Release Notes

Tektronix

Grass Valley Series 7000
Signal Management System
Software Release 7.0

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SMS 7000 Release Notes

Version 7.0

December 1998

SMS 7000 Release Notes

Introduction

This document contains release notes for Version 7.0 of the Series 7000 Signal Management System. This document describes the operational changes, the software, and the procedures for performing the update from Versions 6.x systems to 7.0.

Enhancements

32x32HD

The 32x32HD has 32 inputs and 32 single outputs. It was designed to switch uncompressed serial digital SMPTE 292M at 1.485 Gbps rate and in non-reclocking mode to handle data rates from 10 Mbps to 700 Mbps.

Series 7000 PC Applications

- The Series 7000 Configuration Editor GUI, the Visual Status Display, and the Printconfig applications now run under Windows95 or WindowsNT. They no longer run under Windows 3.1
- PC-NFS (a third-party communication software package)is no longer required.

Configuration Editor GUI Features

There are several additions to the Series Configuration Editor GUI. The new GUI feature information is presented in this document under the GUI menu where the features are located.

Title Bar Indicator

FL on the GUI title bar, indicates that the configuration could be different than what is in the MCPU's flash. **DR** means that the configuration could be different from what is on the PC's disk drive.

Online Menu

New Maintenance window features include:

- **GET MCPU TIME** and **SET MCPU TIME** are used to synchronize the GUI time and the MCPU time.
- **FLUSH INET:ENET TABLE** is used to flush the MCPU's IP Address Ethernet address mapping table (ARP table). This will re-enable communication after switching MCPU modules. This feature is used because even if the new MCPU's IP address is set to match the old one, its Ethernet address is still different, and this difference can make other devices unable to communicate with this MCPU over ethernet. Clearing the other devices' ARP tables will re-enable communication.

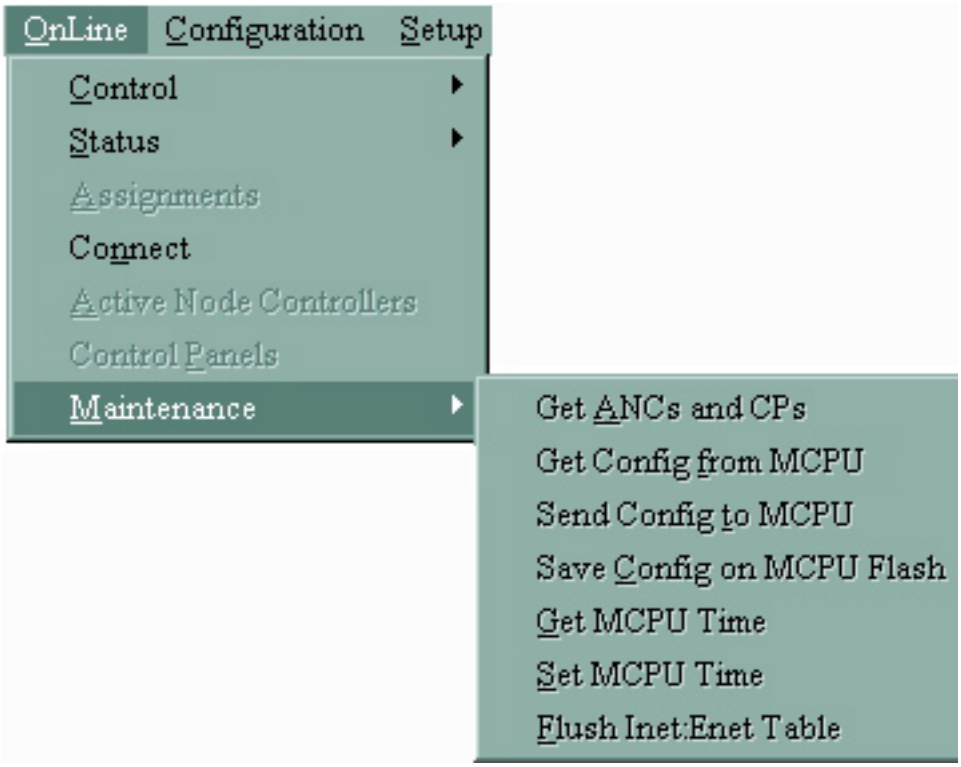


Figure 1. Maintenance Window

Configuration Menu

- The Salvo Actions window has a new button. The **NEWFRSTATUS** button will access **THE CAPTURE STATUS AS A NEW SALVO** dialog box to save the status for a set of destinations and levels via an automatically created salvo. Executing the salvo will restore the status. These salvos are subject to the same limitations on number of salvo elements as are manually created salvos.

  To Capture Status as a New Salvo:

  a. Go online to the MCPU using the Series 7000 GUI.

  b. Select **SALVO** from the **CONFIGURATION** menu to access the Salvo Actions window.

  c. Click on **NEWFRSTATUS**.

  d. Select the levels and destinations to capture status on.

  e. Click **OK**.

CAUTION For best results, observe the following restrictions when selecting the levels and destinations:

If the salvo will restore status for a Data Matrix, select only the Data Matrix's Forward Level not the Data Matrix's Reverse Level, as status on the Reverse level will be restored automatically.

If the system uses TieLines, do not select any Destinations that are TieLine Begin Destinations.

If using a Port Router, do not select any Destinations that are the reverse view of a Port Router path (i.e., there's a Source with the same name as this Destination, and it is status on a [different] port router Destination). Save forward paths only.

- New Panel Templates have Level information pre-configured using defaults. When configuring a panel template, default level assignments may be changed by following the instructions in the *Series 7000 Configuration Manual*.

  UCP and BPS32 panel templates now have **NOTPROG** (Not Programmed) as a selection for Default Destination.

Setup Menu

The Data Matrix Actions windows has a new button, **AUTOCONFIGURE** will create default Sources and Destinations for Data Matrices.

To AutoConfigure Sources and Destinations for Data Matrices:

a. Access the Data Matrix Actions window. Under the **SETUP** menu, select **MATRIX**, then **DATA MATRIX**.

b. Enter a name for the Data Matrix.

c. Select **NEW**.

d. Select a Forward Level.

e. Select a Reverse Level.

f. Click **OK**. To return to the Data Matrix Actions window.

g. Highlight the Data Matrix to be autoconfigured.

h. Click on **AUTOCONFIGURE**. This will create default Sources and Destinations for the highlighted Data Matrix.

To run an error check of the Sources and Destinations see the *Series 7000 Configuration Manual*.

Help Menu

The **HELP MENU** has a new dialog box, **SETTINGS,** which is used for setting presence / absence of the Message Window and preferences on synchronizing MCPU and GUI times.

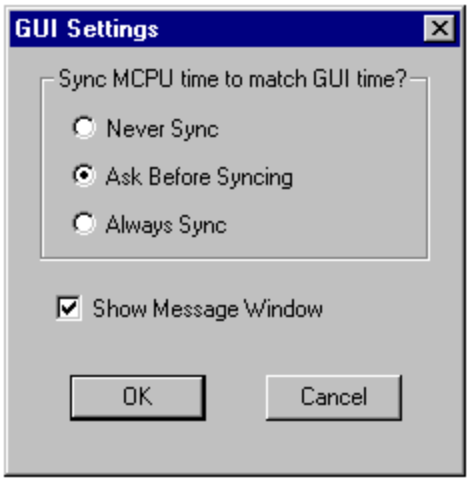


Figure 2. GUI Settings Window

Diagnostic Terminal

The Diagnostic Terminal has a new command, **`diagnose`**, which is used to look for some common configuration (and other) problems with a router.

Compact Frame Pin-Outs

- The Compact frame pinouts have changed. Figure 3 shows the pinouts for a 9-pin D Male connector to a 25-pin D Female connector cable (Tektronix part number 174-4135-00) and the pinouts for a user built RS232 9-pin D Male connector to a 9-pin D Female connector cable.

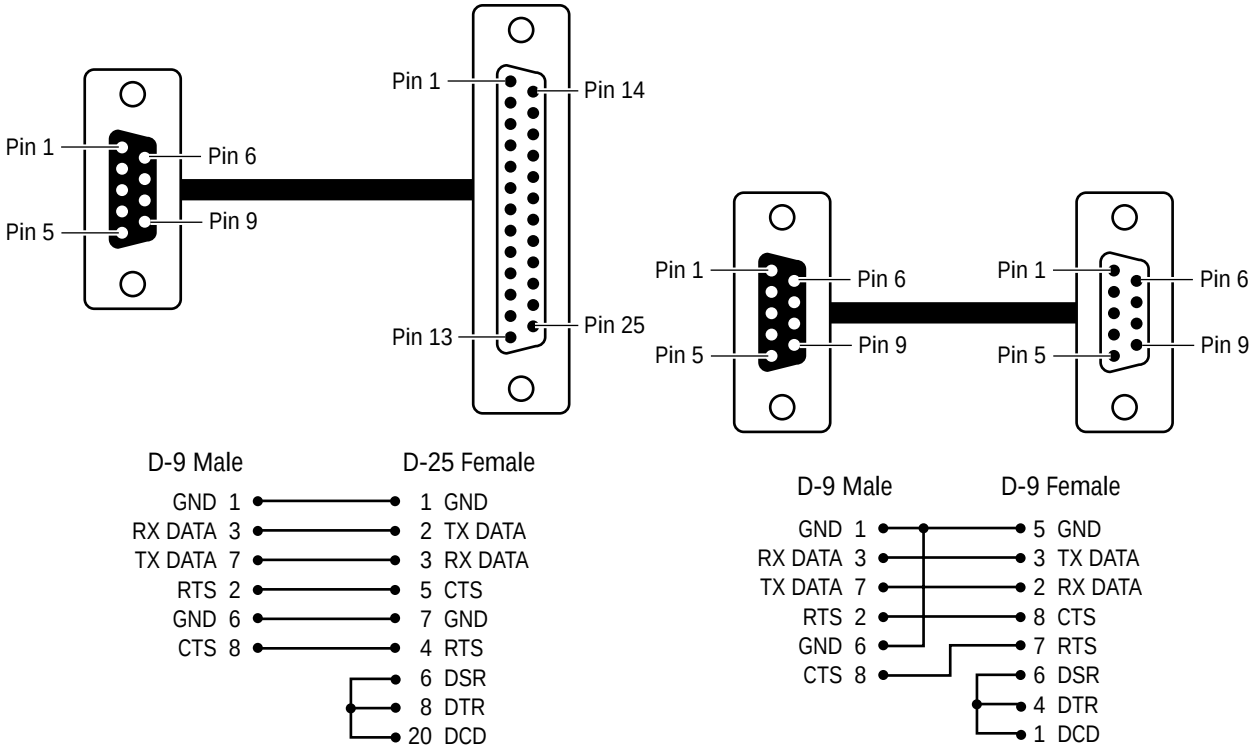


Figure 3. D Connector Pinouts

Software Overview

Series 7000 Signal Management System Software Version 7.0 is delivered on a CD-ROM. Version 7.0 software can upgrade systems currently running 6.x software. If the system to be upgraded is running on software other than 6.x, firmware and / or hardware upgrades may be required. The recommended upgrade method for systems running on older software is to upgrade to 6.x to complete any hardware / firmware changes before attempting to upgrade to 7.0.

Compatibility issues are addressed in the *Software Compatibility Matrix* Table 3 on page 24 and in the *Hardware Compatibility Matrix* Table 4 on page 26

7.0 CD ROM Overview

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 Arcobat Reader), PDF files of manuals (current manuals and release notes for versions 6.x and 7.0), archive files (6.x software versions), and a process to create installation diskettes for software installation onto PCs without CD-ROM readers (*To Create 7.0 software Diskettes from the CD ROM: on page 47*).

Table 1 shows the contents of the Series 7000 Software Version 7.0 CD ROM.

Table 1. Contents of Series 7000 Software Version 7.0 CD ROM

Folder	File	Description
	AUTORUN.INF	CD-ROM autostart for installation
	SETUP.BAT	MS-DOS batch file that executes the Setup.exe in Setup directory.
	README.TXT	SMS7000 software installation instructions and contents
	License.txt	SMS7000 software license agreement

Table 1. Contents of Series 7000 Software Version 7.0 CD ROM

Folder	File	Description
DOCS	ACROBAT.PDF	Acrobat Reader information
	CONFIG.PDF	Series 7000 Configuration Manual
	INSTALL.PDF	Series 7000 Installation Manual
	ADOBELIC.PDF	Software License
	OPERATE.PDF	Series 7000 Operations Manual
	REL70.PDF	Series 7000 Release Notes 7.0
	REL641.PDF	Series 7000 Release Notes 6.41
	REL64.PDF	Series 7000 Release Notes 6.4
	REL63.PDF	Series 7000 Release Notes 6.3
	REL60.PDF	Series 7000 Release Notes 6.0
	PROTOCOL.PDF	Series 7000 Protocol
	INSTRUCT.PDF	Series 7000-HD Manual
	SERVICE.PDF	Series 7000 Service Manual
DOCS (continued)	ACRORD32.EXE	Acrobat Reader Program Executable to run from CD
	AR32E301.EXE	Self extracting install program for Acrobat Reader 3.01
	Various Files/Dirs	Installed Acrobat Reader on CD
FTPD	XIC3223C.EXE	Self extracting install program for Xitami ftp daemon
FTPD/CONFIG	DEFAULTS.CFG	Configuration for FTP daemon to work with SMS7000
	FTPUSERS.SMS	Defines access rights to connect to ftp daemon
	READFTPD.TXT	FTP daemon configuration instructions
SLIP/NULMODEM	MDMCBX1.INF	SLIP connection
	MDMCBX3.INF	For Windows95 SLIP connections
	MDMCISC2.INF	For WindowsNT SLIP connections
	MDMCISCO.INF	SLIP connection
SETUP	Setup.exe	Install Program executable
	Various files/dirs	For installation program
SETUP/DOCS	Various files	Mirror image of DOCS directory on root directory of CD. (for install program)
SETUP/SMS7000	Various files	Mirror image of Ver7_0/SMS7000 directory. (for install program)
ARCHIVE/Ver6_0	Previous version	Install diskettes
ARCHIVE/Ver6_3	Previous version	Install diskettes
ARCHIVE/Ver6_4	Previous version	Install diskettes
ARCHIVE/Ver6_4_1	Previous version	Install diskettes
SMS7000	AMEZI.BIN	This is the binary image that gets loaded into the 68302 based AMEZI mezzanine. This file gets loaded into the MCPU FLASH DOS file system at installation.This file is loaded into the co-processor RAM at runtime.
	AZ.FTP	FTP script file to load AZGVG.BIN file
	AZGVG.BIN	This is another version of AMEZI.BIN that includes 440 protocol code
	AZLOAD.BAT	Batch file to load AZGVG.BIN file

Table 1. Contents of Series 7000 Software Version 7.0 CD ROM

Folder	File	Description
SMS7000 (continued)	BPS32.MOT	BPS-32 Control Panel Application
	CLF.FTP	FTP script file to load CLF.MOT file
	CLF.MOT	Client (former functionality) Control Panel Application
	CLFLOAD.BAT	Batch file to load CLF.MOT file
	CLN.FTP	FTP script file to load CLN.MOT file
	CLN.MOT	Client Control Panel Application
	CLNLOAD.BAT	Batch file to load CLN.MOT file
	COLORS.VSD	Color display template
	COS.FTP	FTP script file to load COS.MOT file
	COS.MOT	Cubicle-or-Studio Control Panel Application
	COSLOAD.BAT	Batch file to load COS.MOT file
	CSOS.BIN	GSC bus management software. This file is loaded into the MCPU FLASH DOS file system.
	DEST.VSD	Destination display template
	DEVICE.VSD	Device display template
	EDP.FTP	FTP script tp load EDP.MOT file
	EDP.MOT	EDP Control Panel Application
	EDPLOAD.BAT	Batch file to load EDP.MOT file
	FL.MOT	Node Controller Application
	LEVEL.VSD	Level display template
	MB4.MOT	MB4 Control Panel Application
	MB8.MOT	MB8 Control Panel Application
	MCO.FTP	FTP script file to load MCO.MOT file
	MCO.MOT	Machine Connection Control Panel Application
	MCOLOAD.BAT	Batch file to load MCO.MOT file.
	MSVCRT.DLL	Microsoft VC++ runtime dynamic link library
	MTRX.BIN	HD Matrix Application
	MTRXBOOT.BIN	HD Matrix Boot Program
	NAMES.VSD	Name display template
	ONCRPC.DLL	RPC dynamic link library
	PRINTCFG.EXE	Program executable.
	PROGCP.RED	7000 script file to load control panels
	PROGNC.RED	7000 script file to load node controllers
	PXD.MOT	PXY Destination Control Panel App
	PXS.MOT	PXY Source Control Panel Application
	REL.FTP	FTP script file to load this Release
	RELBIG.FTP	
	RELOAD.BAT	
	ROOMS.VSD	Room display template
	SCP.MOT	Simple Control Panel Application
	SETUP.BAT	Batch file to load this Release

Table 1. Contents of Series 7000 Software Version 7.0 CD ROM

Folder	File	Description
SMS7000 (continued)	SID.FTP	FTP script file to load SID.MOT file
	SID.MOT	Serial Ident Interface Control Panel Application
	SIDLOAD.BAT	Batch file to load SID.MOT file
	SIGNALS.VSD	Signal display template
	SMS	MCPU application software. This image gets loaded into the MCPU FLASH memory.
	SMS7000.EXE	GUI program executable
	SOURCE.VSD	Source display template
	STMG.BIN	This is the binary image that gets loaded into the 80c152 based GSC Mezzanine when this mezzanine is used as a TALLY BUS Manager. The file gets loaded into the MCPU FLASH DOS file system at Installation. The file is loaded into the co-processor at run-time.
	SVR.FTP	FTP script file to load SVR.MOT file
	SVR.MOT	Server Control Panel Application
	SVRLOAD.BAT	Batch file to load SVR.MOT file
	TIECFG.VSD	Tie Line Configuration template
	TIELEVEL.VSD	Tie Line Level template
	TIELINE.VSD	Tie Line template
	TIELINES.VSD	Tie Lines template
	UCP.MOT	UCP Control Panel Application
	UMD.FTP	FTP script file to load UMD.MOT file
	UMD.MOT	Under Monitor Display Control Panel Application
	UMDLOAD.BAT	Batch file to load UMD.MOT file
	VSD.EXE	VSD program executable.
	VSD.INI	Program initialization file.
DISKS	Various Directories	Installation program on diskettes
DISKS/DISK1		
DISKS/DISK2		
DISKS/DISK3		

7.0 CD ROM Optional Procedures

In addition to the installation procedures documented in *Software Upgrade Installation Procedures* *on page 28*, there are several optional procedures that can be done using the CD-ROM.

These procedures are:

- *To Install Previous Software Versions from the CD ROM:* *on page 10*
  This accesses the archive files to create diskettes to install version 6.x software.
- *To View Documentation from the CD ROM:* *on page 15*
  This allows manuals to be read from the CD-ROM.
- *To Install Documentation from the CD ROM to the PC:* *on page 17*
  This installs the entire current set of Series 7000 manuals on the PC.
- *To Install Acrobat Reader 3.01 from the CD ROM to the PC:* *on page 20*
  This installs Acrobat Reader 3.01 on the PC.

To Install Previous Software Versions from the CD ROM:

If the 7.0 upgrade cannot be completed and there is a need to restore a version 6.x software system, this procedure can be used to create installation diskettes of the required version 6.x software. It requires 5 blank 1.44 diskettes. This procedure should not be used if the original version 6.x software diskettes are available.

1. Insert the Series 7000 Software Version 7.0 CD ROM into the computer and it will autostart. If autostart fails then select run from the start menu and type **`d:\setup.bat`** (where **`d`** is the drive letter of the CD ROM).

2. Click on **SOFTWARE** in the Main Menu.

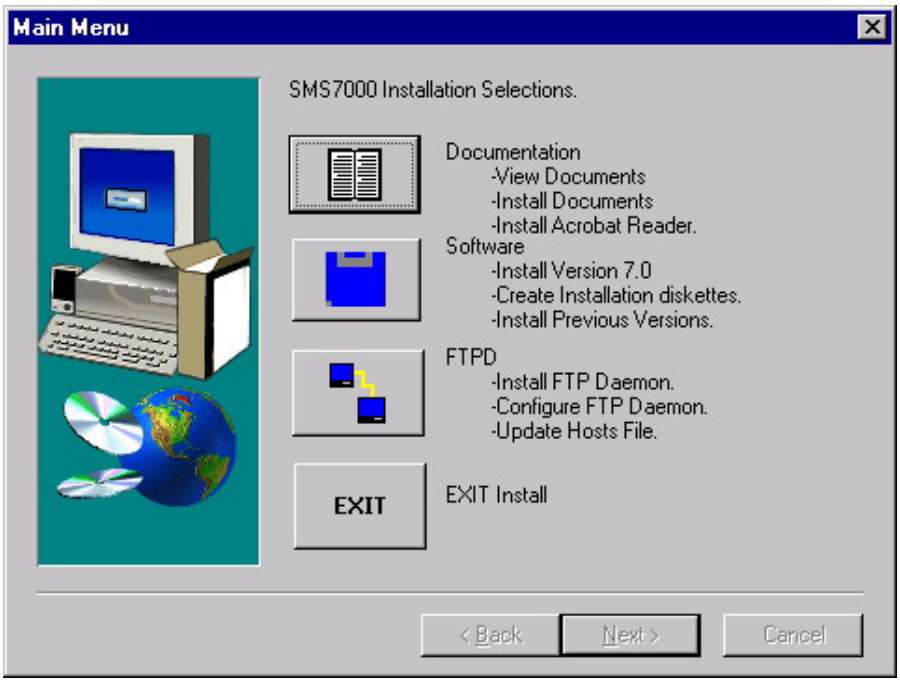


Figure 4. CD ROM Main Menu

3. Select **PREVIOUS VERSIONS**. Click on **NEXT>**.

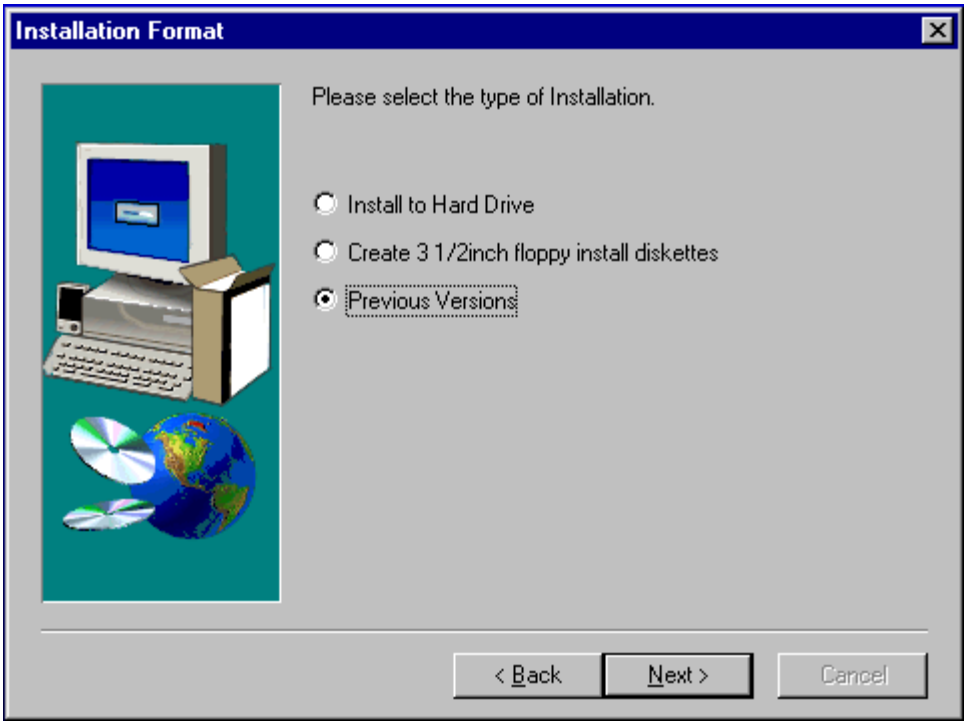


Figure 5. Select Previous Versions

4. Click on **NEXT>** to open Windows Explorer.

Create software diskettes by following the procedure outlined in this document. If files are clicked, dragged, and dropped onto the PC it is still necessary to create diskettes from the individual folders before the software can be installed. This procedure does not include the click, drag and drop option.

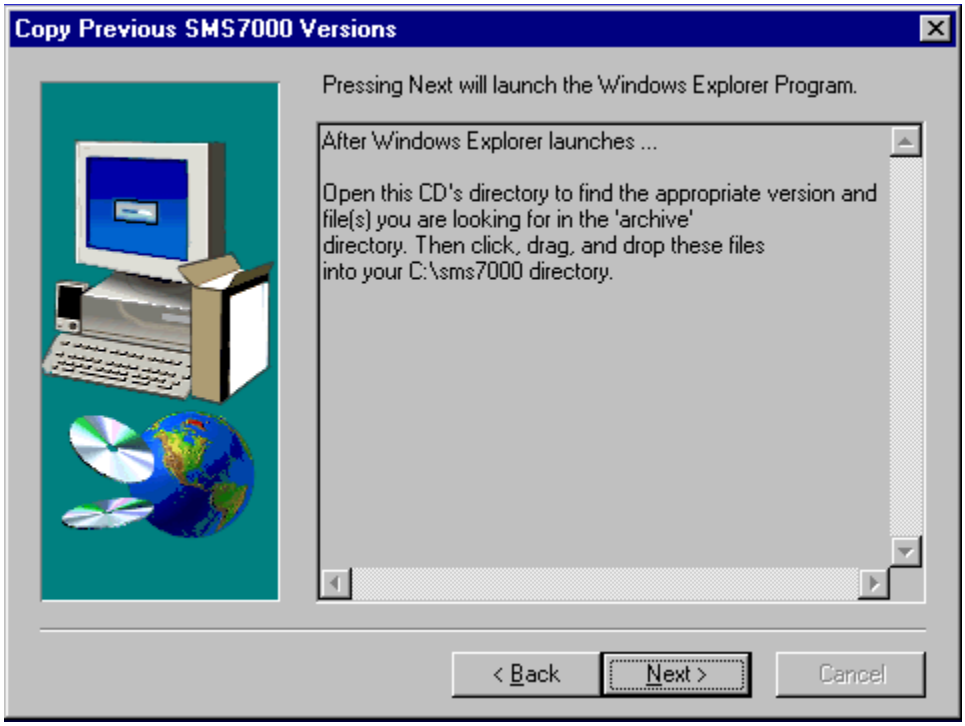


Figure 6. Open Windows Explorer

5. Locate Archive directory on CD-ROM

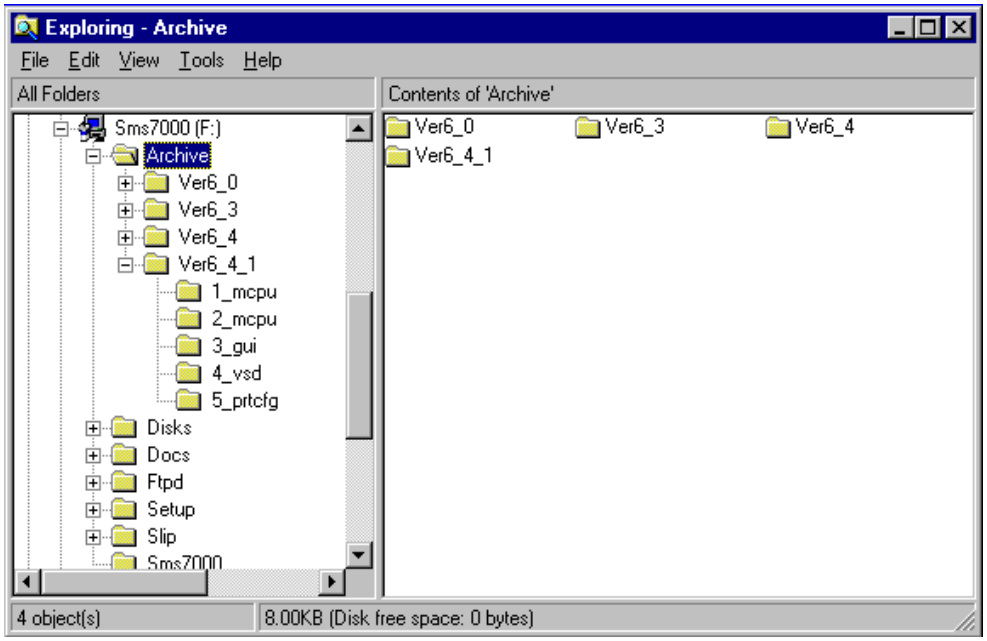


Figure 7. CD-ROM Archive Directory

6. Expand folder for desired version.

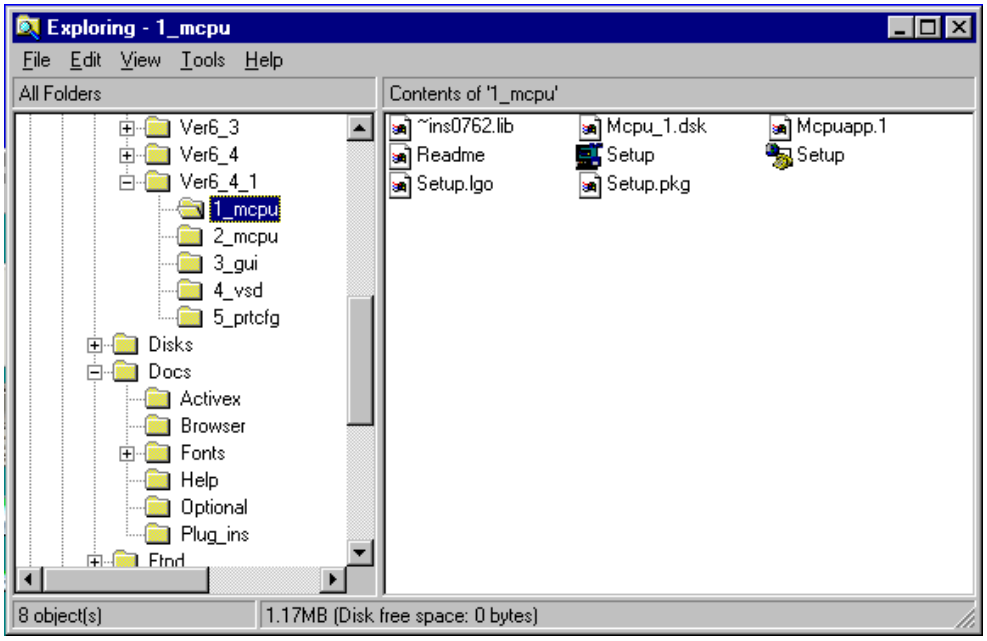


Figure 8. CD-ROM Diskette Directory

7. Select folder for first diskette.

This example is for version 6.4.1.

8. Select contents of first diskette. Copy to blank diskette.

   Each folder within the version folder is a diskette. Copy only the contents of the folder to a diskette, not the folder itself.

9. Repeat above step for each diskette folder.

   When done there will be five diskettes.

10. Open Docs folder, locate Release Notes for desired 6.x version.

    Release Notes can be read on the PC or printed.

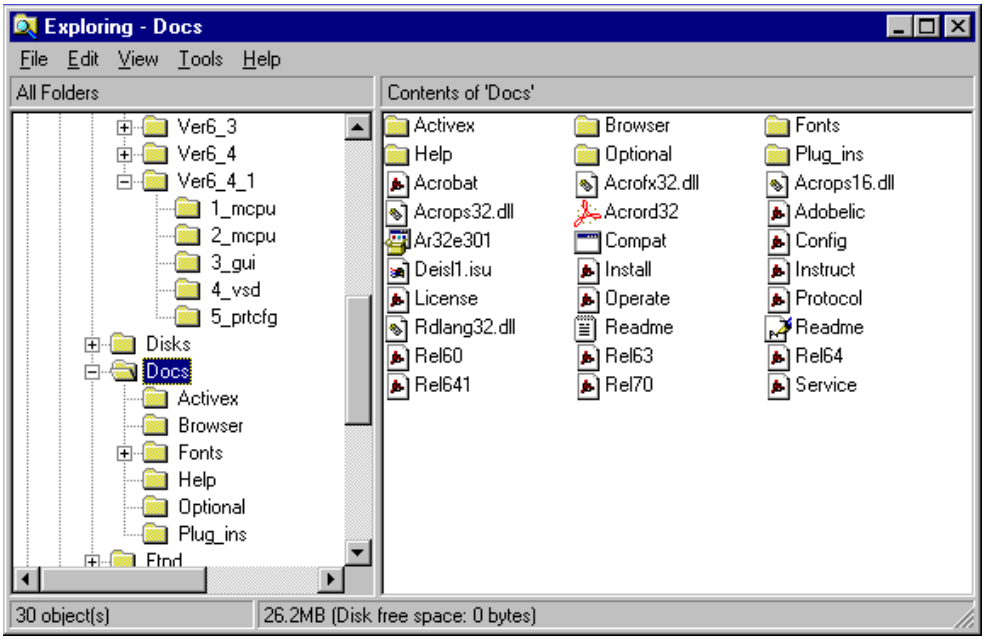


Figure 9. CD-ROM Docs Directory

11. Follow directions in Release Notes to install software from diskettes.

To View Documentation from the CD ROM:

1. Insert the Series 7000 Software Version 7.0 CD ROM into the computer and it will autostart. If autostart fails then select run from the start menu and type **`d:\setup.bat`** (where **`d`** is the drive letter of the CD ROM).

2. Click on **SOFTWARE** in the Main Menu.

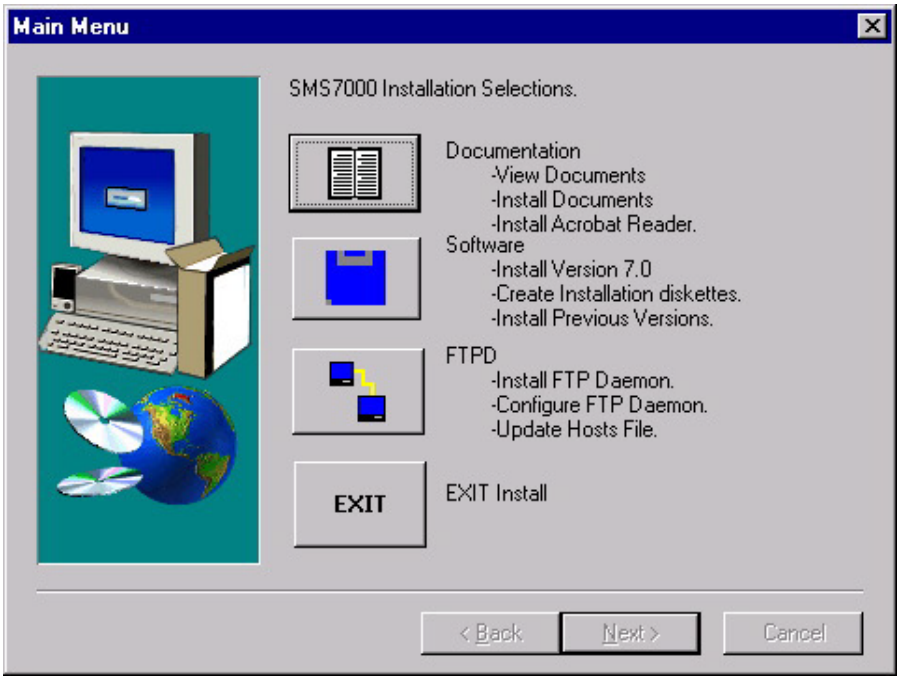


Figure 10. CD ROM Main Menu

3. Select **VIEW DOCUMENTATION FROM CD-ROM**. Click on **NEXT>**.

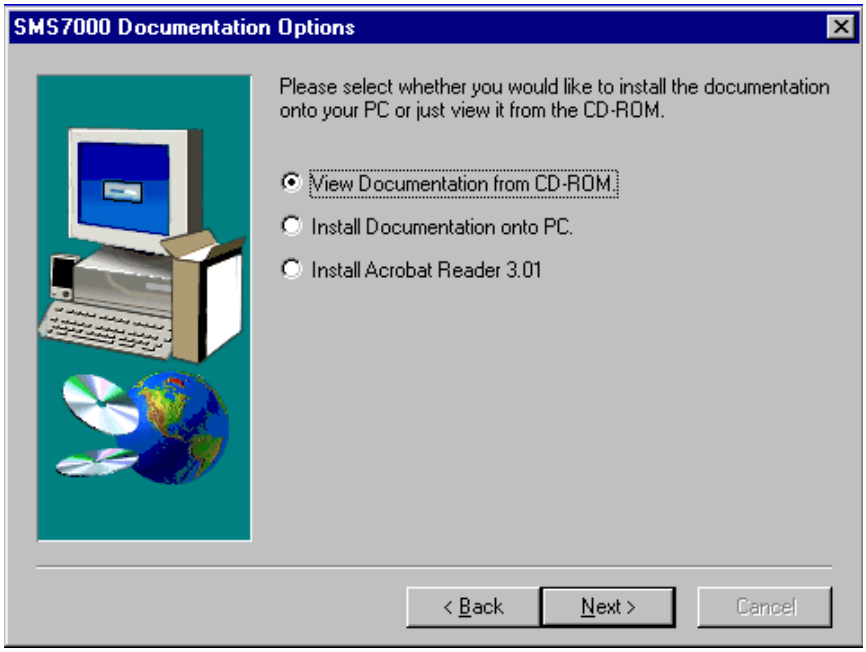


Figure 11. Documentation Window

4. Select document to view. Click on **NEXT>**.

Selected document will open.

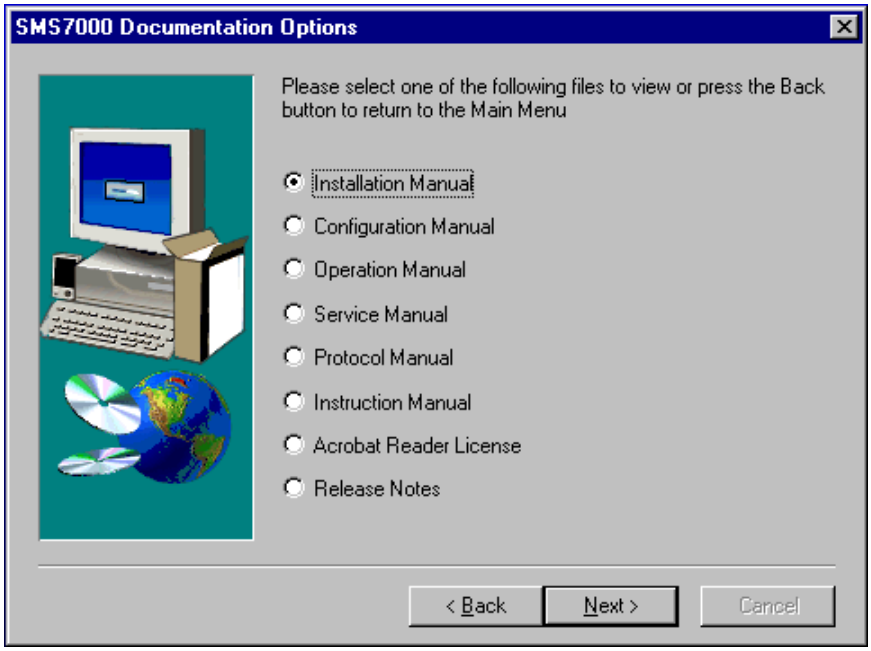


Figure 12. Select Document Window

To Install Documentation from the CD ROM to the PC:

1. Insert the Series 7000 Software Version 7.0 CD ROM into the computer and it will autostart. If autostart fails then select run from the start menu and type **`d:\setup.bat`** (where **`d`** is the drive letter of the CD ROM)

2. Click on **DOCUMENTATION** in the Main Menu.

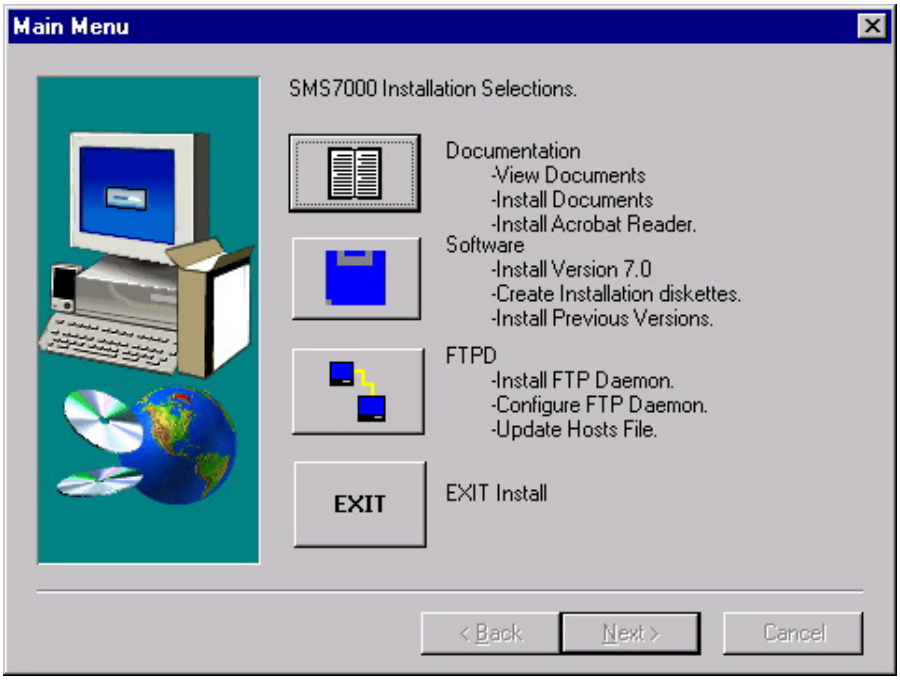


Figure 13. CD ROM Main Menu

3. Select **INSTALL DOCUMENTATION ONTO PC.** Click on **NEXT>.**

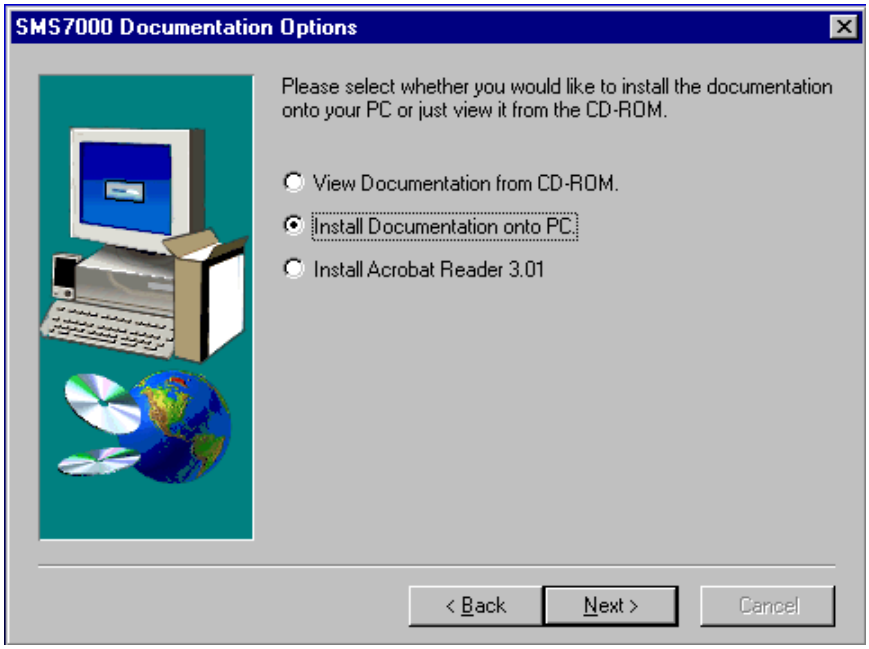


Figure 14. Install Documentation Window

4. Select Destination Directory. Click on **NEXT>.**

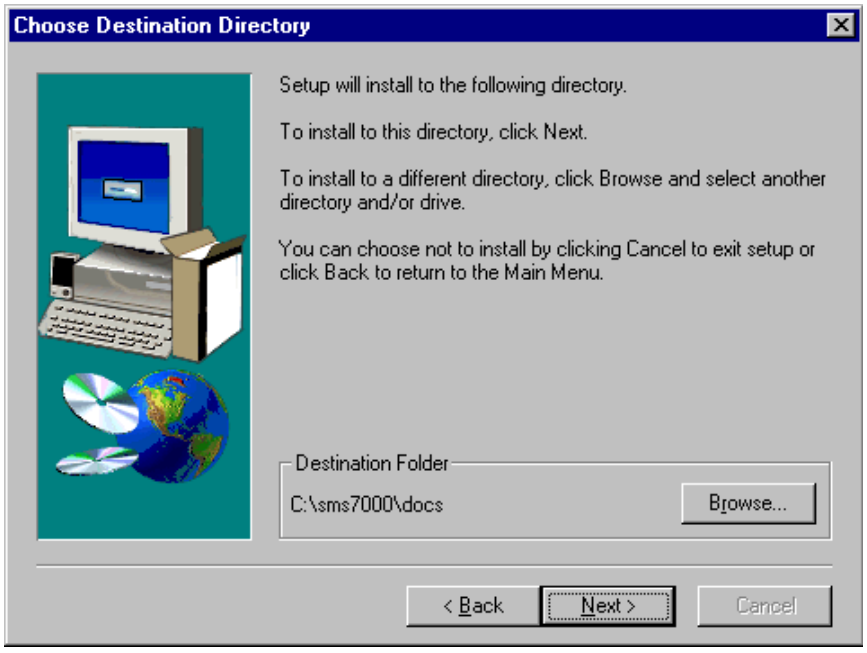


Figure 15. Select Documentation Directory Window

5. Read installation information. Click on **NEXT>** or **<BACK**.

Selecting **NEXT>** will install all the documents onto the PC. Using Windows Explorer to drag and drop enables selection of a single document.

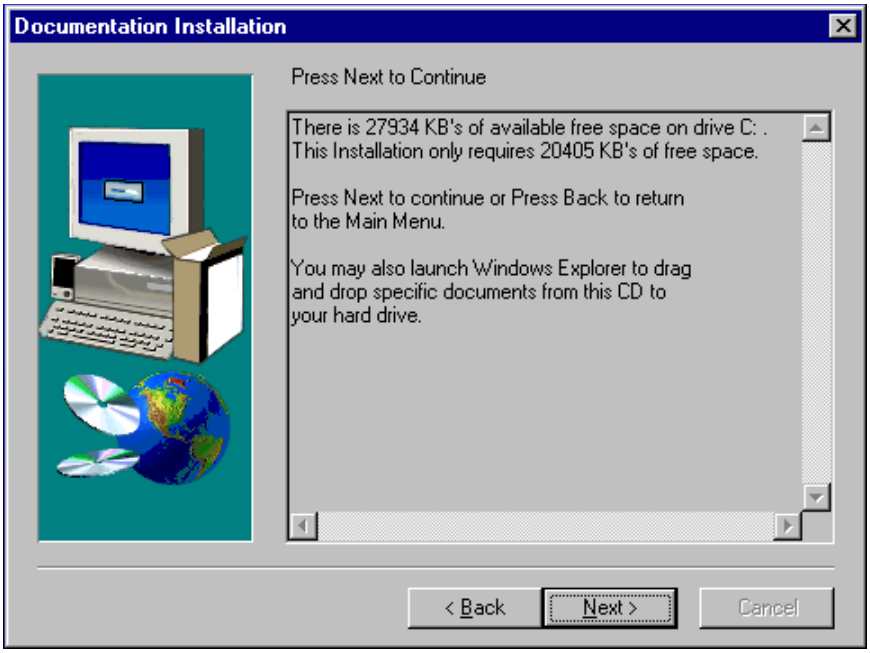


Figure 16. Select Documentation Directory Window

To Install Acrobat Reader 3.01 from the CD ROM to the PC:

Do not install Acrobat Reader 3.01 if the PC has a newer version of Acrobat Reader already installed.

1. Insert the Series 7000 Software Version 7.0 CD ROM into the computer and it will autostart. If autostart fails then select run from the start menu and type **`d:\setup.bat`** (where **`d`** is the drive letter of the CD ROM)

2. Click on **DOCUMENTATION** in the Main Menu.

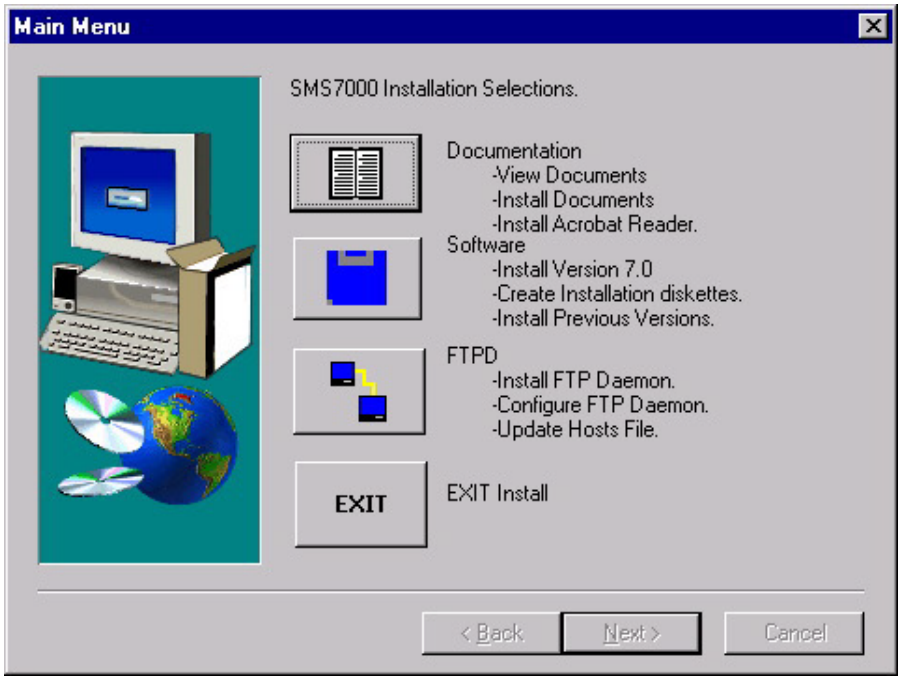


Figure 17. CD ROM Main Menu

3. Select **INSTALL ACROBAT READER 3.01**. Click on **NEXT>**.

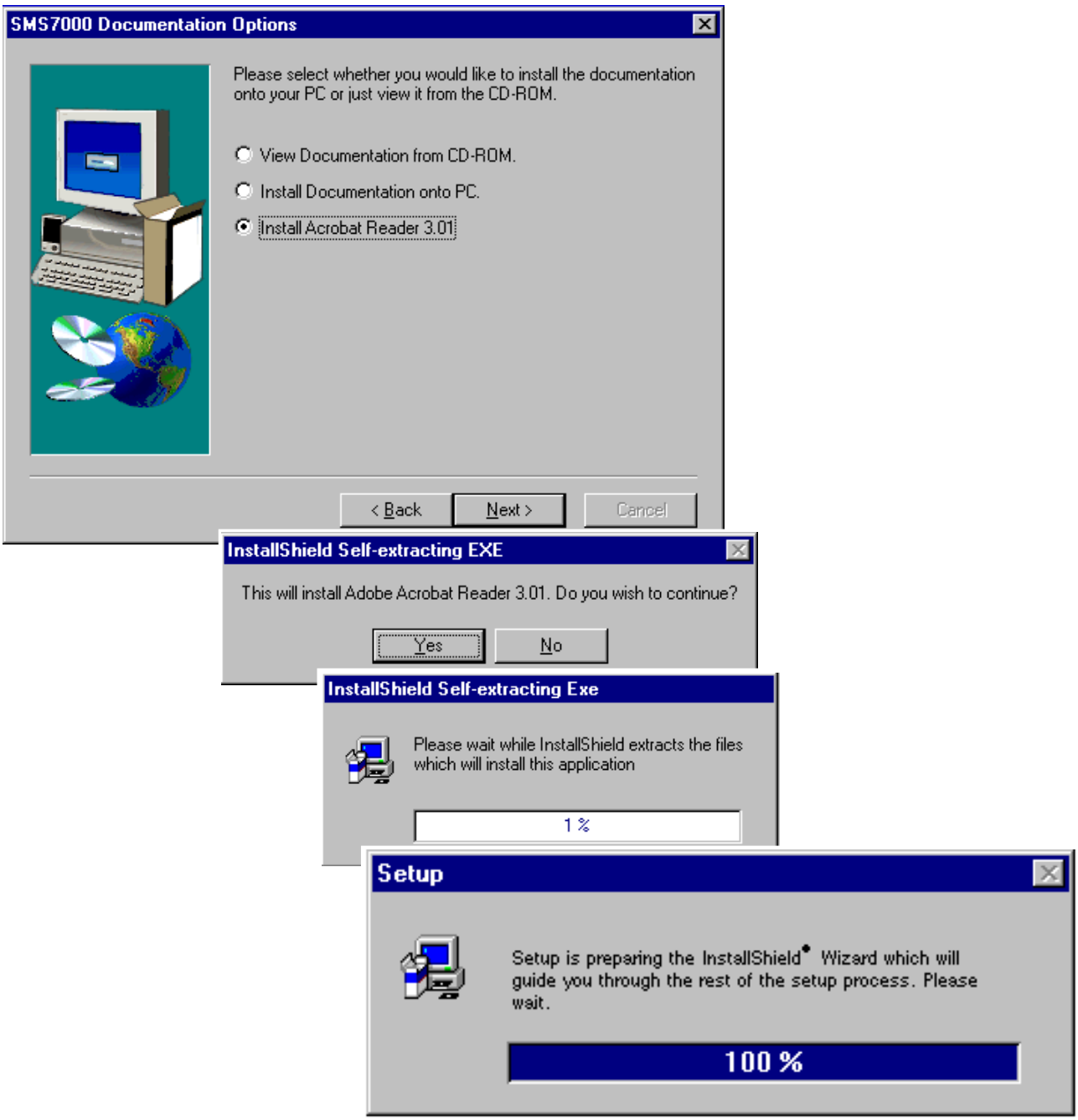


Figure 18. Install Acrobat Window and Information Boxes

Follow the instructions in the Acrobat installation windows to complete the installation.

Series 7000 Configuration Editor GUI Menu Tree

Table 2 shows the Series 7000 Configuration Editor GUI menu tree.

Table 2. GUI Menu Tree

Top Level	Second Level	Third Level	Fourth Level
File	New		
	Open...		
	Save		
	Save As...		
	Delete		
	Exit		
OnLine	Control	Take	
		Take Salvo	
		Protect	
		UnProtect	
		Chop	
	Status	View Room Assignments	
		View TieLine Usage	
	Assignments		
	Connect/Disconnect		
	Active Node Controllers		
	Control Panels		
	Maintenance	Get ANCs and CPs	
		Get Config from MCPU	
		Send Config to MCPU	
		Save Config on MCPU Flash	
		Get MCPU Time	
		Set MCPU Time	
		Flush Inet:Enet Table	
Configuration	Source		
	Destination		
	Exclusions		

Table 2. GUI Menu Tree

Top Level	Second Level	Third Level	Fourth Level
Configuration (continued)	Panels	Template	
		Suffix Set	
		Keypad Set	
		Dst Exclusion Set	
		Salvo Permission Set	
		Client-Server Groups	
		Pxy Groups	
		Pages (for EDP Panel)	AutoConfigure Page Info
			Src Pages
			Dst Pages
			Salvo Pages
			Src Page Sets
			Dst Page Sets
			Salvo Page Sets
	Salvo		
	Timed Salvo		
Setup	Enables/Limits	Enables...	
		Limits...	
	Coprocessors		
	Node Controllers		
	Matrix	Physical Matrix	
		Virtual Matrix	
		Data Matrix	
	AutoConfigure		
	Levels		
	Rooms		
	Alarms		
	Cfgd Amezi		
	Cfgd NP Internet		
	Tieline Info	TieLine Types	
		TieLines	
	Tally	Tally Module	
		Direct Tally	
		Tally Source Info	
		Tally Destination Info	
	KScope Routers		
Help	Quick Reference		
	Settings		
	About		

Software/Firmware Compatibility Matrix

Table 3. Software Compatibility Matrix

Software/Firmware Assembly	Part Number	R6.41 5/98	R7.0 8/98
Disk, MCPU Application Disk 1 Software 6.41	151157-12	Yes	No
Disk, MCPU Application Disk 2 Software 6.41	159220-04	Yes	No
Disk, Series 7000 PC GUI Software 6.4	151159-07	Yes	No
Disk, Series 7000 PC VSD Software 6.3	153324-03	Yes	No
Disk, Series 7000 PC PRTCNFG Software 6.3	153322-03	Yes	No
CD ROM Software 7.0	063-4000-00	No	Yes
Firmware, 80960CF, MCPU Module	SC2813-00	Yes	Yes
Firmware, Analog Audio MEC	052852-03	Yes	Yes
Firmware, Analog Video MEC	052849-02	Yes	Yes
Firmware, Analog Video MEC	052849-03	Yes	Yes
Firmware, An. Vid MEC on 062908 bds. 2x1[a]	052849-03	Yes	Yes
Firmware, Cont. Panel Operating Sys.	052846-01	Yes	Yes
Firmware, Digital Audio MEC	052851-01	Yes	Yes
Firmware, Digital Video MEC	052850-02	Yes	Yes
Firmware, Digital Video MEC	052850-03	Yes	Yes
Firmware, Dig. Vid. MEC on 062935 bds.2x1[a]	052850-03	Yes	Yes
Firmware, Digital Video MEC	052850-04	Yes	Yes
Firmware, Dig. Vid. MEC on 062935 bds.2x1[a]	052850-04	Yes	Yes
Firmware, SDV_C Digital Video MEC	156068-00	Yes	Yes
Firmware, HX NC App Even R6.0	151109-06	Yes	Yes
Firmware, HX NC App Odd R6.0	151108-06	Yes	Yes
Firmware, Node Cntrl R3 Boot ROM (U18)	052865-03	Yes	Yes
Firmware, Node Cntrl R3 Boot ROM (U17)	052866-03	Yes	Yes
Firmware, Tally Module	151036-01	Yes	Yes
Firmware, FCX Frm Ctrlr Up Ver 3.0	052854-02	Yes	Yes
Firmware, NBX Comm Proc Up R6.0	052855-04	Yes	Yes
Software, Amezi Driver 6.4	none	Yes	No
Software, Amezi Driver 7.0	none	Yes	Yes
Software, BPS32 Panel Appl 6.4	none	Yes	No
Software, BPS32 Panel Appl 7.0	none	Yes	Yes
Software, Client Control Panel App 6.4 (CLN)	none	Yes	No
Software, Client Control Panel App 7.0 (CLN)	none	Yes	Yes
Software, Client Former Control Panel Appl 6.4 (CLF)	none	Yes	No
Software, Client Former Control Panel Appl 7.0 (CLF)	none	Yes	Yes
Software, COS Control Panel Appl 6.4	none	Yes	No
Software, COS Control Panel Appl 7.0	none	Yes	Yes
Software, CSOS Driver APPI 6.4	none	Yes	No
Software, CSOS Driver APPI 7.0	none	Yes	Yes

Table 3. Software Compatibility Matrix

Software/Firmware Assembly	Part Number	R6.41 5/98	R7.0 8/98
Software, MB8 Panel Appl 6.4	none	Yes	No
Software, MB8 Panel Appl 7.0	none	Yes	Yes
Software, MCO Control Panel Appl 6.4	none	Yes	No
Software, MCO Control Panel Appl 7.0	none	Yes	Yes
Software, Node Ctrl Appl 6.41	none	Yes	No
Software, Node Ctrl Appl 7.0	none	Yes	Yes
Software, PC GUI & Support Appl 6.4	none	Yes	No
Software, PC GUI & Support Appl 7.0	none	Yes	Yes
Software, Server Control Panel App 6.4 (SVR)	none	Yes	No
Software, Server Control Panel App 7.0 (SVR)	none	Yes	Yes
Software, SID Control Panel Appl 6.4	none	Yes	No
Software, SID Control Panel Appl 7.0	none	Yes	Yes
Software, Tally Manager Driver 6.4	none	Yes	No
Software, Tally Manager Driver 7.0	none	Yes	Yes
Software, UCP Panel Appl 6.4	none	Yes	No
Software, UCP Panel Appl 7.0	none	Yes	Yes
Software, Under Mon. Display Appl 6.4	none	Yes	No
Software, Under Mon. Display Appl 7.0	none	Yes	Yes
Software, PC VSD App & Spt Software 6.3	none	Yes	No
Software, PC VSD App & Spt Software 7.0	none	Yes	Yes
Software, PC Print Cnfig App & Spt Software 6.3	none	Yes	No
Software, PC Print Cnfig App & Spt Software 7.0	none	Yes	Yes
Software, PXD Panel Appl 6.4	none	Yes	No
Software, PXD Panel Appl 7.0	none	Yes	Yes
Software, PXS Panel Appl 6.4	none	Yes	No
Software, PXS Panel Appl 7.0	none	Yes	Yes
Software, MB4 Panel Appl 6.4	none	Yes	No
Software, MB4 Panel Appl 7.0	none	Yes	Yes
Software, SCP Panel Appl 6.4	none	Yes	No
Software, SCP Panel Appl 7.0	none	Yes	Yes
Software, EDP Panel Appl 6.4	none	Yes	No
Software, EDP Panel Appl 7.0	none	Yes	Yes

[a] Analog video Secondary Switch modules 062908 use MEC software version -03 only

Hardware Compatibility Matrix

The following table lists hardware assembly numbers for the various Series 7000 Software Releases. Matrix Element Control (MEC) circuitry on each matrix module must be at the proper revision level, or later, to take full advantage of 7.0 features. Check the table for minimum versions (-xx) of modules to fully support R7.0

Table 4. Hardware Compatibility Matrix

Hardware Assembly	Part #	R6.41	R7.0
Horizon Node Controller	062797	-04C	-04C
Analog Video Input	062836	-03B	-03B
Analog Video Output	062837	-02K	-02K
Analog Video Crosspoint	062838	-03A	-03A
Node Controller	062840	-09A	-09A
Controller Module	671-4445	N/A	-00
Analog Video Output	062843	-02E	-02E
Serial Digital Video Input	062862	-02H	-02H
Serial Digital Video Crosspoint	062863	-02H	-02H
Serial Digital Video Output	062864	-02F	-02F
Serial Digital Video Output Monitor	062866	-02E	-02E
Non-reclock. Digital Video Input	062870	-02J	-02J
Non-reclock. Digital Video Output	062871	-02F	-02F
Digital Video Tertiary Output	062873	-00F	-00F
MCPU Controller Module	062876	-05B	-05B
Controller Frame Motherboard	062877	-01B	-01B
CIF Module	062884	-00J	-00J
Source Tally I/O bd.	062886	-00L	-00L
General Purpose Control Panel bd.	062888	-10J/-11K/-20E	
Coax I/F mezzanine	062893	-00D	-00D
Backplane I/F mezzanine	062899	-00D	-00D
Secondary Switch 2x1 bd.	062908	-02C	-02C
Secondary Switch 8x1 bd.	062910	-02B	-02B
Analog Audio Matrix module	062922	-04E	-04E
Digital Audio Matrix module	062930	-02F	-02F
Data Matrix Module	062931	-01H/-02KG	
Digital Vid Secondary Switch	062935	-00F	-00F
Digital Vid Distribution Amplifier	062936	-00J	-00J
Node Control Expansion module	062938	-01E	-01E
Async Mezzanine	160018	-00C	-00C
Global Serial Channel Mezzanine	160019	-00J	-00J
UART Mezzanine	160020	-00K	-00K
Ethernet Mezzanine	160023	-00J	-00J
Controller Frame	092844	-02E	-02E

Table 4. Hardware Compatibility Matrix

Hardware Assembly	Part #	R6.41	R7.0
BPS-32 Control Panel	092845	-06	-06
MB8 Control Panel	092846	-06	-06
Under Monitor Display [a]	092847	-06/-15/-25/-35	
Dual Under Monitor Display [a]	092852	-06/-15/-25/-36	
Triple Under Monitor Display [a]	092876	-33	-33
UCP Control Panel	092857	-06	-06
Client Control Panel[b]	092858	-03	-03
Server Control Panel	092859	-03	-03
PXS Control Panel	190033	-03	-03
PXD Control Panel[c]	190035	-03	-03
PXYE Control Panel[c]	190034	-03	-03
SID I/F Control Panel	190009	K04	K04
MB4 Control Panel	190099	-00	-00
SCP Control Panel	190098	-00	-00
Brd. 32 Channel SDV Input	160226	-00	-00
Brd, 32 Ch SDV Reclocking Output	160236	-00	-00
Brd, 32x32 SDV Crosspoint	160227	-00	-00
Brdm SDV Dual Sync Vid O/P Mon	160261	-00	-00
COS Control Panel	Custom	-00	-00
MCO Control Panel	Custom	-00	-00
EDP Control Panel	190115	-00	-00

[a] The UMD.MOT application is loaded into single, dual, and triple Under Monitor Display hardware.

[b] Either CLN.MOT (standard) or CLF.MOT applications can be loaded into the Client Control Panel hardware.

[c] The PXD.MOT application is loaded into both PXD and PXYE Control Panel hardware.

Software Upgrade Installation Procedures

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

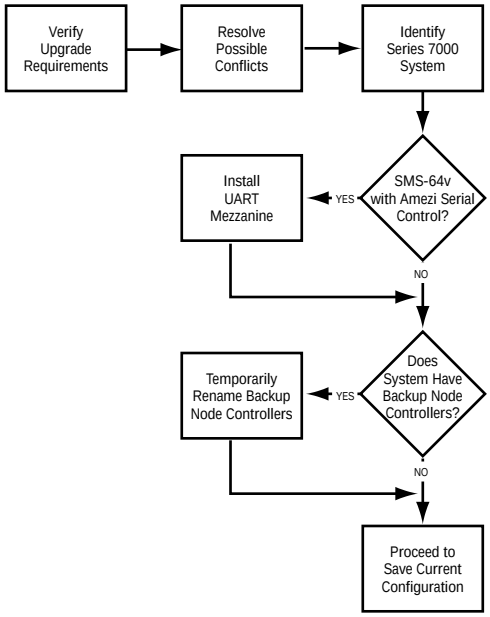
- *Prepare for Upgrade* *on page 29*
- *Save Current Configuration* *on page 36*
- *Upgrade PC* *on page 37*
- *Install Application Software* *on page 39*
- *Install and Configure FTP Daemon* *on page 58*
- *Create the Connection Between the PC and Router* *on page 71*
- *Connect to Router* *on page 85*
- *Complete Upgrade* *on page 92*

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 all the requirements for the upgrade are 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 5. Prepare for Upgrade Flowchart and Sub-Procedures

Flowchart	Sub-Procedure
	*Verify Upgrade Requirements* on page 29 *Resolve Possible Conflicts* on page 31 *Identify Series 7000 System* on page 32 *Install UART Mezzanine* on page 32 (SMS-64V with Amezi Serial Control Only) *Temporarily Rename Backup Node Controllers* on page 34 (Systems with Backup Node Controllers Only)

Verify Upgrade Requirements

Upgrade requirements are dependent upon whether the PC is being upgraded to Windows95 or WindowsNT. Also, the requirements will be effected by whether the original PC running Windows 3.1 with PC-NFS will be upgraded to the new operating system or will a different PC with either Windows95 or WindowsNT be used.

Recommended requirements for a Version 7.0 software upgrade for systems that currently run Version 6.x Software are:

- A PC running Windows 3.1, and PC NFS 5.0 (or higher) configured to support a Serial (SLIP) or Ethernet connection to the Series 7000 MCPU CFG / CTL or Ethernet port and loaded with the 6.x Configuration Editor
- -02 version 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
- For systems that contain the NC Expansion option, the 062938-01 version 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 Installation Manual* (TP3387-06 or later)
- *Series 7000 Configuration Manual* (TP3561-01 or later)
- *Series 7000 Release Notes* (071-0301-01)
- *Series 7000 CD-ROM Version 7.0* (063-4000-01)
- Cables and connectors needed to connect the PC and dumb terminal to the Series 7000 (the cable requirement for the SMS-64V Compact system has changed, see *Compact Frame Pin-Outs* *on page 5*, verify that the correct cable is available)
- For Upgrade to Windows95:
  System software needed to run Windows95
  IBM-PC Model 486DX (Recommend Pentium)
  66MHz or faster processor
  16MB of RAM (minimum)
  250 MB or larger harddrive space
  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
  IBM-PC Pentium or faster
  16-32MB of RAM
  250 MB or larger harddrive space
  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

Resolve Possible Conflicts

In an effort to simplify the installation, defaults have been assigned and it is strongly recommended not to deviate 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 and dumb terminals.

CAUTION Deviating from the assigned defaults or trying to use a PC 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.

This software upgrade requires a PC using operating system Windows 3.1 with PC-NFS loaded with the Series 7000 Configuration Editor Graphical User Interface (GUI) to complete the first two major procedures; *Prepare for Upgrade* and *Save Current Configuration*. To complete the upgrade a PC is needed that is using either Windows95 or WindowsNT. It is recommended that a different PC be used to complete the upgrade rather than attempt to upgrade the original PC, especially if downtime is a critical factor. Starting with *Prepare for Upgrade* until *Complete Upgrade* all backup Node Controllers will be disabled and all SMS-64V matrices that communicate using the Amezi Mezzanine will be unavailable. PC operating system upgrades can be time consuming. The recommendation is to have a PC (other than the original PC) prepared with either Windows95 or WindowsNT ready to replace the original PC at the major procedure *Upgrade PC*.

Identify Series 7000 System

Identifying the Series 7000 system involved in the upgrade answers two questions; if the system is a SMS-64V Compact system then it needs to have an UART Mezzanine installed and / or if the system has backup Node Controllers the backup Node Controllers need to be temporarily renamed.

Install UART Mezzanine

This 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).

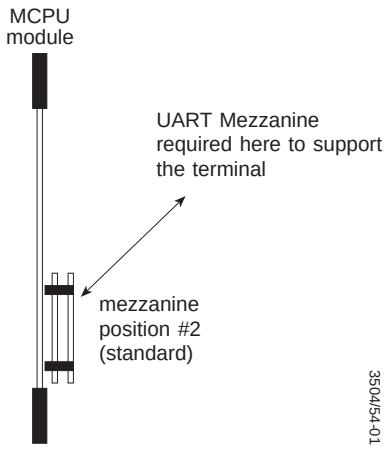


Figure 19. Amezi Mezzanine Location

To Change the Amezi to a UART Mezzanine:

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

   On the PC, at the **`pc 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 PC NFS and 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 must now be 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 6 shows the communications parameters.

Table 6. 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 35* 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 version 6.x Configuration Editor (GUI) on your Windows PC (running Windows 3.1) to connect to the Series 7000 system.

1. Under the **ONLINE** menu select **ACTIVE NODE CONTROLLERS** to access the Active Node Ctrlr Actions window.

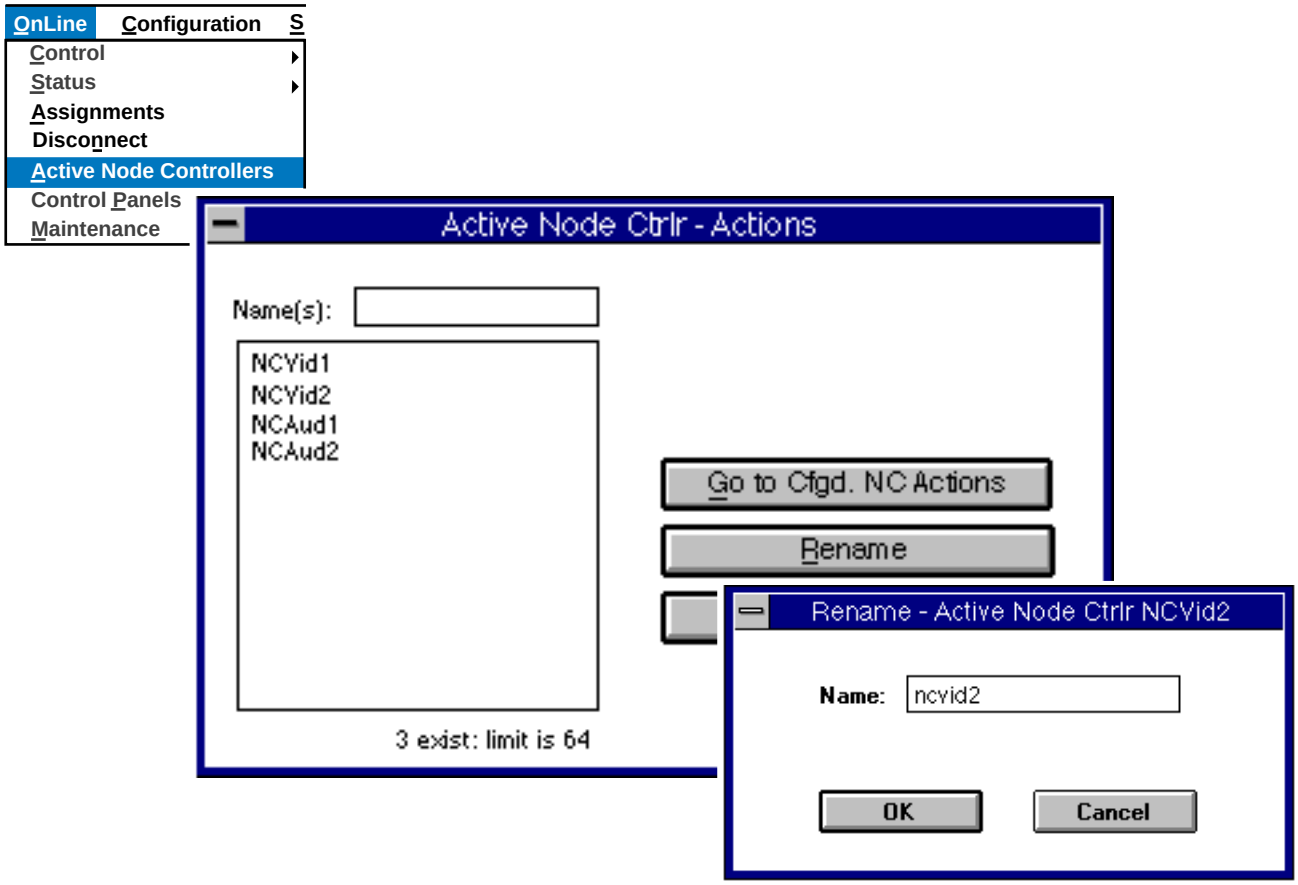


Figure 20. Active Node Controller Actions Window

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 until all Backup Node Controllers are renamed.
7. Click on **CLOSE**.

Save Current Configuration

Use the version 6.x Configuration Editor (GUI) on your Windows PC (running Windows 3.1) to save the configuration. 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:

1. Open Windows.
2. Double-click on the SMS 7000 icon to access the Connect to Router window.

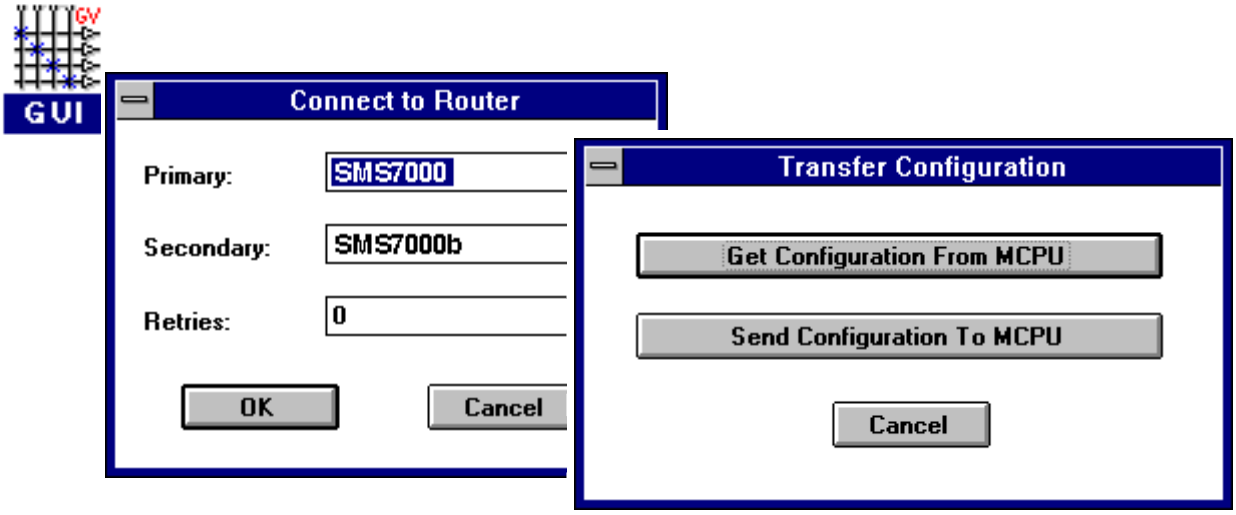


Figure 21. GUI Icon, Connect to Router, and Transfer Configuration Windows

3. Click on **OK** to cause your PC to connect to the router and establish communications with the MCPU. The Transfer Configuration window will appear.
   Clicking on **CANCEL** will return to the Off-line configuration building or editing mode.
4. Click on **GET CONFIGURATION FROM MCPU** to transfer the configuration to the GUI PC.
5. Select **DISCONNECT** under the **ONLINE** menu, to go Off-line.

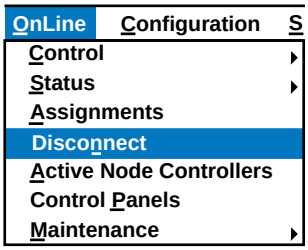


Figure 22. Disconnect Menu

6. Select **SAVE AS** under the **FILE** menu, to save a copy of the current configuration to the GUI PC hard drive or to other media such as a floppy diskette.

Figure 23. Save As Menu

Proceed to *Upgrade PC* *on page 37*.

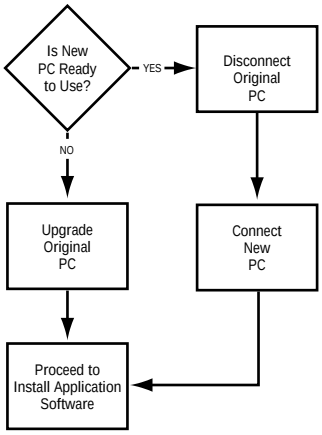
Upgrade PC

Series 7000 Software version 7.0 runs on either Windows95 or WindowsNT. During *Prepare for Upgrade*, a decision was made as to whether the original PC would be upgraded (to either Windows95 or WindowsNT) or a new previously prepared PC (with either Windows95 or WindowsNT) would be used. The recommended method is to use a new PC that is already running on one of these operating systems. Upgrading a PC running Windows 3.1 to Windows95 or WindowsNT requires an operating system installation.

CAUTION The Series 7000 Signal Management System is designed to operate on a point-to-point (closed) network with dedicated hardware components including the PC and dumb terminals. When trying to use a PC on an open network to operate the Series 7000 possible IP address and system conflicts may occur causing system failures.

Table 7 shows the flowchart and sub-procedures for upgrading a PC.

Table 7. Flowchart and Sub-Procedures for Upgrade PC

Flowchart	Sub-Procedures	
	Original PC	New PC
	*To Upgrade the Original PC on page 38*	*To Use a New PC on page 38*

To Upgrade the Original PC

Installation instructions for upgrading a PC from Windows 3.1 to either Windows95 or WindowsNT are provided with the operating system software and associated manuals. Once the PC upgrade is complete proceed to *Install Application Software on page 39*.

CAUTION SMS-64V Compact systems require a new cable. See *Compact Frame Pin-Outs on page 5*.

PC-NFS must be removed prior to the installation of the new operating system (Windows95 or WindowsNT). See the PC-NFS documentation for unistall procedures.

To Use a New PC

1. Remove all cables and connectors that connect the original PC to the Series 7000 system.
2. Connect the new PC to the Series 7000 system using the proper cables.

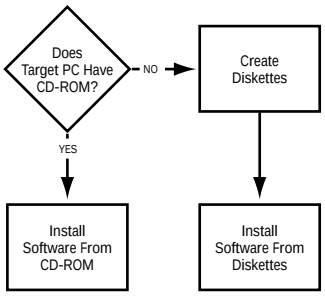
CAUTION SMS-64V Compact systems require a new cable. See *Compact Frame Pin-Outs on page 5*.

3. Proceed to *Install Application Software on page 39*

Install Application Software

The target PC was identified as part of the Prepare for Upgrade procedure. The only decision needed to identify which sub-procedures to use to install application software is whether the target PC has a CD-ROM or will the installation need to be done from diskettes.

Table 8. Install Application Software Flowchart and Table

Flowchart	Sub-Procedures	
	PC with CD-ROM	**PC without CD-ROM**
	*To Install 7.0 software from the CD ROM: on page 39*	*To Create 7.0 software Diskettes from the CD ROM: on page 47* *To Install 7.0 Software from Diskettes: on page 52*

The CD ROM contains folders labeled Disks / Disk1, Disks / Disk2, etc. These folders are used to create installation disks for use on PCs that do not have CD ROM readers. To create diskettes, see *To Create 7.0 software Diskettes from the CD ROM: on page 47*.

CAUTION The recommended upgrade procedure is to use a new PC loaded with either Windows95 or WindowsNT. However, if the original PC was upgraded, it is possible that old SMS 7000 directory files will be discovered during the software installation. The software installation process allows for several defaults to be used. Deviation from the provided defaults can cause conflicts and potential system problems. Therefore, if there are SMS 7000 directory files on the PC being upgraded and a name other than the default name is to be used to save the files, rename the directory before starting the software installation.

To Install 7.0 software from the CD ROM:

1. Insert the Series 7000 Software Version 7.0 CD ROM into the computer and it will autostart. If autostart fails then select run from the start menu and type **`d:\setup.bat`** (where **`d`** is the drive letter of the CD ROM).

2. Click on **SOFTWARE** in the Main Menu.

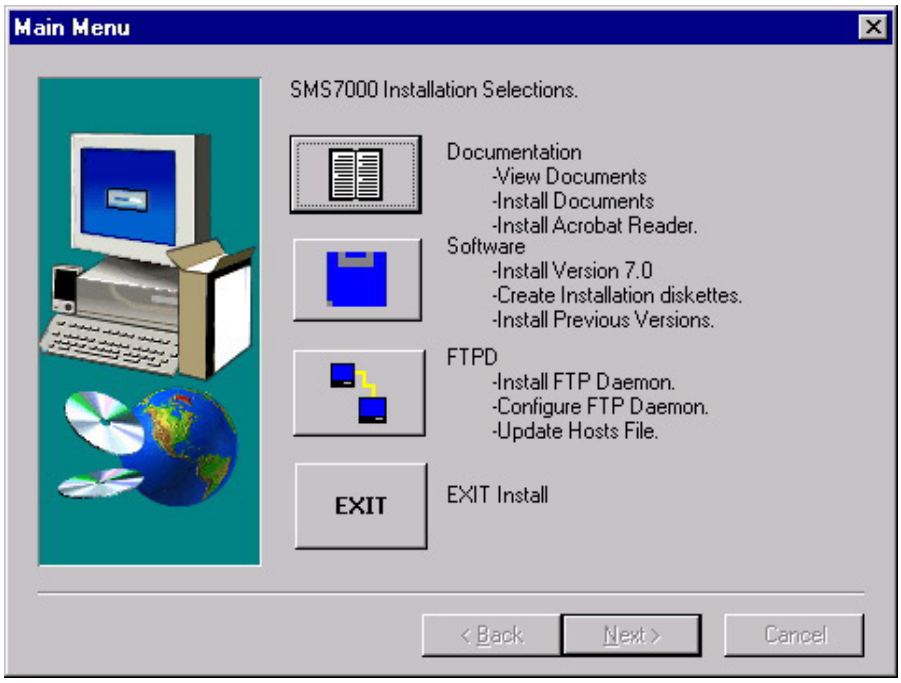


Figure 24. CD ROM Main Menu

3. Select Installation type. Click on **NEXT>.**

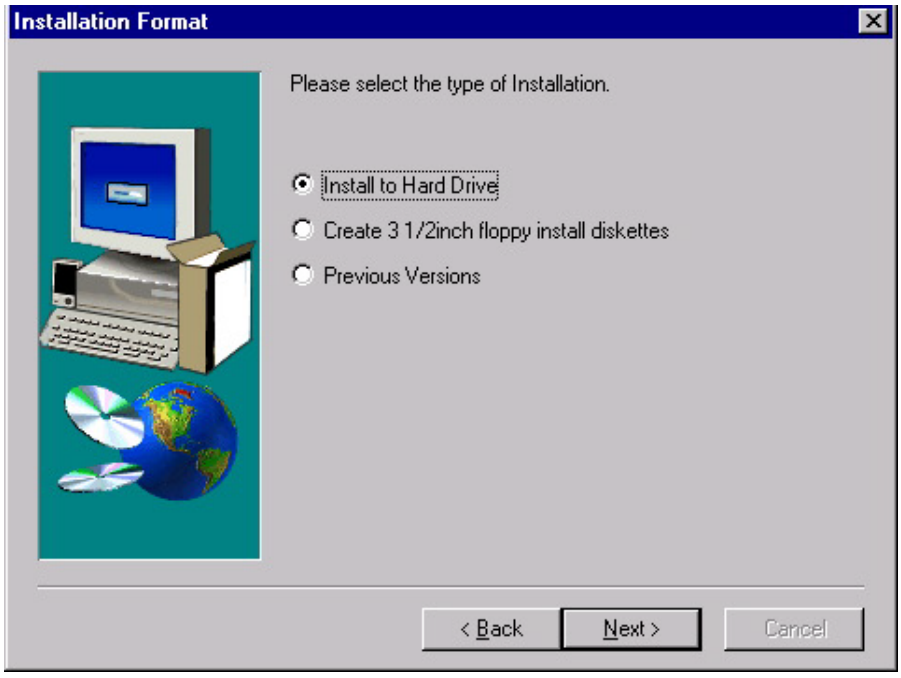


Figure 25. Installation Format Window

4. Read the software installation information.

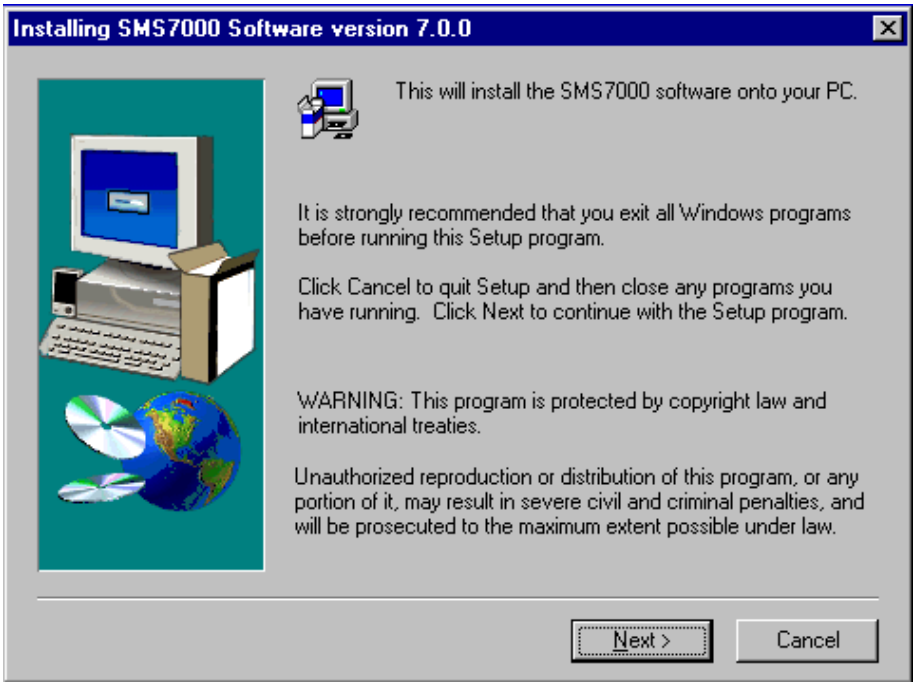


Figure 26. Software Installation Information Window

5. Read and accept the Software License Agreement.

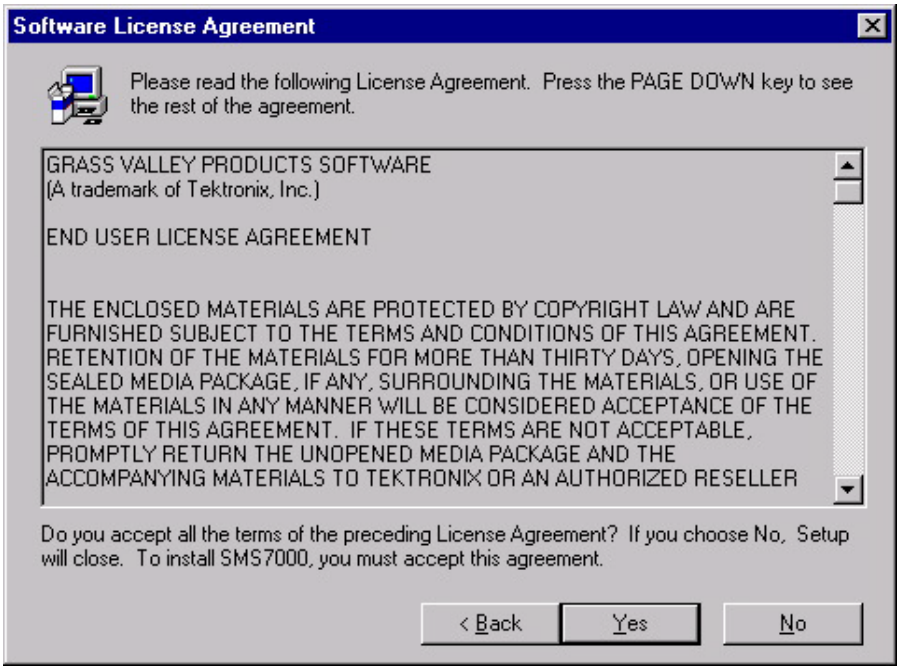


Figure 27. Software License Agreement Window

6. Read Installation Notes. Click on **NEXT>.**

   This readme.txt file (containing all the installation instructions) can be accessed at any time from the C:\sms7000 directory.

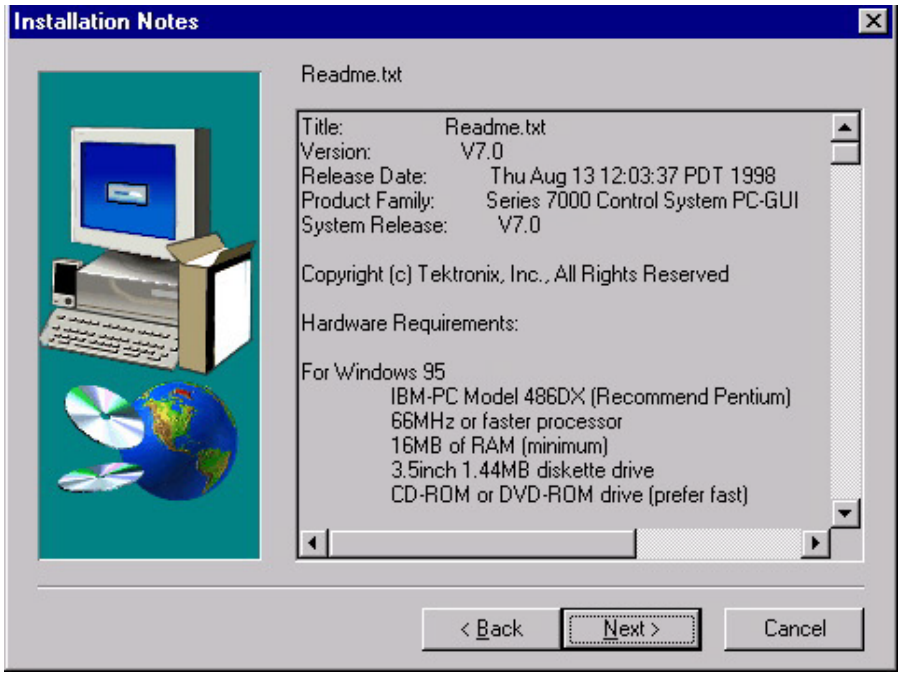


Figure 28. Installation Notes Window

7. Enter Installer Name and Company. Click on **NEXT>.**

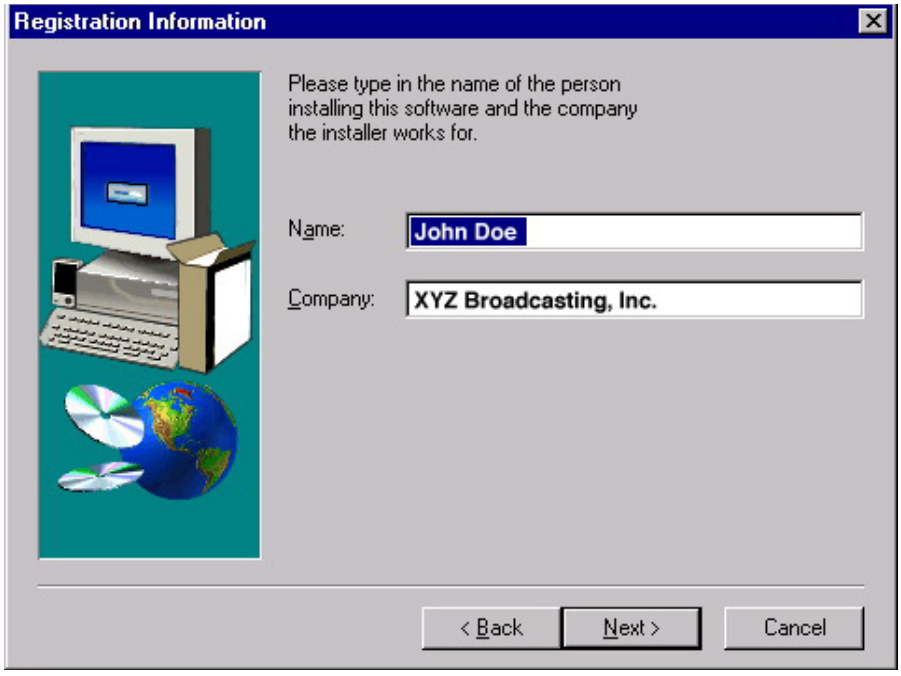


Figure 29. Registration Window

8. Click on **NEXT>.**

This window will only appear if the installation process detects previous SMS 7000 version software. To name a previous SMS 7000 directory something other than the default, select **CANCEL** to exit the installation. then rename the SMS 7000 directory and restart the installation procedure from the beginning

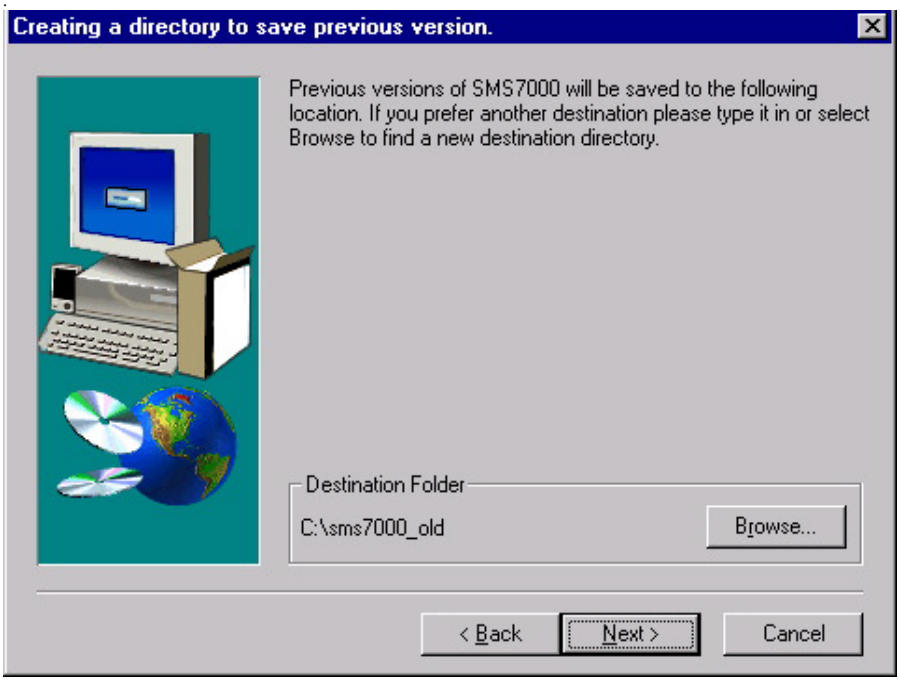


Figure 30. Creating a Directory to Save Previous Version Window

9. Select components to install. Click on **NEXT>.**

The recommendation is to install everything.

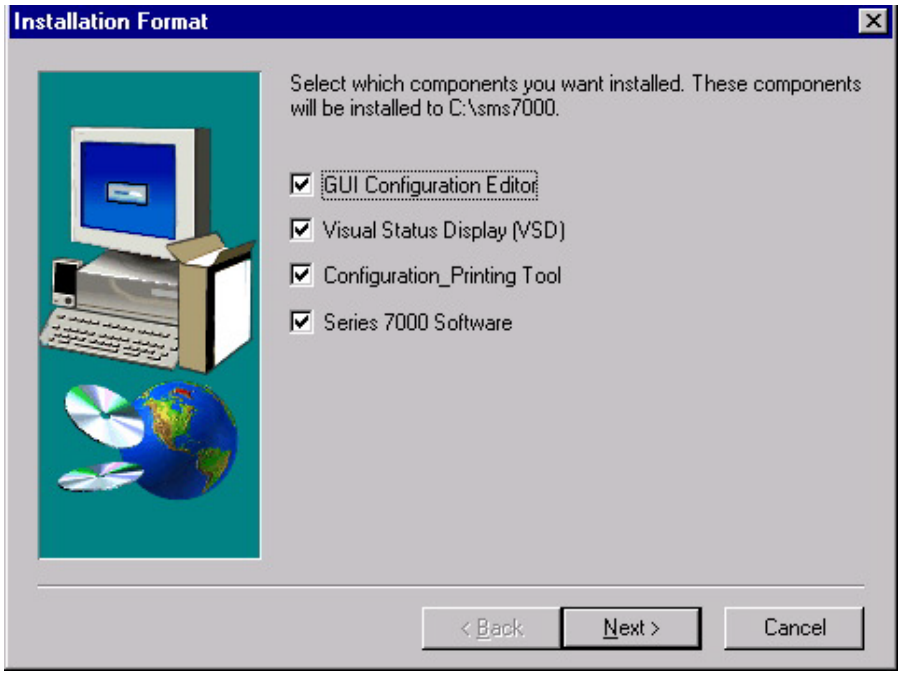


Figure 31. Installation Format Components Window

10. Read information. Click on **NEXT>.**

The information will be specific to the attempted installation. If there is not enough memory available, the **NEXT>** button will return the screen to the main menu. Memory adjustment can be made by deleting files from the hard drive or electing to do a smaller install. The recommendation is to free up enough memory by deleting files to allow for a complete installation.

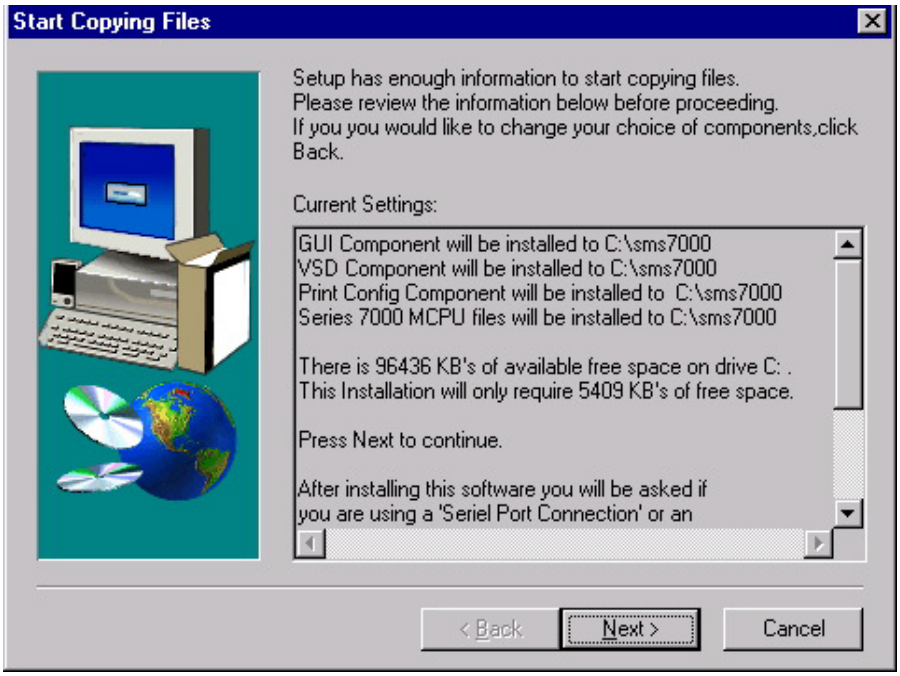


Figure 32. Start copying Files Window

Status windows will show the installation progress.

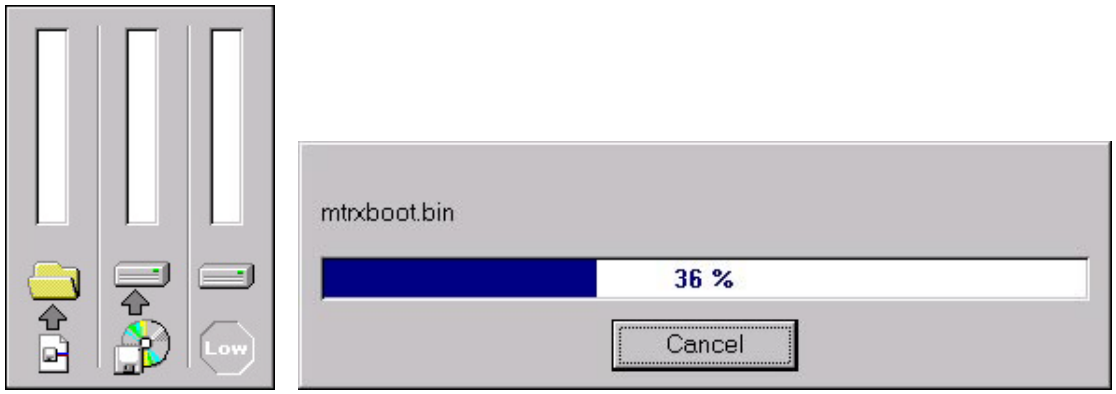


Figure 33. Status Windows

11. Click on **NEXT>**. SMS 7000 Installation window will appear when file transfer is complete. Error messages with instructions will be displayed in the Installation Information box.

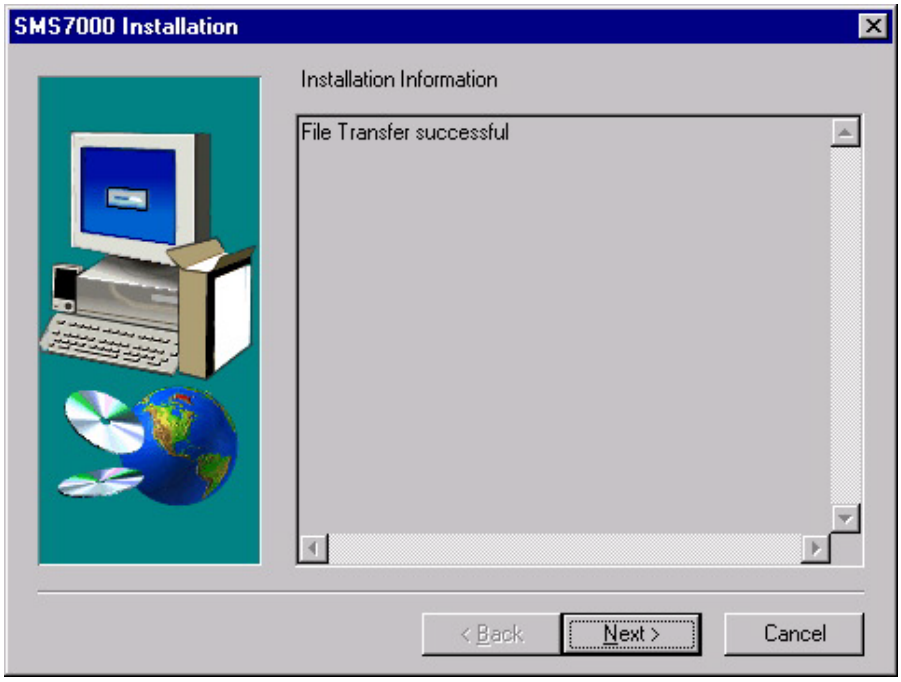


Figure 34. SMS 7000 Installation window

12. Select **ETHERNET CONNECTION** or **SERIAL PORT CONNECTION (SLIP)**. Click on **NEXT>.**

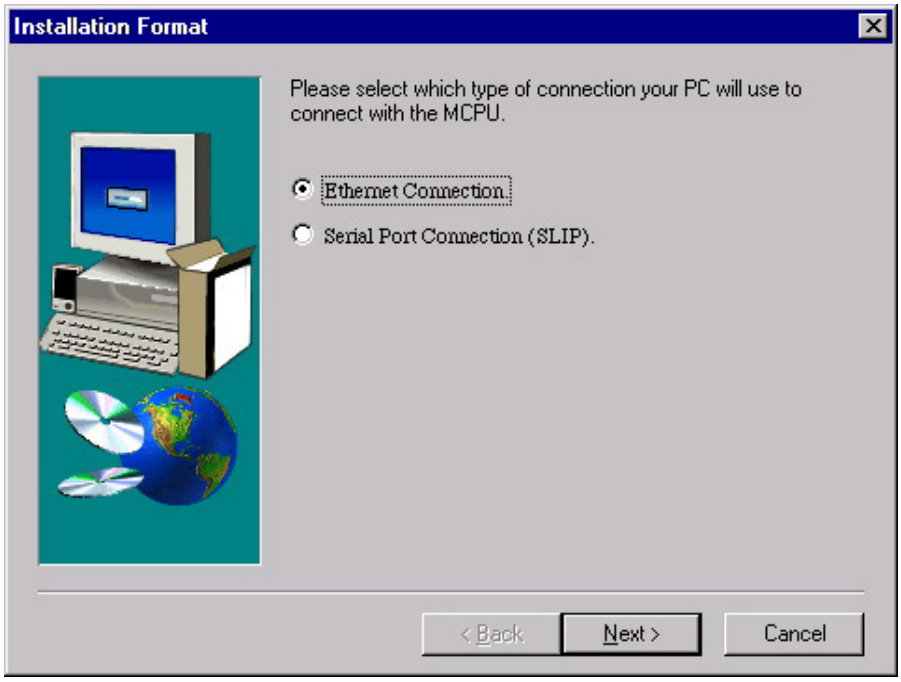


Figure 35. Installation Format Connection Window

13. Click on **OK** to return to the Main Menu.

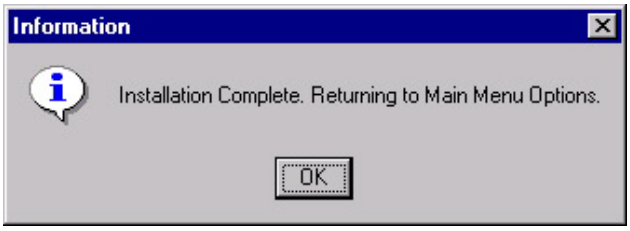


Figure 36. Information Window

Proceed to *Install and Configure FTP Daemon* *on page 58*.

To Create 7.0 software Diskettes from the CD ROM:

1. Insert the Series 7000 Software Version 7.0 CD ROM into the computer and it will autostart. If autostart fails then select run from the start menu and type **`d:\setup.bat`** (where **d** is the drive letter of the CD ROM).

2. Select **SOFTWARE**.

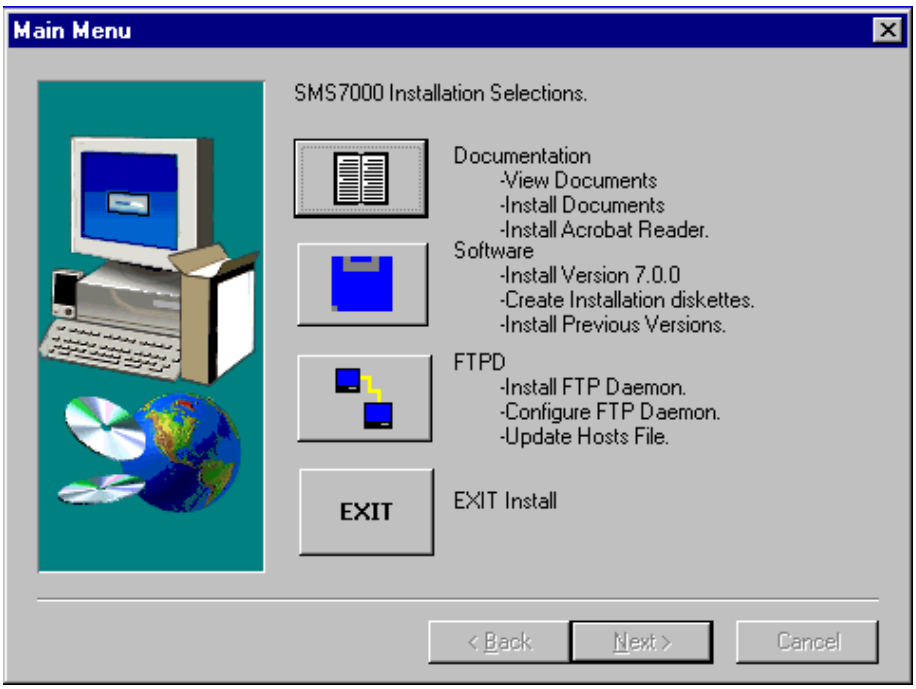


Figure 37. CD-ROM Main Menu

3. Select **CREATE 3 1/2INCH FLOPPY INSTALL DISKETTES**, Click on **NEXT>**.

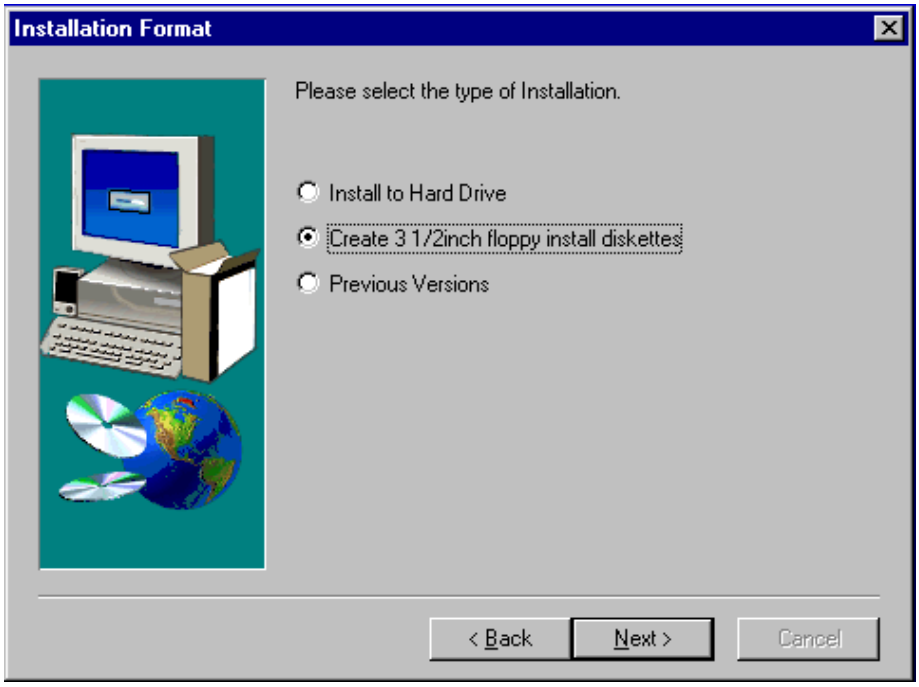


Figure 38. Select Installation Window

4. Read information. Click on **NEXT>.**

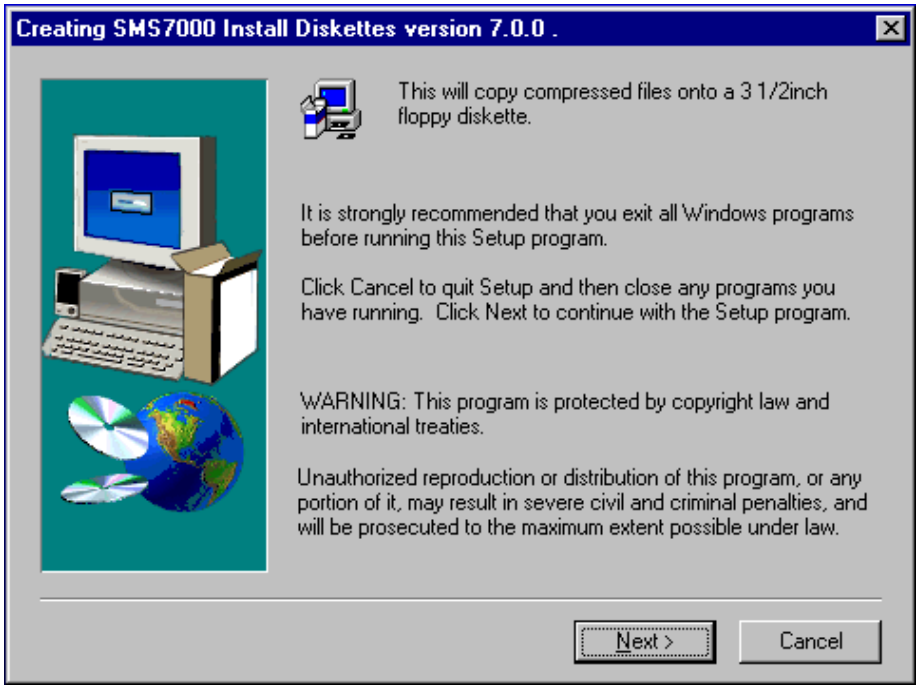


Figure 39. Information Window

5. Read license information. Click on **YES>.**

Figure 40. Software License Agreement Window

6. Read information. Click on **NEXT>.**

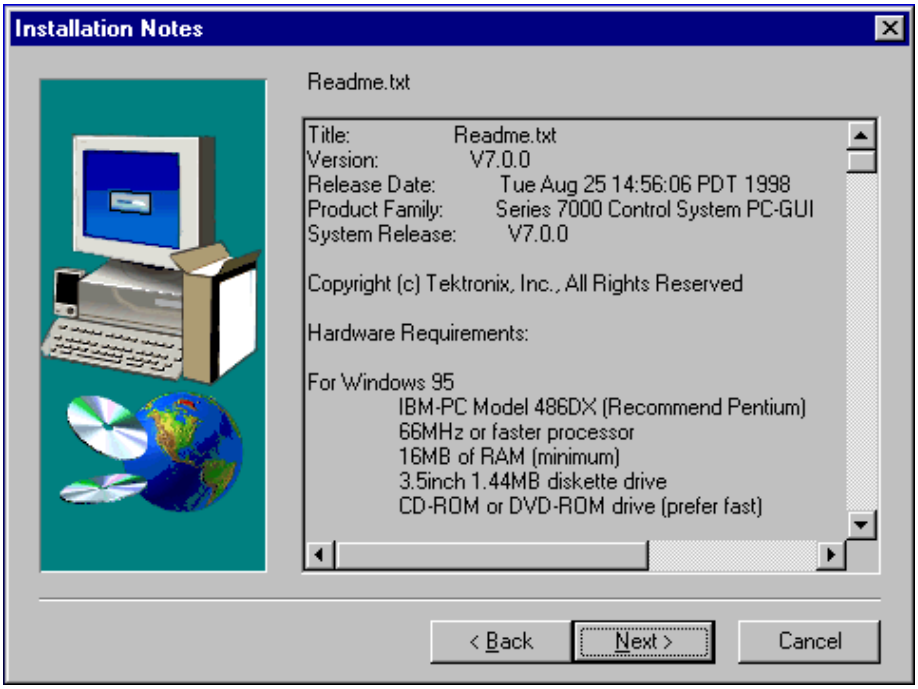


Figure 41. Readme.txt Window

7. Enter installer name and company. Click on **NEXT>**.

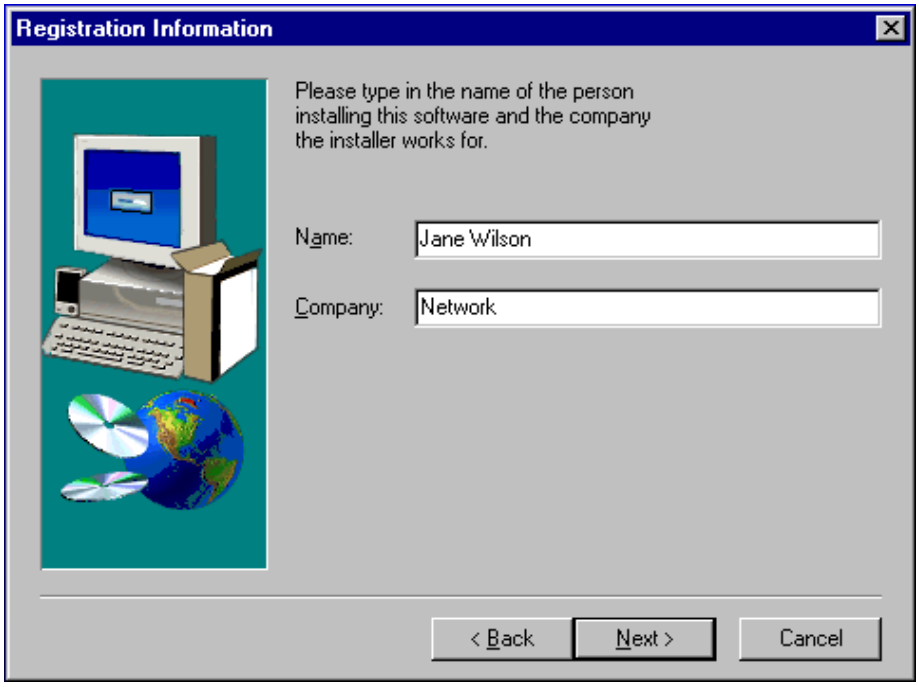


Figure 42. Registration Information Window

8. Read information. Click on **NEXT>.**

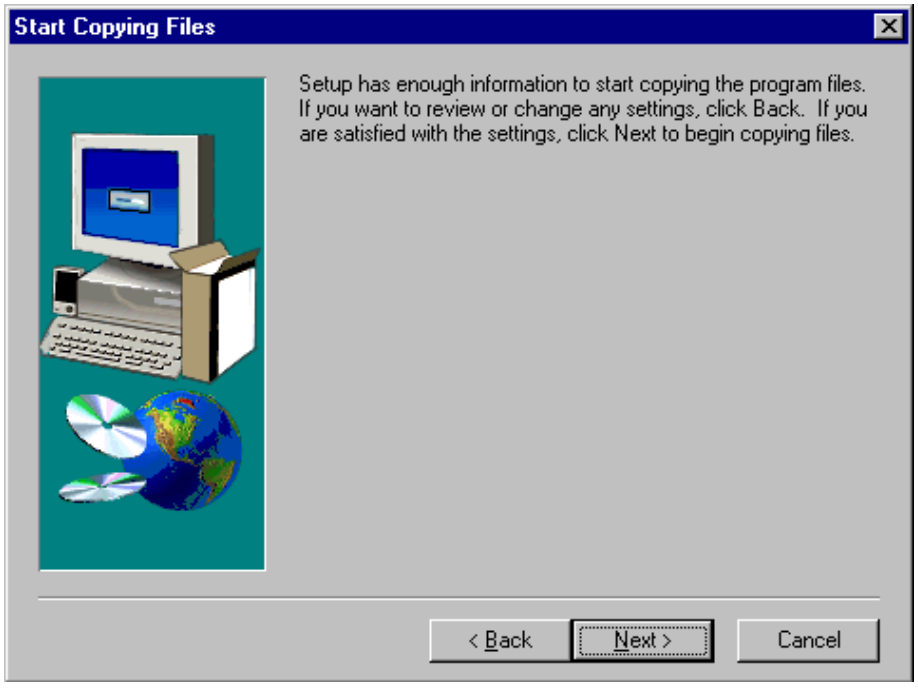


Figure 43. Copying Information Window

9. Insert blank diskette into A:\ drive.

The following dialog and status boxes will appear. Remove diskette and insert new blank diskette as directed.

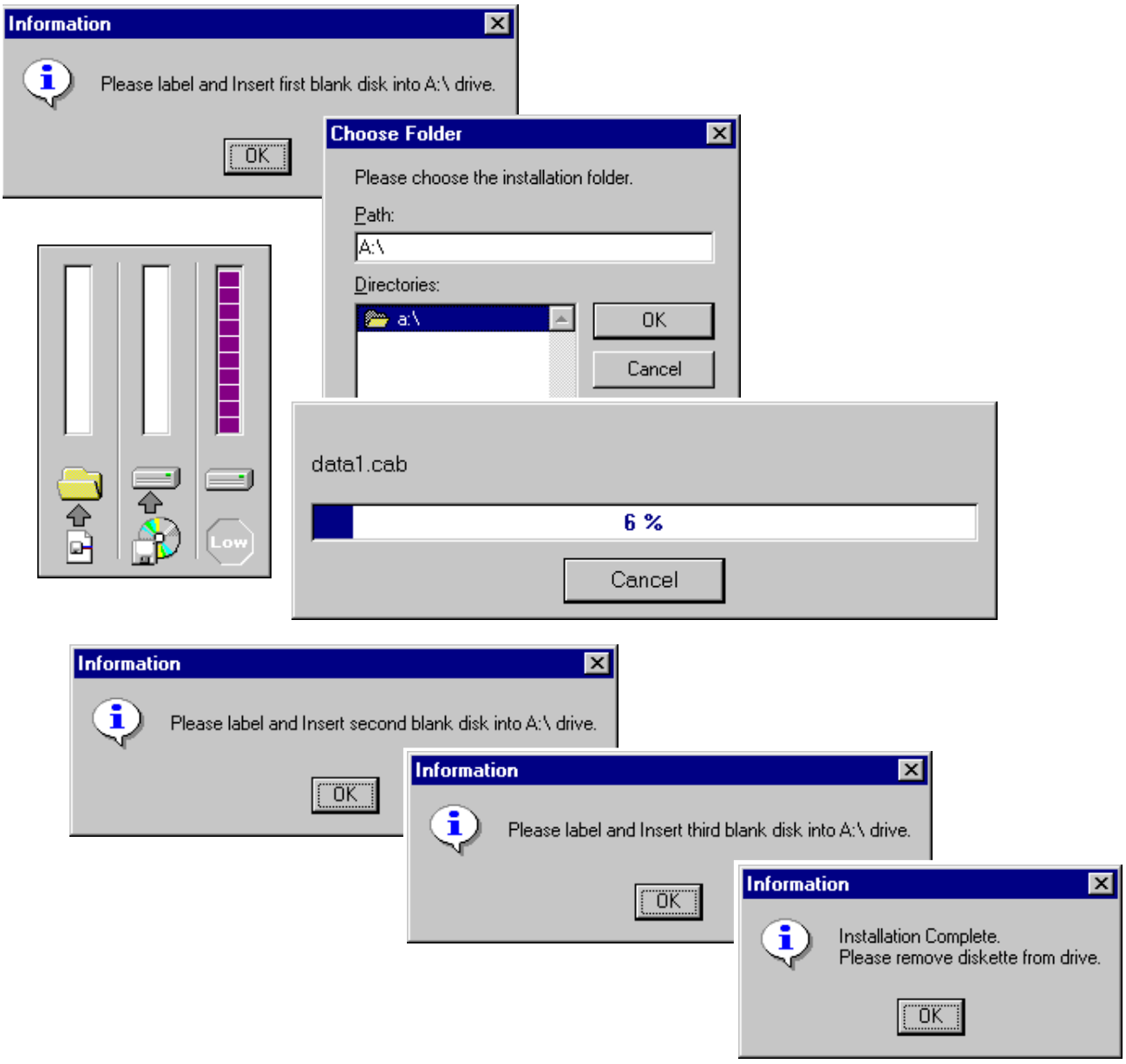


Figure 44. Installation Dialog Boxes

10. Click on **FINISH**.

Figure 45. Diskette Setup Complete Window

Proceed to *To Install 7.0 Software from Diskettes:* *on page 52*.

To Install 7.0 Software from Diskettes:

1. Insert the Series 7000 Software Version 7.0 Diskette 1 into the PC's floppy drive. Select **RUN** from the Windows start menu and type **`a:\setup`**.

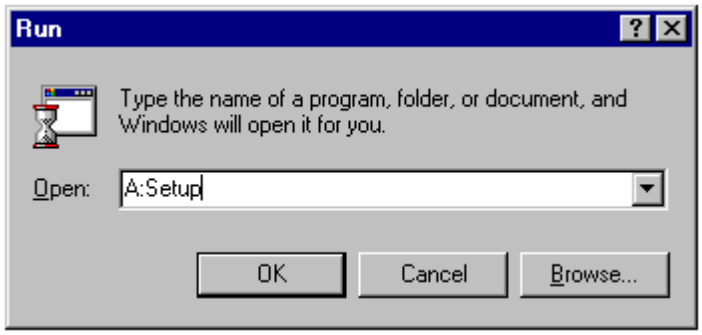


Figure 46. CD-ROM Main Menu

2. Select **SOFTWARE.**

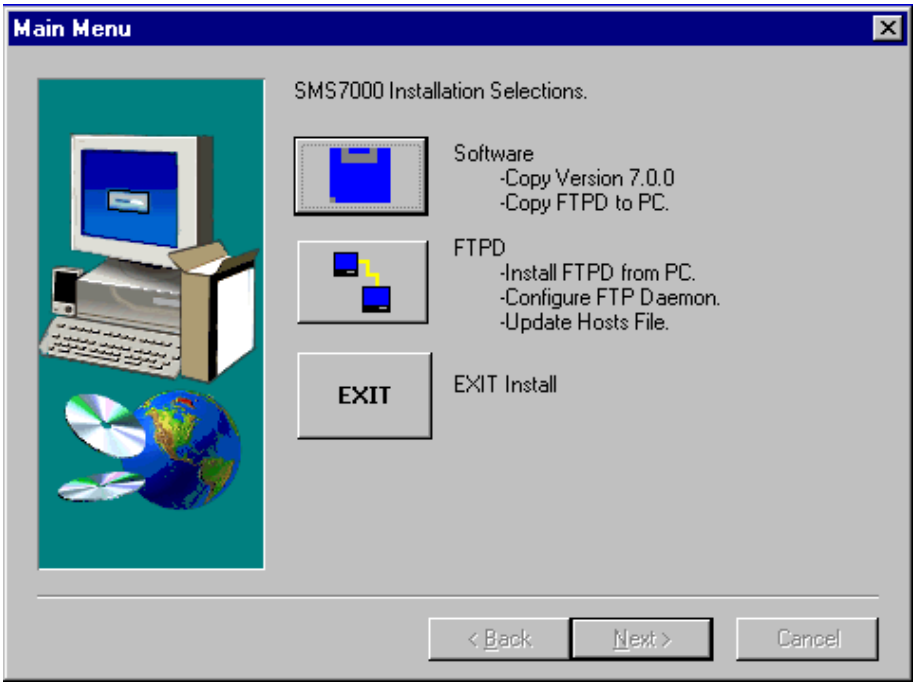


Figure 47. Diskette Main Menu

3. Read information. Click on **NEXT>.**

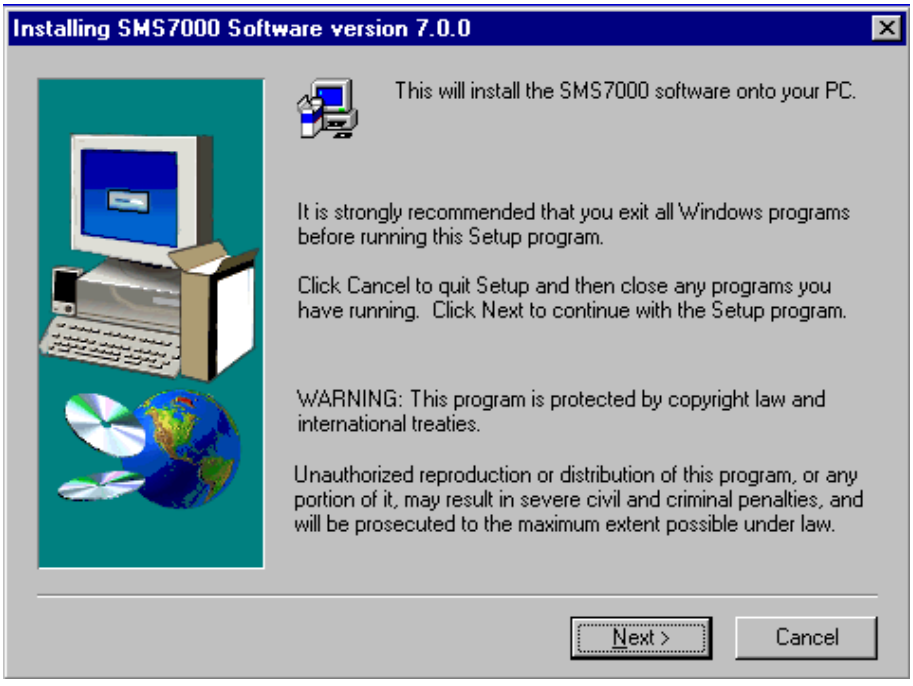


Figure 48. Information Window

4. Read Software License Agreement. Click on **YES.**

Figure 49. Software License Agreement Window

5. Read information. Click on **NEXT>.**

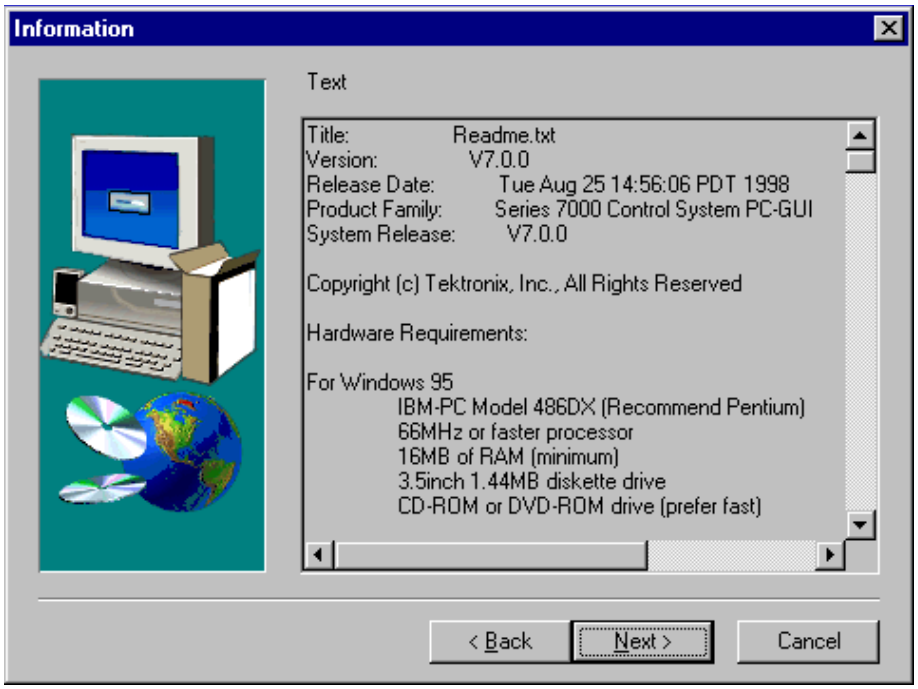


Figure 50. Information Window

6. Enter installer name and company. Click on **NEXT>**.

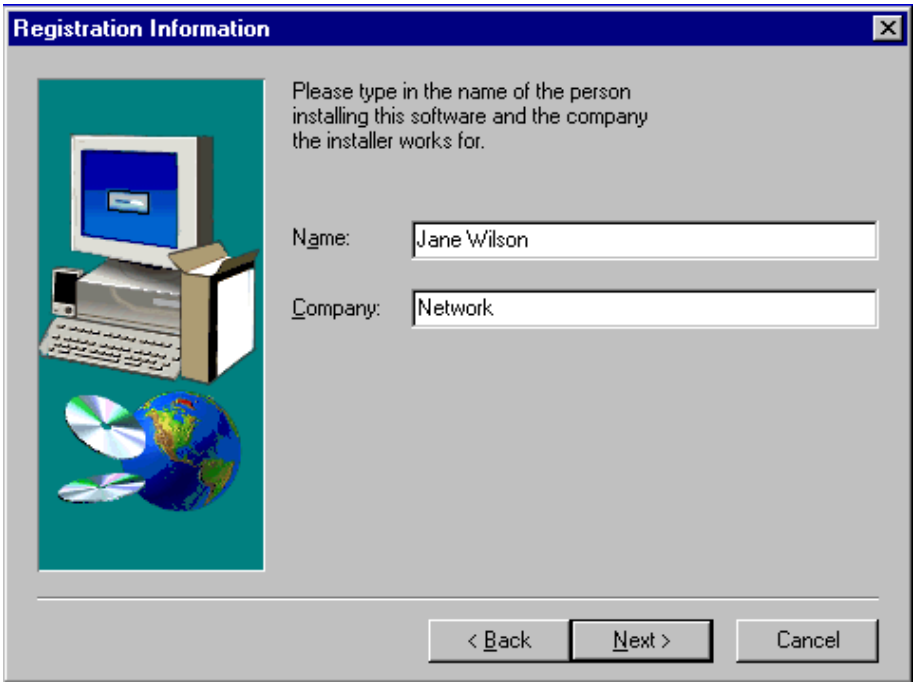


Figure 51. Registration Information Window

7. Select components to install. Click on **NEXT>.**

The recommendation is to install everything.

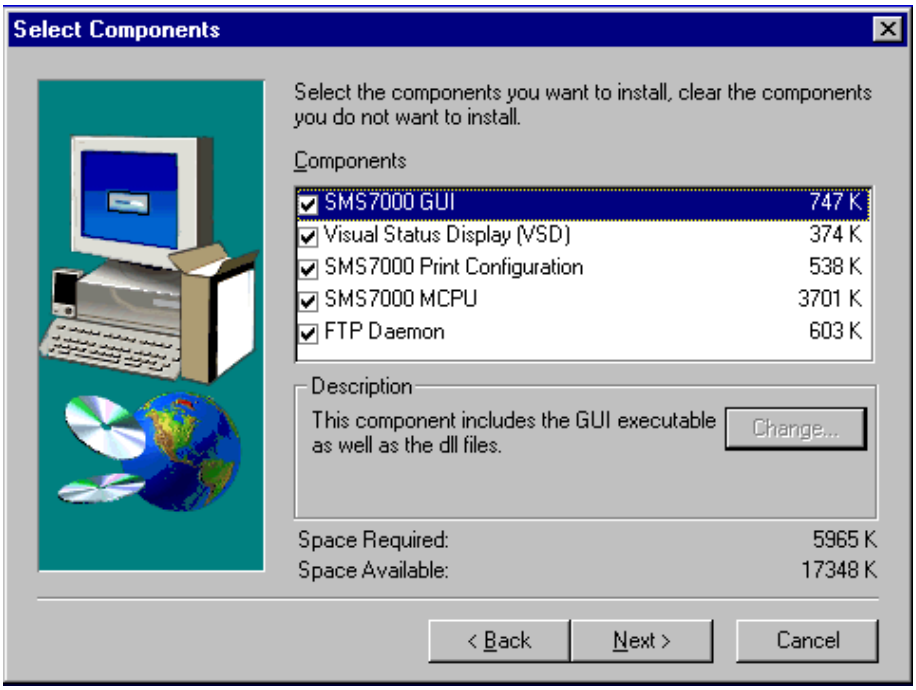


Figure 52. Installation Format Components Window

8. Read information. Click on **NEXT>.**

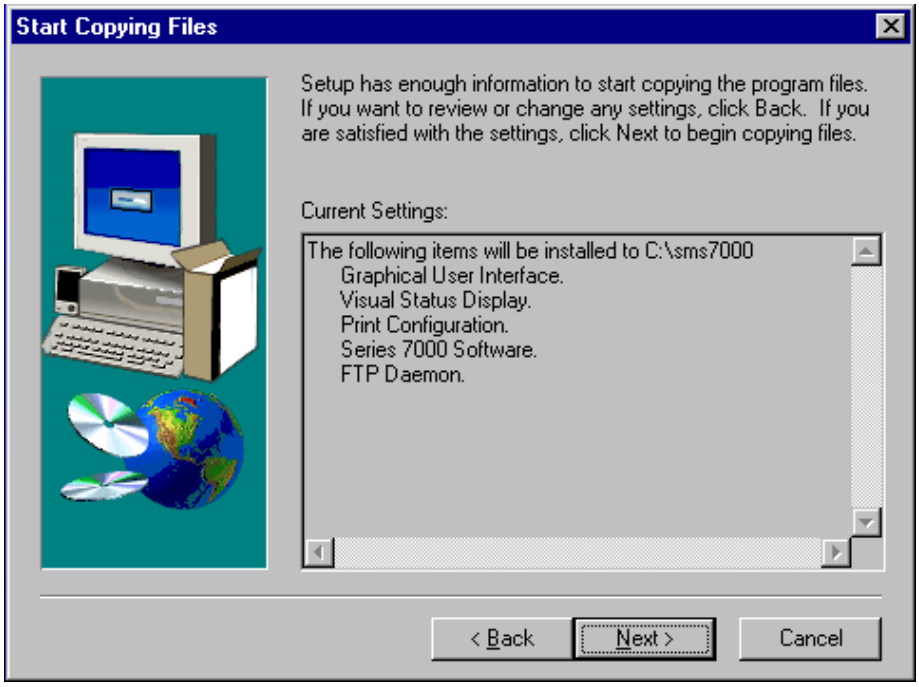


Figure 53. Copying Information Window

The following boxes will appear. Remove diskettes and insert diskettes as directed.

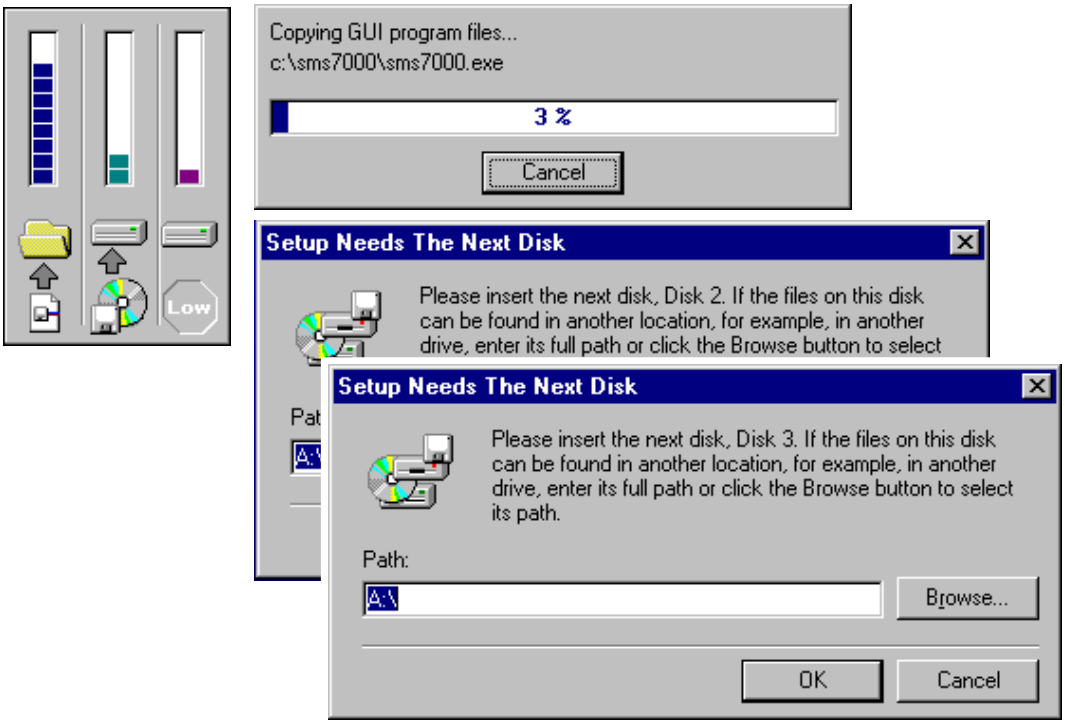


Figure 54. Installation Dialog Boxes

9. Select connection type. Click on **NEXT>.**

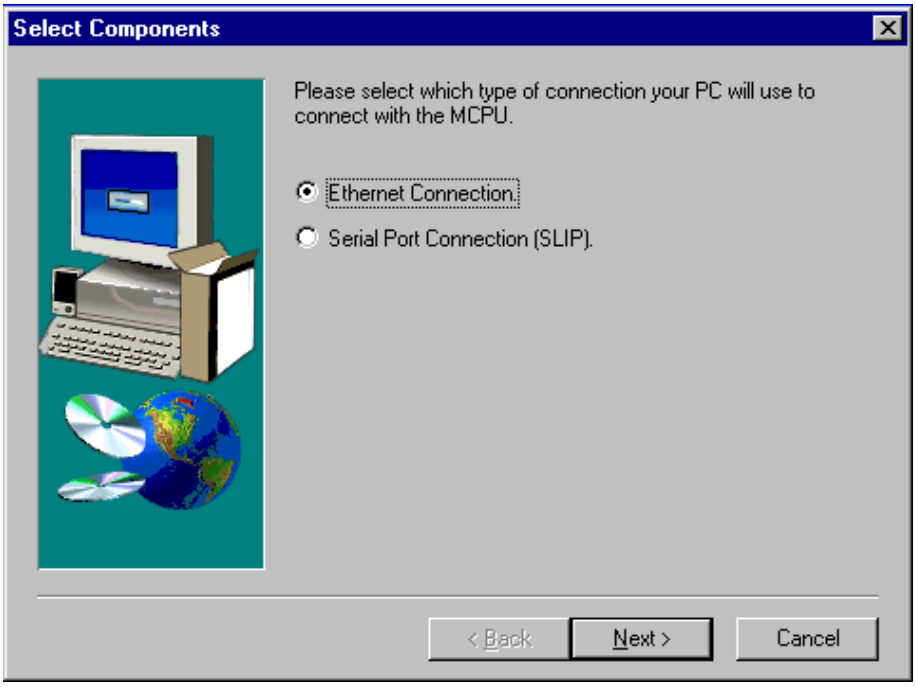


Figure 55. Select Components Window

10. Select **OK.**

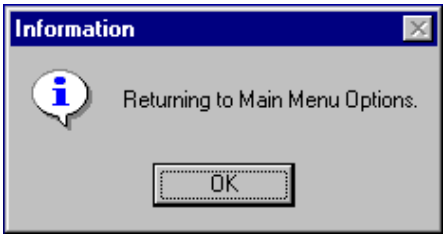


Figure 56. Information Window

Proceed to *Install and Configure FTP Daemon* on page 58

Install and Configure FTP Daemon

Installation and configuration of the FTP Daemon is required to establish a connection between the PC and the Series 7000 system. At the completion of the *Install Application Software* procedure the Series 7000 Setup window returned to the Main menu screen. It is now necessary to install and configure the FTP Daemon Utility. There is no difference between installing and configuring the FTP Daemon from the CD-ROM or from diskettes except the appearance of the Main menu.

The installation and configuration of the FTP Daemon requires the use of assigned defaults. Follow the procedure exactly.

CAUTION All procedures required for software installation must be completed in their entirety. Deviating from the assigned defaults or incomplete installation can cause system conflicts and failures.

To Install and Configure FTP Daemon on the PC:

1. Click on **FTPD**.

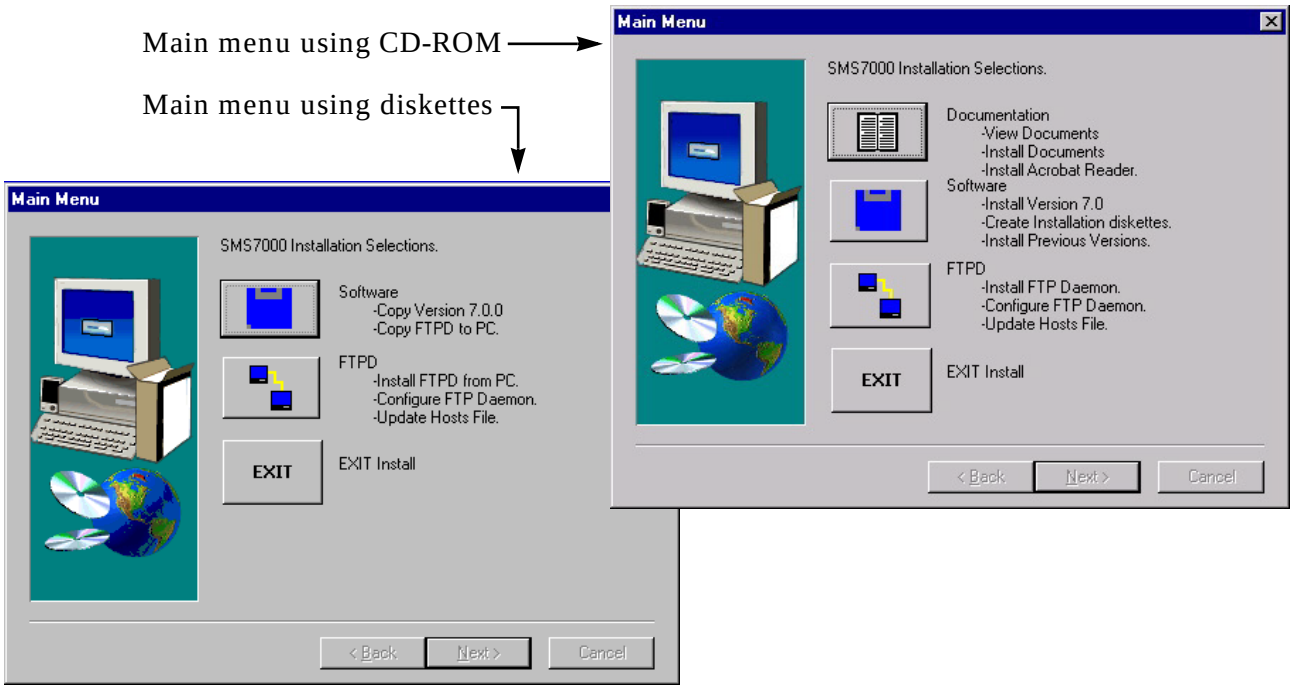


Figure 57. Main Menu

2. Select **INSTALL FTP DAEMON TO PC.** Click on **NEXT.**

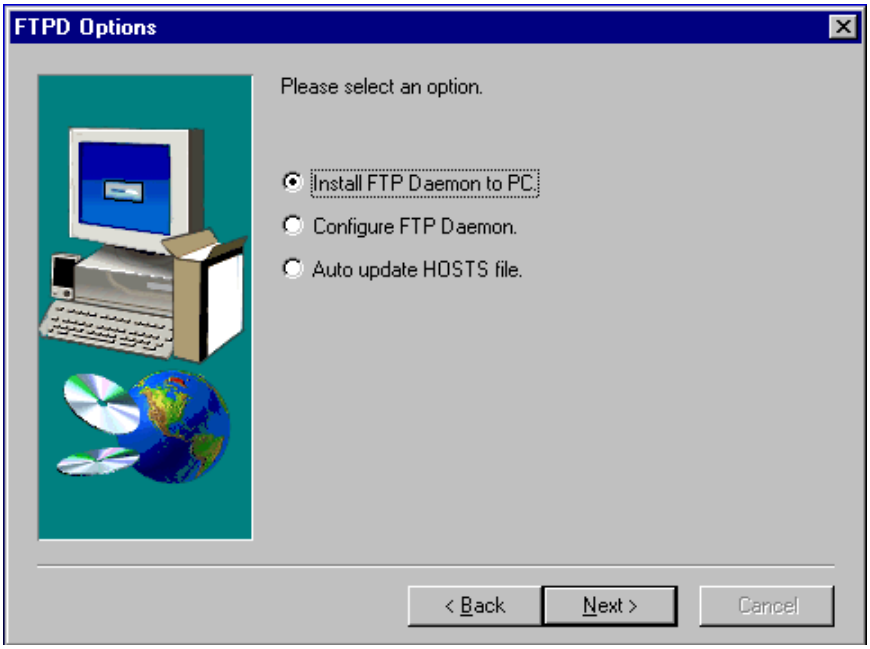


Figure 58. Install FTP Daemon

3. Read Installation Notes. Click on **NEXT>.**

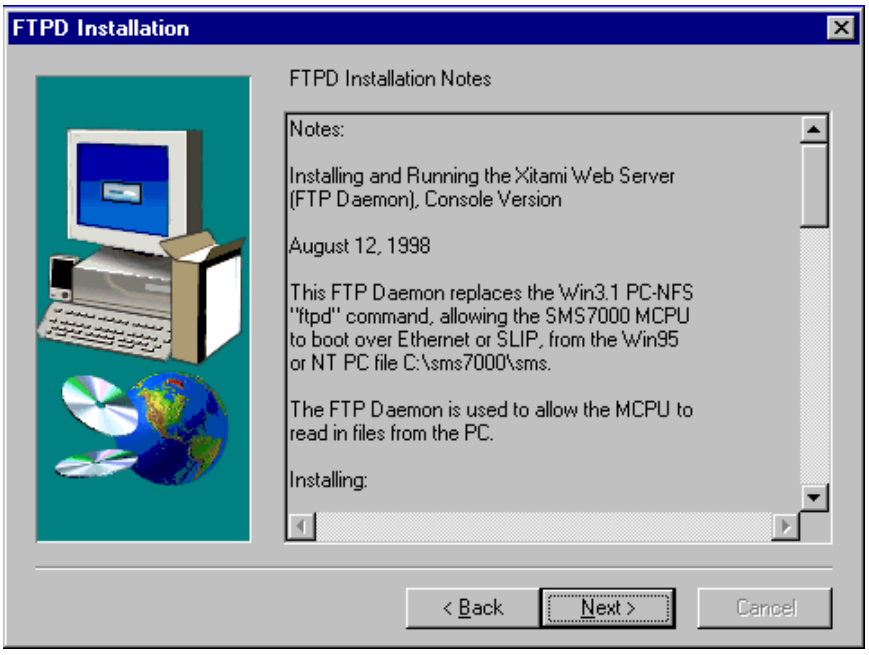


Figure 59. FTP Daemon Notes

4. Read Welcome Notes. Click on **NEXT>**.

Figure 60. FTP Daemon Welcome Notes

5. Read Xitami Installation Notes. Click on **NEXT>**.

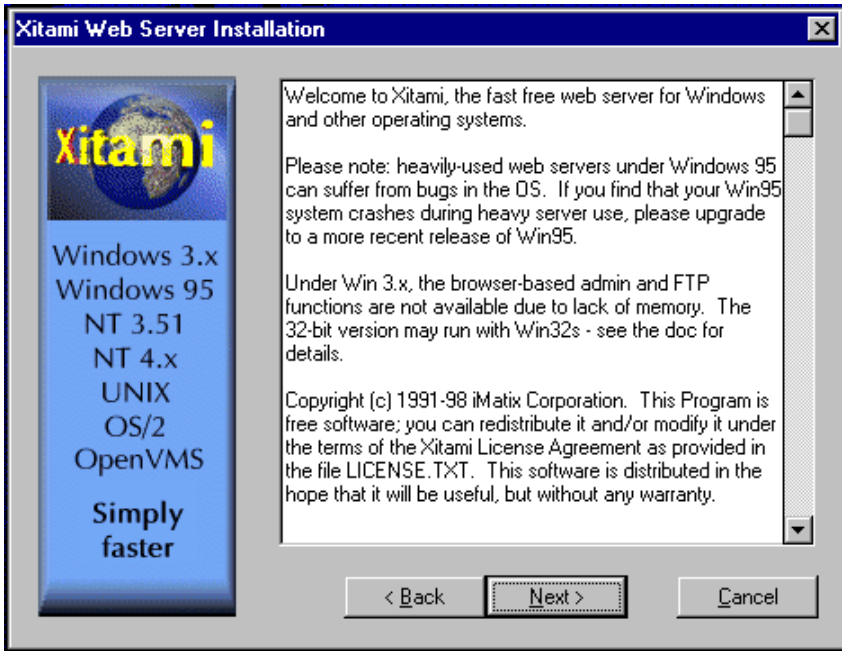


Figure 61. Xitami Notes

6. Click on **NEXT>**.

Do not change defaults.

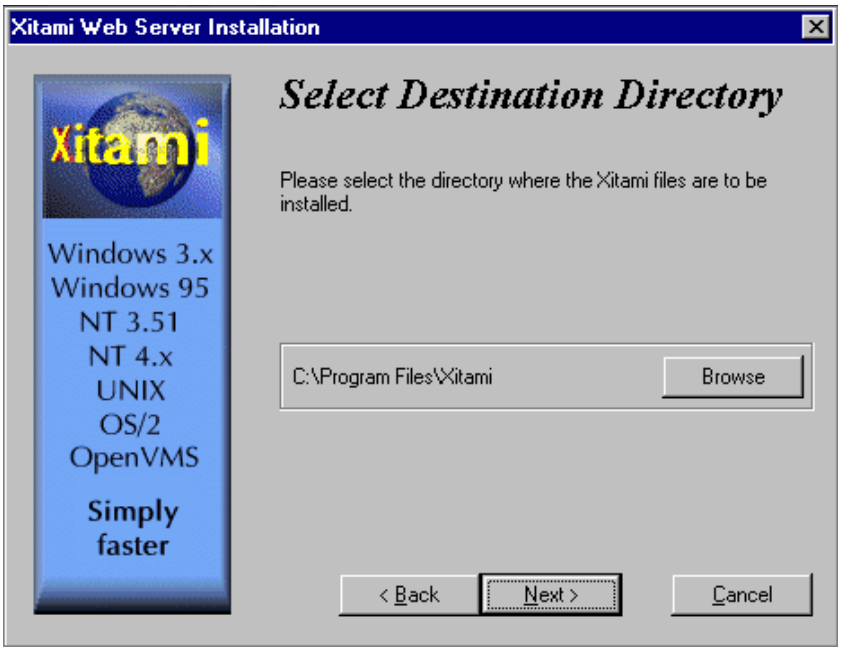


Figure 62. Destination Directory Selection Window

7. Click on **NEXT>**.

Do not change defaults.

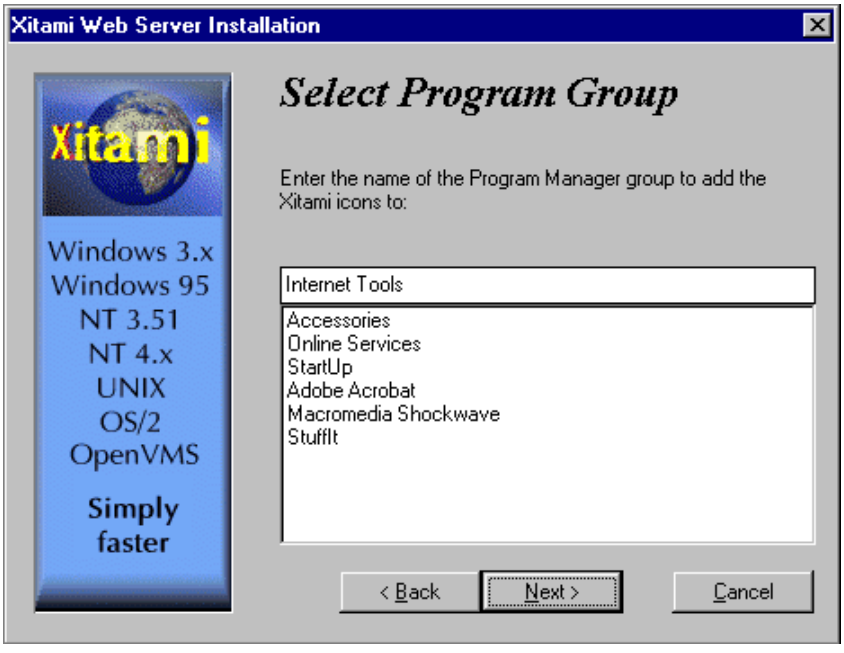


Figure 63. Program Group Selection Window

8. Select **NO**. Click on **NEXT>**.

Xitami can be started whenever it is needed.

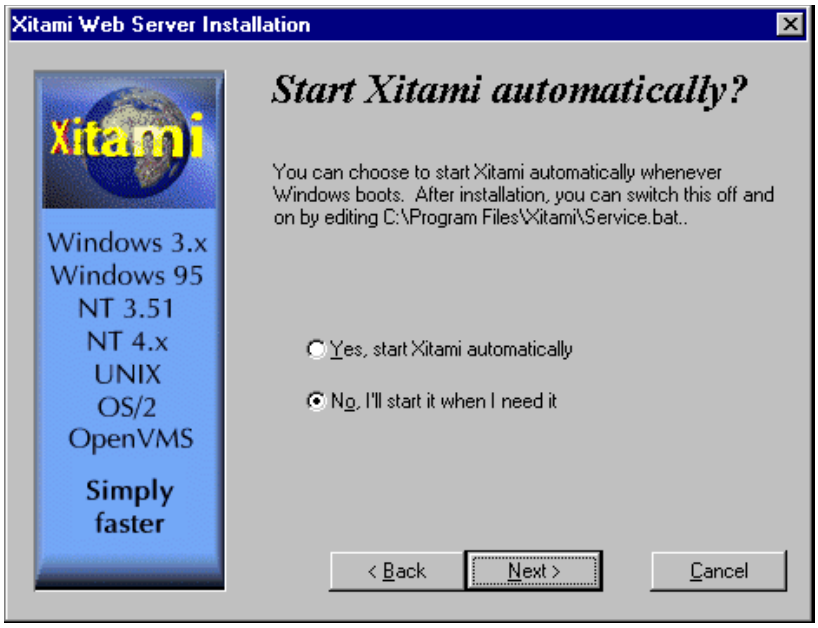


Figure 64. Xitami Automatic Start Selection Window

9. Click on **NEXT>**.

Do not enter anything in these fields.

Figure 65. User Name and Password Selection Window

10. Select **TINY - NEVER BLOCK ANTHER TASK**. Click on **NEXT>**.

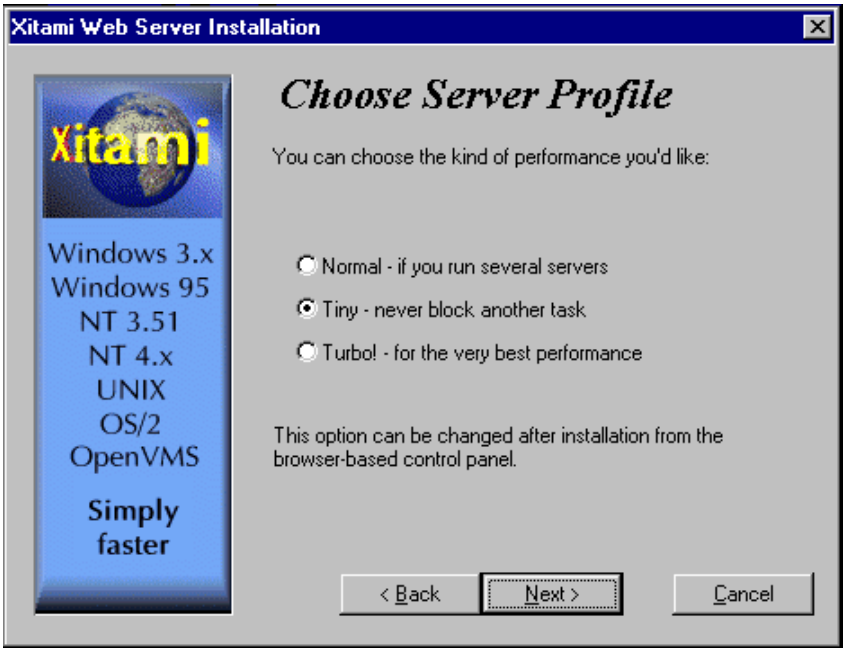


Figure 66. Server Profile Selection Window

11. Click on **NEXT>**.

An Installation Meter box will appear, and an Icon will be created in the Program Group window that was selected earlier.

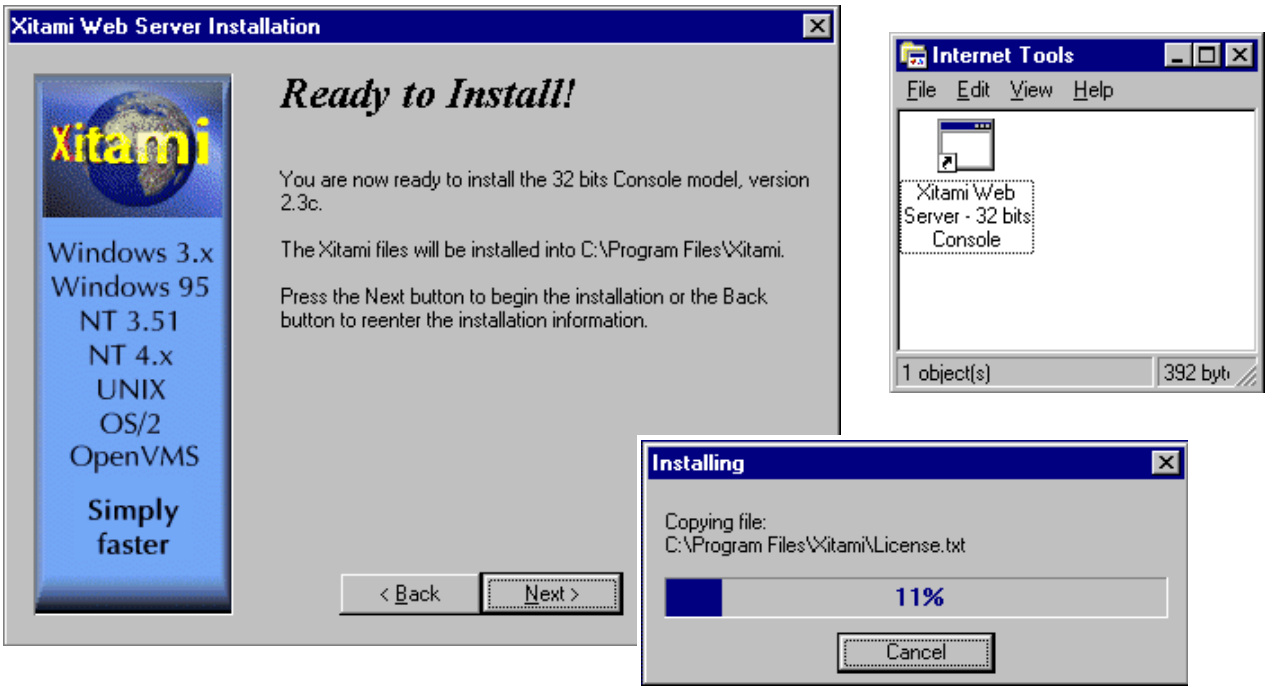


Figure 67. Install Windows

12. Click on **FINISH**.

The FTP Daemon must be configured before it can be used, return to the Main Menu.

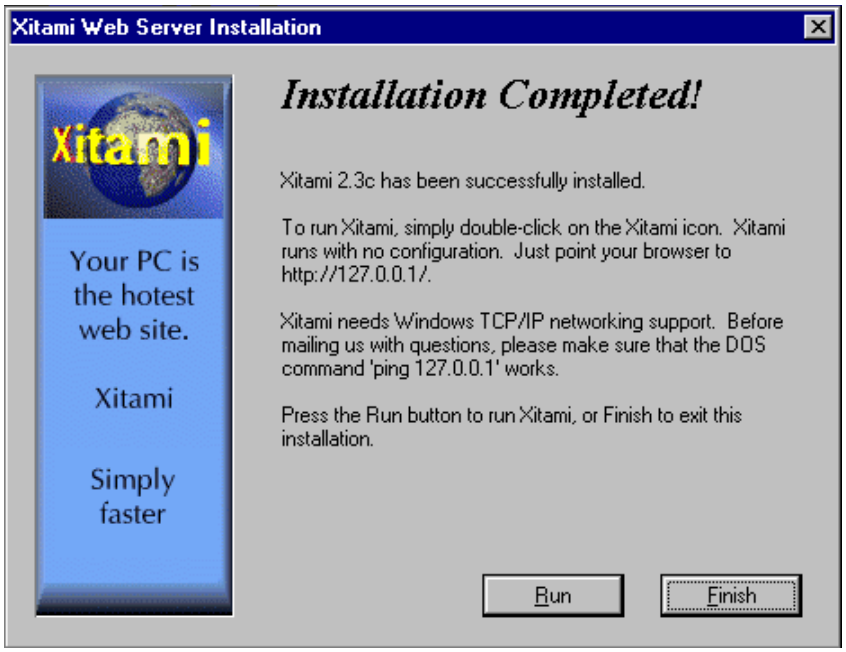


Figure 68. Installation Completed Window

13. Click on **FTPD**.

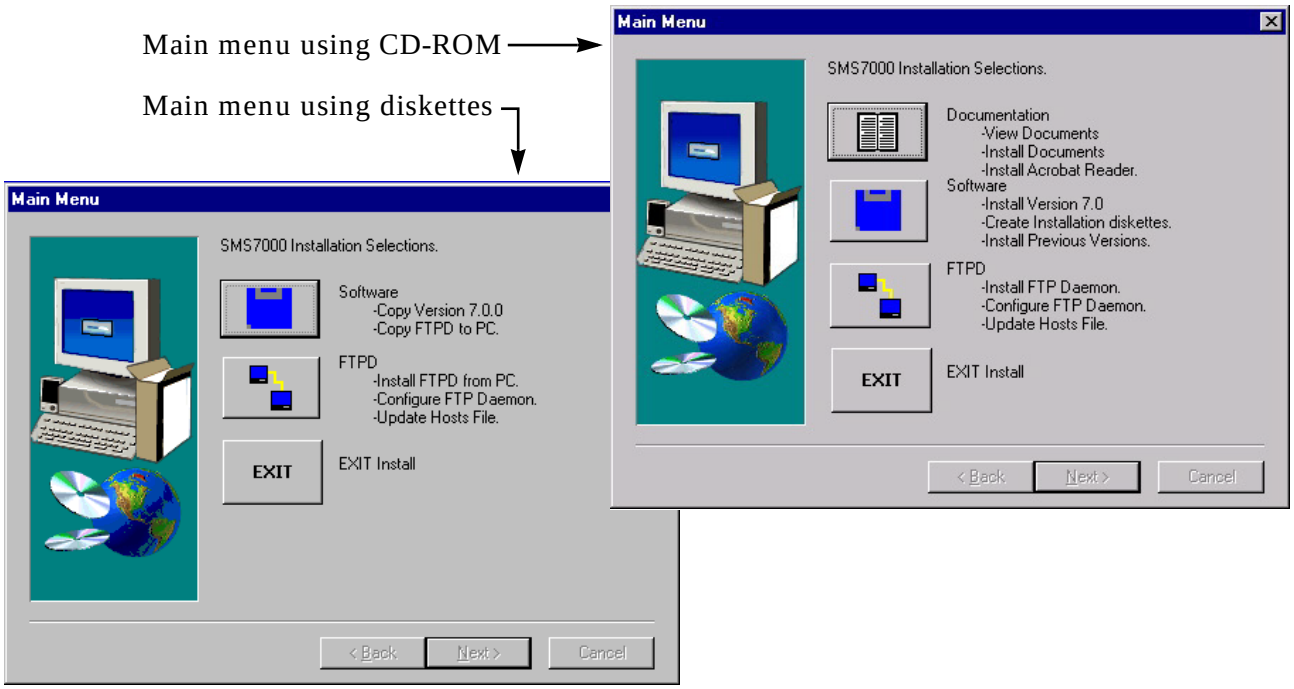


Figure 69. Main Menu

14. Select **CONFIGURE FTP DAEMON**. Click on **NEXT>**.

The Question dialog box appears, this is to ensure that the FTP Daemon installation was done prior to the configuration.

The CD-ROM contains two configuration files (defaults.cfg and ftpusers.sms) located in the /ftpd/config directory. These files must be installed from the CD-ROM to the Xitami program folder before running FTP Daemon. **CONFIGURE FTP DAEMON** performs this task.

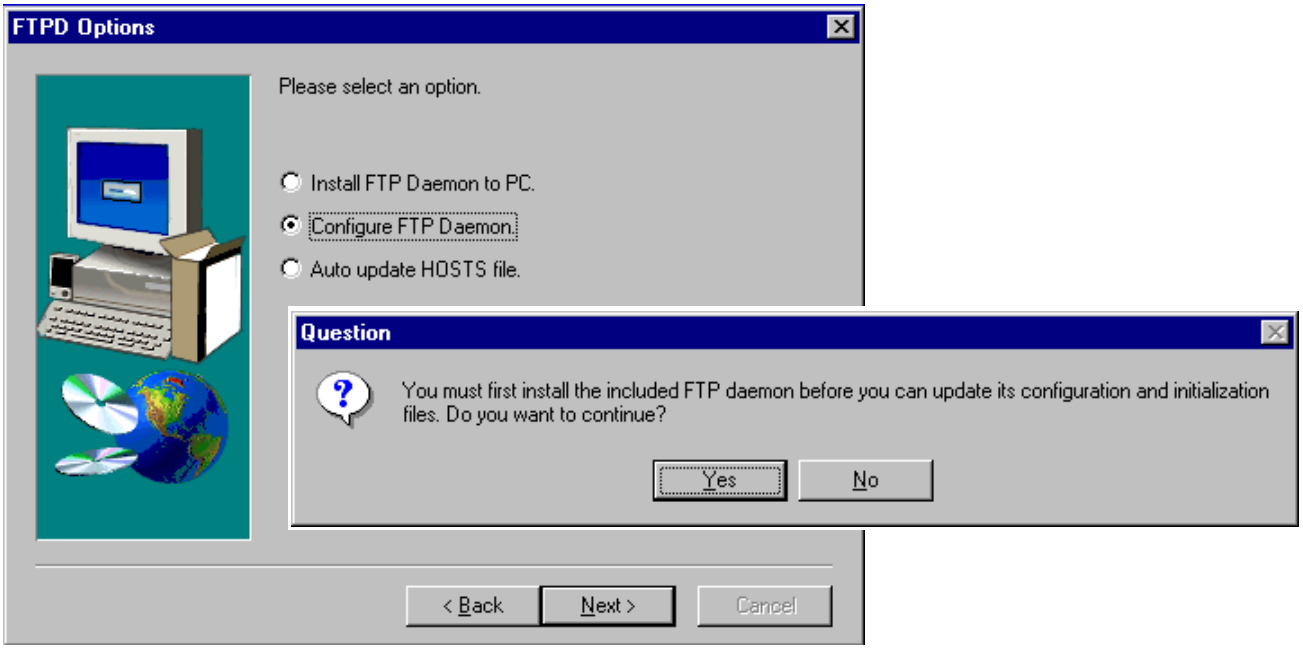


Figure 70. Configure FTP Daemon and Warning Windows

15. Select Browse.

Note Step 15 to Step 19 are required to eliminate a problem discovered in some installations. This will ensure that the correct path is recognized.

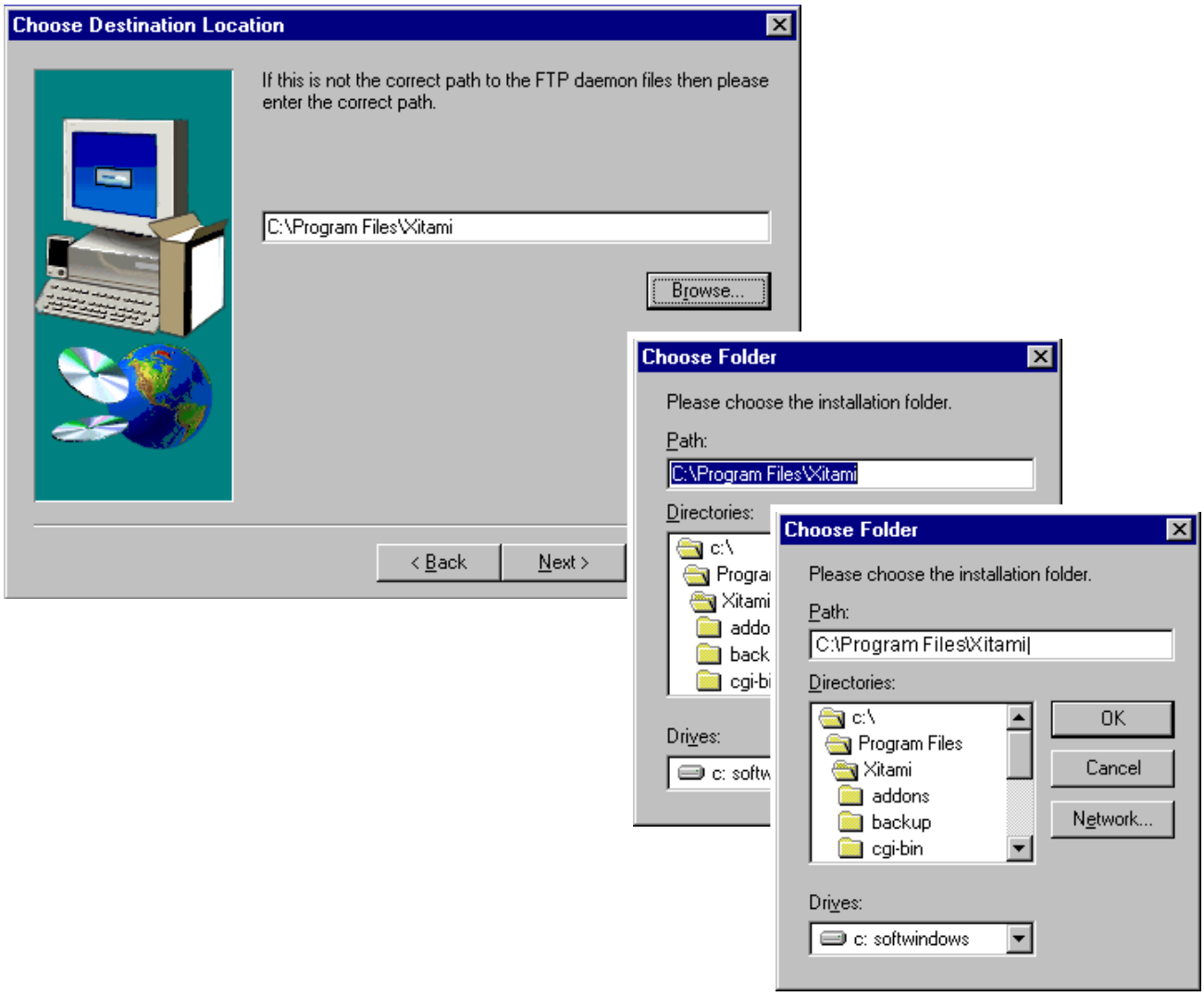


Figure 71. Select FTP Daemon Files Directory Window

16. Verify the path is correct (C:\Program Files\Xitami).

17. Click inside the Path text window (the cursor is blinking in the Path text window).

18. Click **OK**.

Returns to Select FTP Daemon Files Directory window.

19. Click on **NEXT>**.

20. Click on **NEXT>**.

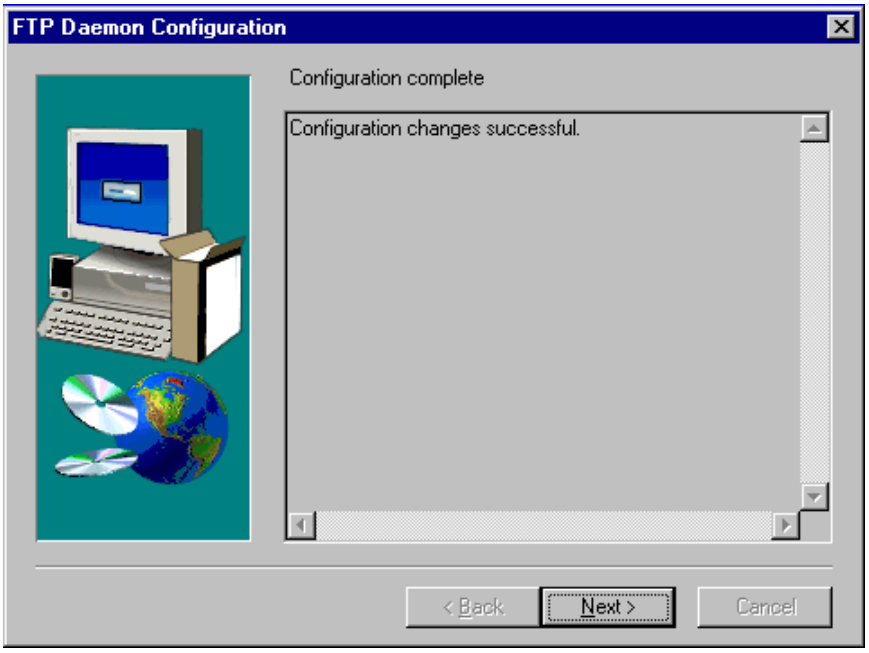


Figure 72. Installation Completed Window

21. Click on **FTPD**.

The HOSTS file must be updated before the FTP Daemon can be used, return to the Main Menu.

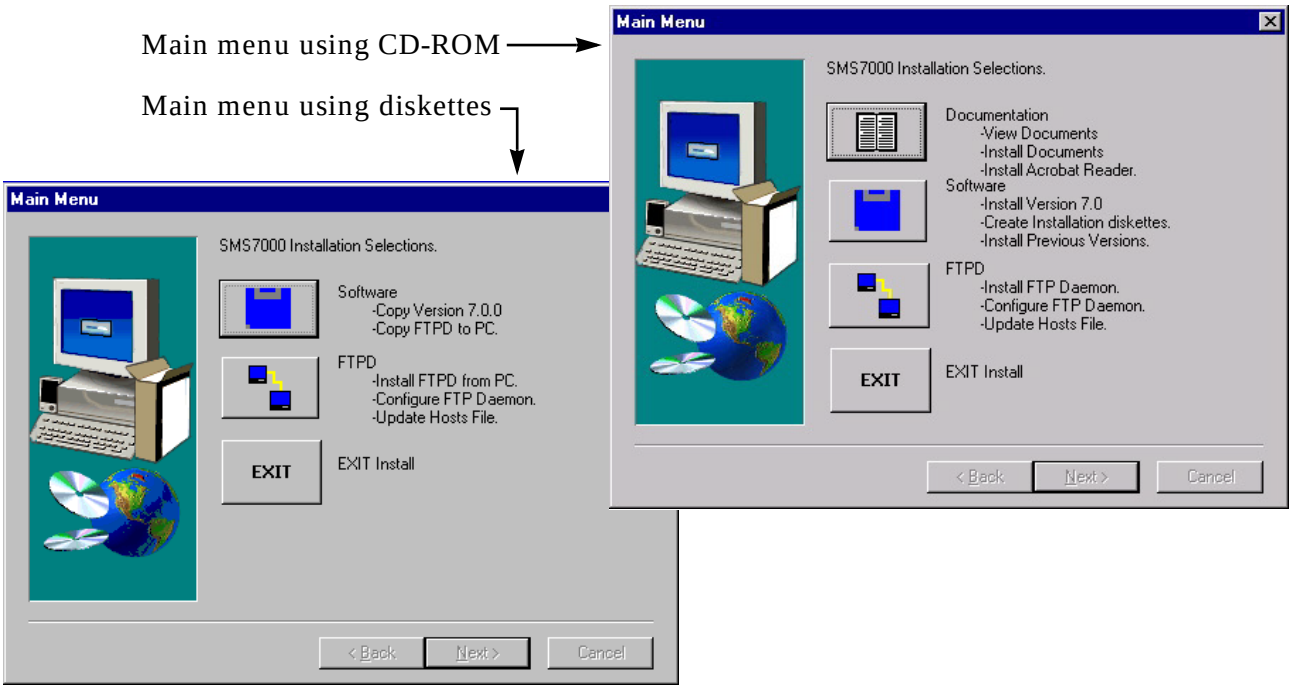


Figure 73. Main Menu

22. Select **AUTO UPDATE HOSTS FILE**. Click on **NEXT>**.

Note The HOSTS file is used as a lookup table by Windows for associating a Host name to a Host IP address. The HOSTS file is located in the Windows directory on Windows95 or in /Winnt/System 32/drivers/etc directory for WindowsNT.

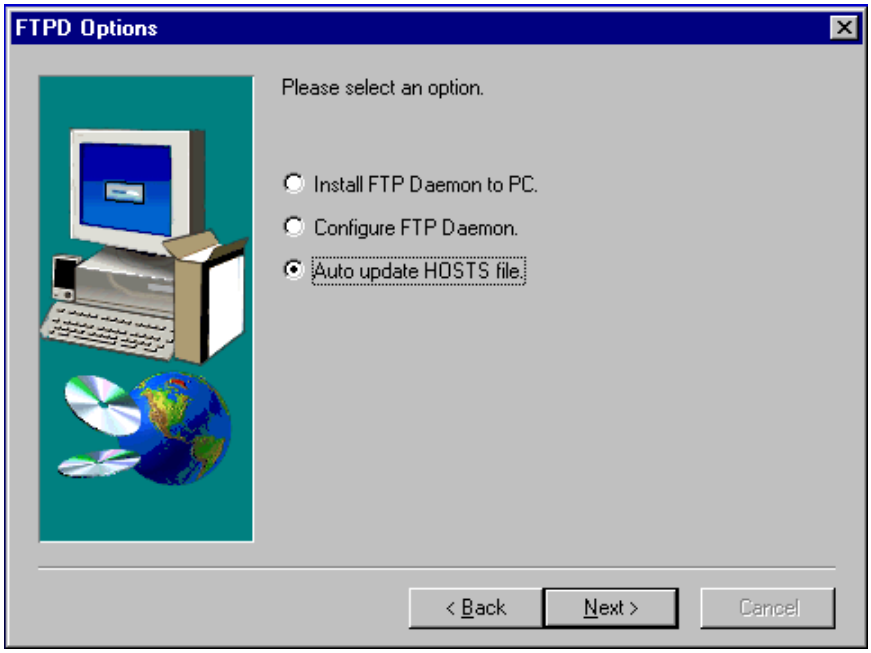


Figure 74. Auto Update HOSTS File Windows

23. Select **LET SETUP MODIFY THE HOSTS FILE.** Click on **NEXT>**.

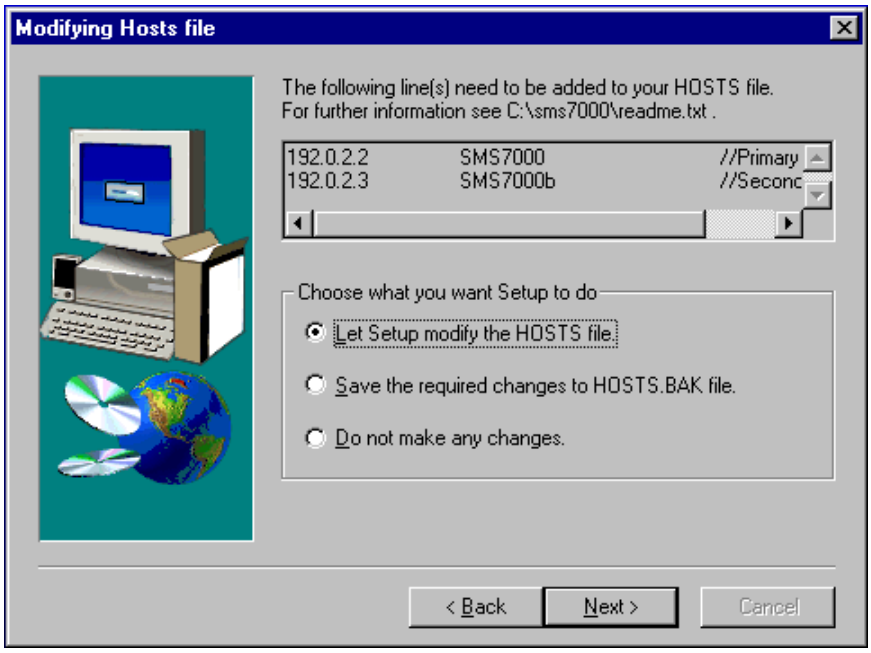


Figure 75. HOSTS Setup Windows

CAUTION These are the default host names and IP addresses. If there are additional host names and IP addresses the HOSTS file can be modified manually. When the HOSTS file is modified manually, the text editor (Notepad, for example) will usually add the txt extension to the file name. If the file has an extension it must be renamed to HOSTS.

24. Click on **OK**.

After the HOSTS file is modified the screen will return to the Main menu.

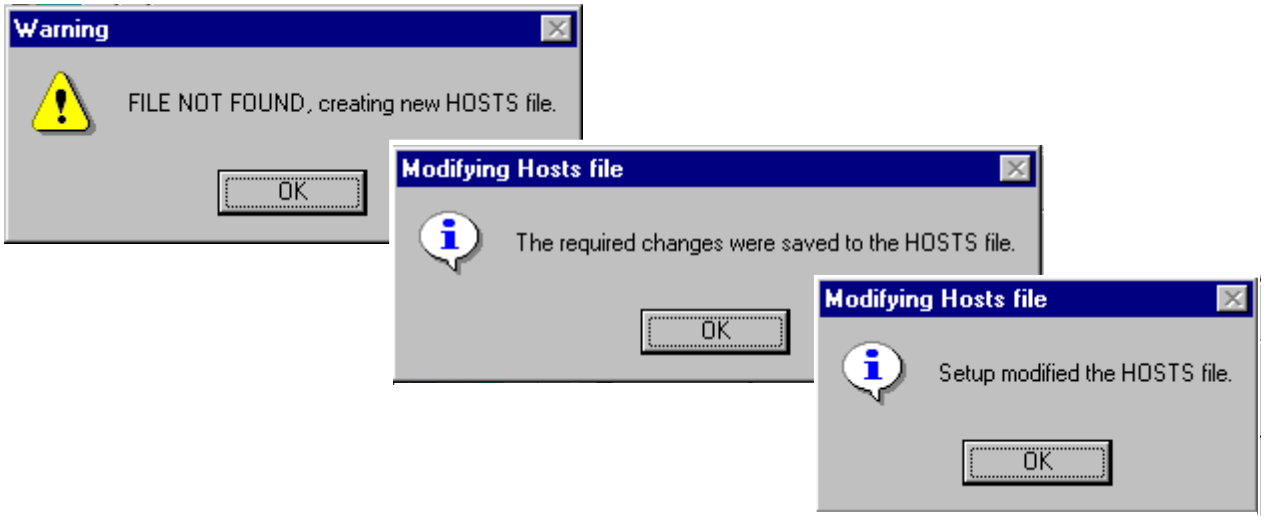


Figure 76. HOSTS Warning and Information Boxes

25. Click on **EXIT** to complete the software installation process.

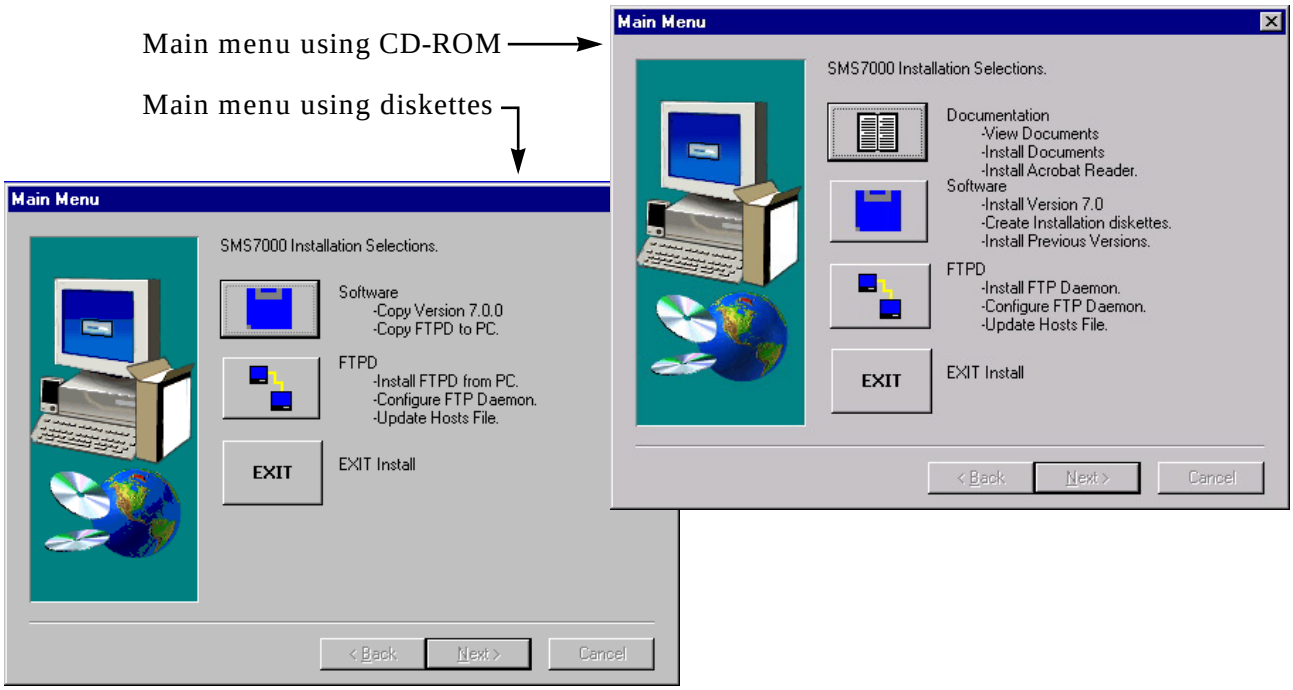


Figure 77. Main Menu

26. Select **YES, I WANT TO RESTART MY COMPUTER NOW**. Click on **FINISH.**

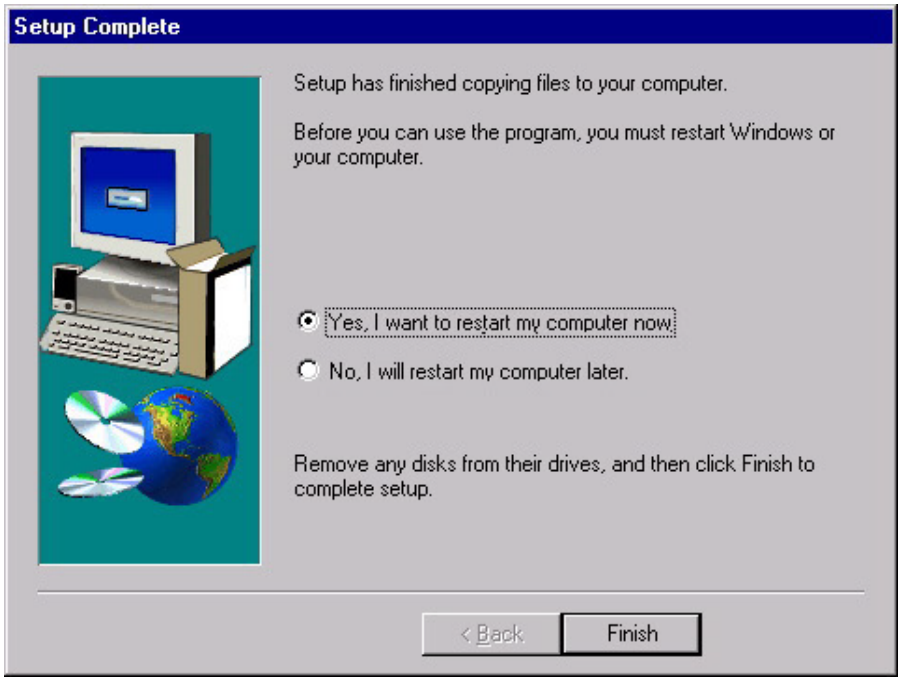


Figure 78. Setup Complete Window

The PC must be rebooted before the Series 7000 version 7.0 software, the Configuration Editor (GUI), the VSD, the Printconfig, and the FTP Daemon can be used.

Create the Connection Between the PC and Router

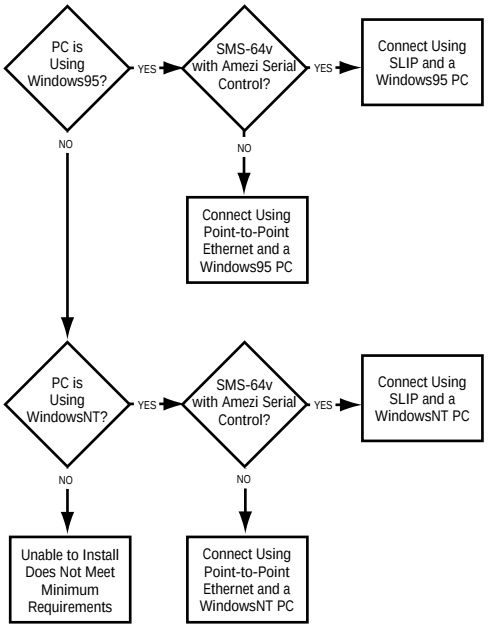
During the *Prepare for Upgrade* procedure the Series 7000 system and the target PC was identified. Also, any IP address conflicts should have been resolved. Using Table 9 select the sub-procedure needed to create the connection between the PC and router.

In an effort to simplify the procedure, defaults have been assigned and it is strongly recommended not to deviate 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 and dumb terminals.

CAUTION Deviating from the assigned defaults or trying to use a PC 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.

Table 9. Create Connection Flowchart and Sub-Procedures

Flowchart	Sub-Procedures			
	Windows95		WindowsNT	
	*Connect Using Slip and a Windows95 PC* *on page 72* (SMS-64V with Amezi Serial Control only)	*Connect Using Point-to-Point Ethernet and a Windows95 PC* *on page 79*	*Connect Using Slip and a WindowsNT PC* *on page 80* (SMS-64v with Amezi Serial Control only)	*Connect Using Point-to-Point Ethernet and a WindowsNT PC* *on page 84*

Connect Using Slip and a Windows95 PC

SLIP connections are only used by SMS-64Vwith Amezi serial control Compact Frames. All other frames use Ethernet connections. Some steps in the following procedures require the Windows install disks or CD and a dial-up networking connection must be running to use SLIP.

Install the Null Modem:

1. Insert Windows95 operating system install disk or CD.
2. Open the Control Panel window.

   From the Windows desktop, click **START**, select **SETTINGS...**, then **CONTROL PANEL**.
3. Double click on the **MODEMS** icon.

   (If given a choice between installing a PCMCIA modem card and **OTHER**, choose **OTHER**.)
4. Click on **ADD...**

   This will not appear if the modem list is empty.

5. Check the box that says **DON'T DETECT MY MODEM I'LL SELECT IT FROM A LIST**, then click **NEXT**.

6. Click on the **HAVE DISK...** button located in the lower right of the dialog box.

7. Enter **C:\sms7000** in the **COPY MANUFACTURER'S FILES FROM** text box, and click **OK**.

8. Highlight **VIRGINIA TECH** in the Manufacturers list and **DIRECT CONNECTION** in the Models list. Click on the **NEXT>** button.

9. Select the communications port used by the modem in the **SELECTED PORTS** list. Click **NEXT>.**

   If the computer asks for location information enter anything as the system won't use it.

10. Click the **FINISHED** button.

    A modem called **DIRECT CONNECTION** (Windows95) will now appear in the modems box.

11. Close the dialog box.

Install Dial-up Networking:

12. Open the Control Panel window.

    From the Windows desktop, click **START**, select **SETTINGS...**, then **CONTROL PANEL**.

13. Double-click the **ADD/REMOVE PROGRAMS** icon.

14. Select the **WINDOWS SETUP** tab.

15. Click on the **COMMUNICATIONS** option and click **DETAILS....**

    If Dial-up Networking is not installed:

    - Select the Dial-up Networking option and Click **OK**. Windows95 will install the needed drivers from the install disks or CD.

Install Dial-up Adaptor and TCP/IP:

16. Open the Control Panel window.

    From the Windows desktop, click **START**, select **SETTINGS...**, then **CONTROL PANEL**.

17. Double-click the **NETWORK** icon.

18. Select the Configuration tab.

If Dial-up Adaptor and TCP/IP are not Present:

a. Click the **ADD**... button.

b. Double-click **ADAPTER**.

c. Select **MICROSOFT**.

d. Highlight the **DIAL-UP ADAPTER** and click **OK**.

If TCP/IP is not Present:

a. Double-click **PROTOCOL**.

b. Select **MICROSOFT**.

c. Highlight **TCP/IP**, and click **OK**.

19. Double-click **DIAL-UP ADAPTER**.

20. Click **PROPERTIES...**, then **BINDINGS**, and check the **TCP/IP** box, and click **OK**.

21. Click **OK** on the Network dialog box.

    The PC may prompt a reboot if the settings have changed. If the PC is rebooted remove the WindowsNT operating install disk or CD before rebooting. After the PC completes the reboot, insert the WindowsNT operating install disk or CD.

Install SLIP Drivers:

22. Open the Control Panel window.

    From the Windows desktop, click **START**, select **SETTINGS...**, then **CONTROL PANEL**.

23. Double-click the **ADD/REMOVE PROGRAMS** icon.

24. Select the **INSTALL/UNINSTALL** tab, verify that the **SLIP AND SCRIPTING FOR DIAL-UP NETWORKING** is included in the list.

    If it is, then the drivers are installed proceed to *Configure TCP/IP Protocol:* *on page 76*. The Windows95 operating system install disk or CD should still be inserted in the PC.

25. Open the Control Panel window.

26. Double-click the **ADD/REMOVE PROGRAMS** icon.

27. Select the **WINDOWS SETUP** tab. Click the **HAVE DISK...** button to get the Install From Disk dialog box.

28. Click **BROWSE.**

    From the **INSTALL FROM DISK** dialog box to browse the Windows95 operating system install disk or CD for the **\ADMIN\APPTOOLS\DSCRIPT** directory.

    If this directory exists, check the **SLIP AND SCRIPTING FOR DIAL-UP NETWORKING** box and click **OK**.

    If this directory does not exists on the Windows95 operating system install disk or CD go to the next step.

    If the directory is present:

    a. Click **OK** to get the **HAVE DISK** dialog box.

    b. Check the **SLIP AND SCRIPTING FOR DIAL-UP NETWORKING** box.

    c. Click **INSTALL**.

       Windows95 will copy the files to the hard drive. Windows95 installs the Dial-up scripting tools at the same time it installs the Slip drivers.

    d. Close the **ADD/REMOVE PROGRAMS** dialog box.

    Proceed to *Configure TCP/IP Protocol:* *on page 76*.

29. Click **CANCEL**.

    From the **INSTALL FROM DISK** dialog box.

30. Click **CANCEL**.

    To close the **ADD/REMOVE PROGRAMS** dialog box.

31. Double-click **MY COMPUTER**.

32. Double-click **DIAL-UP NETWORKING**.

    If there is not a connection create a dummy connection using *Set Up Connection Icon:* *on page 77* before proceeding. This connection is only used to verify that **SLIP:UNIX CONNECTION** is available in the **SERVER TYPE** tab.

    If there is a connection in this folder:

    a. Highlight a connection and right click on it to bring up a menu dialog box.

    b. Select **PROPERTIES**.

    c. Click on the **SERVER TYPE** tab and see if **SLIP:UNIX CONNECTION** is in the **TYPE OF DIAL-UP SERVER** list.

    If it is the SLIP drivers are installed go to *Configure TCP/IP Protocol:* *on page 76*.

If **SLIP:UNIX CONNECTION** is not in the list and the Win95 CD does not contain the **DSCRIPT** folder, then download this file directly from Microsoft at the following URL:
http://www.microsoft.com/windows/downloads/contents/AdminTools/W95ScriptSup/default.asp

Configure TCP/IP Protocol:

33. Open the Control Panel window.

From the Windows desktop, click **START**, select **SETTINGS...**, then **CONTROL PANEL**.

34. Double-click the **NETWORK** icon.

35. Click on the **TCP/IP PROTOCOL FOR DIAL-UP NETWORKING**

36. Click the **PROPERTIES...** button to get the **TCP/IP PROPERTIES** box.

37. Select the **SPECIFY AN IP ADDRESS** option on the IP Address tab.

38. Type in the IP address (usually 192.0.2.1).

The text box should be blank or have this number. If this number is in the text box proceed to the next step. If the text box is blank enter this number. If a number other than this one appears, there is an IP Address conflict which must be resolved before proceeding with the installation.

CAUTION Trying to use a PC on an open network to operate the Series 7000 can cause possible IP address and/or system conflicts leading to system failures.

39. Set Subnet Mask text area to 255.255.255.0.

40. Select the **DISABLE WINS RESOLUTION** option on the WINS Configuration tab.

41. Set the gateway to 0.0.0.0 on the Gateway tab, then click the **ADD** button.

42. Check the Client for Microsoft Networks option on the Bindings tab.

43. Skip the Advanced tab.

44. Select **DISABLE DNS** on the DNS Configuration (Name Resolution) tab

45. Click **OK**.

To return to the Network dialog box.

46. Click **OK** in the Network dialog box.

47. Windows95 will ask you to reboot. Click **YES**.

The Windows95 operating system install disk or CD should be removed before rebooting. It is no longer needed.

Set Up Connection Icon:

48. Open the Make New Connection Wizard.

From the Windows desktop, double-click **MY COMPUTER.** Double-click the **DIAL-UP NETWORKING** icon. Double-click the **MAKE NEW CONNECTION** icon.

49. Type in the name of the icon to create to connect to the SMS7000.

50. Click the **CONFIGURE** button.

51. Set the modem speed to **9600**, and select **ONLY CONNECT AT THIS SPEED** on the General tab.

52. Skip the Connection and Options tabs.

53. Click **OK**.

54. Click **NEXT >** in the Make New Connection wizard.

For the phone number, enter any 7 digits (they won't be used).

55. Click **OK**.

56. Click **FINISH** to create the icon.

The Dial-Up Networking folder should now contain the icon.

Set Dial-up Properties:

57. Double-click **MY COMPUTER.**

From the Windows desktop

58. Double-click the **DIAL-UP NETWORKING** icon.

59. Select the newly-created connection icon and click the right mouse button.

60. Choose **PROPERTIES...**

To get a dialog box with the name of the icon.

61. Select the General tab, ensure that **DIRECT CONNECTION** is selected in the **CONNECT USING** text box.

62. Select **CONFIGURE**.

63. Uncheck the **WAIT FOR DIAL TONE BEFORE DIALING** box under Connection.

64. Check the **USE FIFO IN** and **DEFAULT SETTINGS** boxes in Port Settings.

65. Uncheck **ERROR CONTROL** and **FLOW CONTROL** boxes under Advanced.

66. Set the **CANCEL IF NOT CONNECTED WITHIN X SECONDS** value to **0.**

67. Click the **SERVER TYPES...** button to get the Server Types dialog box.

68. Click the down arrow to drop down the list box in the **TYPE OF DIAL-UP SERVER** section.

69. Choose **SLIP: UNIX CONNECTION**.

70. Uncheck **LOG ON TO NETWORK** in the Advanced options.

71. Verify that TCP/IP in the **ALLOWED NETWORK PROTOCOLS:** section is checked.

72. Click on **TCP/IP SETTINGS;** specify the PC's IP address, and uncheck **IP HEADER COMPRESSION**.

73. Click **OK**.

74. Click **OK** in the remaining dialog box.

Dial-in and Connect:

75. Open the **CONNECT TO** dialog box.

    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.

76. Click the **CONNECT** button.

    The PC should start attempting to connect. The Windows95 setup connection takes about 15 seconds.

77. Click **OK** or **CONTINUE** if a terminal screen appears.

    A **CONNECTED TO DIAL-UP SLIP** dialog box appears.

To Disconnect:

78. Click on the network icon at the lower right corner of the taskbar.

    To bring up the **CONNECTION** dialog box.

79. Click **DISCONNECT**

To Verify Router and Telnet Communication:

80. Get a DOS Prompt.

    From the Windows desktop, click **START**, select **PROGRAMS**, then **MS-DOS** to get a prompt.

81. Type **`ping 192.0.2.2`** (primary MCPU) or **`192.0.2.3`** (backup MCPU) (the router's IP address) and verify that the router replies.

    If ping does not work see *Can't Ping* *on page 95*

82. Type **`telnet 192.0.2.2`** (primary MCPU) or **`192.0.2.3`** (backup MCPU)

    If it connects a Telnet window will open. If Telnet does not work see *Can Ping, But Can't Telnet* *on page 95*

83. Select **CONNECTION** the **TELNET** window, then **EXIT**.

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

Connect Using Point-to-Point Ethernet and a Windows95 PC

1. Connect the ethernet port on the PC to the ethernet port on the MCPU frame using a null modem (peer-to-peer) ethernet cable.

   These cables are usually orange in color, indicating that the Rx and Tx pairs are reversed at one end. If the PC is connected to the ethernet via an ethernet hub, use a standard ethernet cable on the PC.

2. Open the Ethernet Properties window.

   From the Windows desktop, select **START**, then **SETTINGS**, then **CONTROL PANEL,** then **NETWORK,** Then **CONFIGURATION,** then highlight the name of the Ethernet card**,** then **PROPERTIES**.

3. Check TCP/IP in Bindings.

   Don't change the Driver Type

4. Open the TCP/IP Properties window.

   From the Windows desktop, select **START**, then **SETTINGS**, then **CONTROL PANEL,** then **NETWORK,** Then **CONFIGURATION,** then **TCP/IP,** then **PROPERTIES**.

5. Enter the following settings:
   Gateway -- none
   WINS -- disable
   IP Address-- 192.0.2.1, subnet mask 255.255.255.0
   Bindings -- don't change
   Advanced -- none
   DNS -- disable

To Verify Router and Telnet Communication:

6. Get a DOS Prompt.

   From the Windows desktop, click **START**, select **PROGRAMS**, then **MS-DOS** to get a prompt.

7. Type **ping 192.0.2.2** (primary MCPU) or **192.0.2.3** (backup MCPU) (the router's IP address) and verify that the router replies.

   If ping does not work see *Can't Ping* *on page 95*

8. Type **telnet 192.0.2.2** (primary MCPU) or **192.0.2.3** (backup MCPU)

   If it connects a Telnet window will open. If Telnet does not work see *Can Ping, But Can't Telnet* *on page 95*

9. Select **CONNECTION** the **TELNET** window, then **EXIT**.

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

Connect Using Slip and a WindowsNT PC

SLIP connections are only used by SMS-64V with Amezi serial control Compact Frames. All other frames use Ethernet connections. Some steps in the following procedures require the Windows install disks or CD. A dial-up networking connection must be running to use SLIP.

Install the Null Modem:

1. Insert WindowsNT operating system install disk or CD.
2. Open the Control Panel window.

   From the Windows desktop, click **START**, select **SETTINGS...**, then **CONTROL PANEL**.

3. Double click on the **MODEMS** icon.

   If given a choice between installing a PCMCIA modem card and **OTHER**, choose **OTHER**.

4. Click **ADD...**

   This will not appear if the modem list is empty.

5. Check the box that says **DON'T DETECT MY MODEM I'LL SELECT IT FROM A LIST**, then click **NEXT**.
6. Click **HAVE DISK...** located in the lower right of the dialog box.
7. Enter **C:\sms7000** in the **COPY MANUFACTURER'S FILES FROM** text box, and click **OK**.
8. Highlight a modem called **GENERIC NULL MODEM**. Click **NEXT>**.

9. Select the communications port used by the modem in the **SELECTED PORTS** list. Click **NEXT>.**

   If the computer asks for location information enter anything as the system won't use it.

10. Click the **FINISHED** button.

    A modem called **GENERIC NULL MODEM** will now appear in the modems box.

11. Close the dialog box.

Enable FIFO buffers for the null modem port:

12. Open the Control Panel window.

    From the Windows desktop, click **START**, select **SETTINGS...**, then **CONTROL PANEL**.

13. Select **PORTS**, then **SETTINGS**, then **ADVANCED**, check **FIFO ENABLED**.

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

14. Click **OK**, then **CLOSE**, then **CLOSE**.

Install Remote Access Service:

15. Open the Control Panel window.

    From the Windows desktop, click **START**, select **SETTINGS...**, then **CONTROL PANEL**.

16. Double-click **NETWORK**.

17. Select **TCP/IP** in the Protocols tab. Click on **PROPERTIES**.

18. Verify that the IP address is different if bound to an ethernet adapter, in the **IP ADDR** tab.

    If an adaptor is selected in the **ADAPTOR** list, then the **IP ADDRESS** field must contain an address that is different from the one used for communicating with the Series 7000 using SLIP.

19. Verify the subnet for the SLIP connection is 255.255.255.0 in the Subnet text box.

20. Do not set or change anything in the **DNS**, **WINS**, and **ROUTING** text boxes.

    In PCs using a network and connecting to the Series 7000 system via serial port (SLIP) these items are used and could have entries.

21. Verify that Remote Access is listed in the Network Services list.

If Remote Access Service isn't listed in the Network Services list:

a. Click **ADD**.

b. Choose **REMOTE ACCESS SERVICE**, in the select network service dialog box. Click **OK**.

c. Click **OK**, If an **ADD RAS DEVICE?** window appears listing the Generic Null Modem. Now the RAS Setup dialog box appears.

If Remote Access Service is listed in the Network Services list:

a. Choose **REMOTE ACCESS SERVICE**, then **PROPERTIES**.

b. Choose the **CONFIGURE** button, then **DIAL OUT ONLY,** then **OK**.

c. Choose the **NETWORK** button, Check **TCP/IP** only**.** Click **OK**

22. Choose **FOR ALL SERVICES**.

In the Bindings tab of the Network dialog box.

23. Verify that **REMOTE ACCESS SERVER SERVICE**, **SERVER**, and **WORKSTATION** all have **WINS CLIENT(TCP/IP)** bound.

Click on the **+** next to each one to see this information.

24. Close the dialog box.

25. Reboot the PC if a dialog box indicates it is necessary.

The Windows95 operating system install disk or CD should be removed before rebooting. It is no longer needed.

Set up the Dial-up Connection

26. Open My Computer from the desktop and double-click the **DIAL-UP NETWORKING** icon.

If a dialog box asks if you want to add an entry:

a. Click **OK.**

b. Select **I KNOW ALL ABOUT…**,

c. Click **FINISH**, to access the Phonebook entry box.

Otherwise:

a. Select **NEW**, or click **MORE** and then **EDIT ENTRY AND MODEM PROPERTIES** to access the Phonebook entry dialog box.

27. Set parameters for the different tabs on the Phonebook entry box

Table 10. Phonebook Entries

Tab	Field	Entry	Sub Entry
Basic	Entry Name	SLIPtoMCPU, Or Something Similar	
	Dial Using	Generic Null Modem	
	Configure Button	Speed 9600: No Flow Control, Error Control Or Compression	
	All Other Fields	Blank	
Server	Dial-up Server Type	Slip: Internet	
	Network Protocol	TCP/IP	
	TCP/IP Settings	Name Server Addresses	0.0.0.0
		Ip Address	The Address Assigned To The PC Is Usually 192.0.2.1
		Force Ip Header Compression	No
		Use Default Gateway	No
		Frame Size	1006
Script	Before Dialing	None	
	After Dialing	None	
Security	Authentication Policy	Accepts Any Authentication Including Clear Text	
X25	All Fields	Blank	

28. Close the dialog box.

To Start a SLIP Session

29. Open Dial-up Networking.

30. Highlight the right connection.

31. Click **DIAL**, then **OK**.

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

32. Click **OK**.

To Verify Router and Telnet Communication:

33. Get a DOS Prompt.

From the Windows desktop, click **START**, select **PROGRAMS**, then **MS-DOS** to get a prompt.

34. Type **`ping 192.0.2.2`** (primary MCPU) or **`192.0.2.3`** (backup MCPU) (the router's IP address) and verify that the router replies.

    If ping does not work see *Can't Ping* *on page 95*

35. Type **`telnet 192.0.2.2`** (primary MCPU) or **`192.0.2.3`** (backup MCPU)

    If it connects a Telnet window will open. If Telnet does not work see *Can Ping, But Can't Telnet* *on page 95*

36. Select **CONNECTION** the **TELNET** window, then **EXIT**.

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

Connect Using Point-to-Point Ethernet and a WindowsNT PC

1. Connect the ethernet port on the PC to the ethernet port on the MCPU frame using a null modem (peer-to-peer) ethernet cable.

   These cables are usually orange in color, indicating that the Rx and Tx pairs are reversed at one end. If the PC is connected to the ethernet via an ethernet hub, use a standard ethernet cable on the PC.

2. Open the TCP / IP Properties window.

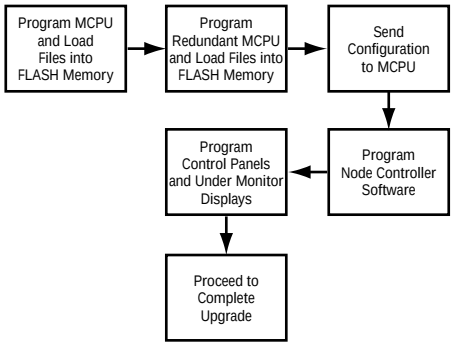
   From the Windows desktop, select **START**, then **SETTINGS**, then **CONTROL PANEL,** then **NETWORK,** Then **PROTOCOLS,** then **TCP/IP,** then **PROPERTIES**.

3. Enter the following settings:
   WINS - disable, if the message **AT LEAST ONE OF THE ADAPTOR CARDS HAS AN EMPTY PRIMARY WINS ADDRESS - CONTINUE?** Click **YES**.
   IP Address -192.0.2.1, subnet mask 255.255.255.0
   DNS - set hostname to PC, leave the rest blank
   Routing - don't enable IP forwarding.

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 11. Connect to Router Flowchart and Sub-Procedures

Flowchart	Sub-Procedures
	*Program MCPU and Load Files into Flash Memory* on page 85 *Program Redundant MCPU and Load Files into Flash Memory* on page 90 *Send Configuration to MCPU* on page 90 *Program Node Controller Software* on page 91 *Program Control Panels and Under Monitor Displays* on page 91

Program MCPU and Load Files into Flash Memory

Application software version must be loaded into MCPU FLASH for systems updating from 6.x to 7.0 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 perform the *To Reformat FLASH Memory:* on page 94 to reclaim the use of all the sectors of flash memory:

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

2. Start a dial-up networking connection to the Series 7000 system, if using SLIP. *Dial-in and Connect:* on page 78 (Windows95) or *To Start a SLIP Session* on page 83 (WindowsNT).

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

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!

   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 incrementing message does not start incrementing within a few seconds for ethernet or within 5 minutes for SLIP see *Can't Download Files to MCPU* *on page 96*.

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
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 perform the *To Reformat FLASH Memory:* *on page 94* to reclaim the use of all the sectors of flash memory:

Load the Coprocessor, Panel Executable Files and other miscellaneous files into the MCPU's 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:

```
SMS7000>reload sms7000 1 [sms7000b 1]
```

To select Option 2:

```
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 GVP alien matrixes via native protocol, however, GVP matrices (Hx GPI, 440, Performer, 20-Ten via azgvg.bin) are excluded.

The excluded GVP 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 GVP alien matrix support.

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

Table 12. 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:

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

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

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.

Option 1 installs the following files:

Table 13. 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 GVP and Non GVP 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.

Option 2 loads the following files:

Table 14. 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 CLF.MOT, SDP.Mot, and EDP.Mot are not included in either of these options; to use CLF.MOT, see the note on page 91

To provide room on the file system, option 2 excludes the special panel files for cubicle or studio, machine control, source ID, client-server and under monitor display types. Any of the above excluded panel types may be loaded individually from this C:\SMS7000 directory using the following commands from the PC prompt:

Software Load Batch File for COS.MOT only.

```
C:\SMS7000> COSLOAD
```

Software Load Batch File for MCO.MOT only

```
C:\SMS7000> MCOLOAD
```

Software Load Batch File for SID.MOT only.

```
C:\SMS7000> SIDLOAD
```

Software Load Batch File for SVR.MOT only.

```
C:\SMS7000> SVRLOAD
```

Software Load Batch File for UMD.MOT only.

```
C:\SMS7000> UMDLOAD
```

Software Load Batch File for EDP.MOT only.

```
C:\SMS7000> EDPLOAD
```

Software Load Batch File for SDP.MOT only.

```
C:\SMS7000> SDPLOAD
```

To aid in panel-type identification excluded from option 2, refer to the panel descriptions in Table 15:

Table 15. Control Panels

Control Panel	Description
SVR.MOT	Server Control Panel (drives client panels) see *Operation Manual* Section 9
CLN.MOT	Client Control Panel (current version) see *Operation Manual* Section 9
CLF.MOT	Client Control Panel (former version) see *Operation Manual* Section 9
COS.MOT	Cubicle or Studio Panel CBS custom
MCO.MOT	Machine Control Panel CBS custom
SID.MOT	Source Ident Display Panel CBS custom
SCP.MOT	Simple Control Panel see *Operation Manual* Section 7
MB4.MOT	Multi-Bus Control Panel see *Operation Manual* Section 11
UMD.MOT	Under Monitor Display Panel see *Service Manual* Section 3
EDP.MOT	Eight Destination Paging Panel see *Operation Manual* Section 12
SDP.MOT	Single Destination Paging custom

Program Redundant MCPU and Load Files into Flash Memory

Repeat *Program MCPU and Load Files into Flash Memory* *on page 85* 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.

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, verify that the FIFO buffers are enabled see *Enable FIFO buffers for the null modem port:* *on page 81*
5. Save the configuration in the PC and in the MCPU's non-volatile memory. Please refer to the *Series 7000 Configuration Manual* for additional detail.

Program Node Controller Software

Program Series 7000 Node Controllers with the current Application.

1. Enter the following command at the Series 7000 System Diagnostic Interface to program the Node Controllers (NC).

   ```
   SMS7000> inputfrom “prognc.red”
   ```

2. Remove each Node Controller from the frame.

3. Verify that version 6.1 NBX ROM (052855-04 or greater) is installed

4. Replace the Node Controller in the frame to Cold-start the module.

5. 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. Enter the following command using the system diagnostic terminal:

   ```
   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.

2. Check each panel’s revision string.

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

   ```
   SMS7000> ver cp
   ```

   OR

   ```
   SMS7000> ls cp
   ```

3. Run each panels ID sequence to confirm the software version loaded into each panel.

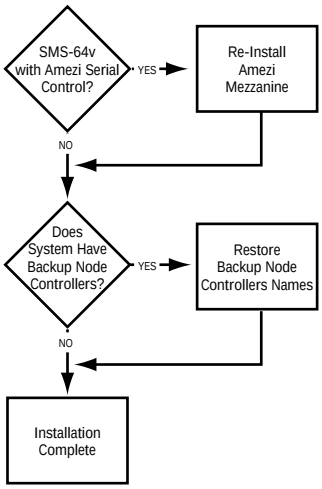
   On panels with a dedicated ID button, a single ID button press initiates the ID function. Other panels require four consecutive presses to initiate the ID sequence.

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 16 to determine whether these sub-procedures are needed to complete the software upgrade.

Table 16. Complete Upgrade Flowchart and Sub-Procedures

Flowchart	Sub-Procedure
	*Re-Install Amezi Mezzanine* on page 92 (SMS-64V with Amezi Serial Control Only) *Restore Backup Node Controllers Names* on page 93 (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 Interface, 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:* *on page 35* 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 Tips for Router and Windows Connections

Flash Memory Limitations and Recovery Procedure

If file space is not available on the target MCPU flash file system, the PC monitor may display the following error:

```
---> PORT (etc.)
---> STOR file.name (which failed to load to the MCPU
file system)
netout: Socket is not connected
Error in input file
---> QUIT
C:\SMS7000>
```

To Reformat FLASH Memory:

1. Save router configuration on the GUI PC.

   Save (or write down the contents of) the following files in flash:
   `gateways` file, if any
   `*.ini` (any.ini) file other than boot.ini, eventlog.ini or console.ini
   (**`copy "thefilename" 0`** will show the file contents)

2. Enter the following command from the Diagnostic Terminal to start a reboot to reformat Flash Memory:

   ```
   C:\sms7000> Reboot
   ```

3. Hit a key to stop the boot process.

4. Enter:

   ```
   C:\SMS7000 Boot> F
   ```

5. Enter:

   ```
   C:\SMS7000 Boot> Y
   ```

   (please reformat flash) to reformat 2047 sectors with no errors.

   To resave boot.ini to flash memory:

6. Enter:

   ```
   C:\SMS7000 Boot> c
   ```

7. Enter:

   ```
   C:\ SMS7000 Boot> ctrl-D
   ```

8. Restore saved files:

   Either:

   a. Send the config to the MCPU by using the GUI to save it in Nonvolatile (FLASH) Memory.

   b. Ftp the other saved files to the router.

   Or recreate the file in flash memory by typing:

   a. First line:

   ```
   copy 0 “thefilename”
   ```

   b. Second line:

   ```
   control-d
   ```

   c. verify it, type:

   ```
   C:\sms7000> copy “thefilename” 0
   ```

9. Use the **“reload”** command at the PC to reload MCPU software.

Can’t Ping

Verify that the proper cable is used between the PC and MCPU. Pinouts are shown in *Compact Frame Pin-Outs* *on page 5*

Can Ping, But Can’t Telnet

Verify **FORCE IP HEADER COMPRESSION** is not checked**.** Under **DIAL-UP NETWORKING**, 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:* *on page 81*.

Can't Download Files to MCPU

Verify that the two configuration files (defaults.cfg and ftpusers.sms) are located in the /ftpd/config directory. These files must be installed from the CD-ROM to the Xitami program folder before running FTP Daemon. **CONFIGURE FTP DAEMON** performs this task.

To Verify Configuration Files:

1. Open Windows Explorer. From the taskbar select **START**, then **PROGRAMS**, then **WINDOWS EXPLORER**.
2. Open the **C:\PROGRAMS|XITAMI** folder on the PC Hard Drive.
3. Look for defaults.cfg and ftpusers.sms.

To Load Configuration Files:

1. Insert Series 7000 CD-ROM or install diskette.
2. Select **EXIT** to close install program.
3. Open CD-ROM or install diskette in Windows Explorer.
4. Copy defaults.cfg and ftpusers.sms from the CD-ROM or install diskette to the C:\Programs\Xitami folder on the PC hard drive.
5. Remove the CD-ROM or install diskette.
6. Reboot the PC.
7. Run Xitami Application.
8. Reset the SMS MCPU. Use the reset button on the front of the MCPU module.

File transfer should begin.