

Field Engineering Bulletin  
071 8275 04 Oct. 24, 2005  
Reference ECO: 400L

# **Jupiter / Saturn / AccuSwitch Release 7.4**

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## **Applicability**

This release applies to Jupiter/Saturn systems with VM/SI 3000 Control Processors. It also applies to systems running JupiterXPress or AccuSwitch deterministic router control software on the CM 4000 Control Module. This release supports English versions of Windows 2000 Professional and XP Professional operating systems only. Servers using Windows 3.1, Windows 95, Windows 98, or Windows NT are not supported.

ESLAN machine control interface to Thomson Broadcast Automation and CP 3200 control panels are not supported on Windows 2000 systems and thus not supported in release 7.1.0 and later releases.

# Purpose

## 7.4 Release

### JupiterXPress and AccuSwitch (CM-4000 systems)

- JEP-100 Jupiter / Encore Control Panel salvo switching is now supported. For more information, refer to Field Engineering Bulletin 071 8363 01 and the JEP-100 Installation and Operating Manual, part no. 071 8376 xx.
- Alpha Image / Pro-Bel router protocol support. These routers can now be controlled through a CM 4000 serial port. The port is configured for "ALP" protocol on the Serial Protocol table.
- Kalypso production switcher control of Jupiter using GV Native protocol is now supported. For more information, see [page 11](#).
- Control of up to 4096 x 4096 routers using Ultra Crosspoint bus.

### AccuSwitch (CM-4000 systems)

- Pathfinding support for AccuSwitch. For details, see [page 9](#).
- Switch forwarding (distributed routing) – allows AccuSwitch to send switch request for levels not directly connected to the AccuSwitch CM-4000. For more information, see [page 8](#).
- Support for Grass Valley 8964OMD OSD (on screen display) module. This device can be used to insert switch status (source names) into video. See [page 14](#).
- Binary Confirm All operation can now be selected.

### JNS Console (VM-3000 and CM-4000 systems)

- Auto start of applications (Control Center) based on user configuration

### Bug Fixes

See [page 18](#).

## 7.3.2 Release

### JEP-100 Version 1.0.1 Support

This release provides CM 4000/JupiterXPress support for JEP-100 Jupiter/Encore Control Panels with version 1.0.1 software. JEP-100 version 1.0.1 includes:

- ESLAN support, with up to 64 panels per CM 4000 System Controller
- Redundant CM 4000 support
- Audio modes (stereo switching such as mix, reverse, etc.)
- Level button assignments

### Bug Fixes

See [page 19](#).

## 7.3.1 Release

### JEP-100 Jupiter/Encore Control Panel Support

With this release, the CM 4000 Control Module running the JupiterXPress application now supports the JEP-100 control panel.

### Bug Fixes

See [page 19](#).

## 7.3 Release

### JupiterXPress

With this release, the CM 4000 Control Module running the JupiterXPress application now supports the following:

- TSL under monitor displays
- MI 3040/T tally operation (MI 3040/2 /8 /12 machine control functions are not supported)

- CP 2002B and CP 2002D control panels
- Saturn master control switchers and the AccuSwitch application (running on a separate CM 4000) are now supported, i.e., they can be on the same network as a CM 4000 running JupiterXPress
- The CP-3800 control panel now supports 20 pages of destinations when controlled by JupiterXpress
- Saturn Monitor Follow and Preview

For more information about these features, please refer to the Jupiter CM 4000 Installation and Operating manual. (This manual is supplied on the Documentation CD, part no. 071 8274 xx.)

**NOTE** Jupiter XPress software cannot be installed on systems containing VM 3000 or SI 3000 processors. Also note that only JupiterXPress or AccuSwitch can be downloaded and executed in a single CM 4000 at one time.

## 7.2 / 7.2.1 Release

(The following information is provided for reference. Release 7.3 includes all functions of previous releases.)

### JupiterPlus and Jupiter LE

With this release, the VM 3000 Control Module running the JupiterPlus or Jupiter LE applications now supports the following new devices and functions:

- CP 3832L and CP 3864L Control Panels
- GVG Native protocol

For more information about these features, please refer to the Jupiter VM-3000 Installation and Operating manual. (This manual is supplied on the Documentation CD, part no. 071 8274 xx.)

### JupiterXPress

The CM 4000/JupiterXPress product provides the following set of Jupiter switching and machine control functions using the CM 4000 as the interface between the devices listed below.

With this release, Jupiter Xpress now supports the following devices and functions:

- Configuration Upload Utility
- CP 3800, 3808, 3809, and 3830 Control Panels
- CP 3832 and 3832L; CP 3864 and CP 3864L Control Panels
- CP 300 and 300S; 310 and 310S; 320 and 320S; 328 and 328S; 330 and 330S; and 330/6 Control Panels
- CP 3000 / 3010 Control Panels
- CP 3020 / 3021 Control Panels
- MC 3000 / 3010 Control Panels
- VC 3020 Control Panel
- GVG Native protocol
- Data Tek protocol (option)
- Nexus protocol (option)
- Utah 96 protocol (option)
- Jupiter ESbus Physical protocol
- DD (Diamond) Series protocol
- ASCII, ES-control, and ES-switch protocol
- JNS Control System User Applications (except Party Line Download)
- Configuration Swap (option)

For more information about these features, please refer to the Jupiter CM-4000 Installation and Operating manual. (This manual is supplied on the Documentation CD, part no. 071 8274 xx.)

## Corrections

Error corrections are provided by this release, as described in the Release Notes section beginning on [page 8](#). These notes should be reviewed before installing the software.

As with any software package, some limitations remain. Many of these are known and are detailed in this document and other documents referenced. Please note that the description of known limitations is not an agreement to correct them.

During this upgrade:

- All switcher status will be lost. To restore status, make note of the status of all outputs before starting the upgrade and re-Take all switches. Or, you can use Router Save/Restore to restore status.
- All memory on all Jupiter control system boards will be cleared due to a mandatory "pmemclear" subsequent to installation and download.
- All configuration sets will need to be recompiled.

## Equipment required

Grass Valley-supplied PC 3000 (F7-029500-121) file server; or, PC with minimums as follows:

- Intel Pentium 700 processor with 256 K L2 cache
- 512 Mbytes RAM memory
- 150 Mb free disk space
- 32x CD-ROM drive
- 1.44 Mb floppy drive
- Intel or 3Com Ethernet LAN card
- Media converter or hub if needed to connect Ethernet LAN card to CM 4000 or to Jupiter VM/SI 3000. (The CM 4000 has a 10/100baseT rear panel connector; the VM/SI 3000 has a 10base2 rear panel connector.)
- Keyboard / mouse
- 15-inch monitor capable of 1024 x 768 x 256 operation
- 1 or 2 serial ports and 1 parallel port

CM 4000 (if present) must meet requirements specified in Engineering Change Order 642J. This ECO specifies replacement of PROM EPC1441 part no. 163 8270 00 with PROM EPC1441 part no. 163 8270 01. (Note: This new PROM is not compatible with previous versions of Jupiter software.) For more information, contact Grass Valley.

## Software required

Installation of this release is only supported on the English version of the Windows 2000 Professional operating system with Service Pack 2 or later or Windows XP Professional SP1.

## Materials supplied

	Kit, Jupiter Software Upgrade 7.4	650 4280 06
<u>Qty</u>	<u>Description</u>	<u>Part number</u>
1	Software, CD ROM Jupiter 7.4	063 8093 06
1	Documentation CD	071 8274 xx
1	Field Engineering Bulletin	071 8275 04

## Optional materials

Application specific software licenses (refer to Section 1 of the Jupiter Installation and Operating manuals for more information)

- Jupiter VM/SI 3000 Installation and Operating Manual (VM 3000), part no. 071 8305 xx.
- Jupiter CM 4000 Installation and Operating Manual, part no. 071 8261 xx.

## System files CRCs

ACCUSWCH.SYS	BCD8
JUPITER.LDR	E803
JUPITER.SYS	586A
MCS3500.SYS	2A01
SATURN.LDR	5551
SATURN.SYS	EA40
SNOWBIRD.SYS	6015

# Release notes

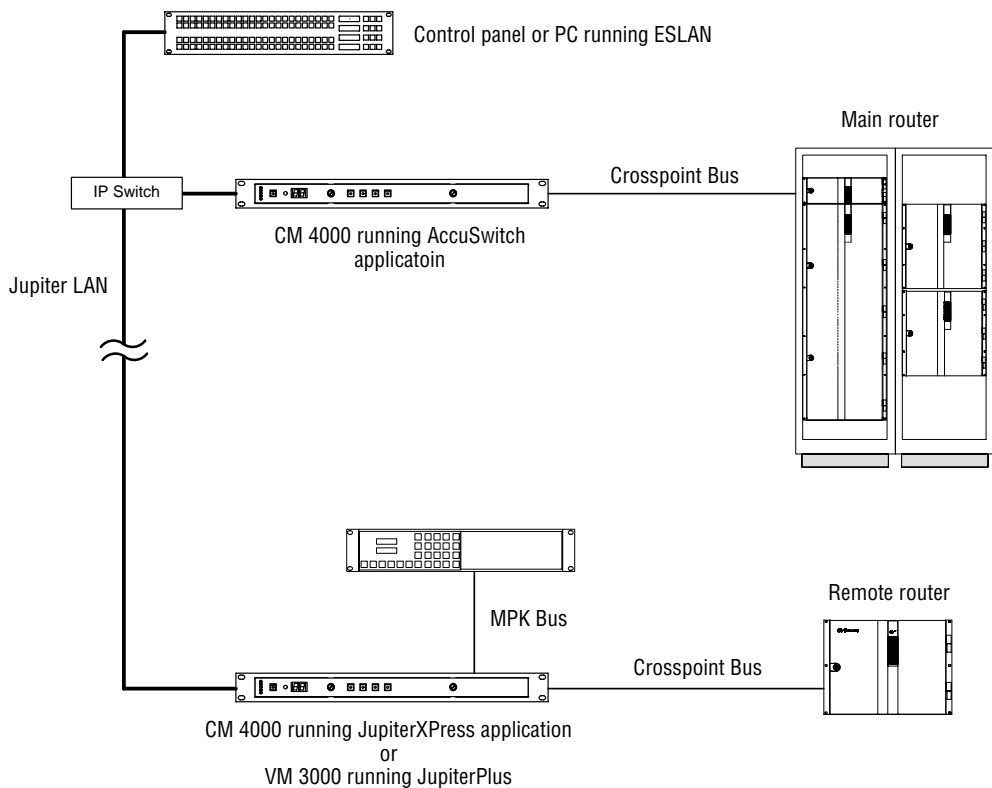
## 7.4 Release

### Enhancements

(The following discussion provides details about some of the new functions supported by this release. For a complete list of enhancements, see page 2.)

1. CM 4000/AccuSwitch switch forwarding (distributed routing) is now supported.

Figure 1. Switch forwarding (AccuSwitch).



In the past the AccuSwitch application could only control a router connected directly to the CM 4000 running AccuSwitch. With this release the software determines if the router is not located on this board and will send (forward) the switch request on the LAN to the controller (VM 3000 or CM 4000) that is connected to the router. All panels in the system will status the switch.

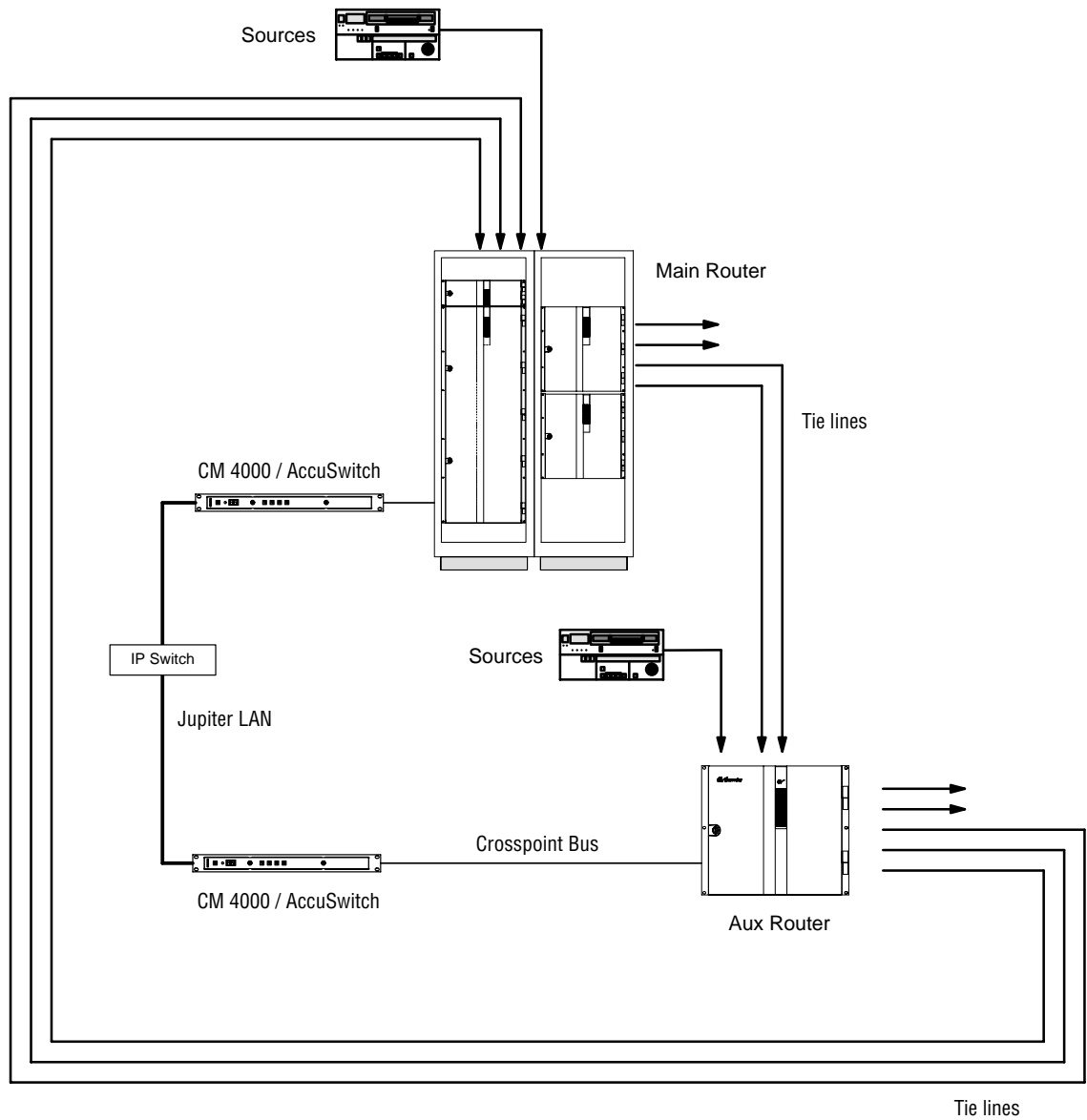
However, the determinism (frame accuracy) of such switches is not assured. Only switches on routers directly connected to the CM running AccuSwitch can be guaranteed to be frame accurate.



2. CM 4000 / AccuSwitch Path Finding is now supported.

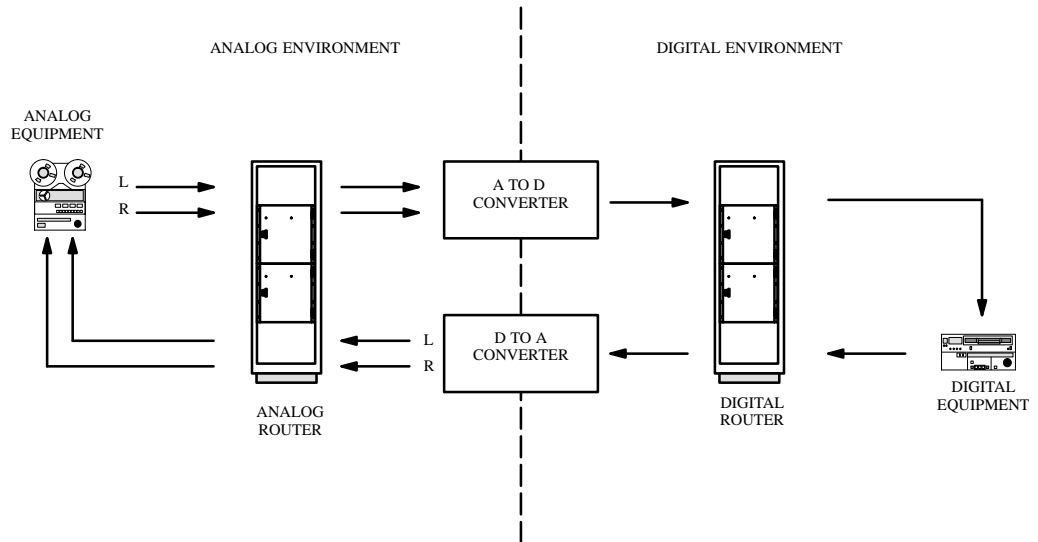
Path finding allows two or more routing switchers to operate as a system, where one switcher can access the other's inputs through a number of *tie lines*. With this release, the routers can be controlled by separate CM 4000s if they are both running AccuSwitch.

Figure 2. Example of path finding connections between video levels of two routers. With v7.4, CM 4000s can now control path finding if both are running AccuSwitch..



Path finding can also be used with customer-supplied ADCs and DACs to provide automatic conversion between analog equipment and digital equipment (such as VTRs). See Figure 3.

Figure 3.



For example, this technique can be used for conversion of analog audio signals, which are carried on two levels of an analog routing switcher, to a single digital audio (AES) signal. Each pair is “locked” together, meaning that selection of one result in selection of both.

The same concept can be applied in an embedded audio environment, where a single digital video stream can be split into an analog video signal and up to four analog audio signals.

For more information about path finding, including wiring and Jupiter configuration details, please refer to the CM 4000 Installation and Operating Manual.

### 3. Ethernet control using GV Native Protocol

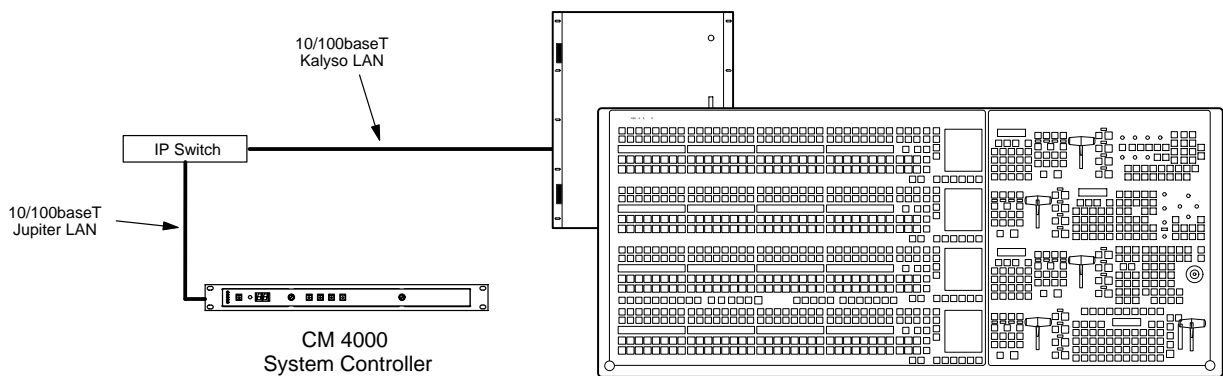
This enhancement allows the Jupiter system and associated router to be controlled by a Kalypso production switcher.

#### Kalypso Application

##### a. Hardware Connections

An example of hardware connections is shown in Figure 4.

Figure 4. Connections to Kalypso switcher (example).



##### b. Jupiter Configuration

#### Network Description Table

This table must be used to create a name that Jupiter will use for the Kalypso system. See Figure 5.

Figure 5. Network description (example).

Network Description					
	Board Name	Type		Address	Redundant Address
1	KALYPSO	NP	▼	192.168.0.20	
2			▼		
3			▼		

Board Type is NP (Native Protocol). The IP address of the Kalypso may vary from that shown.

The Redundant Address field is not used. In the case of redundant Encore controllers, the second controller and its address would be entered on a new row of the table.

### MPK Devices Table

Although the Kalypso does not operate with MPK protocol, this table must be used to identify the Kalypso as a controlling device.

Figure 6. MPK table (example).

MPK Devices															
	MPK Devices	Device Type	Expansion	Pass word	Board	Port	Address	Input Sets	In Panel	Output Sets	Out Panel	Level Set	Override Set	Sequence Set	
1	KALYPSO	NP-LAN	<input type="checkbox"/>		CM1			KAL-IMP		KAL-OUT		KAL-LEV			
2			<input type="checkbox"/>												

The “MPK Device” name for the Kalypso must be exactly the same as the Kalypso’s Board Name on the Network Description table.

The Device Type is “NP-LAN.”

The connecting CM 4000 is identified, but the Port and Address fields are left blank.

The Input, Output, and Level Sets named on this table should include all inputs, outputs, and levels that will be controlled by the Kalypso. As a precaution, you may wish to restrict control to selected outputs.

### CP Input and CP Output Sets

For device type “NP-LAN,” the Input and Output Sets must be created specifically for use by Serial devices. The Input Set is the source of the **mnemonics** that will appear on the Kalypso console.

Figure 7. Serial-type CP Input Set (example).

Input Set — KAL-INP		
	Entry	Logical Input
1	0	BARS
2	1	TONE
3	2	TC
4	3	VT01
5	4	VT02
6	5	VT03

The Input Set describes which router inputs can be selected by the Kalypso (and an “Entry” number that the switcher will use to refer to that input); the Output Set describes which router outputs are wired to the Kalypso (and an “Entry” number that the switcher will use to refer to that output). The first row of these tables must show “0” as the Entry number, the next row must show “1,” the next “2,” etc. The entry numbers must be contiguous.

## CP Level Set Table

The CP Level Set table must be type "CP 3000." The "Level" fields must show the names of the router levels to be controlled by the Kalypso. The source of these names is the Switcher Description table.

*Figure 8. CP Level Set table (example).*

CP Level Set — KAL-LVL					
	Mnemonic	Level		Break	Switch
1	aaaa	VIDEO	▼	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	bbbb	LEFT	▼	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	cccc	RIGHT	▼	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4			▼	<input type="checkbox"/>	<input type="checkbox"/>

NOTE The "Mnemonic" fields are not used, but must have unique entries to satisfy the compiler.

NOTE The names in the "Level" column, which originate on the Switcher Description table, are automatically used as level mnemonics on the Kalypso. The names in the "Mnemonic" column are placeholders only.

c. Switcher configuration and operation.

The controlling device (such as Kalypso or Encore) must be configured to send the appropriate switching commands to the Jupiter. For more information, refer to the Kalypso or Encore manual.

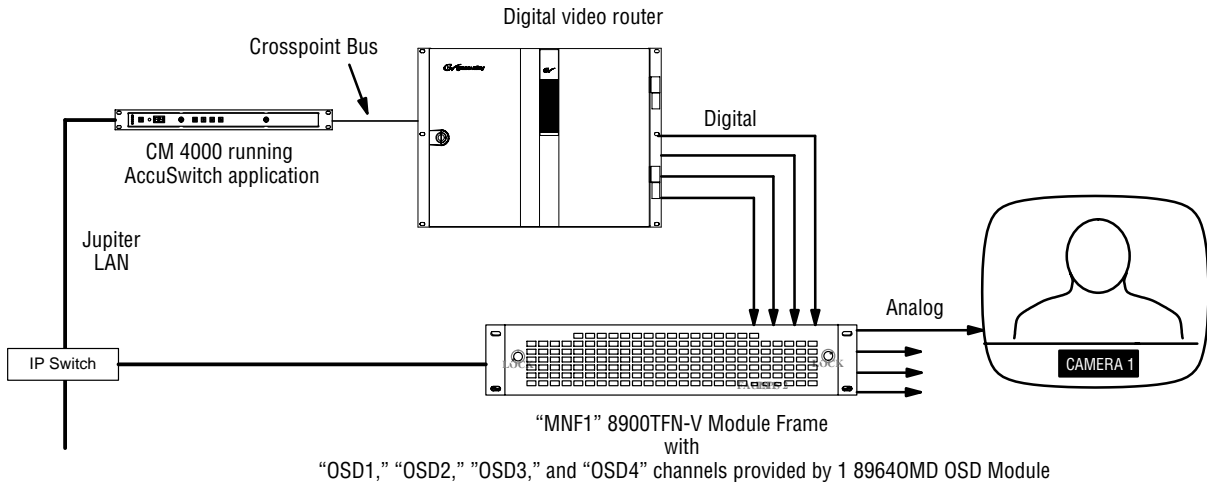
For a discussion of the GV Native Protocol as it pertains to Jupiter, see "Grass Valley Native Protocol" on [page 39](#).

4. CM 4000 / AccuSwitch now supports the Grass Valley 8964OMD (On Monitor Display) module.

The 4-channel GV 8964OMD (or on-screen display) board, which is based on the 8964ENC SDI to NTSC/PAL Encoder Module, mounts in the 8900TFN-V Module Frame. In this application, each of the four channels can insert an 8-character status mnemonic into a digital video stream and display the result on the analog output. Figure 9 shows the status mnemonic “CAMERA 1” inserted into one of the OSD board’s four video channels.

Each module frame can contain 10 modules for a total of 40 outputs per frame.

Figure 9. Example of OSD application. The device names shown correspond to those used in the Jupiter Configuration Procedure discussion below .



Each 8964 channel is associated with a particular Logical Output of the router. The source mnemonic is displayed as white characters over a black background in the lower part of the screen.

The CM 4000 / AccuSwitch communicates to each Module Frame via the Jupiter LAN and a TCP connection.

The OSD also has the ability to display the current time on a separate line.

### Jupiter Configuration Procedure

- a. Network Description table: Each module frame requires a separate row on this table. The board Type is “MN” (Modular Network board). In the Address field enter the IP address of the frame’s network card.

**b. MPK Devices table and CP sets.**

The MPK Devices table requires an entry for the module frame, and a separate entry for each video channel of each OSD board.

**Module frame entry**

The module frame entry consists of an MPK Device name, a Device Type, and the names of three sets. See Figure 10.

*Figure 10. Module frame entry on MPK table (example).*

MPK Devices														
	MPK Devices	Device Type	Expansion	Pass word	Board	Port	Address	Input Sets	In Panel	Output Sets	Out Panel	Level Set	Override Set	Sequence Set
1	MNF1	MNF	<input type="checkbox"/>					MNF-IN		MNF-OUT		MNF-LEV		
2			<input type="checkbox"/>											

The MPK Device name must be exactly the same as the Board Name for the module frame on the Network Description table. The Device Type is “MNF” (Modular Network Frame). Of the three sets, only the Output set is used; the Input Set and Level Sets are placeholders needed to satisfy the compiler.

Input Set. This placeholder set, type Serial, must be created with at least one Entry number and one Logical Input. See Figure 11.

*Figure 11. Placeholder Serial-type CP Input Set (example).*

Input Set — MNF-IN		
	Entry	Logical Input
1	0	BARS
2		

Output Set. This set, type Serial, is used to assign a router output to each OSD channel.

Figure 12. Serial-type CP Input Set (example).

Output Set – MNF-Out			
	Entry	Logical Output	
1	0	STU1	▼
2	1	SVR1	▼
3	2	SVR2	▼
4	3	VT01	▼
5			▼
6			▼

The Entry number is used to identify an OSD board and channel number, which is then associated with a Logical Output number of the router. For example: Entry “0” = module 0, channel 0; this channel will monitor the status of router output “STU1.” “3” would be module 0, channel 3; it will monitor router output “VT01.” If there is another module, then the next row would show Entry “4” for module 1, channel 0, etc.

NOTE Module 0 is the module furthest from the power supply.

Level Set. This placeholder set, type CP 3000, must be created with at least one Level entry. See Figure 13. The entries are not used.

Figure 13. Placeholder CP Level Set table (example).

CP Level Set — MNF-LEV					
	Mnemonic	Level	Break	Switch	
1	aaaa	VIDEO	▼	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2			▼	<input type="checkbox"/>	<input type="checkbox"/>



## OSD Module channel entries

Each OSD channel also requires an entry on the MPK Devices table consisting of an MPK Device name, a Device Type, and the names of three sets. See Figure 14.

Figure 14. MPK table (example).

MPK Devices															
	MPK Devices	Device Type	Expansion	Pass word	Board	Port	Address	Input Sets	In Panel	Output Sets	Out Panel	Level Set	Override Set	Sequence Set	
1	MNF1	MNF	<input type="checkbox"/>					MNF-IN		MNF-OUT		MNF-LEV			
2	OSD0	OSD	<input type="checkbox"/>					OSD-IN		OSD-OUT		OSD-LEV			
3	OSD1	OSD	<input type="checkbox"/>					OSD-IN		OSD-OUT		OSD-LEV			
4	OSD2	OSD	<input type="checkbox"/>					OSD-IN		OSD-OUT		OSD-LEV			
5	OSD3	OSD	<input type="checkbox"/>					OSD-IN		OSD-OUT		OSD-LEV			

A device name is created here for each OSD channel. The Device Type is "OSD." Three CP sets must also be specified.

Input Set. This set, type UMD3A, is the source of the mnemonics that will be inserted into the video. It must include all router inputs that need to be available to the monitored output. See Figure 15.

Figure 15. UMD3A-type CP Input Set (example).

Input Set — OSD-IN						
	Category	Entry	Auto Mnem	Mnemonic	Logical Input	
	Test	1	<input checked="" type="checkbox"/>	BARS	BARS	
2	Test	2	<input checked="" type="checkbox"/>	TONE	TONE	
3	Test	3	<input type="checkbox"/>	CODE	TC	
4	VTR	1	<input checked="" type="checkbox"/>	VT01	VT01	
5	VTR	2	<input checked="" type="checkbox"/>	VT02	VT02	
6	CAM	1	<input checked="" type="checkbox"/>	CAMERA 1	CAM1	

⋮

Output Set. This set, type UMD3A, is only used to enable a clock display on a selected channel. If this is desired, enter “@@Time@@” as the Mnemonic and select the router output.

Figure 16. Clock-enable entry on CP Output Set (example).

Output Set — OSD-OUT							
	Category	Entry	Auto Mnem	Mnemonic	Logical Output	Level Set	Button
1	TEST	▼	1	<input checked="" type="checkbox"/>	@@Time@@	STU1	▼
2		▼		<input type="checkbox"/>			▼

(The Category and Entry fields are not used, but they must have entries to satisfy the compiler.)

Level Set. This set, type CP 3800, determines which level will be statused. In the example shown in Figure 17, the video level will be statused. The Mnemonic field is not used (but must include text as a placeholder).

Figure 17. CP Level Set table (example).

CP Level Set — OSD-LEV				
	Mnemonic	Level	Break	Switch
1	aaaa	VIDEO	▼	<input checked="" type="checkbox"/>
2			▼	<input type="checkbox"/>

## Problems corrected in release 7.4

1. Corrected a problem in systems with a large number of JEP-100 panels operating on a LAN where the CM would occasionally reboot.
2. Corrected a problem in the network driver where console command “ping -l 65500” would cause the network to hang.
3. 58943: Corrected a problem where after PMEM or flash are cleared on the CM 4000, EScontrol startup commands were not acknowledged through its EScontrol port.
4. 49711: JupiterXPress ESLAN now uses BCD time value format.
5. 50496: CM 4000 time standard now defaults to NTSC.
6. 50775: Corrected a problem in AccuSwitch where 10 minutes before the top of the hour status messages would not be sent.

7. 51618: Corrected a problem with the JNS Machine Control server improperly handled the linkage table when sent in multiple packets.
8. 59467: Corrected a problem in JupiterXPress where a LAN deadlock could occur.
9. 51934: Corrected a problem where Jupiter would lose communication when a Nexus Star Base station is turned off.
10. 54645: JNS Logger now prompts when logging is stopped.
11. 56621: AccuSwitch now supports Binary Confirm All driver.
12. 57078: Corrected a problem on AccuSwitch where the ESwitch protocol was improperly processing the Preset command.
13. 57191: Corrected a problem with the AccuSwitch scheduler not properly removing events from the schedule.
14. 57189: Corrected a problem on the CM 4000 where the gateway and subnet settings were not being used.
15. 57531: Corrected a problem in JupiterXPress where the SNOOP command was improperly processed for ESLAN.
16. 53267: Corrected a problem where CM 4000 serial card did not handle full duplex for ESwitch.

## 7.3.2 Release

### Problems corrected

1. Corrected a problem with Lawo (Dune) routers where an initial switch from the router resulted in incorrect status.
2. Corrected a problem with AccuSwitch where a tasks stack was being overrun.

## 7.3.1 Release

### Problems corrected

1. Fixed a problem where software would not fully install on a new Jupiter file server PC (i.e., a PC on which Jupiter had not been installed previously).

## 7.3 Release

### Problems corrected

1. Corrected a memory leak when ES-Control is defined and switches have been executed. Refresh messages for ES-Control would allocate memory, but it was not being released.
2. Corrected a memory leak with ES-Switch and ASCII where memory for status messages was not being released.
3. CR 43715: ES-Switch will now send a STARTUP message upon activation from a redundancy failover.
4. CR 43718: Corrected a problem with ES-Switch and ASCII where status update messages may not be sent to all ports requesting status and status may be intermittent.
5. CR 41791: Corrected a problem in Jupiter and JupiterXPress with the CP-3800 control panel where user defined sequences would not actually switch the correct levels.
6. CR 41792: Corrected problem in Jupiter and JupiterXPress with the CP-3800 where unlocking/unprotecting an output assigned to button nine or higher could cause a reboot.
7. CR 41785: Corrected a problem in Saturn with MI-3040/T where the internal and external tally may not tally correctly.

## 7.2.1 Release

### JupiterXPress - Logged problems corrected

1. PRN 228: Corrected a problem where a global variable was being used by more than one object at a time.
2. PRN 229, PRN 230: Corrected a problem where serial protocols were using data before it was initialized.
3. PRN 231: Physical Remap now works with JupiterXPress.

### Jupiter Configuration Editor - Logged problems corrected

1. PRN 2515: The Jupiter Network Suite board order now matches the order in the JNS Board Status and JNS Board Info tables.

## **Jupiter - Known issues**

1. PRN 1983: Jupiter does not support follow levels and physical switching.

Follow levels were designed to work only with logical levels, inputs, and outputs. Currently all follow switches happen as logical switches, therefore you get input 9 on the follow levels since with this customer configuration, input 9 is logical input 10. If the SAFE input is moved to the bottom, then the follow switches would work because the rest of the follow levels are 1 to 1 between logical and physical inputs and outputs. If Jupiter did physical switches for the follow switches when physical switches were requested, the following problem occurs: If a source was defined as vtr1 green 5, blue 6, red 7, and a physical switch request of input 5 was requested, the end result would be green 5, blue 5, and red 5 to the selected destination.

## **7.2.0 Release**

### **Jupiter - additional enhancements**

Because redundant boards could not be differentiated from the main board, a "-R" was added to the board name in the VGA screen. This change requires that all VGA files will need to accommodate two more characters to the Board column in order to allow for "-R" to be appended to the redundant board. VGA Gen will account for this change, but will overwrite existing VGA files when ran. If a custom VGA page is being used, then the VGA file will have to be manually edited to accommodate this change.

### **Jupiter - logged problems corrected**

1. PRN 1887: Corrected a problem where a machine assigned to Saturn Mix1 or Mix 2 under automation control would not operate correctly.
2. PRN 1929: Corrected a problem during the Jupiter installation process, if TCP/IP is not correctly configured (TCP/IP address is not configured or it is set for DHCP) for Jupiter, then a warning message is displayed and the user must correctly configure TCP/IP.
3. PRN 1938: Corrected a problem with path finding where locked tie lines could get out of sync.
4. PRN 1957: Corrected a problem with JNS Control Center changing sets and issuing a "run time 380" error message. Limited what buttons can be pressed during a set change.

5. PRN 1966: Corrected a problem with SAFE OFF TIME and data routers, where the SAFE switch was not happening correctly.

### **JupiterXPress - logged problems corrected**

1. PRN 181: Corrected a problem with the CP-3800 where levels displayed do not coincide with the page number.
2. PRN 193: Corrected a problem in VGA where an array was being indexed improperly and was causing a page fault.
3. PRN 198: Corrected a problem where after a reboot, VGA and control panel status was slow.
4. PRN 203: Corrected a problem where the CP-3000 would display "MPK Display Error" when selecting a sequence.
5. PRN 204: Corrected a problem in ES-Switch when sending status requests for 500 outputs, one at a time, without a pause in between requests, the CM stops sending status messages, and the console port fills up with "(upmx) PPH4 queue is full" messages.
6. PRN 209: Corrected a problem with the CP-330 where a page fault was being caused by indexing an array improperly.

### **Jupiter Configuration Editor - logged problems corrected**

1. PRN 2493: Corrected a problem where the configuration editor would allow Physical Level entries of 0-999 for Binary and TVS levels which are limited to 1-127.
2. PRN 2494: Corrected a problem where the compiler would not accept a CP Output set for the CP-3020.
3. PRN 2497: Corrected a problem where the GMT Offset for CM-4000 boards was not be compiled properly. GMT Offset was always "000".
4. PRN 2498: Corrected a problem where the redundant boards address was deleted if the type was changed.
5. PRN 2504: Corrected a problem with the compiler hanging when board names in the Network Description Table have spaces in them. Spaces are no longer allowed in board names.
6. PRN 2505: Corrected a problem where path finding groups from one level could be selected on another level. Path finding groups only apply to the level they are configured for.

## **CM 4000 (Jupiter XPress and AccuSwitch) - logged problems corrected**

1. PRN 123: Corrected a problem where the subnet mask was incorrectly set for CM-4000 boards.
2. PRN 124: CM-4000 boards now have TTL (Time To Live) of 64 instead of 1.
3. PRN 2496: In the Time Standard Table, the help for the GMT Offset field said that if the time zone is west of Greenwich the entered value should have been positive. The help message has been corrected to say that time zones west of Greenwich should be negative.

## **AccuSwitch - logged problems corrected**

1. PRN 127: Corrected a problem where the switch logger file could be corrupted.
2. PRN 130: Corrected a problem with the ASCII protocol where a "ZJ" response would not be returned for protected outputs.  
  
PRN 132: Corrected a problem with the ASCII protocol where "ZV000" will protect the output, but "ZU000" would not unprotect the output.

## **7.1.0 Release notes**

See FEB 075-0695-00 (27 pages).\*

## **7.0.0 Release notes**

See FEB 04-047604-109 (31 pages)\*

## **6.2.1 Release notes**

See FEB 04-047604-11 (20 pages).\*

\* This bulletin may be found on the Technical Publications CD-ROM included in this release package. Point your browser to the "index.htm" file on the CD or open the "MNC" directory. For more information, click on Help.

## **6.2, 6.1, and 6.0 Release notes**

See FEB 04-047604-107 (64 pages).\*

## **5.1.5 Release notes**

See FEB 04-047604-089 (66 pages)\*

## **5.1.1 Release notes**

See FEB 04-047604-090 (2 pages)\*

## **5.1.0 Release notes**

See FEB 04-047604-086 (62 pages)\*

## **5.0.6 Release notes**

See FEB 04-047604-100 (53 pages)\*

## **5.0.5 Release notes**

See FEB 04-047604-082 (50 pages)\*

\* This bulletin may be found on the Technical Publications CD-ROM included in this release package. Point your browser to the "index.htm" file on the CD or open the "MNC" directory. For more information, click on Help.



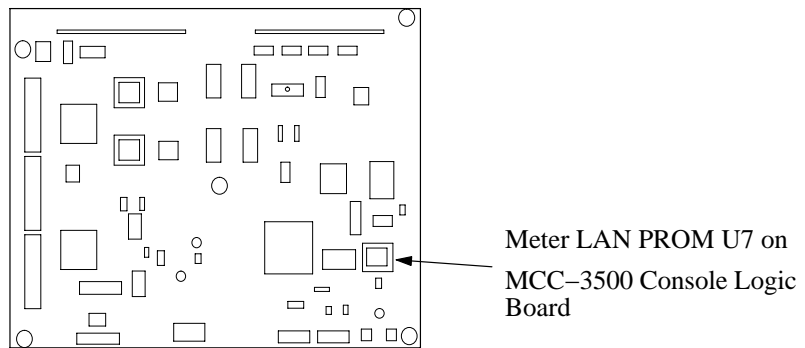
# Installation/Upgrade

Like all software programs, Jupiter requires specific files to be in specific directories. Do not attempt to modify or add to the contents of the Jupiter directory (usually C:\Program Files\Thomson\Jupiter) by using tools such as Windows Explorer unless you are qualified to do so.

The file server computer must be equipped as described on [page 6](#).

**NOTE** (Saturn users only.) During the install process, the installer will ask for a version letter on the Meter LAN PROM U7 in your Saturn MCC 3500 control panel (see Figure 1). The version letter is found at the end of the part number, e.g., “45-046878-01B.” You may want to make a note of this number before you begin.

Figure 18.



**CAUTION** You must have administrator privileges in order to load Jupiter software, launch Jupiter applications, and configure the system. And, the same login should be used for all tasks performed on the Jupiter file server, including uninstalling software.

**NOTE** (Windows XP systems.) When logging on as the Administrator, you may notice that the welcome screen does not always show an Administrator icon. Press Ctrl-Alt-Del twice, and then type “Administrator” as the username in the dialog box to log on as the Administrator.

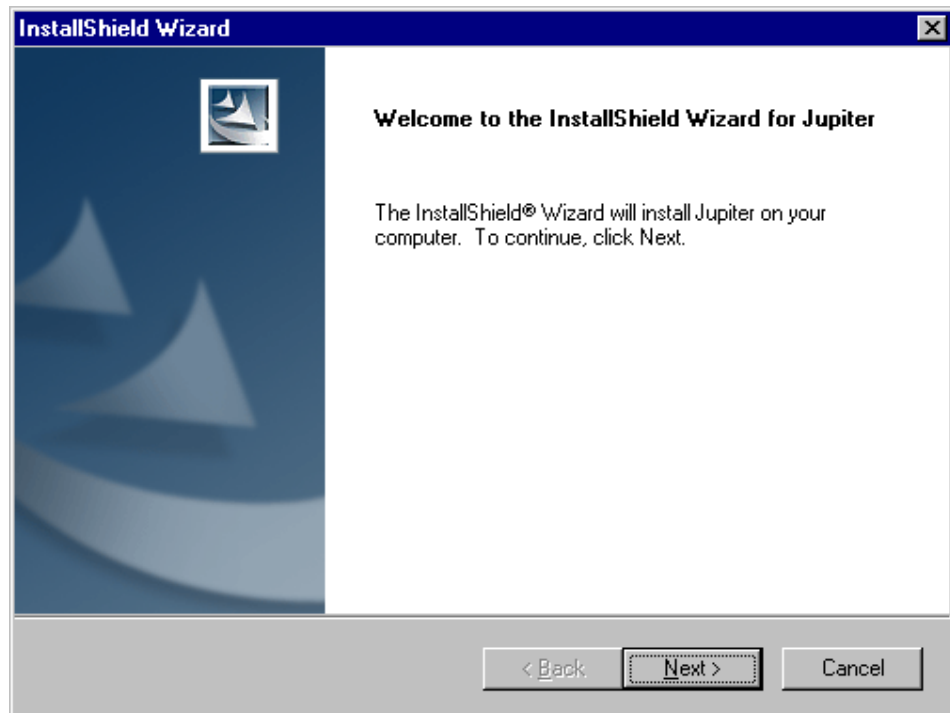
1. (New system only.) Set the IP address for the NIC (Network Interface Card) connected to the Jupiter network:
  - a. Go to “Start > Settings > Network and Dial-up Connections > Local Area Connection > Internet Protocol (TCP/IP) > Properties.”
  - b. Enter the IP address. The recommended address for the Jupiter File Server NIC is 192.168.253.1. Make a note of the address for use later during this installation.

**CAUTION** Do not use “Obtain an IP Address Automatically.” This selection invokes DHCP (Dynamic Host Configuration Protocol) and may result in system corruption.

2. If configuration sets exist on this server you may wish to back up your current configuration directory (C:\Program Files\Thomson\Jupiter\ config) and save it on another disk drive.
3. If previous versions of Jupiter software were installed on this server, they must be uninstalled at this time. See [Removing Jupiter Software on page 36](#).
4. With Windows running, and logged in as the administrator, insert the Jupiter installation CD-ROM. Allow a few seconds for the CD-ROM to auto start and the InstallShield Wizard welcome screen to appear:

**NOTE** If during the course of the following procedure you see the message “Error 1605:-This action is only valid for products that are currently installed” or the message “Error 1628 Failed to complete script based install” it may indicate that more than one login has been used for Jupiter. Contact Grass Valley Technical Support for assistance.

Figure 19.



If your PC requires configuration of the Windows Installer, this will be done automatically. Some systems may require a restart following this configuration. If the following dialog box appears, click “Restart”.

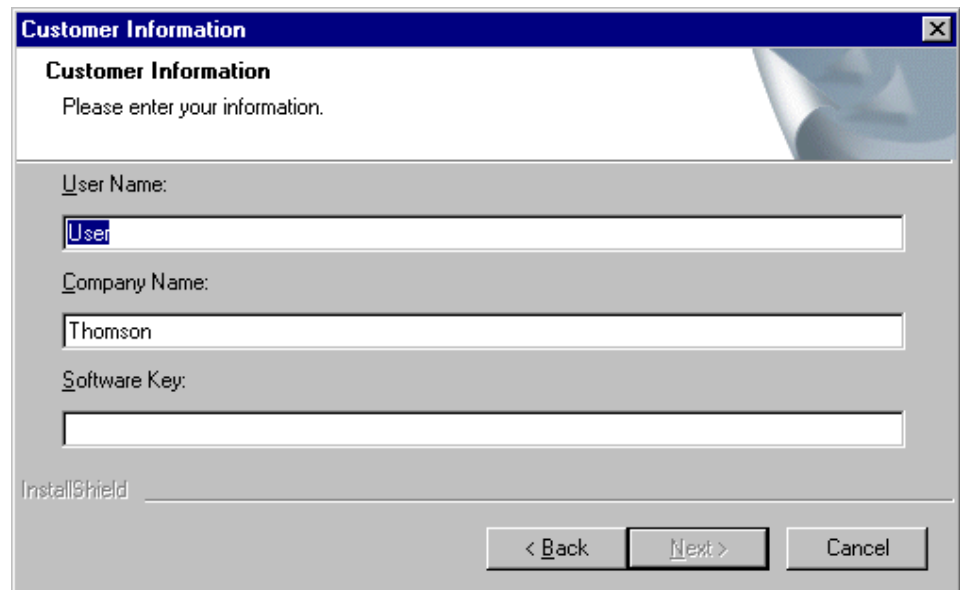
Figure 20.



You can also start the installation by browsing to the CD-ROM and running "setup.exe."

5. Click on "Next."

Figure 21.

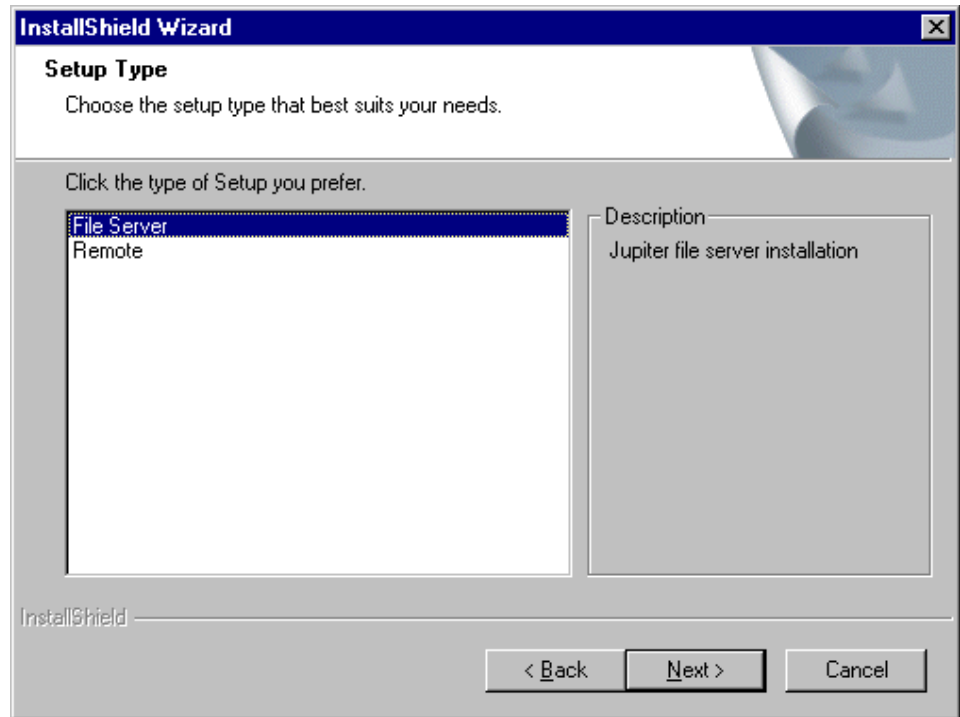


6. Enter a User Name and a Company Name.
7. Enter the Software Key Number printed on the CD-ROM case. This will be three groups of non-case-sensitive characters separated by dashes.

This password will indicate which if any options should be installed (such as GUI control panels or third-party router control software). For a list of available options, refer to Section 1 of the Jupiter Installation and Operating manual.

8. Verify that you accept the software license agreement.
9. Choose the Setup Type, either "File Server" or "Remote."

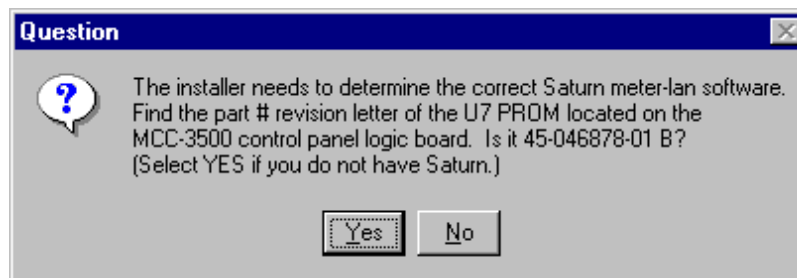
Figure 22.



For more information about Remote Jupiter PCs, see [page 37](#).

10. If you selected File Server as the installation type, the installer will ask for a version letter on the Meter LAN PROM U7 in your Saturn console (for details see [Note on page 25](#)).

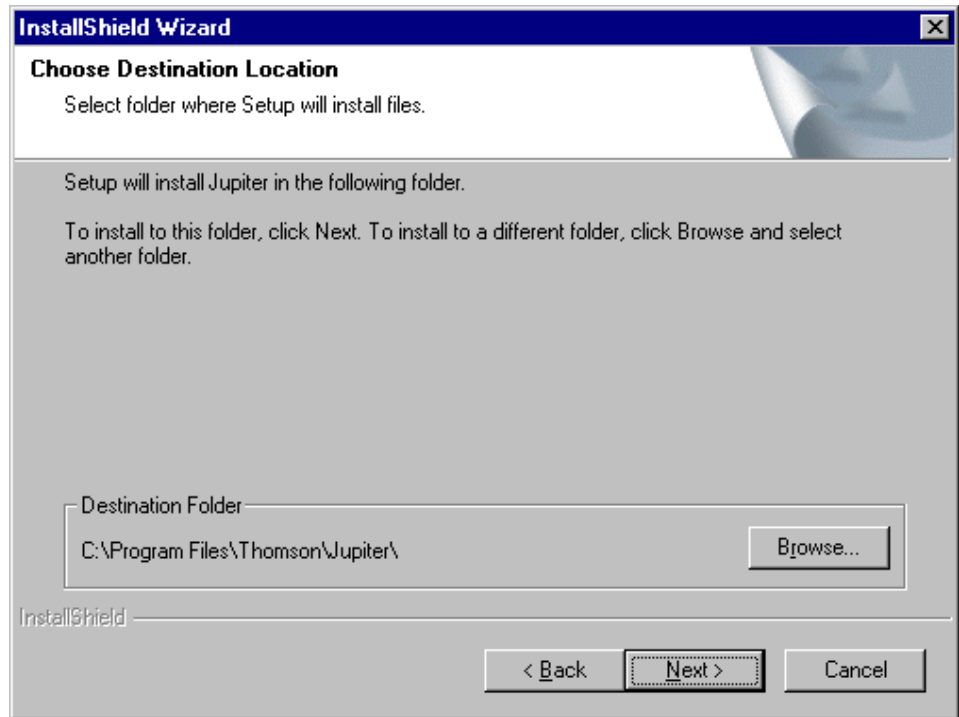
Figure 23.



If you do not have a Saturn in the system select "Yes."

11. Select the directory where the Jupiter application will be installed.

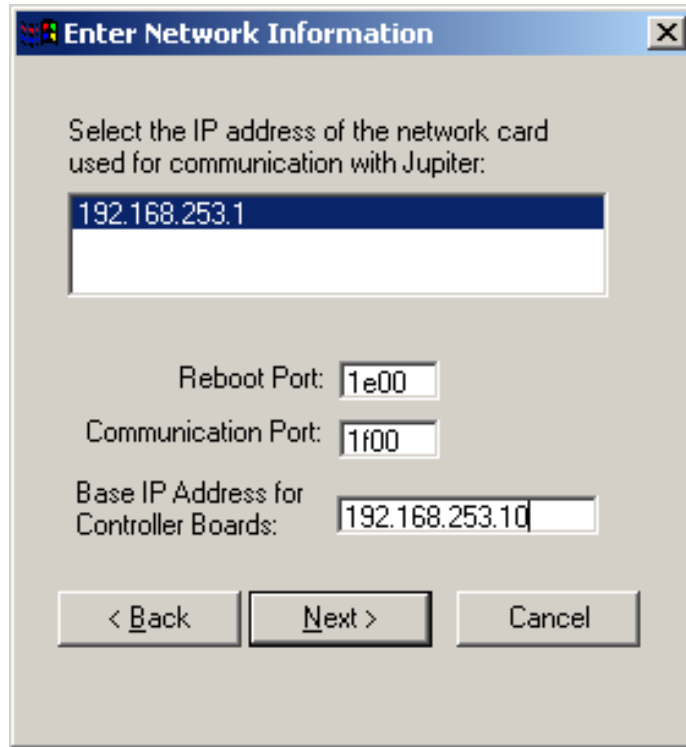
Figure 24.



The default is C:\Program Files\Thomson\Jupiter.

12. Verify the file server’s IP address.

Figure 25.



13. Verify the Network settings.

The recommended (factory default) settings are as follows:

Reboot Port: 1E00  
Communication Port: 1F00  
Base IP Address: 192.168.253.10

In most cases, these recommended settings work well. The “base” IP address will be assigned automatically to the first controller board listed in the Jupiter Network Description table (described in the Jupiter manual). The base address, plus one, will be assigned automatically to the next board in the table; the base address, plus two, will be assigned automatically to the next board in the table, etc.

- If you want to keep the present IP address of the first controller board (CM 4000, VM 3000, etc.), the present communication port setting, and present reboot port setting, click “Next.”
- Or, enter new settings.

**NOTE** Do not confuse the Base IP Address with the File Server IP Address. The Base IP Address goes to the first controller board (CM/VM, etc.). The File Server IP Address is for the PC only and is set using the Windows Network Setup application; the recommended (factory default) File Server IP Address is 192.168.253.1.

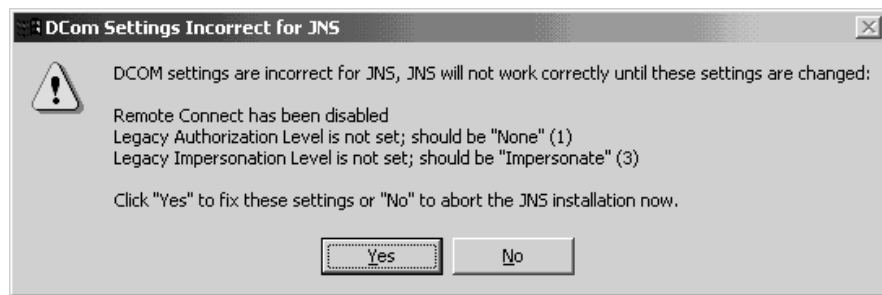
**NOTE** The Base IP and File Server IP must be within the same subnet. E.g., if the subnet is 192.168.253 (and the subnet mask is 255.255.255.0) then both IP addresses would need to have 192.168.253.x addresses.

**NOTE** If a second (“remote”) PC is attached to the LAN (e.g., to provide a Software Control Panel station), it must not conflict with any other address on the LAN, including those generated automatically as described above. If you don’t know a PC’s address, see [Getting the Jupiter LAN IP address of a PC on page 22](#).

**NOTE** The Reboot and Communication Port settings should be left at “1E00” and “1F00” respectively except in very unusual circumstances.

**14.** You may see the following message:

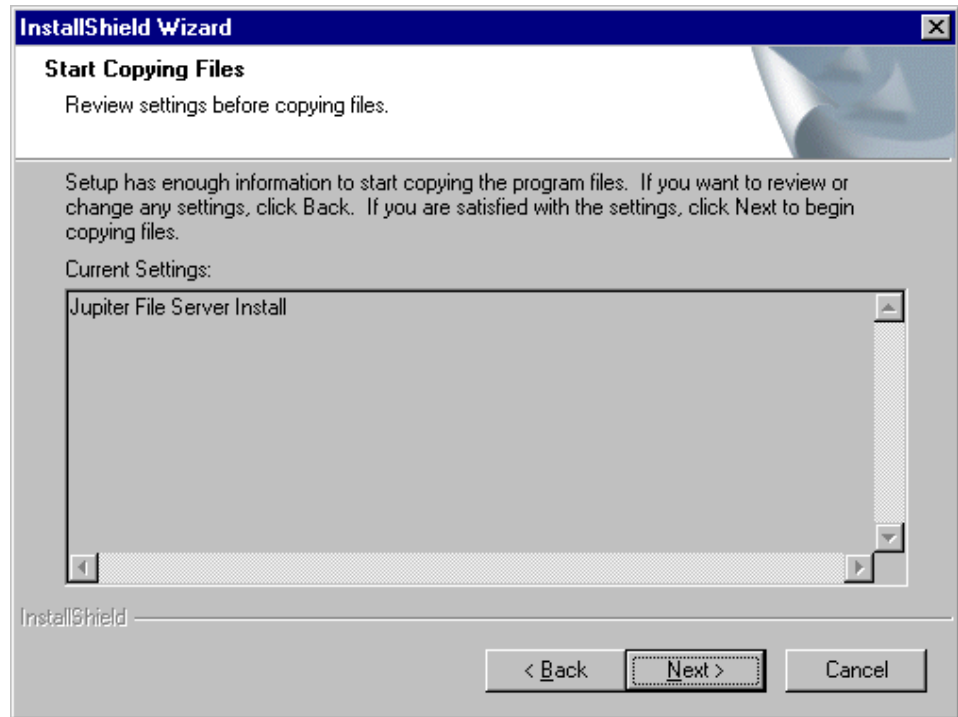
Figure 26.



If so, click on “Yes.”

**15.** A list of Current Settings will be shown.

Figure 27.

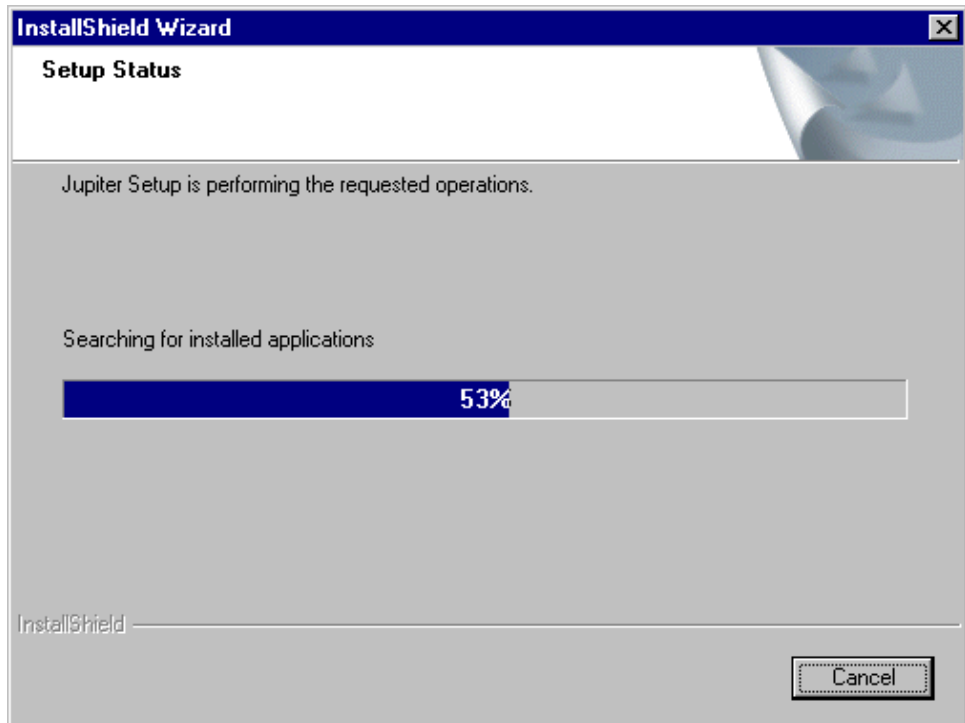


The list will normally show "Jupiter File Server Install" when "File Server" was selected during [Step 9](#) above.

16. Verify by selecting "Next." This will initiate the file copy process.



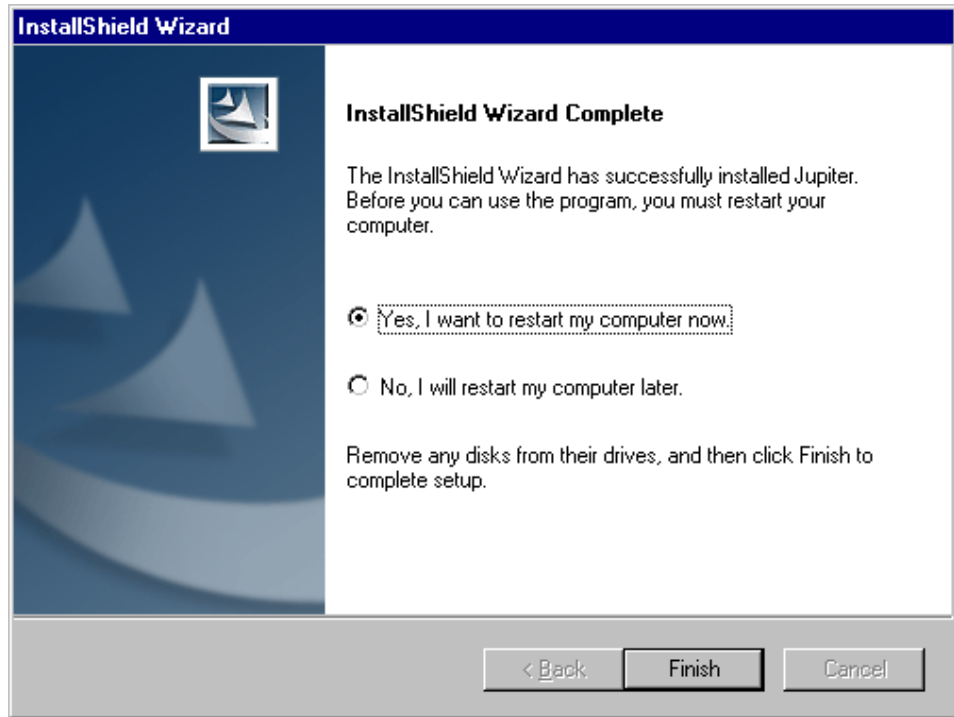
Figure 28.



When finished, the installer will report "InstallShield Wizard Complete."

17. Click "Finish."
18. In some cases, when the installation is complete, a message will indicate that a reboot is required:

Figure 29.



19. "Jupiter Network Suite" (JNS) should now appear in the "Start > Programs" menu.
20. (Optional - Saturn only) Install the patch that allows the "On Air Mono" and "Program Mono" digital outputs of the DAP 4000 Digital Audio Processor to be turned into stereo outputs:
  - a. Go to the Jupiter installation directory where the DSP files are located (C:\ProgramFiles\Thomson\Jupiter\download\list\common).
  - b. Back up the file "DSPA\_XX.BIN" by renaming it (e.g., to "DSPA\_XX.BAK").
  - c. Copy the file "DSPA\_STR.BIN" and rename the copy "DSPA\_XX.BIN."
  - d. Recompile the configuration set.
  - e. Activate and download the configuration set.
  - f. The On Air Mono and Program Mono outputs will now be stereo for all DAPs in the system.
21. Set the gateway and subnet mask values for the Jupiter network boards (VM/SI/CM/Saturn):

- g.** Launch Jupiter Network Suite.
- h.** Go to “Tools > Jupiter Settings.”
- i.** Select (check) the field with the IP address used for the Jupiter network. This is the address described in [Step 12](#) above. The “base” address was described in [Step 13](#) above.
- j.** For the Gateway address, enter the Jupiter network number (e.g., 192.168.253) and a “1” for the gateway itself. For example: “192.168.253.1.”
- k.** For the Subnet Mask, indicate a Class C network by entering “255.255.255.0.”

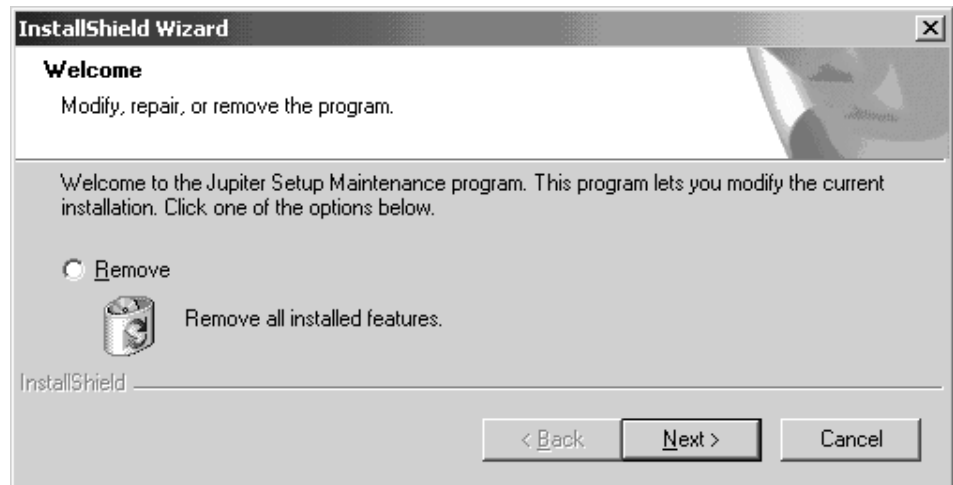
# Removing Jupiter Software

**NOTE** This process will not remove existing user-created configuration sets.

**CAUTION** You must be logged in as the administrator in order to load Jupiter software, launch Jupiter applications, and configure the system. This same login should be used for all tasks performed on the Jupiter file server, including uninstalling software. Failure to observe this rule may result in system corruption.

1. Go to “Start > Settings > Control Panel > Add/Remove Programs.” The InstallShield Wizard welcome screen will appear:

Figure 30.



2. Click “Remove.”
3. To initiate the uninstall procedure, click “Next.”

When finished the system will report “Maintenance Complete.”

**NOTE** For those with Jupiter 7.2 Beta 1 installed: If you are unable to remove it, *re-install* Jupiter 7.2 Beta 1 and go to the Control Panel again to try to remove it. You can then proceed to install Jupiter 7.4.

## Getting the Jupiter LAN IP address of a PC

1. Go to “Start > Settings > Control Panel > Network and Dial-up Connections > Local Area Connection > Properties.”
2. Select the Jupiter network adapter. The IP address will be indicated.

## Software configuration

If this is an initial installation, the system software must be configured using the Jupiter configuration editor. For overall software configuration instructions, please refer to the Jupiter Installation and Operating manual starting with Section 4 - “Jupiter Network Suite Control Console.”

## Running applications on a Remote PC

The following programs can be “connected to” (accessed) on a remote PC equipped with JNS:

- Board Status
- Control Center
- Force Unlock
- Logger
- Log Viewer
- Physical Control
- Party Line Download (JupiterPlus only)
- Router Control Utility
- Router Save/Restore
- Saturn Monitor Follow (JupiterPlus only)
- Software Control Panels Suite

To install these programs remotely, follow the instructions beginning on [page 25](#) and select “Remote” during [Step 9](#).

For more information about Remote PC installation and operation, refer to the Jupiter manual.

## Connecting a Remote PC to a Windows XP Server

If the file server is running Windows XP and you would like to run remote clients that connect to the file server, a Local Security Policy setting may need to be changed on the file server. By default, Windows XP will prevent remote clients from connecting.

Open the Control Panel, select Performance and Maintenance, select

Administrative Tools, select Local Security Policy, double-click on Local Policies in the tree-view, and double-click on Security Options in the tree-view. Scroll down the list of settings to find "Network access: Sharing and security model for local accounts." Change the setting from "Guest only - local users authenticate as Guest" to "Classic - local users authenticate as themselves." You may need to reboot the file server.

If you still get DCOM errors while connecting, the Administrative Tools / Event Viewer may provide helpful information.

Keep in mind that the username AND password on both the file server and the remote clients must be identical. To prevent unauthorized access, Grass Valley recommends that you use a secure password.

# Appendix

## Grass Valley Native Protocol Implementation on CM 4000 Systems

A subset of the GV Native Protocol is now supported by CM 4000 controllers. This implementation is for Ethernet applications only.

A complete description of Native Protocol is found in the Grass Valley NP manual, part number 071 0201 02.

### NP Commands Not Supported

The commands **not** implemented in the Jupiter 7.4.0 release are:

AS	Machine Assign
BK\tA	Background Activities Clear Query Assignment flags
BK\tP	Background Activities Port Configuration Parameters.
CH	Chop
CT	Clear Tie-lines
DA	Machine De-Assign
QA	Query Assignment
QL & QI	Query Status with Tie-lines
QN\tV	Query Salvo Names
QN\tR	Query Room Names
QN\tT	Query Tie-line Names
QN\tM	Query Names
QN\tY	Query Names
QT	Query Date and Time
QV	Query Salvo status
ST	Set Date and Time
TJ	Take Index Level Bitmap
TM	Take Monitor
TS	Take Salvo

### Other Jupiter exceptions

Jupiter does not require refreshing protects. Protects will not time out on the refresh interval.