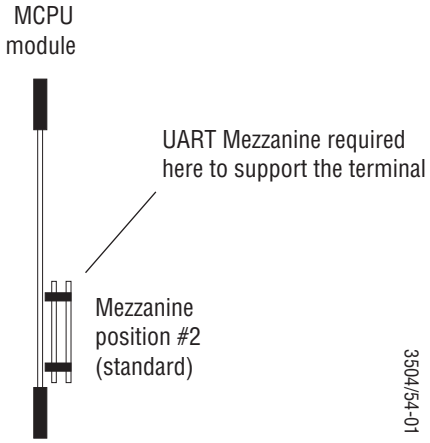
Install UART Mezzanine

This procedure is to be used when upgrading SMS-64V Systems with Amezi Serial Control only.

Some Compact System (SMS-64V) configurations may use a Controller Module with an Amezi card in the #2 mezzanine position running native protocol. These systems do not have the capability to run a system terminal. To install new MCPU Application Software on these systems, the Amezi mezzanine must be temporarily replaced with a UART mezzanine to run the system terminal. The MCPU module is configured with a UART mezzanine in the lower mezzanine position and an Amezi mezzanine in the upper mezzanine position.

CAUTION SMS-64V Compact systems use an Amezi mezzanine to communicate with specified matrices. During an upgrade procedure any matrix that is connected to the SMS-64V using the Amezi mezzanine will not be available to the system (creating a downtime situation for that matrix).

Figure 2. Amezi Mezzanine Location



To Change the Amezi to a UART Mezzanine

1. Use `ping` to verify that the network interface works properly.

   On the PC-compatible, at the DOS prompt, Enter the following commands:

   For MCPU #1

   ```
   C:\> ping sms7000
   ```

   For MCPU #2

   ```
   C:\> ping sms7000b
   ```

   The system should respond as follows:

   ```
   C:\> sms7000 (192.0.2.2) is alive
   ```

   If not, refer to the *Series 7000 Configuration Manual*, and verify the proper installation of the SLIP Network Interface.

2. Telnet into the System Diagnostic Interface.

   Enter the following command:

   For MCPU #1

   ```
   C:\> telnet sms7000
   ```

   For MCPU #2

   ```
   C:\> telnet sms7000b
   ```

3. Press **RETURN** to see the SMS7000> System Diagnostic prompt.

4. Enter the following commands at the System Diagnostic prompt:

   ```
   SMS7000> del “slip.ini”
   SMS7000> del “console.ini”
   ```

5. Verify the above files have been deleted by examining a directory listing of the FLASH file system.

   Enter the `dir` command:

   ```
   SMS7000> dir
   ```

   The files just deleted should *not* exist in the FLASH file system directory.

   Exit the Telnet program by typing logout:

   ```
   SMS7000> logout
   ```

6. Remove the MCPU(s) from the frame.

   Remove the top Amezi mezzanine and replace it with a UART mezzanine board. Re-insert the MCPU(s). Both mezzanines are now UART mezzanines.

7. Connect a dumb terminal or equivalent to the system **CTL** port, and verify that the System Diagnostic Interface (SMS7000> prompt) is now running on the **CTL** port of the Compact 64V. (native protocol is no longer running.) Table 2 shows the communications parameters.

Table 2. Communications Parameters

RS232	9600 baud	8 data bits	Parity = None	1 stop bit.

Temporarily Rename Backup Node Controllers

When connected to a router and on-line the GUI will poll the system to collect information on what devices are present. All active Node Controllers including both Primary and Backup Node Controllers will appear in the Active Node Controllers Actions window.

Configured Node Controllers are linked to the proper Active Node Controller by the names assigned to the Active Node Controller and the Configured Node Controller. These names must be identical.

Primary and Backup Node Controllers use identically configured templates. The Primary Node Controller usually has a name such as NCVid1 and the Backup Node Controller would be named NCVid2.

The Active Node Controllers Actions window allows you to identify and rename Active Node Controllers.

All Backup Node Controllers must be renamed prior to a software installation. This will disable the Backup Node Controllers and they will be unable to change Crosspoint and system operation. Use *To Rename Back-Up Node Controllers* on page 14 to rename all the Backup Node Controllers in the system.

The recommendation is to rename the Backup Node Controller using a simple and easy to restore method, such as in the example above changing the Backup Node Controller to ncvid2 from NCVid2. After the software installation is complete it will be easy to locate the Backup Node Controller and rename it properly to NCVid2.

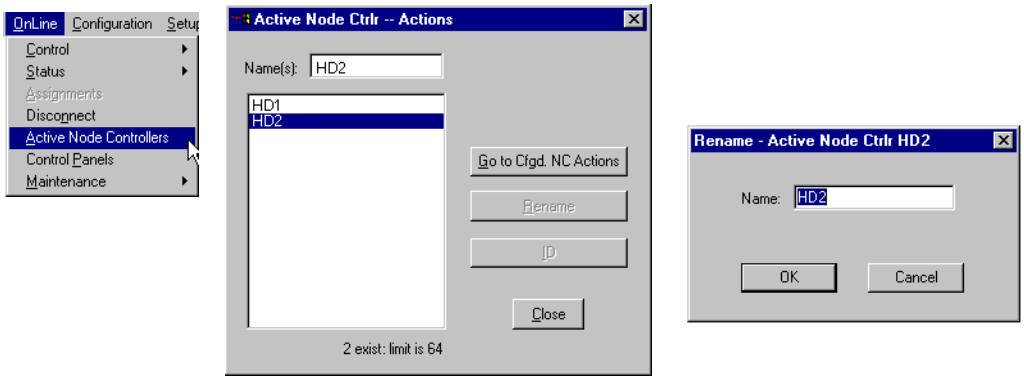
CAUTION Backup Node Controllers that are not renamed prior to a software installation can become Primary, causing incorrect Crosspoint operation and possible total system failure.

To Rename Back-Up Node Controllers

Use the Release 7.x Configuration Editor (GUI) on your Windows95/98/NT to connect to the Series 7000 system.

1. Under the **OnLine** menu select **Active Node Controllers** to access the Active Node Ctrlr Actions window.

Figure 3. Active Node Controller Actions Window



A list of all Active node Controllers in the system will appear in a pop-up window list.

2. Highlight the name of a Backup Node Controller in the List.
3. Click on **Rename**.
4. Enter new name in box.
5. Click **OK**.
6. Repeat from Step 2 until all Backup Node Controllers are renamed.
7. Click on **Close**.

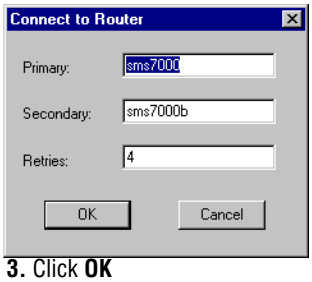
Save Current Configuration

Use the Release 7.x Configuration Editor (GUI) on your Windows 95/98/NT to connect to the Series 7000 system.

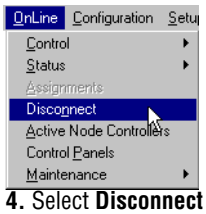
It is recommended that existing configurations not be modified or any new components added to a system during a software upgrade.

To Save the Current Configuration File

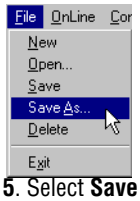
2. Double-click on SMS7000 icon



3. Click **OK**



4. Select **Disconnect**



5. Select **Save As…**

1. Open Windows.
2. Double-click on the SMS 7000 icon to access the Connect to Router window.
3. Click on **OK** to connect your PC-compatible to the router and establish communications with the MCPU.

   The GUI will get the current configuration file from the router.
4. Select **Disconnect** under the **OnLine** menu, to go off-line.
5. Select **Save As** under the **File** menu, to save a copy of the current configuration to the GUI PC-compatible hard drive or to other media such as a floppy diskette.
6. Proceed to *Install Application Software* (page 16).

Install Application Software

This procedure is for a Windows95/98/NT system running Release 7.x software to upgrade to Release 8.2. To do a new install on a system see the *Series 7000 Installation Manual*. To upgrade a system running software other than 7.x see the *Introduction* on page 5.

To Install 8.2 software from the CD-ROM

1. Insert the Release 8.2 CD-ROM into the computer and it will autostart.

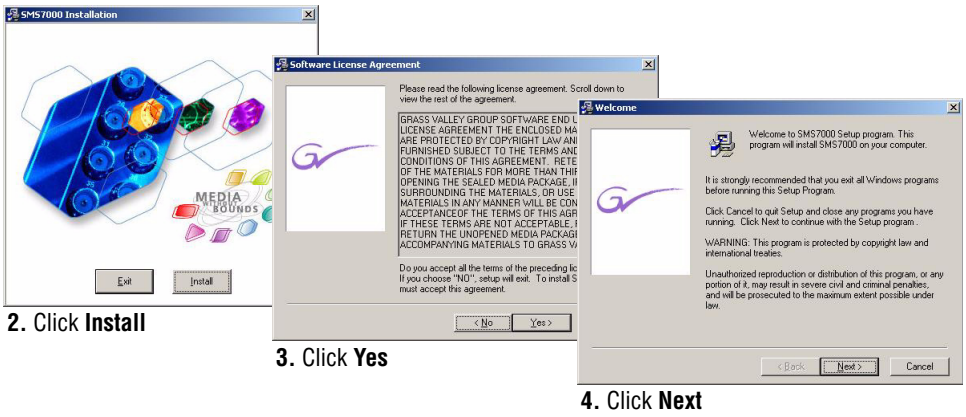
   If autostart fails then select run from the start menu and type `d:\setup.exe` (where `d` is the drive letter of the CD-ROM).

2. Click **Install** to continue.

3. Read and click **Yes** to accept the Software License Agreement.

4. Click **Next** in the Welcome window to continue.

Figure 4. Software Installation Steps 1 to 4



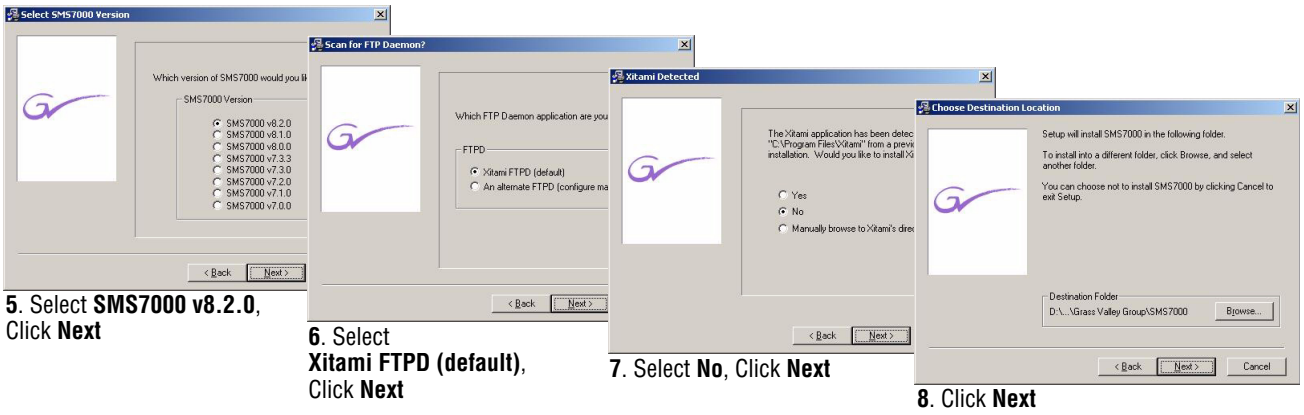
2. Click **Install**

3. Click **Yes**

4. Click **Next**

5. Select **SMS7000 v8.2.0**, then click **Next** to continue.
6. Select **Xitami FTPD (default)**, then click **Next** to continue.
7. Select **No**, then click **Next** to continue.
8. Click **Next** to continue.

Figure 5. Software Installation Steps 5 to 8



5. Select **SMS7000 v8.2.0**, Click **Next**

6. Select **Xitami FTPD (default)**, Click **Next**

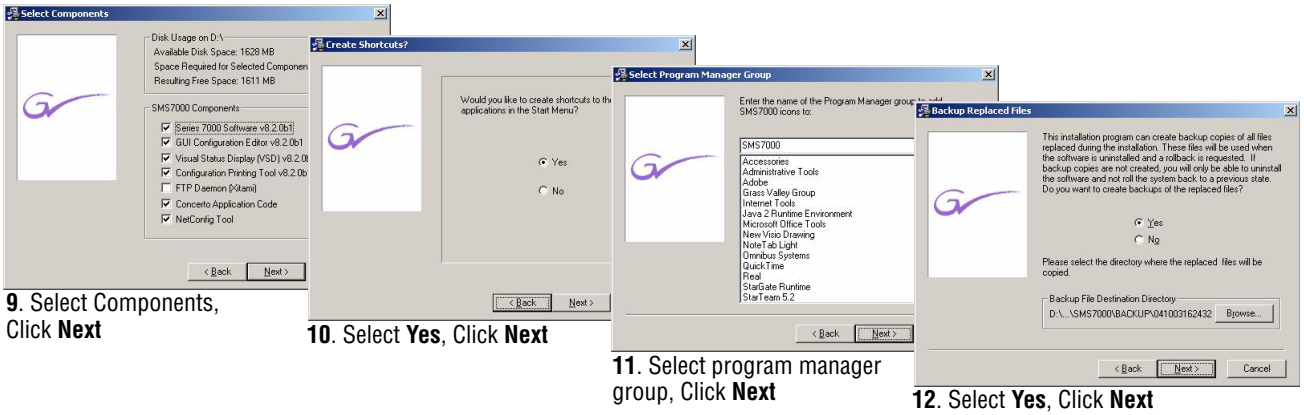
7. Select **No**, Click **Next**

8. Click **Next**

9. Select Components, then click **Next** to continue.
10. Click **Next** to continue.

    If you do not want shortcuts select **No** before clicking **Next**.
11. Click **Next** to continue.
12. Select **Yes** or **No**, then click **Next** to continue.

Figure 6. Software Installation Steps 9 to 12



9. Select Components, Click **Next**

10. Select **Yes**, Click **Next**

11. Select program manager group, Click **Next**

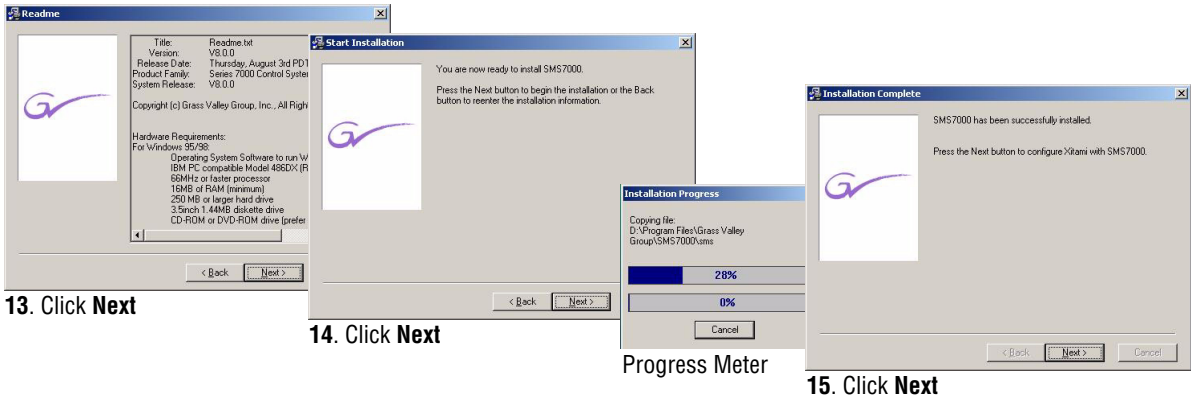
12. Select **Yes**, Click **Next**

13. Click **Next** to continue.

14. Click **Next** to start the installation.

15. Click **Next** to continue.

Figure 7. Software Installation Steps 13 to 15



13. Click **Next**

14. Click **Next**

Progress Meter

15. Click **Next**

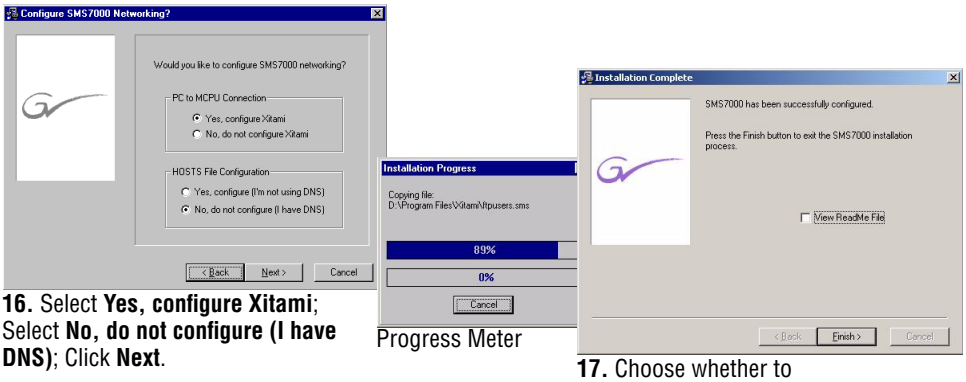
16. Select **Yes, configure Xitami**, then select **No, do not configure (I have DNS)**, then click **Next** to continue.

    The default is to select **Yes, configure Xitami** to ensure that any version related changes are loaded, the only reason to select **No, do not configure Xitami** would be if you are using a different FTPD program. **No, do not configure (I have DNS)** is the default for everything except a new installation. Once the host file is configured during a new installation there is no need to update it.

17. Select **View ReadMe File**, then click **Finish**.

    If you do not elect to View the ReadMe File the upgrade is complete and you can proceed to *Connect to Router* on page 19.

Figure 8. Software Installation Steps 16 and 17



16. Select **Yes, configure Xitami**; Select **No, do not configure (I have DNS)**; Click **Next**.

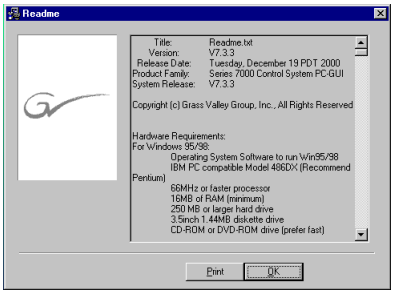
Progress Meter

17. Choose whether to **View ReadMe File**, Click **Finish**.

18. Review the ReadMe file then click **Print** or **OK**.

    If you click **OK**, the upgrade is complete and you can proceed to *Connect to Router* on page 19. If you click **Print**, the ReadMe file will open in Notepad. You must go back to the ReadMe file window and click **OK** to complete the upgrade.

Figure 9. Software Installation Step 18



18. Click **Print** or **OK**

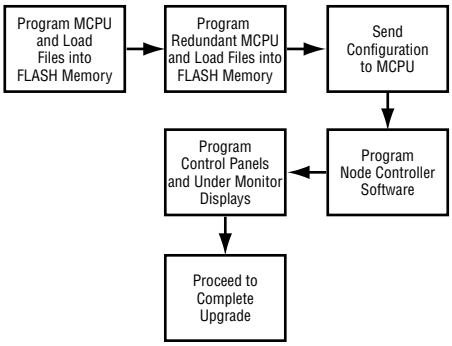
If you need to configure a SLIP connection from a SMS-64V to a PC using Windows2000 see *SMS-64V SLIP Configuration* on page 32. You will need to copy some files from the Series 7000 Software CD to the PC hard drive so leave the CD in the PC.

If you do not need to configure a SLIP connection, you may remove the Series 7000 Software CD now.

Connect to Router

There are five sub-procedures that need to be performed for all Series 7000 upgrades. The variations for SLIP and Ethernet are contained within each sub-procedure.

Table 3. Connect to Router Flowchart and Sub-Procedures

Flowchart	Sub-Procedures
	*Program MCPU and Load Files into Flash Memory* (page 20)
	Send Configuration to MCPU (page 24)
	Program Controller Software (page 25)
	Program Control Panels and Under Monitor Displays (page 26)
	Program Redundant MCPU and Load Files into Flash Memory (page 27)

Program MCPU and Load Files into Flash Memory

Application software Release must be loaded into MCPU FLASH for systems updating to 8.2 to work properly.

Note Take care not to run out of flash memory. Check for available space (using the `dir` command at the diagnostic terminal) before and after loading software into the router. If it reports 0 bytes of available memory, it will be necessary to delete unnecessary files. See *To Reformat Flash Memory* in the *Service Manual*.

To Program the MCPU:

1. Remove the primary MCPU from the frame.

   Remove any redundant (backup) MCPU from the frame while programming the primary MCPU. Perform this procedure for the primary MCPU and then repeat it for any redundant (backup) MCPU after everything else has been updated. The redundant MCPU will use slightly different names and IP addresses. These are indicated in brackets [ ] after the primary MCPU entries.

2. If using SLIP, Start a dial-up networking connection to the Series 7000 system. The following steps (a-d) are not necessary for an Ethernet connection.

   a. From the Windows desktop double-click **My Computer.** Double-click the **Dial-Up Networking** icon. Double-click the **Connection** icon. The name and password don't matter.

   b. Highlight the appropriate connection.

   c. Click **Dial**, then **OK**.

      The name and password don't matter. It takes over a minute to get connected.When connected, a dialog box will appear.

   d. Click **OK**.

3. Run the file transfer protocol FTP Daemon (FTPD). From the Windows desktop, select **Start**, then **Programs**, then **Internet Tools**, then **Xitami WEB Server**. A DOS console window will appear.

4. Insert the primary MCPU only (in the left or main MCPU slot).

   To program the redundant (backup) MCPU place it in the right or redundant slot and remove the primary MCPU.

Change the Boot Device Field using the Terminal

5. View the boot parameters by using the booted (lower case only) command:

   ```
   SMS7000> booted
   ```

Displayed at the system console will be the boot parameters for the inserted MCPU.

6. Change the boot device parameter to sl for SLIP or ei for Ethernet.

   The boot parameters will display one line at a time. When the boot device field appears type the correct parameter and press **CR**.

   The default boot parameters are:

```
boot device: fi
processor number: 0
host name: PC
file name: SMS
inet on ethernet (e): 192.0.2.2:ffffff00
                      [192.0.2.3:ffffff00]
host inet (h): 192.0.2.1
user (u): smsuser
ftp password (pw): smsuser
flags (f): 0x8
target name (tn): sms7000[sms7000b]
other (o): sl (for SLIP)ei (for Ethernet)
```

CAUTION Do not change parameters other than those indicated here! The boot parameters shown are the default parameters and they are case sensitive. If your host name is not capital `PC` then the upgrade will fail. See *Can Host PC-compatible be Renamed PC?* on page 30 for instructions on upgrading when the host name is not `PC`.

   Simply press **cr** to skip over them.

7. Type `Reboot` at the `SMS7000>` prompt to reboot the MCPU and begin the download:

```
SMS7000> Reboot
```

   There will be a incrementing message at the 7000 console indicating that the MCPU software is being downloaded to flash. Three numbers will eventually appear to the right of this message. Each number displayed is the size of a MCPU program segment. The size of each segment is displayed after the segment is copied into the flash memory. When booting over SLIP the reboot takes about 20-40 minutes and Ethernet takes less than a minute.

Note If the message does not start incrementing within a few seconds for ethernet or within 5 minutes for SLIP see Can't Download Files to MCPU in the *Series 7000 Installation Manual*.

   Using the `booted` command, change the boot device back to `fi` for Flash after the MCPU has booted.

   The boot parameters will display one line at a time. When the boot device field appears type the correct parameter and press **CR**.

8. Using the `booted` command, verify that the boot parameters are set to the following:

```
boot device: fi (Change to ei or sl)
processor number: 0
host name: PC
file name: SMS
inet on ethernet (e): 192.0.2.2:ffffff00
                    [192.0.2.3:ffffff00]
inet on backplane (b):[blank]
host inet (h): 192.0.2.1
gateway inet (g): [blank]
user (u): smsuser
ftp password (pw): smsuser
flags (f): 0x8
target name (tn): sms7000[sms7000b]
istartup script: [blank]
other (o): sl (for SLIP)   ei (for Ethernet)
```

9. Press the **Reset** button on the MCPU. The system now boots from flash with the new MCPU application.

10. Select the Xitami console window.

11. Press **control-c** to stop the FTP Daemon.

12. Open a DOS window. From the Windows desktop, select **Start**, then **Programs**, then **MS-DOS** to get a window with a prompt.

    Type `cd\sms7000`

Note Take care not to run out of flash memory. Check for available space (using the `dir` command at the diagnostic terminal) before and after loading software into the router. If it reports 0 bytes of available memory, it will be necessary to delete unnecessary files. See To Reformat FLASH Memory in the *Service Manual*.

Load the Coprocessor, Panel Executable Files and Other Miscellaneous Files into MCPU Flash Memory

13. Select either option 1 or option 2 indicated by a 1 or 2 at the end of the command line.

    To select Option 1:

```
C:\SMS7000>reload sms7000 1 [sms7000b 1]
```

    To select Option 2:

```
C:\SMS7000>reload sms7000 2 [sms7000b 2]
```

Option 1

Select option 1 for the normal load of universal and programmed button panels (excluding the EDP Panel) plus the custom panels such as cubicle or studio, machine control, source ID, client-server and under monitor display types. This option includes the non-Grass Valley Group (GVG) alien matrices via native protocol, however, GVG matrices (Hx GPI, 440, Performer, 20-Ten via azgvg.bin) are excluded.

The excluded GVG alien matrix support may be loaded individually from the C:\SMS7000 directory. Be aware that any unneeded files listed below must be deleted from the target MCPU file system to make at least 473,000 bytes of free Disk space before executing the batch command to load the excluded GVG alien matrix support.

These files are typical files that *may* not be needed and can be removed to make room for others:

Table 4. Files Typically not Needed

File Name						
clf.mot	cln.mot	cos.mot	mco.mot	sid.mot	svr.mot	umd.mot

Example, loading alien matrix support:

GVG alien matrix support loads software for AZGVG.BIN only.

```
C:\SMS7000> AZLOAD SMS7000
```

Option 1 needs approximately 1,685,000 bytes in the target MCPU. Since the MCPU file system is approximately 2, 080,000 bytes, this will leave approximately 400,000 bytes for config and other user files.

Table 5. Option 1 Files

File Name						
amezi.bin	bps32.mot	cln.mot	cos.mot	csos.bin	fl.mot	mb4.mot
mb8.mot	mco.mot	progcp.red	prognc.red	pxd.mot	pxs.mot	scp.mot
sid.mot	stmg.bin	svr.mot	ucp.mot	umd.mot		

Option 2

Select option 2 for the alternate load which includes both GVG and non-GVG alien matrix support. Option 2 requires approximately 1,770,000 bytes in the target MCPU. Since the MCPU file system is approximately 2, 080,000 bytes, this leaves approximately 300,000 bytes for config and other user files.

Table 6. Option 2 Files

File Name						
amezi.bin	azgvg.bin	bps32.mot	csos.bin	fl.mot	mb4.mot	mb8.mot
progcp.red	prognc.red	pxd.mot	pxs.mot	scp.mot	stmg.bin	ucp.mot

Note The default application loaded into the Client panel is cln.mot. If clf.mot application software for Client Former functionality is wanted instead, use `sms7000>prog "clf.mot" cp cln` after running the batch file `"progcp.red"` in Step 3 of *Program Control Panels and Under Monitor Displays* on page 26.

To provide room on the file system, not all of the control panel files are loaded. Any of the control panel files may be loaded individually from the C:\SMS7000 directory using the designated file name shown in Table 7.

```
C:\SMS7000> FileName SMS7000
```

Table 7. Control Panels not Included in Option 2

File Name	Loads	Description
BPS32LOAD	BPS32.MOT	P32 Control Panel Application
CLFLOAD	CLF.MOT	Client Control Panel Application
CLNLOAD	CLN.MOT	Client Control Panel Application
COSLOAD	COS.MOT	Cubicle or Studio Panel Application CBS custom
EDPLOAD	EDP.MOT	Eight Destination Paging Panel Application
MB8LOAD	MB8.MOT	Multi-Bus 8 Control Panel Application
MB4LOAD	MB4.MOT	Multi-Bus 4 Control Panel Application
MCOLOAD	MCO.MOT	Machine Control Panel Application CBS custom
P48LOAD	P48.MOT	P48 Control Panel Application
SCPLOAD	SCP.MOT	Simple Control Panel Application
SDPLOAD	SDP.MOT	Single Destination Paging Application custom
SIDLOAD	SID.MOT	Source Ident Display Panel Application CBS custom
SVRLOAD	SVR.MOT	Server Control Panel Application
UCPLOAD	UCP.MOT	Universal Control Panel Application
UMDLOAD	UMD.MOT	Under Monitor Display Panel Application

Send Configuration to MCPU

1. Open the Series 7000 Configuration Editor GUI.
2. Open the saved configuration file.
3. Edit the configuration file as needed.
4. Connect to the router allowing the GUI to SEND the configurations.

   If the send configuration does not work on a SMS-64V Compact system using a WindowsNT PC-compatible, verify that the FIFO buffers are enabled.

   a. Open the Control Panel window.

      From the Windows desktop, click **Start**, select **Settings…**, then **Control Panel.**

b. Select **Ports**, then **Settings**, then **Advanced**, check **FIFO Enabled**.

Settings are 9600, 8 databits, 1 stop bit, no parity.

c. Click **OK**, then **Close**, then **Close**.

5. Save the configuration in the PC-compatible and in the MCPU's non-volatile memory. Please refer to the *Series 7000 Configuration Manual* for additional detail.

Program Controller Software

Program Series 7000 Controllers with the current Application.

CAUTION If the Series 7000 System to be upgraded contains a Series 7000 Alien Matrix Control System there are special steps that must be taken before upgrading. See the *Series 7000 Alien Matrix Control System Instruction Manual* for details.

1. If using SLIP, Start a dial-up networking connection to the Series 7000 system. The following steps (a-d) are not necessary for an Ethernet connection.

a. From the Windows desktop double-click **My Computer.** Double-click the **Dial-Up Networking** icon. Double-click the **Connection** icon. The name and password don't matter.

b. Highlight the appropriate connection.

c. Click **Dial**, then **OK**.

The name and password don't matter. It takes over a minute to get connected.When connected, a dialog box will appear.

d. Click **OK**.

2. Run the file transfer protocol FTP Daemon (FTPD). From the Windows desktop, select **Start**, then **Programs**, then **Internet Tools**, then **Xitami WEB Server**. A DOS console window will appear.

Using the Terminal

3. Enter the following command to program the Controllers.

```
SMS7000> inputfrom "prognc.red"
```

Note There are five conditions that have to be true for the Controller update to succeed: the FTP Daemon (Xitami) must be running, the SMS7000 directory must be installed, the Controller files must be in the directory, the Host must be named `PC` (case-sensitive), and the `ftpusers.sms` file must be pointed to the directory containing the correct files. For assistance with any of these conditions see *Controller Will Not Update* (page 29).

4. Remove each Node Controller from the frame.

5. Verify that Release 6.1 NBX ROM (052855-04 or greater) is installed.
6. Replace the Node Controller in the frame to cold-start the module.
7. Check each Node Controller revision string.

   This is done at the diagnostic terminal using the following command:

   ```
   SMS7000> ver nc
   ```

Program Control Panels and Under Monitor Displays

1. If using SLIP, start a dial-up networking connection to the Series 7000 system. The following steps (a-d) are not necessary for an Ethernet connection.
   a. From the Windows desktop double-click **My Computer.** Double-click the **Dial-Up Networking** icon. Double-click the **Connection** icon. The name and password don't matter.
   b. Highlight the appropriate connection.
   c. Click **Dial**, then **OK**.

      The name and password don't matter. It takes over a minute to get connected.When connected, a dialog box will appear.
   d. Click **OK**.
2. Run the file transfer protocol FTP Daemon (FTPD). From the Windows desktop, select **Start**, then **Programs**, then **Internet Tools**, then **Xitami WEB Server**. A DOS console window will appear.

   #### Using the Terminal

3. Enter the following command:

   ```
   SMS7000> inputfrom "progcp.red"
   ```

   After typing the command above, the system sequentially programs each panel of the corresponding type.

Note The default application loaded into the Client panel is cln.mot. If clf.mot application software for Client Former functionality is wanted instead, use `sms7000>prog "clf.mot" cp cln` after running the batch file `"progcp.red".`

The control panels and under monitor displays will show the string downloading with a rotating | in the last character position. Other functions are not accessible from the keyboard until the download is complete.

4. Check each panel's revision string.

   This is done at the diagnostic terminal using the following command:

   ```
   SMS7000> ver cp
   ```

   — OR —

   ```
   SMS7000> ls cp
   ```

5. Run each panels ID sequence to confirm the software Release loaded into each panel.

   On panels with a dedicated ID button, a single ID button press initiates the ID function. Other panels require four consecutive presses to initiate the ID sequence.

Program Redundant MCPU and Load Files into Flash Memory

Repeat *Program MCPU and Load Files into Flash Memory* (page 20) for the Backup MCPU.

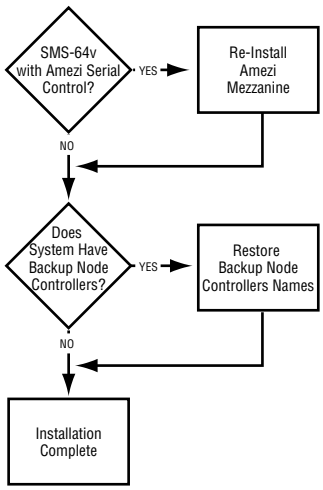
The redundant MCPU will use slightly different names and IP addresses. These are indicated in brackets [ ] after the primary MCPU entries.

Complete Upgrade

Depending on the components of the Series 7000 system just upgraded, the system may need to have Amezi Controller mezzanines re-installed and/or backup Node Controllers names restored.

Use Table 8 to determine whether these sub-procedures are needed to complete the software upgrade.

Table 8. Complete Upgrade Flowchart and Sub-Procedures

Flowchart	Sub-Procedure
	*Re-Install Amezi Mezzanine* (page 28) SMS-64V with Amezi Serial Control Only *Restore Backup Node Controllers Names* (page 29) Systems with Backup Node Controllers Only

Re-Install Amezi Mezzanine

This is to be used when upgrading SMS-64V Systems with Amezi Serial Control only.

If the system uses an Amezi Controller mezzanine board in position #2 of the MCPU mezzanines, a temporary UART was placed in the top mezzanine slot of the MCPU to perform this update.

CAUTION SMS-64V Compact systems use an Amezi Mezzanine to communicate with specified matrices. During an upgrade procedure any matrix that is connected to the SMS-64V using the Amezi Mezzanine will not be available to the system (creating a downtime situation for that matrix).

To Change the UART Mezzanine to a Amezi:

1. At the System Diagnostic Terminal, enter the following commands:

   ```
   SMS7000> del “console.ini”
   SMS7000> del “slip.ini”
   ```

2. Verify that these files have been deleted using the `dir` command:

   ```
   SMS7000> dir
   ```

3. Switchover to the redundant MCPU, if present:

   ```
   SMS7000> switchmcpu
   ```

4. At the system diagnostic interface, enter the following commands:

   ```
   SMS7000> del “slip.ini”
   SMS7000> del “console.ini”
   ```

5. Remove the MCPU board(s) from the system

6. Remove the top UART mezzanine(s) and re-install the Amezi board

7. Insert the MCPU(s) in the compact frame

   Native protocol automatically runs on the CTL port.

   SLIP automatically runs on the CNFG/CTL port.

8. Connect the computer or equipment running native protocol to the CTL port

Restore Backup Node Controllers Names

All Backup Node Controllers were renamed prior to this software installation. This disabled the Backup Node Controllers and they were unable to change Crosspoint and system operation. Use *To Rename Back-Up Node Controllers* (page 14) to restore the Backup Node Controllers names.

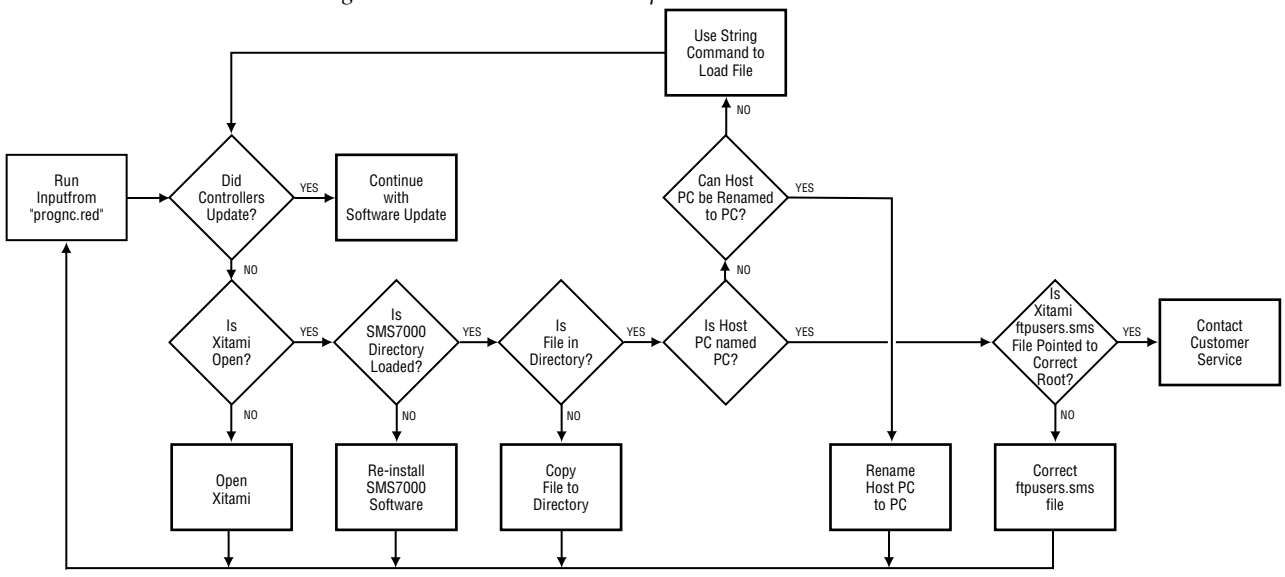
CAUTION Redundant Node Controller pairs must be named properly. They must have identical names with the exception of a single digit suffix. The suffix must be 1 for the primary Node Controller and 2 for the secondary (backup) Node Controller. The total length of the name cannot exceed eight alpha-numeric characters. For example, the names NC1 and NC2 are valid names for a Node Controller pair. Another example is NCVID1 and NCVID2. This is a critical step. Node Controller redundancy will not work unless the Node Controllers are properly named.

Troubleshooting

Controller Will Not Update

Use the Figure 10 flowchart to learn why the Controller will not update.

Figure 10. Controller Will Not Update Flowchart



Is Xitami Open?

Xitami must be running. Run the file transfer protocol FTP Daemon (FTPD). From the Windows desktop, select **Start**, then **Programs**, then **Internet Tools**, then **Xitami WEB Server**. A DOS console window will appear.

Is the SMS7000 Directory Loaded?

The Software Installation process installs a directory called SMS7000. If the directory is not on the PC, re-install the 7.2 software from the CD-ROM.

Is File in Directory?

The Controller file names are shown in Table 9. Look in the SMS7000 directory to verify that all the files are there. If the file you need is missing, copy it from the CD-ROM to the SMS7000 directory using Windows Explorer.

Is Host PC-compatible named PC?

To See the Name of the PC-compatible:

- From the Windows desktop, select **Start**, then **Settings**, then **Control panel**, then **network**, then **identification**.

  — OR —

- From the Terminal, use the `booted` command as shown in Step 5 and Step 6 (page 21) of the *Program MCPU and Load Files into Flash Memory* procedure.

Can Host PC-compatible be Renamed PC?

If the host PC-compatible is allowed to be renamed PC, then change the identity to PC.

If the host PC-compatible has a name that cannot be changed due to network restrictions, use the following command string to load the desired Controller file:

```
prog "hostPCname:filename" nc sub-type
```

For example, if the host PC-compatible name is John1 and the Controller is in a 7500 NB audio frame, then using the information in Table 9 the string would be:

```
prog "John1:MtrxS.bin" nc nmc
```

Table 9. Controller Files

File Name	Sub-Type	Frame
fl.mot	lgcy	Any using a Node Controller not HD or 7500NB
Mtrx.bin	hd32	HD only
MtrxS.bin	nmc	7500NB
eMtrx	enc	Any using a Enhanced Node Controller not HD or 7500NB

Is Xitami ftpusers.sms File Pointed to Correct Root?

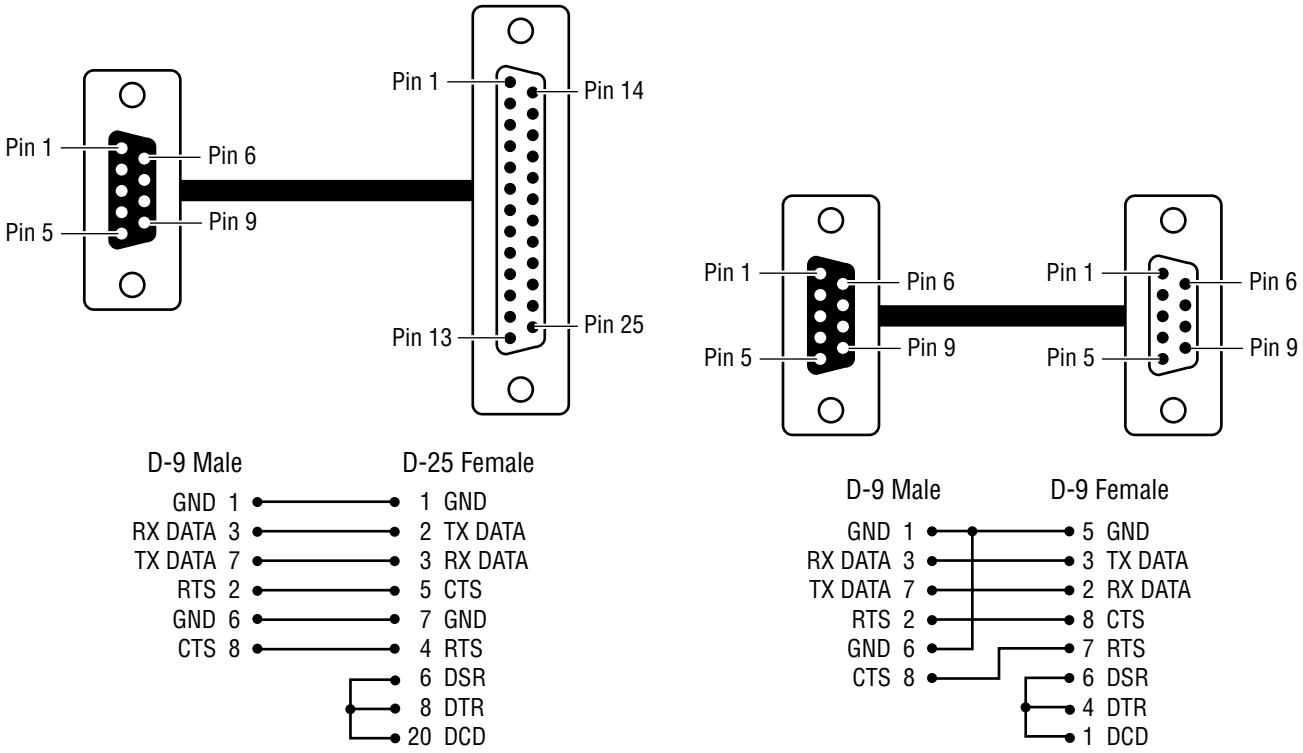
To verify that the root is pointed to the correct drive, open the ftpusers.sms file in a text editor such as Notepad. The ftpusers.sms file should be located under Program Files/Xitami. The root = entry must be the location of the sms7000 directory. The root directory could be incorrect if the sms7000 directory was moved to a different drive after Xitami was configured.

```
[smsuser]
    Access=G
    Password=smsuser
Root = c:\sms7000          #Must be able to find SMS file
```

Can't Ping

Verify that the proper cable is used between the PC and MCPU. Pinouts are shown in Figure 11.

Figure 11. SLIP Connector Pin-outs



Can Ping, But Can't Telnet

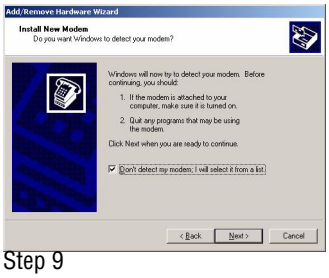
Verify **Force Ip Header Compression** is not checked. Under **Dial-up Net-working**, then **Server**, then **Network Protocol**, **TCP/IP** settings.

Can't Send Or Retrieve A Configuration

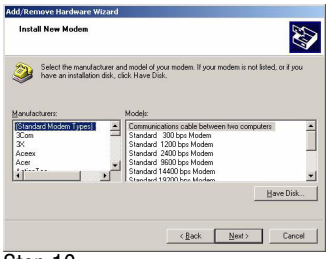
Verify that the FIFO buffers are enabled. See Enable FIFO buffers for the null modem port (refer Series 7000 Release Notes Software Version 7.0)

SMS-64V SLIP Configuration

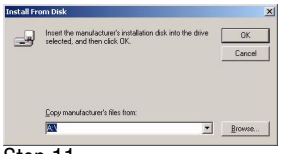
Windows2000 SLIP Configuration



Step 9



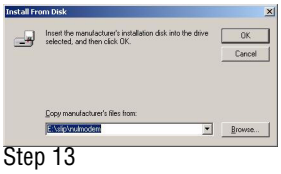
Step 10



Step 11

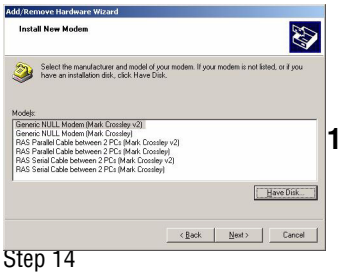
Step 12

1. Open Windows Explorer.
2. Locate the **SMS7000 folder** on your hard drive.
3. Locate the **slip** folder on the Series 7000 Software CD.
4. Copy the **slip** folder from the Series 7000 Software CD to the **SMS7000** folder on your hard drive.
5. Open the Control Panel window. From the Windows desktop, click **Start**, select **Settings**, then **Control Panel**.
6. Double click on the **Phone and Modems** icon.
7. Click on the **Modems** tab.
8. Click on **Add**.
9. Check the box that says **Don't detect my modem I'll select it from a list**, then click **NEXT**.
10. Click on **Have Disk**.
11. Browse to the SMS7000 folder on your hard drive, open the slip folder, then the nulmodem folder.
12. Highlight **mdmcbx1.inf** in the nulmodem folder, then click **Open**.



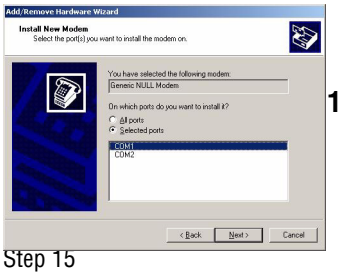
Step 13

13. Click on **OK**.



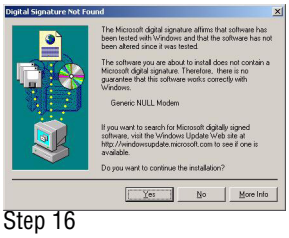
Step 14

14. Highlight **Generic NULL Modem (Mark Crossley v2)**, then click on **Next**.



Step 15

15. Select port, then click on **Next**.

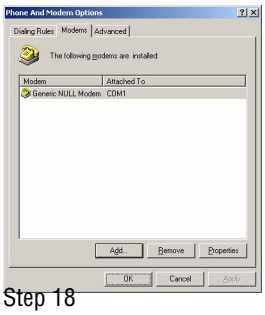


Step 16

16. Click on **Yes**.

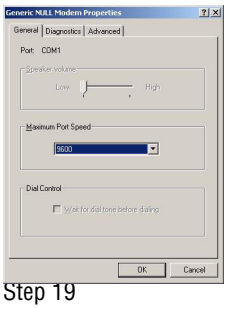
Step 17

17. Click on Finish.



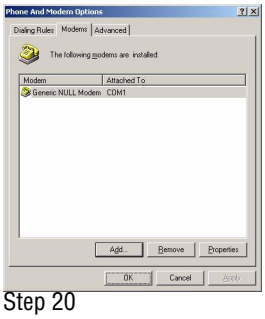
Step 18

18. Select Properties.



Step 19

19. Set Maximum Port Speed to 9600, then click OK.



Step 20

20. Click OK.

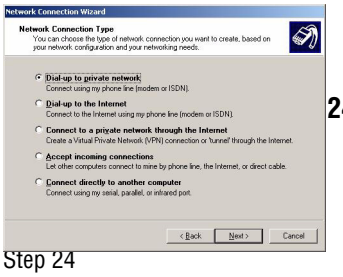
21. Open the Control Panel window. From the Windows desktop, click **Start**, select **Settings**, then **Control Panel**.

Step 22

22. Double click on the **Network and Dial-up Connections** icon.

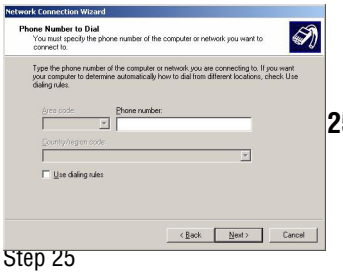
Step 23

23. Click **Next**.



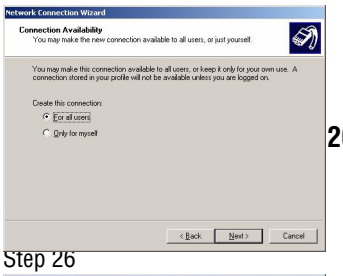
Step 24

24. Select **Dial-up to private network**, then click **Next**.



Step 25

25. Click on **Next**.

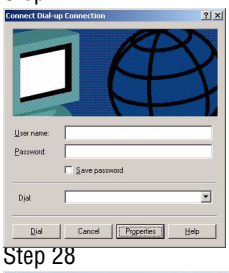


Step 26

26. Select **For all users**, then click **Next**.

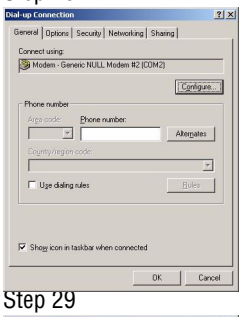
Step 27

27. Enter a name for the connection, select **Add a shortcut to my desktop**, then click **Finish**.



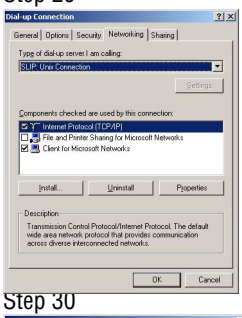
Step 28

28. Select **Properties**.



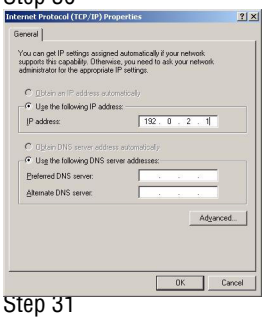
Step 29

29. Click on **Networking** tab.



Step 30

30. Select **SLIP: Unix Connection**, **Internet Protocol (TCP/IP)** and **Client for Microsoft Networks** will have checks then, click on **Properties**.



Step 31

31. Enter the IP address of the PC then, click **OK**.

32. Close all open windows.

SLIP Session


Step 1

1. Double-click Dial-up Connection Icon.

Step 2

2. Click on Dial. A Connecting Dial-up Connection window will appear.

Step 3

3. Click on OK.

Verify Router and Telnet Communication

1. Get a DOS Prompt. From the Windows desktop, click **Start**, select **Programs**, then **MS-DOS** to get a prompt.

2. Type `ping 192.168.0.2` (primary MCPU) or `192.168.0.3` (backup MCPU) (the router's IP address) and verify that the router replies.

   If ping does not work see *Can't Ping* on page 31.

3. Type telnet 192.168.0.2 (primary MCPU) or 192.168.0.3 (backup MCPU)

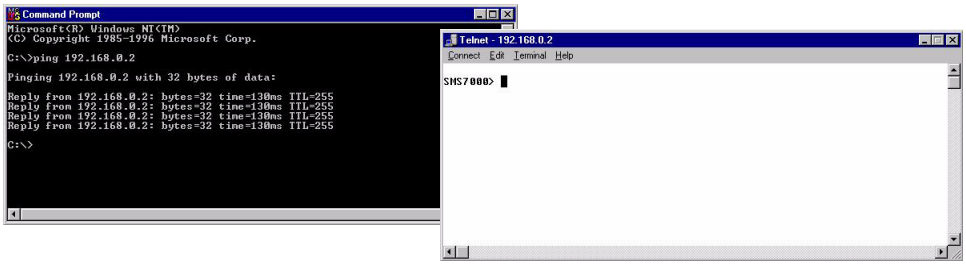
   If it connects a Telnet window will open.

   If Telnet does not work see *Can Ping, But Can't Telnet* on page 31.

4. Select **Connection** the **Telnet** window, then **Exit**.

   If both ping and telnet work the SLIP connection is ready to use.

Figure 12. Verify Router and Telnet Windows



Routing Products Documentation CD

Electronic Documentation

Documentation for Release 8.2

A complete set of product documentation in .pdf format is included on the *Routing Products Documentation CD*. This electronic documentation can be viewed on screen, printed out, or installed onto a computer.

Series 7000 documentation is also available in .pdf format either directly from the Grass Valley downloads web page, or via a link on that page to the Grass Valley documentation web page. The documentation page can be accessed directly via **www.thomsongrassvalley.com/docs**.

Note Hardcopy versions of these manuals are available for purchase from Grass Valley Customer Service.

Acrobat Reader

Adobe Acrobat Reader 3.0 or later is required to view the provided .pdf files. A version of Acrobat Reader plus Search that can be installed on Windows 98, ME, NT, 4.0, 2000, and XP computers is included on the documentation CD. The README_PDF.txt file on the CD describes how to install Adobe Acrobat. This version of Adobe Acrobat supports the cross document Search feature. Information about this feature is included in the HowToSearchv2.pdf file included on the CD.

.PDF File Names

The first part of the .pdf file name identifies the product. The software version is identified with a V and two or three numbers, though some files do not have a software version. The type of manual is identified (for example RN for Release Notes) followed by the last six numbers of that manual's part number.

To Browse the Documentation on the CD

1. Insert the CD into the computer.
2. Open the Routing_Documentation folder and double click on the desired file.

To Install the Documentation on a Computer

1. Insert the CD into the computer.

2. Copy the entire Routing_Documentation folder to your computer's hard disk.

Copying the entire folder includes the .pdf index file used for the Adobe Acrobat Reader cross documentation Search feature.

You can also copy individual files by selecting and copying only the ones you want. You will be able to use the find function to search these files individually but the cross document search feature will not work.

Uninstalling Older Documentation

If you previously installed Routing documentation using a 071813006 or earlier CD, it should be uninstalled to avoid confusion that may result from the obsolete information. Earlier documentation installations created a Grass Valley Group location accessible from the Windows Start menu for that documentation.

To uninstall older documentation:

1. From the Windows desktop select **Start**, **Settings**, **Control Panel**.
2. Double click **Add/Remove Programs**.
3. Select **Router Documentation**, click **Add/Remove** and then follow the instructions on the screen.

This will remove the older .pdf documentation files. The Router Documentation location in the Start menu may remain, but it should be empty. The new documentation is accessed from the Routing_Documentation directory on the CD or wherever you installed the .pdf files on your computer.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