Aurora Edit

Installation and Configuration Guide

SOFTWARE VERSION 6.3

071-8501-02
SEPTEMBER 2007

THOMSON
images & beyond

Revision Status

Rev Date	Description
March 28, 2005	Initial release, part number 071-8294-00
November 21, 2005	Release 071-8294-01 for Software Version 5.5
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October 26, 2006	Release 071-8501-01 for Software Version 6.0a
September 20, 2007	Release 071-8501-02 for Software Version 6.3

Contents

Safety Summaries

General Safety Summary

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

Only qualified personnel should perform service procedures.

While using this product, you may need to access other parts of the system. Read the *General Safety summary* in other system manuals for warnings and cautions related to operating the system.

Injury Precautions

Use Proper Power Cord

To avoid fire hazard, use only the power cord specified for this product.

Ground the Product

This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.

Do Not Operate Without Covers

To avoid electric shock or fire hazard, do not operate this product with covers or panels removed.

Do Not operate in Wet/Damp Conditions

To avoid electric shock, do not operate this product in wet or damp conditions.

Do Not Operate in an Explosive Atmosphere

To avoid injury or fire hazard, do not operate this product in an explosive atmosphere.

Avoid Exposed Circuitry

To avoid injury, remove jewelry such as rings, watches, and other metallic objects. Do not touch exposed connections and components when power is present.

Product Damage Precautions

Use Proper Power Source

Do not operate this product from a power source that applies more than the voltage specified.

Provide Proper Ventilation

To prevent product overheating, provide proper ventilation.

Do Not Operate With Suspected Failures

If you suspect there is damage to this product, have it inspected by qualified service personnel.

Battery Replacement

To avoid damage, replace only with the same or equivalent type recommended by the circuit board manufacturer. Dispose of used battery according to the circuit board manufacturer's instructions.

Safety Terms and Symbols

Terms in This Manual

These terms may appear in this manual:

WARNING: Warning statements identify conditions or practices that can result in personal injury or loss of life.

CAUTION: Caution statements identify conditions or practices that may result in damage to equipment or other property, or which may cause equipment crucial to your business environment to become temporarily non-operational.

Terms on the Product

These terms may appear on the product:

DANGER indicates a personal injury hazard immediately accessible as one reads the marking.

WARNING indicates a personal injury hazard not immediately accessible as you read the marking.

CAUTION indicates a hazard to property including the product.

Symbols on the Product

The following symbols may appear on the product:

DANGER high voltage

Protective ground (earth) terminal

ATTENTION – refer to manual

Service Safety Summary

WARNING: The service instructions in this manual are intended for use by qualified service personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to all safety summaries before performing service.

Do Not Service Alone

Do not perform internal service or adjustment of this product unless another person capable of rendering first aid and resuscitation is present.

Disconnect Power

To avoid electric shock, disconnect the main power by means of the power cord or, if provided, the power switch.

Use Care When Servicing With Power On

Dangerous voltages or currents may exist in this product. Disconnect power and remove battery (if applicable) before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections

Certifications and Compliances

Canadian Certified Power Cords

Canadian approval includes the products and power cords appropriate for use in the North America power network. All other power cords supplied are approved for the country of use.

FCC Emission Control

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by Grass Valley can affect emission compliance and could void the user's authority to operate this equipment.

Canadian EMC Notice of Compliance

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A préscrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

EN55103 1/2 Class A Warning

This product has been evaluated for Electromagnetic Compatibility under the EN 55103-1/2 standards for Emissions and Immunity and meets the requirements for E4 environment.

This product complies with Class A (E4 environment). In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Emission Limits

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

Laser Compliance

Laser Safety Requirements

The device used in this product is a Class 1 certified laser product. Operating this product outside specifications or altering its original design may result in hazardous radiation exposure, and may be considered an act of modifying or new manufacturing of a laser product under U.S. regulations contained in 21CFR Chapter 1, subchapter J or CENELEC regulations in HD 482 S1. People performing such an act are required by law to recertify and reidentify this product in accordance with provisions of 21CFR subchapter J for distribution within the U.S.A., and in accordance with CENELEC HD 482 S1 for distribution within countries using the IEC 825 standard.

Laser Safety

Laser safety in the United States is regulated by the Center for Devices and Radiological Health (CDRH). The laser safety regulations are published in the "Laser Product Performance Standard," Code of Federal Regulation (CFR), Title 21, Subchapter J.

The International Electrotechnical Commission (IEC) Standard 825, "Radiation of Laser Products, Equipment Classification, Requirements and User's Guide," governs laser products outside the United States. Europe and member nations of the European Free Trade Association fall under the jurisdiction of the Comité Européen de Normalization Electrotechnique (CENELEC).

Safety Certification

This product has been evaluated and meets the following Safety Certification Standards:

Standard	Designed/tested for compliance with:
UL1950	Safety of Information Technology Equipment, including Electrical Business Equipment (Third edition).
IEC 950	Safety of Information Technology Equipment, including Electrical Business Equipment (Second edition, 1991).
CAN/CSA C22.2, No. 950-95	Safety of Information Technology Equipment, including Electrical Business Equipment.
EN60950	Safety of Information Technology Equipment, including Electrical Business Equipment 1992.

Preface

Grass Valley Product Support

To get technical assistance, check on the status of a question, or to report new issue, contact Grass Valley Product Support via e-mail, the Web, or by phone or fax. Contact Grass Valley first regarding problems with third party software on Grass Valley products, such as the Microsoft® Windows® operating system, Windows Media® player, Internet Explorer® internet browser, and SQL Server™.

Web Technical Support

To access support information on the Web, visit the product support Web page on the Grass Valley Web site. You can download software or find solutions to problems by searching our Frequently Asked Questions (FAQ) database.

World Wide Web: http://www.thomsongrassvalley.com/support/
Technical Support E-mail Address: gvgtechsupport@thomson.net.

Phone Support

Use the following information to contact product support by phone during business hours. Afterhours phone support is available for warranty and contract customers.

International (France)	+800 80 80 20 20 +33 1 48 25 20 20	Italy	+39 02 24 13 16 01 +39 06 87 20 35 42
International (United States, Canada)	+1 800 547 8949 +1 530 478 4148	Belarus, Russia, Tadzikistan, Ukraine, Uzbekistan	+7 095 258 09 20 +33 (0) 2 334 90 30
Hong Kong, Taiwan, Korea, Macau	+852 2531 3058	Indian Subcontinent	+91 11 515 282 502 +91 11 515 282 504
Australia, New Zealand	+61 1300 721 495	Germany, Austria, Eastern Europe	+49 6150 104 444
Central, South America	+55 11 5509 3440	Near East, Africa	+33 1 48 25 20 20
China	+861 066 0159 450	Netherlands	+31 (0) 35 62 38 421
Belgium	+32 (0) 2 334 90 30	Northern Europe	+45 45 96 88 70
Japan	+81 3 5484 6868	Singapore	+65 6379 1313
Malaysia	+603 7805 3884	Spain	+41 487 80 02
Middle East	+971 4 299 64 40	UK, Ireland, Israel	+44 118 923 0499

Authorized Support Representative

A local authorized support representative may be available in your country. To locate the support representative for your country, visit the product support Web page on the Grass Valley Web site.

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END-OF-LIFE PRODUCT RECYCLING NOTICE

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

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.

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

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Chapter 1

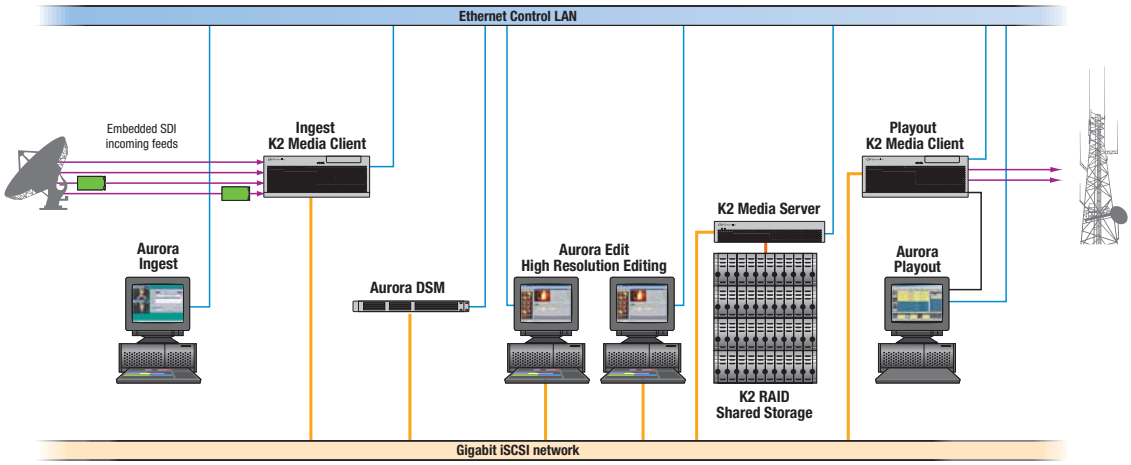
Introducing the Aurora Edit System

The Aurora Edit system is a combination of hardware and software that provides the tools necessary to create and manage content for news and sports broadcasts.

This chapter discusses the following topics:

Digital News Production Workgroup Layout

Aurora Edit is part of the digital news production workgroup from Grass Valley.



The Aurora Edit SD and HD Components

The Aurora Edit family, both SD (standard definition) and HD (high definition), consists of several components comprising a digital production system. All Aurora Edit software applications run on the Aurora Edit platform.

Workstation

The Aurora Edit workstation is a personal computer housing these components:

- Graphics display card
- Hard drvie with NTFS for operating system
- Media drives (72, 146, or 300GB)
- One TCP/IP compatible Ethernet LAN connection
- Windows XP operating system
- 6 or 7 slots, depending on the workstation:
  - 6 slots = 1 or 2 PCI-e, 1 PCI, and 3 PCI-X
  - 7 slots = 3 PCI-e, 1 PCI and 3 PCI-X
- USB ports
- Optional:
  - Fibre Channel or Gigabit Ethernet network cards
  - RS-422 controller card

The Aurora Edit workstation can be rackmounted or standalone.

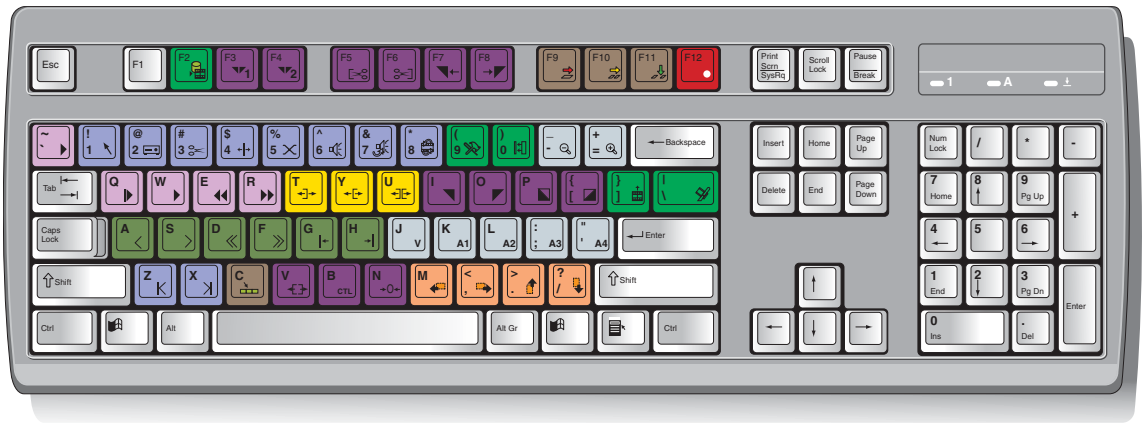
For a list of supported hardware platforms, see the ReadMe file that comes with the Aurora Edit software.

Breakout Box

An optional Breakout Box (BOB), which provides video and audio input and output, is available with Aurora Edit. The BOB connects to board(s) installed in the Aurora Edit workstation.

There are two different types of Breakout Box/board combinations: SDR and HDR. The type of Breakout Box/board combination would depend on the type of video compression you use on your Aurora Edit system: SD or HD.

Keyboard and Mouse



The Aurora Edit's keyboard has color-coded keys that allow you to see editing commands at a glance. Keys correspond to Aurora Edit functions. The Aurora Edit system also includes a standard USB mouse.

Monitor

You can have one or two computer monitors attached to your Aurora Edit workstation. In a dual-monitor configuration, one monitor usually displays multiple bins, while the rest of the Aurora Edit applications display on the other monitor.

Software

Aurora Edit software consists of the Aurora Edit nonlinear editor in SD and HD versions. In addition, the following software is installed on the Aurora Edit workstation:

- Microsoft Windows XP, Service Pack 2
- K2 Software
- Generic iSCSI Installer
- GVG_MLib Installer
- MSeries
- SNFS
- Chyron Lyric Software
- DirectX
- QuickTime
- Acronis Imaging Software

See the ReadMe file that comes with the Aurora Edit software for a complete list of software that accompanies Aurora Edit and supported versions.

Other Components

There are several additional components you may wish to use with your system:

- XRE Server, used for these services:
  - SmartBin Service
  - Domain Controller for Open SAN security
- Video Tape Recorder (VTR)—Allows you to use footage from video tapes.
- External monitor—Displays standard NTSC or PAL output.
- Audio mixer, such as Mackie 1402VLZPro—Allows greater control of audio input.
- External controllers—The Jog/Shuttle Controller, Motorized Fader Controller, and Effects Controller (available from Grass Valley) allow you to control the Aurora Edit applications.
- Speakers.

Storage Options

With the Aurora Edit system, you have two options for storing files:

- Network Attached Storage (NAS) network, a shared storage network consisting of these components:
  - NAS Server to manage the network file systems
  - RAID arrays provide storage for all media
  - Database System Manager (DSM), which hosts the Aurora database and optionally the SmartBin Service
- K2 network, a shared storage network consisting of these components:
  - K2 Media Server to manage the network file systems
  - RAID arrays provide storage for all media
  - Gigabit Ethernet Switch connecting the K2 Media Server and the Aurora Edit client devices
  - Control point PC, which hosts the K2 Configuration application used to configure the storage system
  - Database System Manager (DSM), which hosts the Aurora database and optionally the SmartBin Service

Chapter 2

Setting Up the Aurora Edit Workstation

Once you understand the site requirements and cabling guidelines, you can set up your Aurora Edit workstation and connect the cables.

This chapter discusses the following topics:

Site Requirements

This section details site requirements for your Aurora Edit system.

Power Requirements

It is highly recommended that you use a surge protector and an uninterruptible power supply (UPS) with your system. There must be a 20 A, 110 to 120 V alternating current, 60 Hz or 10 A, 220 to 224 V alternating current, 50 Hz circuit breaker and an isolated ground.

Storage upgrades may require additional electrical service. Consider the equipment nameplate ratings and consult your Thomson Grass Valley representative.

The Aurora Edit system is designed to work with a single-phase (three-wire) power cord with a grounded neutral conductor. To reduce the risk of electric shock, always plug the cord into a powered off grounded power outlet.

For best performance, keep all system power connections on the same power feed distribution panel. Do not connect any other equipment to the same outlet that is powering the Aurora Edit equipment.

This table lists the power requirements for the system components.

Component	Voltage	Frequency	Power
Aurora Edit Workstation	120/240 VAC	50/60	700 Watts
17" Monitor (optional; spec based on Viewsonic A70)	100/240 VAC	50/60	2 Amps
Mackie 1402VLZ Pro (optional)	120/240 VAC	50/60	25 W
Fostex Speakers (optional)	120 VAC		5 W
Brocade Silkworm 2400 (optional 8 port)	100/240 VAC	50/60	1.5 Amps
Brocade Silkworm 2800 (optional 16 port)	100/240 VAC	50/60	1.5 Amps
Netgear FS516 Ethernet Switch (optional 16 port)	100/240 VAC	50/60	29 W

Synchronization Requirements

You must have a stable video reference source to synchronize the system if you are playing directly to air. The system needs no reference if the output is not required to be genlocked.

Environmental Requirements

This table lists the specifications for a standard broadcast environment.

Condition	Range
Operating temperature	50 to 75 degrees Fahrenheit
Storage temperature	0 to 140 degrees Fahrenheit
Relative humidity	20% to 80%
Altitude	0 to 6000 ft. (0 to 1829 m)

Networking Requirements

Your system is designed to work over industry-standard local area networks (LANs) and wide area networks (WANs) using standard TCP/IP networking protocols. Install all possible network cabling before the equipment arrives and make note of the network IP addresses that reside within the network.

Fibre Channel

The Aurora Edit system transfers files to the playback server through a Fibre Channel switch connection. Typically, fibre-optic cable is run along or inside facilities ductwork using 62.5-micron termination connectors, SC type for the Emulex Fibre Channel card and LC type for the Q-Logic Fibre Channel card. Contact Thomson Grass Valley for sources for custom or off-the-shelf length cables.

Ethernet Switch

The Ethernet switch routes data between all Aurora Edit systems, the playout server, and newsroom systems. A 100-BaseT Ethernet switch is required to connect network devices within Aurora Edit production workgroups. A Gigabit Ethernet switch is available and used for the Network Attached Storage product. Status LEDs on the hub show network activity.

Cabling Guidelines

Creating a floor plan of your facility with user and equipment locations marked will help you determine necessary cable lengths. Follow these guidelines to install your Aurora Edit system:

- Use all cables delivered with your Aurora Edit system. All supplied cables are tested and qualified for Thomson Grass Valley broadcast system configurations.
- The monitors should be within 6 feet of the Aurora Edit workstation. You may use VGA cable extensions, though video images degrade with increased length.
- The keyboard and mouse should be within 6 feet of the Aurora Edit workstation. Use keyboard and mouse extensions only if necessary.
- The Breakout Box should be within 6 feet of the Aurora Edit workstation.
- The VTR should be within 15 feet of the Aurora Edit workstation for a standard RS-422 length cable. An extension cable can be added for greater distances.
- A fibre-channel switch should be within 1650 feet (500 meters) from the Aurora Edit workstation when using a standard Multimode cable.

These cables ship with your Aurora Edit system:

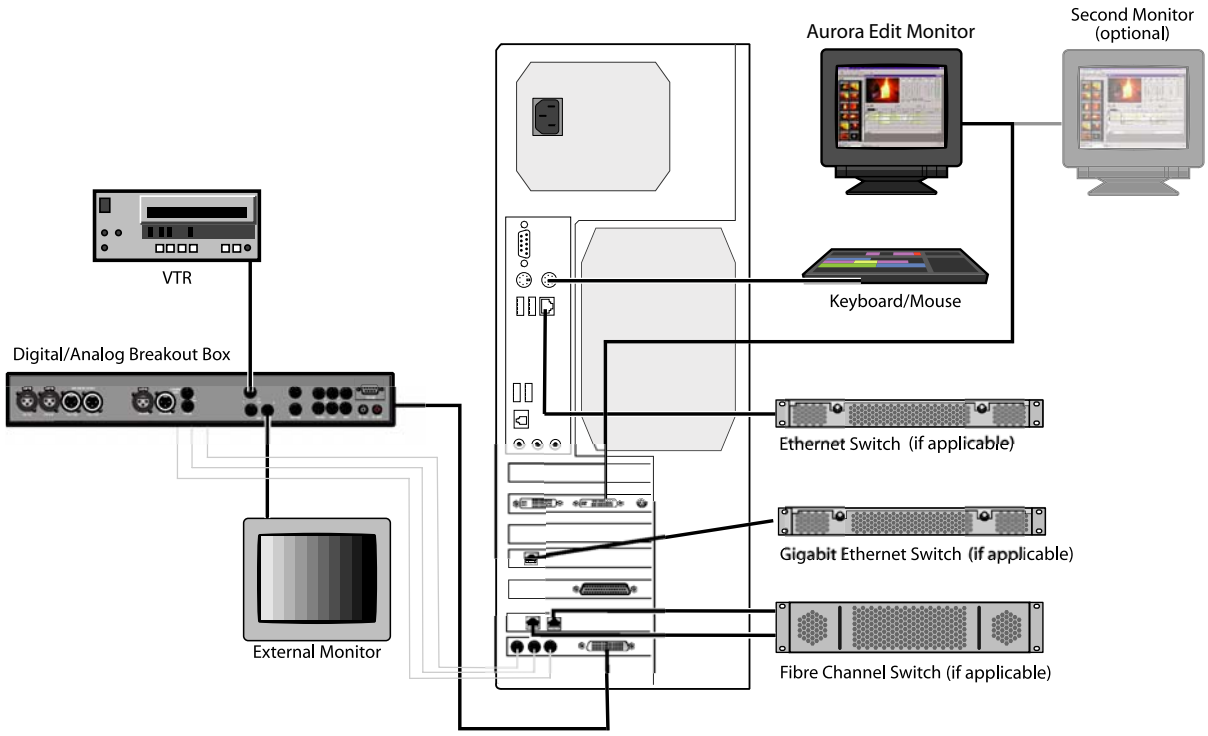
Cable Description	Length	Connects
Standard power cords	Up to 6 ft. (1.8m)	All physical hardware with designated power supply
Keyboard cable	Up to 6 ft. (1.8m) (Quality PS/2 extender cables can be used)	Keyboard to Aurora Edit workstation
Mouse cable	Up to 6 ft. (1.8m) (Quality PS/2 extender cables can be used)	Mouse to Aurora Edit workstation

You need to supply these cables for your Aurora Edit system:

Cable Description	Length	Connects
Fibre optic	62.5-micron, SC or LC Multimode type, up to 1650 ft. (500m)	Fibre channel switch to server fibre port
RJ-45 Cat5 Ethernet	Customer desired	Ethernet hub or switch to Aurora Edit workstation ethernet port
Remote serial	Up to 15 ft. (4.6m) (Quality RS422 extension module can be used)	Remote control from VTR to RS-422 card on Aurora Edit workstation
BNC video reference	Customer desired	Reference on Breakout Box
BNC video	Customer desired	Customer equipment to Breakout Box
XLR Audio	Customer desired	Customer supplied equipment to Breakout Box

Connecting System Cables

This illustration shows a typical setup of how each of the components connect to the Aurora Edit workstation. The following sections describe each connection in detail.



Connecting the Keyboard and Mouse

To connect the keyboard and mouse:

1. Plug the keyboard cable into the purple PS/2 port (or USB port) on the back of the Aurora Edit workstation.
2. Plug the mouse cable into the green PS/2 port (or USB port) on the back of the Aurora Edit workstation.

Connecting the Workstation Monitor

You can connect one or two workstation monitors to your system.

To connect a single monitor:

1. Plug the **VGA1** connector on the other end of the NVIDIA output adapter cable into the monitor cable (for the primary monitor).
2. If necessary, plug the other end of the monitor cable to the **VIDEO IN** port on the back of the monitor.

   Some workstation monitors have the cable permanently attached to the back of the monitor.
3. Plug the monitor's power cable into the back of the monitor and into a power strip or wall outlet.

To connect two workstation monitors to your system:

- Follow the instructions for the single monitor, but in addition, plug the **VGA2** connector on the NVIDIA output adapter cable into the monitor cable for the second monitor.

Connecting the Power Cable

To connect the power cable:

- Plug the power cable from the back of the Aurora Edit workstation to a power strip or wall outlet.

Connecting Network Cables

Depending on the type of network you have, and the type of storage system you've chosen to use, you have different boards in your Aurora Edit system.

Ethernet Connection

If you are using a Network Attached Storage (NAS) system, you are using a Gigabit ethernet connection.

To connect an ethernet switch to the Aurora Edit workstation:

- Plug the end of the RJ45 cable into the Gigabit port on the back of the Aurora Edit workstation and the other end into your ethernet switch.

Fibre Channel Connection

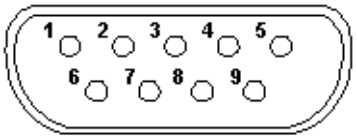
If you are using a Profile Media Server as part of your Aurora Edit system, or creating a shared storage system with an Open SAN network, you are using fibre channel connections. You may have a single- or dual-port fibre channel board.

To connect a fibre channel switch to the Aurora Edit workstation:

- Plug the ends of the network cable into the **TX** and **RX** connectors on the back of the Aurora Edit workstation and the other ends into your fibre channel switch.

GPI Pin Assignments

There are 2 COM port connectors on the backplane of the Aurora Edit workstation, COM1 and COM2, which are located alongside the other motherboard connectors. Both COM ports are generally used for the Aurora Playout application but can also be used with Aurora Edit. See the User Guide for setting up the GPI Commands in relationship to the pins shown in the illustration and table below.



Pin	COM1 Function	COM2 Function
1	-	-
2	-	-
3	-	-
4	-	-
5	Chassis Ground	Chassis Ground
6	IN 2	IN 5
7	+12V	+12V
8	IN 1	IN 4
9	IN 3	IN 6
	Provide +5 to +24 volts to an input to trigger.	

Chapter 3

Installing Optional Equipment

Aurora Edit allows you to connect a variety of specialized equipment to your computer to enhance your editing capabilities.

This chapter discusses the following topics:

Installing Video Boards and Breakout Boxes

If you want to use an external broadcast monitor to provide video output with your Aurora Edit, you need to install video board(s) and a Breakout Box. These boards and Breakout Boxes provide a high-quality system for standard and high definition video production workflows. The boards and Breakout Boxes are available from Thomson Grass Valley.

Aurora Edit offers four rack-mountable Breakout Boxes with corresponding boards:

Aurora Edit Configuration	Video Board/Breakout Box Requirements
SDR/HDR	1 breakout box, 1 video board, and cables
SDFX	1 breakout box, 2 video boards, and cables
HDFX	1 breakout box, 3 video boards, and cables

SDR/HDR Breakout Box

SDFX/HDFX Breakout Box

Preparing the Aurora Edit Workstation

To prepare the workstation for any box-board combination:

1. Power up the Aurora Edit workstation and, during the boot-up process, access **BIOS setup** (F10 key).
2. Select **Advanced**, then **Thermal**.
3. Enable the option **Full Speed Chassis Fans** (SDFX and HDFX only).
4. Start Windows and click **Start | Settings | Control Panel**.
5. Double-click **Administrative Tools | Local Security Policy**.

   The Local Security Settings window appears.
6. Click **Local Policies** then double-click **Security Options**.

   A list of security policy/setting options appears.
7. Scroll down to **Network access: Sharing and security model for local accounts** and double-click on it. Change the Network access setting to: **Classic - local users authenticate as themselves**. Click **OK**.

Installing Boards Into the Aurora Edit Computer

All of the boards install in the Aurora Edit computer workstations and connect to the corresponding Breakout Box. To install the board(s):

1. Disconnect power to your computer and remove the access panel.
2. Insert the board(s) according to the slot map in "Workstation Slot Map" on page 81.

   Boards are installed in different slots depending on which workstation you have.
3. For the SDFX and HDFX versions, connect the audio adapter board to the I/O board using the attached connector.
4. For the HDFX version, connect the Effects board to an internal power source.
5. Replace the cover on the Aurora Edit computer.

Cabling Boards to the Breakout Box

Follow the cabling instructions for your specific Aurora Edit configuration.

Cabling the SDR Board to the Breakout Box

Using the breakout cable provided with the Breakout Box:

1. Connect the 60-pin plug to the back of the Breakout Box; connect the other cable end to the 60-pin plug in the board endplate.
2. Connect the three BNC cable connectors to the back of the Breakout Box; connect the other cable end to the 9-pin D connector on the board endplate.

Cabling the HDR Board to the Breakout Box

To connect an HDR board to the HDR Breakout Box:

1. Using the connector cable provided with the Breakout Box:
   a. Attach the 60-pin plug to the back of the Breakout Box.
   b. Attach the other cable end to the 60-pin plug on the board endplate.
2. Using the three BNC connectors (labeled SDI IN, SDI OUT 1, and SDI OUT 2):
   a. Attach the plugs to the back of the Breakout Box.
   b. Attach the other cable end to the BNC connectors on the board endplate.

Cabling the SDFX/HDFX Board to the Breakout Box

To connect the SDFX and HDFX board to the Breakout Box:

1. Connect the attached cable from the back of the Breakout Box as follows:
   - Plug the three BNC connectors to the SDI IN, SDI OUT A, and SDI OUT B connections on the HDFX I/O board.
   - Plug the 26-pin cable to the connector on the FX I/O board.
2. Connect the 26-pin audio cable from the Breakout Box to the FX I/O board.

Installing the SDR or HDR Board Driver

Once you've installed the SDR or HDR board and connected the cables, you need to install the board's driver.

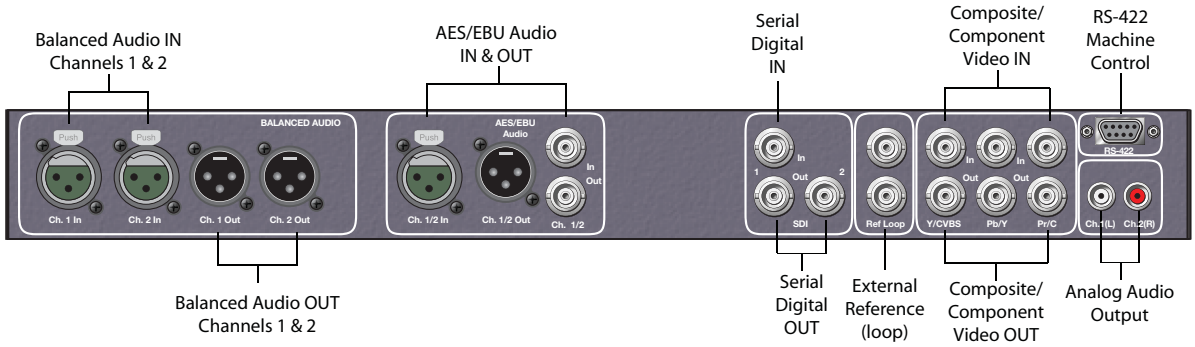
The driver for the SDR or HDR board is located on the Aurora Edit CD, in the **Drivers** directory. You can use either the Found New Hardware Wizard or the Update Device Driver Wizard to install the driver.

NOTE: *The driver for the SDFX and HDFX boards is installed automatically when you license Aurora Edit.*

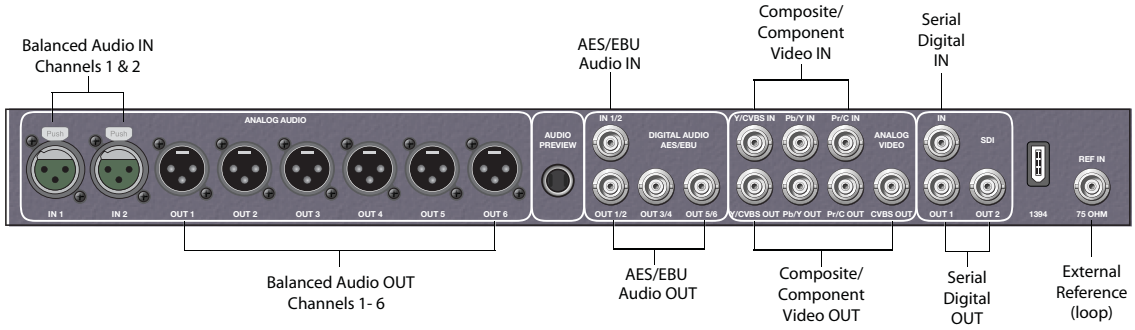
Connecting Audio and Video Cables to the Breakout Box

The following illustrations and table detail how to connect other video and audio cables to your Aurora Edit system.

SDR/HDR Breakout Box



SDFX/HDFX Breakout Box



Input	From	To	Cable type
Analog Audio without a Mixer	VTR Channel 1 output	Breakout Box balanced IN left channel	XLR-female to XLR-male
	VTR Channel 2 output	Breakout Box balanced IN right channel	XLR-female to XLR-male
	Breakout Box Balanced Left Out	VTR Channel 1 input	XLR-male to XLR-female
	Breakout Box Balanced Right Out	VTR Channel 2 input	XLR-male to XLR-female
	Breakout Box Unbalanced Left Out	Left desktop speaker	RCA-male to XLR-male or 1/4” male
	Breakout Box Unbalanced Right Out	Right desktop speaker	RCA-male to XLR-male or 1/4” male
Digital Audio	VTR AES/EBU Channels 1&2 Output	Breakout Box AES/EBU Channels 1&2 Input	XLR-male to XLR-male
	Breakout Box AES/EBU Channels 1&2 Output	VTR AES/EBU Channels 1&2 Input	XLR-male to XLR-female
	Breakout Box Unbalanced Left Out	Left desktop speaker	RCA-male to XLR-male or 1/4” male
	Breakout Box Unbalanced Right Out	Right desktop speaker	RCA-male to XLR-male or 1/4” male
Video	VTR-SDI Output	Breakout Box SDI Input	Single BNC-BNC
	Breakout Box SDI Output	VTR SDI Input	Single BNC-BNC
	VTR Composite Output	Breakout Box Composite Input	Single BNC-BNC
	Breakout Box Composite Output	VTR Composite Input	Single BNC-BNC
	VTR Component Output	Breakout Box Component Input	Tri BNC-BNC harness
	Breakout Box Component Output	VTR Component Output	Tri BNC-BNC harness

Connecting a Video Tape Recorder

In most situations, you connect a VTR to your system to get footage from tape.

To connect a VTR to your system:

1. Using a remote serial cable, plug one end into the top RS-422 port on the back of the Aurora Edit workstation.
2. Plug the other end of the cable into the back of the VTR.

Connecting an Audio Mixer

You can add an audio mixer to enhance Aurora's audio capabilities by feeding multiple inputs into the editor. The following table is a suggested configuration on the setup of a mixer and Aurora Edit, based on the Mackie 1402VLZPro.

Input	From	To	Cable type
Analog Audio with a Mixer	VTR Channel 1 output	Mixer channel 1 line IN	XLR-female to 1/4"-male
	VTR Channel 2 output	Mixer channel 2 line IN	XLR-female to 1/4"-male
	Main mixer out left channel	Breakout Box balanced IN left channel	XLR-female to XLR-male
	Main mixer out right channel	Breakout Box balanced IN right channel	XLR-female to XLR-male
	Breakout Box Balanced Left Out	VTR Channel 1 input	XLR-male to XLR-male
	Breakout Box Balanced Right Out	VTR Channel 2 input	XLR-male to XLR-male
	Breakout Box Unbalanced Left Out	Left desktop speaker	RCA-male to XLR-male or 1/4" male
	Breakout Box Unbalanced Right Out	Right desktop speaker	RCA-male to XLR-male or 1/4" male

Connecting External Controllers to Aurora Edit

There are three external controllers you can use with Aurora Edit: the Motorized Fader Controller, the Jog/Shuttle Controller, and the Effects Controller.

An external controller lets you control features of Aurora Edit easily and quickly.

Name of Controller	Description
Jog/Shuttle	Controls Aurora Edit externally, making editing faster. The controller incorporates a jog/shuttle wheel for convenient searching, buttons to minimize keyboard strokes, and a back-lit LCD timecode display for accurate editing.
Motorized Fader	Controls the audio features of Aurora Edit externally, making refining and perfecting the audio mix of your sequences easier. The controller features four touch-sensitive, motorized faders, 16 channel switches, 4 function keys, and bank shift buttons for control of Aurora Edit audio functions.
Effects	Controls creating and modifying effects in Aurora Edit externally. The controller is a 3–axis joystick mechanism with five rotary encoders and 10 switches for control of Aurora Edit effect functions.

Connecting an External Controller to the Aurora Edit Workstation

You connect the controller to your Aurora Edit workstation using an RS-422 port for the Jog/Shuttle Controller and a USB port for the Fader or Effects Controller.

The Aurora Edit workstation comes configured to use COM4 for the Jog/Shuttle Controller.

Connecting the Jog/Shuttle Controller

1. Plug the controller's 9-pin connector into the bottom RS-422 port on the back of the Aurora Edit workstation (COM4).
2. Plug the controller's power connector into a DC power adapter connection.
3. Verify that the following information appears on the controller's display when it powers up:

   Grass Valley
   Aurora Edit
   Rev x.xx

4. Turn on your Aurora Edit workstation as usual.

Connecting the Motorized Fader or the Effects Controller

1. Plug the controller's USB connector into one of the two available USB ports on the back of your Aurora Edit workstation (usually COM5 for the Motorized Fader Controller and COM6 for the Effects Controller).
2. If you are connecting the Motorized Fader Controller, plug the controller's power connector into a DC power adapter connection.

   The Effects Controller is powered off the USB cable.
3. Turn on your Aurora Edit workstation.
4. When the New Hardware Wizard appears, follow the directions on the screen.

5. When asked for the controller's driver, insert the Aurora Edit CD and navigate to **...\Drivers\JLC USB Drivers**.
6. Finish the new hardware installation.

Verifying the COM Port

To verify that the COM port is set correctly in the Device Manager:

1. Right-click on My Computer and select **Properties**.
2. Click the Hardware tab on the System Properties window and click **Device Manager**.
3. Click the **+** symbol next to the Ports item.
4. Click on **JLCooper USB to Serial (COM#)** and select **Properties**.
5. Click the Port Settings tab on the Properties tab and click **Advanced**.
6. In the COM Port Number field, select the correct COM port from the pull-down list.
7. Click **OK** to close the Advanced window.
8. Click **OK** again to close the Properties window.

Assigning a COM Port for the Controller

To use any of the controllers, you need to assign a specific COM port in Aurora Edit for the controller. Aurora Edit has pre-configured COM ports as follows:

COM Port	Type of Port	Configured Device
1	GPIO	Aurora Playout GPIO
2		
3	RS-422	Video Tape Recorder (VTR)
4	RS-422	Jog/Shuttle Controller
5	USB	Motorized Fader Controller
6	USB	Effects Controller

To assign a COM port:

1. In Aurora Edit, choose **Tools | Options | Controller**.
2. For the Jog/Shuttle Controller, select the correct COM port from the **422 Controller Comm Port** drop-down list; for the other controllers, select the correct COM port from the **USB Controller Comm Port** drop-down list.

   The COM port needs to match the number of the USB port where you connected the controller.
3. Click **OK**.

You can now use the controller to control features on Aurora Edit.

Chapter 4

Installing Software

Aurora Edit comes pre-installed with most of the software you need. If you ever need to re-install it, this chapter provides instructions.

This chapter discusses the following topics:

Installing the Aurora Edit Software

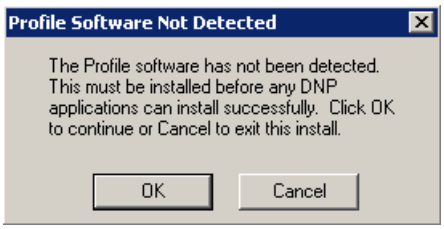
The Aurora Edit software should already be installed on your workstation when your system arrives. If you ever need to install it, follow these instructions.

NOTE: *If you have an old version of NewsEdit or Aurora Edit software installed on your workstation, you first need to uninstall it. To uninstall software, go to your desktop and click* **Start | Control Panel | Add or Remove Programs**.

To install the Aurora Edit software:

1. Insert the Aurora Edit CD into your CD drive and navigate to **Software Installs | DNP Application**.
2. Double-click on **SetupAuroraEdit.exe**.

   The Profile Software Not Detected Window appears:



3. Click **OK**.

   The Profile Software loads automatically.
4. Follow the directions below for using Local or Shared Storage.

If your system is part of an Open SAN system or connected to Network Attached Storage (NAS) or a K2 Server, use the instructions for Shared Storage; otherwise, use the instructions for Local Storage.

Local Storage System

Follow these instructions for installing the Aurora Edit software on a system using local storage:

On this screen...	Do this...
Welcome	Click **Next**.
License Agreement	Click **I Agree** and click **Next**.
Select Destination Directory	Click **Next** to leave the destination directory set at the default location: **C:\Program Files\Grass Valley\Aurora Edit** *NOTE: If you wish to change the default directory, click* **Browse**. *Scroll through the pulldown list to the desired directory , click on it to select it, then click* **OK**. *The change appears in the Select Destination Directory window. Click* **Next** *to continue.*
Allow Frame Skipping	Check **Allow Frame Skipping During Playback** if your system is a 2.4 GHz NewsEdit PC or a Dell 800 or 810 laptop. On these older systems, this setting allows the video to skip every other frame, making the video smoother.
Select Shared or Local Installation	Click **Local** and click **Next**. **Domain Security** is used with shared systems. Leave this box blank.
K2 Server Check	Check **K2 Server Present** if you are using a K2 Server and click **Next**.
Specify Directory for Video and Audio Files	Click **Next** to leave the destination directory set at the default location: **D:\VibrintAVFiles** *NOTE: If you wish to change the default directory, click* **Browse**. *Scroll through the pulldown list to the desired directory , click on it to select it, click* **OK**. *The change appears in the Specify Directory for Local Video and Audio Files window. Click* **Next** *to continue.*
Ready to Install	Click **Next** to begin the installation.
System Self-Test	Aurora Edit installs the necessary drivers and sets up a database to store your files. A System Self-Test automatically runs and checks: • Software Installation • System Configuration • AV Disk Performance See "Understanding the System Self-Test" on page 42 for more information.

Shared Storage System

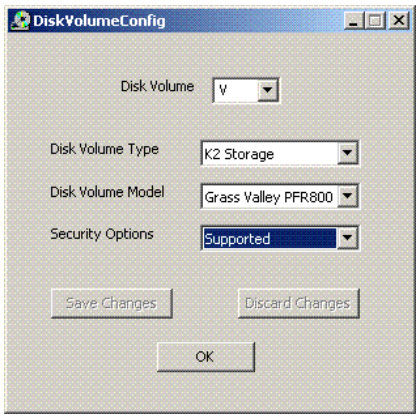
Follow these instructions when installing the Aurora Edit software on a system using shared storage that is part of an Open SAN system or connected to a K2 Server or Network Attached Storage (NAS):

On this screen...	Do this...
Welcome	Click **Next** to continue.
License Agreement	Click **I Agree** and click **Next**.
Select Destination Directory	Click **Next** to leave the destination directory set at the default location: **C:\Program Files\Grass Valley\Aurora Edit** *NOTE: If you wish to change the default directory, click* **Browse**. *Scroll through the pulldown list to the desired directory , click on it to select it, click OK. The change appears in the Select Destination Directory window, click on it to select it, click OK. The change appears in the Select Destination Directory. Click* ***Next*** *to continue.*
Allow Frame Skipping	Check **Allow Frame Skipping During Playback** if your system is a 2.4 GHz NewsEdit PC or a Dell 800 or 810 laptop. On these older systems, this setting allows the video to skip every other frame, making the video smoother.
Select Shared or Local Installation	Click **Shared** and click **Next**. To enable security (optional) on your shared database, check **Domain Security** (see "Setting Security Permissions" on page 62 for a description of the security features).
K2 Server Check	Check **K2 Server Present** if you are using a K2 Server and click **Next**.
Specify the Servers for the Shared Database	Type the names of the primary and secondary (if applicable) File System Managers (FSM) or Database System Managers (DSM) that will be used for the shared database. If you are not using a secondary server, leave the Server 2 field blank. Click **Next** to continue.
Specify Directory for Shared Video and Audio Files	Click **Next** to leave the destination directory set at the default location: **V:\VibrintAVFiles** *NOTE: If you wish to change the default directory, click* **Browse**. *Scroll through the pulldown list to the desired directory and double-click on it. Click* **Next** *to continue.*
Specify Directory for AV Cache Files	Click **Next** to leave the destination directory set at the default location: **D:\VibrintAVCache** *NOTE: If you wish to change the default directory, click* **Browse**. *Scroll through the pulldown list to the desired directory , click on it to select it, click* **OK**. *The change appears in the Specify Directory for AV Cache Files window. Click* ***Next*** *to continue.*

On this screen...	Do this...
Specify Directory for Local Video and Audio Files	Click **Next** to leave the destination directory set at the default location: **D:\VibrintAVFiles** *NOTE: If you wish to change the default directory, click* **Browse**. *Scroll through the pulldown list to the desired directory , click on it to select it, click* **OK**. *The change appears in the Specify for Local Video and Audio Files window. Click* **Next** *to continue.*
Specify the Shared Drive(s) in Use with this System	Enter the drive letter(s) of the drive(s) used on the shared system. Separate multiple drives with commas (e.g., V,W,X). *NOTE: See your system administrator for the drive letter(s) on your system; the default drive letter is* **V**. Click **Next** to continue.
Ready to Install	Click **Next** to begin the installation.
NOTE: *If the DiskVolumeConfig window appears, see "Configuring the Disk Volume" on page 40 for instructions.*	
System Self-Test	Aurora Edit installs the necessary drivers and sets up a database to store your files. A System Self-Test automatically runs and checks: • Software Installation • System Configuration • AV Disk Performance See "Understanding the System Self-Test" on page 42 for more information. Click **Close**.

Configuring the Disk Volume

When you install Aurora Edit 6.3 software for the first time, the Disk Volume Configuration window appears during the process. You need to configure the shared volume for your type of network and equipment. The Disk Volume Configuration only needs to be done once on each shared volume, on the first Aurora Edit system installing the 6.3 version of software.



To configure the disk volume:

1. Select the disk volume drive letter and configure the volume as follows:

Setting	Options	Description
Disk Volume Type	**Unknown** **LocalDisk** **Open SAN** **NAS** **K2 Storage**	Select your type of shared storage.
Disk Volume Model	**Unknown** **Grass Valley PFR500, PFR600, PFR700, PFR800** **Ciprico 1700, 2400, 3600** **IBM NAS**	*Open SAN:* Choose **Grass Valley PFR500**, **PFR600**, **PFR700**, or **PFR800**; if you don't know, select **PFR600**. *NAS:* Choose **Ciprico 1700**, **2400**, **3600**, or **IBM NAS**. *K2 Storage:* Choose **Grass Valley PFR700**.
Security Options	**Supported** **Not Supported**	Select **Supported** if your system is configured to use Domain Security; if not, select **Not Supported**.

2. Click **OK** to save changes and return to the software installer.

Licensing Your Aurora Edit Software

Once you've installed the Aurora Edit software, you need to get a License Number from Grass Valley.

***NOTE:** Your Aurora Edit software comes with a 30-day trial period during which you can use the software without a license*.

To license your Aurora Edit software:

1. Double-click the Aurora License Request icon on your desktop.
2. Create a license request file following these instructions:

On this screen...	Do this...
Welcome	Read the on-screen instructions and click **Next** to continue.
Customer	Enter your name, email, and company into the required fields. Filling in the address, country, and phone fields is optional. Click **Next** to continue.
Sales Number	Enter the Sales Order number located on the Aurora License Document provided by Grass Valley. Click **Next** to continue.
Licenses	Select each of the licenses purchased from the drop-down list and click **Add**. Click **Next** when done.
Summary	Make sure the information is correct and click **Finish**. This creates a file on your desktop called **License_Request_*sales#*.txt**

3. Email the created file to **BVTN-AuroraLicenses@thomson.net**.
4. When you receive a licensing file back from Grass Valley Licensing, detach the .txt file to the desktop of your editing system.
5. Open License Manager (located on your desktop) and drag the license.txt file into the window.
6. Click **OK**.

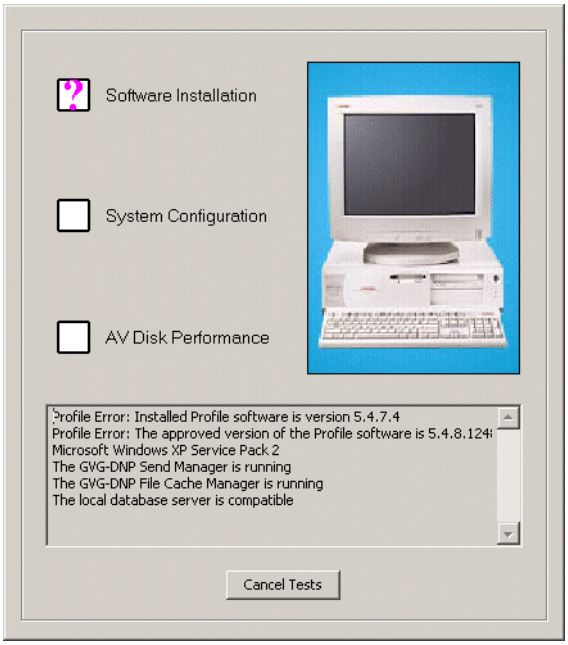
   Your Aurora Edit software is now licensed.

Understanding the System Self-Test

The Aurora Edit workstation runs a System Self-Test automatically each time that you boot the workstation. The System Self Test looks at three areas:

- Software Installation—Checks for the correct version of K2 software, Direct X driver, operating system, video drivers, and export and cache service.
- System Configuration—Checks for the correct version of the video board, Breakout Box firmware, audio renderer, and the VMR.
- AV Disk Performance—Tests the media drives input and output performance.

As the System Self-Test runs, you see the results in the System Self-Test window:



Each area tested can have one of three results:

This symbol...	Means...	Do this...
✓	The test passed.	Use your Aurora Edit workstation as usual.
?	The test is currently running.	Wait for the test to complete.
✗	The test failed.	See "Troubleshooting the System Self-Test" on page 43 for instructions.

If you are using shared storage, the AV Disk Performance Test is skipped and you see this message: *The AV Disk Test detected a shared volume - test skipped.*

Running the System Self-Test Manually

You can run the System Self-Test anytime you want to test the system. Before running the System Self-Test, make sure that the Aurora Edit program is not running.

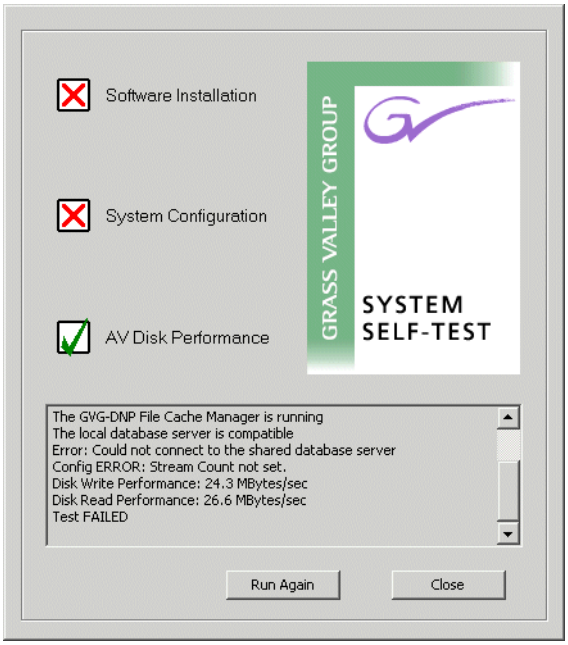
To run the System Self-Test:

- Go to **Programs | Startup | SystemSelfTest**.

The Self-Test runs.

Troubleshooting the System Self-Test

On occasion, you may have a need to troubleshoot an error message from the system self-test.



If any of the three tests fail, use this table to determine the cause and fix the problem.

If you see this message...	It means...
Video card driver ___ is not supported. **CVFS client file system ___ is not supported.** **DirectX driver version ___ is not supported.** **Emulex LAN driver ___ is not approved.** **Emulex SCSI driver ___ is not approved.** **QLogic LAN driver ___ is not approved.** **QLogic SCSI driver ___ is not approved.**	You have an incorrect version of one of the drivers installed on your system. 1. Insert the Aurora Edit CD into the CD-ROM drive on the workstation. 2. Navigate to the Drivers directory. 3. Install the latest driver. Contact your Customer Service Representative for further details.

If you see this message...	It means...
Profile Errors: **Installed Profile software is version ___.** **Profile software not found.** **The approved version of the Profile software is x.x.**	The Profile software is either not installed on your workstation or is not the current version. 1. Insert the Aurora Edit CD into the CD-ROM drive on the workstation. 2. Navigate to the **Software Installs/Profile version/XP** directory. 3. Double-click on the file **Setup.exe**. 4. Follow the instructions for "Installing the Aurora Edit Software" on page 36.
The XX database server is not compatible.	The shared database is not compatible with your version of Aurora Edit software. On your FSM or DSM, run the **SetupAuroraShareServer** utility, which can be found on the Aurora Edit CD-ROM. For more information, see the *NewsShare Technical Reference Guide*.
ERROR during AV Disk Test: **remote volume detected.**	You are using shared storage. The AV Disk Performance test checks the local media drives, so the test doesn't run if shared storage is used.
ERROR during AV Disk Test:	Your local disk drive is too slow; it needs to be <12 Mb read/write.

Installing the NewsFTP Service

The NewsFTP Service is an FTP server that allows you to view the Aurora database and serve up assets as GXF files.

You can use the NewsFTP Service in two ways:

- Integrated with Aurora Browse
- As an archive system—You can view the Aurora database and transfer clips from location to another using an FTP client

The NewsFTP service installs on an XRE workstation that's part of your Aurora Edit system.

NOTE: *If you have installed the SmartBins Service and selected the SmartBins Encoder option, the NewsFTP Service is already installed*.

To install the NewsFTP software:

1. Insert the Aurora Edit CD and navigate to the NewsFTP folder.
2. Double-click on **SetupNewsFTP.exe**.
3. Install the software following these instructions:

On this screen...	Do this...
Welcome	Click **Next**.
License Agreement	Click **I Agree** and click **Next**.
Select Destination Directory	Leave set at the default location and click **Next**.
K2 Server Check	Check **K2 Server Present** if you are using a K2 Server and click **Next**.
Select Domain Security	If you want to use security on your shared database, check **Domain Security** and click **Next**.
Specify the Servers for the Shared Database	Enter the names of the primary and secondary (if applicable) servers for your shared storage system: • For a K2 system, enter the name of the K2 Media Server • For a NAS system, enter the name of the Database System Manager (DSM) • For an Open SAN system, enter the names of the File System Managers (FSMs)
Specify Directory for Shared Video and Audio Files	Leave set at the default location and click **Next**.
Specify Directory for AV Cache Files	Leave set at the default location and click **Next**.
Specify the shared drive(s) in use with this system	Enter the drive letter(s) of the drives you are using on the shared system. Separate multiple drives with commas, such as V,W,X.
Ready to Install	Click **Next** to begin the installation.
Installation Complete	Click **OK** to close the installation program. The workstation prompts you to reboot so the new settings take effect.

Chapter 5

Configuring Your System

Before you can use your Aurora Edit or Aurora Playout system, you need to configure some basic settings.

This chapter discusses the following topics:

Setting Up the Host Table

The host table is a file that resides on the Aurora Edit workstation. This file resolves names of Aurora Edit workstations and Profile servers with their IP addresses. Aurora Edit uses this file to make sure that clips sent between Aurora Edit workstations or to video servers are sent using the proper network.

A sample hosts file looks like this:

```
# Copyright (c) 1993-1999 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#      102.54.94.97     rhino.acme.com          # source server
#       38.25.63.10     x.acme.com              # x client host

150.234.187.36  VMAN2_MAN_Broker_fc0
10.16.56.179    GV004739_fc0
150.234.187.21  PVS100000_fc0
150.234.187.22  VMAN2_PVS1000_fc0
150.234.187.23  vman2_pvs1000_fc0
150.234.187.31  VMAN_DEMO1_FC0
150.234.187.32  DEMONEWSEDIT2_FC0
150.234.187.33  VMAN_DEMO3_FC0
150.234.187.34  VMAN_DEMO4_fc0
150.234.187.35  GV006906_fc0
150.234.187.36  VMAN2_GV011265_FC0
150.234.187.37  VMAN_PRO6_FC0
150.234.187.38  VMAN2_DEMO5
150.234.187.42  vman2_xre1650_fc0
150.234.187.43  vman_NE6_fc0
```

On each Aurora Edit system, set up the hosts files:

1. Open the following file using Notepad, or some other text editor:

   C:\WINNT\System 32\Drivers\etc\hosts

2. Enter text in a single line for each Aurora Edit workstation and Profile server on your network, as follows:

   Type the IP address, then use the TAB key or Space bar to insert a few spaces. Then type the device name, such as AuroraEdit1 followed by the characters _XXX to specify network type, as indicated:

Characters	Network Type
FC0	Fibre Channel
HE0	Gigabit Ethernet
LE0	Ethernet

   Be sure to use the zero character, not the letter ‘o’.

3. Save the file and exit the text editor.

4. Copy the new hosts file onto all the other Aurora Edit workstations so you don’t have to edit each file separately.

Setting Up Media Files for Sharing

Before you can transfer media files to another Aurora Edit workstation, you need to set up your workstation for sharing. Your system may already be set up for sharing.

To share files:

1. In Windows Explorer, open the drive where your media files will be stored, usually drive D.

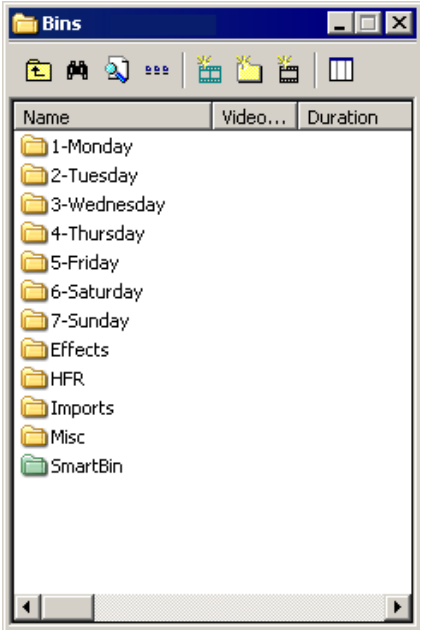
2. Right click on the VibrintAVFiles folder and choose **Sharing**.
3. Choose the **Shared As** option button and leave the default share name **VibrintAVFiles**.
4. Click **OK**.

The folder you shared appears with the standard Windows sharing icon.

Setting Up Your Bins

You can create and organize your bins to suit your work style. For instance, you could create a bin for each day of the week and within those set up a bin for each individual story or for each editor.

A typical setup might be:



Bins **1-Monday through 7-Sunday** are used for everyday stories.

Bin **Effects** holds saved video effects.

Bin **HFR** (Hold For Release) is used when you are editing a story on one day but airing it on another.

Bin **Imports** is set up as a single location where other Aurora Edit workstations can send clips over the network to you.

Bin **Misc.** is a folder to hold any clips to be saved, such as Whiteflash, Black, Color Bars and Tone, Reporter Outcues, repeated effects, etc.

It is also important that, within each day of the week, you create another bin with the title of the specific project you are working on. This helps to keep the bins organized, especially with more than one editor working on the same Aurora Edit system.

Aurora Edit automatically monitors your bins and refreshes the display if anyone places a file in one of your bins. For instance, as a breaking story develops, station staff can place the latest footage in a given directory. It then appears in your Bin where you can use it in your sequence.

To refresh your Bin manually, press **F5** or select **View | Refresh**.

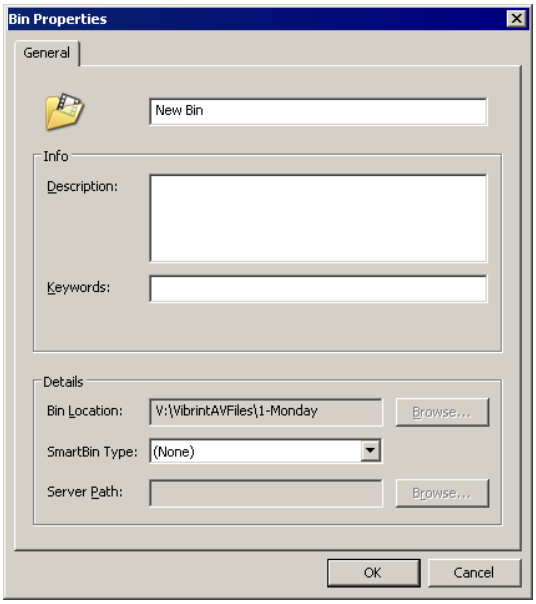
Creating a New Bin

The Bin window is empty when you open Aurora Edit for the first time. Before you can begin using Aurora Edit, you need to create bins to store your work.

To create a new bin:

1. Click the **New Bin** button on the Bin toolbar.

   The Bin Properties window appears:



2. Enter the bin Name.
3. Enter a bin Description and Keywords (optional).

   You can use the keywords to search for a specific bin.
4. Click **Browse** and select a location for the Bin, if different than the default.
5. Click **OK**.

Configuring Aurora Edit

Aurora Edit has many options that let you define how your system is set up. While your Aurora Edit system was pre-configured at the factory, you may want to adjust some options based on how you use Aurora Edit.

Adding Video Sources to Aurora Edit

Before using footage from a particular source, you need to add the source to the Aurora Edit source list. Aurora Edit pre-installs two sources for you — a video source and a clip source:

- The video source, usually a tape deck, allows you to record footage directly into the Timeline or Bin.
- The clip source allows you to edit a clip as a Timeline source directly in the Bin, which is useful for large clips so you don't have to go back and forth from a tape deck. You only need one clip source; you don't have to create a new clip source for each clip you want to use.

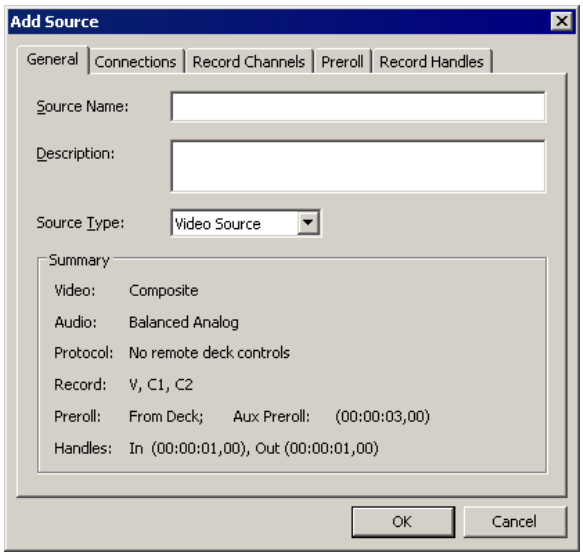
To add other sources to Aurora Edit:

1. Choose **View I Sources**.

   The Sources window appears, listing the currently configured sources.

2. Click **Add**.

   The Add Source window appears:



3. Go through each Add Source tab to configure the new source.

   The following sections describe each tab in the Add Source window.

4. Click **OK** when you are done setting up the new source.

Setting General Source Options

Setting	Options	Description
Source Name		Enter a name for the source, such as Tape Deck.
Description		Enter a description for the source.
Source Type	**Video Source**	Select **Video Source** for all incoming sources, including audio sources.
	Clip Source	Select **Clip Source** to use an existing clip in the bin as a source.
	Microphone	Select **Microphone** for any microphone sources.
	1394 Source	Select **1394 Source** when connecting to a specific 1394 source if multiple IEEE devices are present.

Setting Connections

The options available depend upon your Source Type setting on the General tab.

Setting	Options	Description	Source Type
Video Input	**Composite** **Component** **SDI** **S-Video (Y/C)**	Select the Video Input option that corresponds to the source's connection to Aurora Edit. **Composite** is the default video input.	Video Source Clip Source
1394 Input	**Any** ***<Device Name>***	Select the 1394 device you are using.	1394 Source
Audio Input	**Balanced Analog** **AES/EBU (BNC)** **AES/EBU (XLR)** **SDI/Embedded**	Select the Audio Input option that corresponds to the source's connection to Aurora Edit. **Balanced Analog** is the default audio input.	Video Source Clip Source
	Mic Preamp	Default setting for a Microphone Source.	Microphone
Deck Protocol	**No remote deck controls** **Sony 422 Protocol** **Sony DNW-A100** **DV 1394**	Select the Deck Protocol that corresponds to the type of tape deck control you are using with Aurora Edit. If you are adding a clip source, video router, or a non-video source, select **No remote deck controls**, which is the default setting.	Video Source Clip Source Microphone 1394 Source
Comm Port	**None** **COM1 - COM10**	Select the Comm Port you are using to connect the source to Aurora Edit.	Video Source Clip Source Microphone 1394 Source
Input Latency		Enter a duration to add an input latency when using a 1394 converter.	Video Source Clip Source Microphone 1394 Source
Number Loop Tones		Enter a duration to set how many seconds exist between loop record takes; each second, a tone plays through the system speakers.	Microphone

Setting Record Channels

Setting	Options	Description
Video		Check **Video** if you want to record video with this source.
Channel 1 Audio	**A1** to **A8**	Check each audio channel that should record audio from this source and select the default audio track (A1–A8) on the Timeline to which you want the channel routed.
Channel 2 Audio	**A1** to **A8**	
Channel 3 Audio	**A1** to **A8**	
Channel 4 Audio	**A1** to **A8**	

NOTE: *Setting up a microphone source that does not record video (audio-only record) greatly reduces the required disk space.*

Setting Preroll

Setting	Description
Get Preroll From Deck	Check **Get Preroll From Deck** to use the preroll settings from your tape deck instead those configured in Aurora Edit.
Preroll	Enter the number of seconds of preroll to use when recording from this source. This setting overrides the source's Preroll setting unless you check **Get Preroll From Deck**.
Aux Preroll	Enter the number of seconds of auxiliary preroll you want to use when using an auxiliary input or a non-remote source.

Setting Record Handles

Setting	Description
In Handles	Enter the number of seconds for the In and Out Handle length.
Out Handles	Handles provide the extra frames necessary to trim or add transition effects at the head or tail of a clip. When you Mark In and Mark Out, Aurora Edit begins recording the specified number of seconds before your Mark In and after your Mark Out. Only the material between your marks is edited to the Timeline.

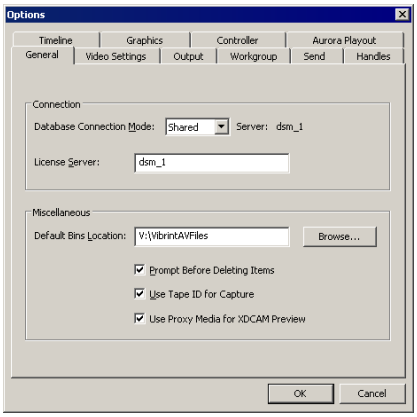
Setting Options

You can configure Aurora Edit options for your equipment and workflow.

To adjust Aurora Edit options:

1. Choose **Tools I Options**.

   The Options window appears:



2. Go through each Options tab to set options.

   The following sections describe each tab in the Options window.

3. Click **OK** when you are done adjusting options.

Setting General Options

Setting	Options	Description
Database Connection Mode	**Local** **Shared**	Select **Local** if you are using local disk storage and a local Aurora Edit database. You have access to files on your local machine only. Select **Shared** if you are using shared disk storage and a shared database. You share the Bin with all Aurora Edit workstations that are part of the network, according to security settings.
License Server		Enter the name of the server where the MOV generation license is located; automatically fills in as the DSM name.
Default Bins Location		Enter the default path to your media files. E:\VibrintAVFiles is the Default Bins Location.
Prompt Before Deleting Items		Check this option to receive a confirmation prompt before deleting files; setting is on by default.
Use Tape ID for Capture		Check this option to identify which source tape a particular clip came from; used in the Source Tool; setting is off by default.
Use Proxy Media for XDCAM Preview		Check this option to view the low-resolution proxy for media when previewing XDCAM files; doesn't affect HD media, which always uses proxy media for previewing; setting is on by default.

Configuring Video Settings

Setting	Options	Description
Reference Standard	**NTSC (59.94 Hz)** **PAL (50.00 Hz)**	Select the Reference Standard you are using. NTSC (default setting) has a frame rate of 29.97 frames/second and is used primarily in the Americas and Japan. PAL has a frame rate of 25 frames/second and is used in Europe, most of Asia, and Australia.
Has Setup		Check **Has Setup** if the analog composite signal carries setup information.
Video Format	**480i (SD)** **576i (SD)** **720p (1280x720)** **1080i (1920x 1080)**	Select **480i** Video Format for an interlaced (i) standard definition (SD) television format (default setting) for NTSC; select **576i** for PAL. Select **720p** for a progressive (p), high definition (HD) television format. Select **1080i** for an interlaced, high definition television format.
NTSC Timecode	**SMPTE - Drop Frame**	Recommended setting to avoid the time slipping problems associated with non-drop frame; default setting.
	SMPTE - Non-drop Frame	Standard format used to represent timecode.
Compression Type	**MPEG2** **IMX30** **IMX40** **IMX50** **DV25** **DV50**	Select a Compression Type. **MPEG2** is the default compression type. The **DV50** and **IMX** formats are optional and may not be available on all systems.
Bit Rate	**4-50 mbits**	Enter the Bit Rate specified by your system administrator. 50 mbits is the default setting. More than 25 mbits is optional.
Chroma Format	**4:1:1**	The **4:1:1** Chroma Format is selected if you use DV25 compression.
	4:2:0	Select the **4:2:0** or **4:2:2** Chroma Format if you use MPEG2 compression.
	4:2:2	Select the **4:2:2** Chroma Format if you use DV50 or MPEG2 compression—**4:2:2** offers more color resolution than **4:2:0** with MPEG2; this is the default setting.
Video Aspect	**4:3**	Select **4:3** Video Aspect for a standard definition (SD) television format; default setting.
	16:9	Select **16:9** Video Aspect for a high definition (HD) television format.
Video Resolution	**720 x 512**	Select for NTSC systems using MPEG2 compression.
	720 x 480	Select for NTSC systems using DV25, DV50, or MPEG2 compression; default setting.
	720 x 576	Select for PAL systems using DV25, DV50, or MPEG2 compression.
	720 x 608	Select for PAL systems using MPEG2 compression.

Setting	Options	Description
Mix MPEG and IMX Compression Types		Check this option to allow video clips of both MPEG and IMX compression types to be used on this Aurora Edit system. This setting is off by default. If you are using IMX compression and sending clips to a Profile for storage and playout, the Profile Server converts the clips to MPEG compression. Therefore, you want to check this option so you can use these clips from the Profile Server at a later time.
Show All 720p Frames in Timecode Displays		When using the 720p video format, check this option to display all timecode in Aurora Edit as 60/50 frames per second. When unselected, timecode displays in the standard 30/25 frames per second format. This setting is off by default.
Mix DV25 Chroma Formats		Check this option to allow PAL video clips of varying chroma formats to be used on this Aurora Edit system. This setting is off by default.
Apply Clean Aperture Cropping		By default, Aurora Edit automatically trims a small amount of video around the edges of a frame to ensure a clean image. This setting is on by default. Leave this option selected for SD video; setting is optional for HD video.

Setting Output Options

Setting	Options	Description
Shared Connector Video Output	**Component** **Composite and Y/C**	Select the Video Connection option that corresponds to the video source's connection to Aurora Edit. **Component** is the default setting.
SD Output Video Aspect Ratio	**4:3** **16:9**	Select the video aspect ratio for output. **4:3** is the default aspect ratio.

Setting Up a Workgroup

Before an Aurora Edit workstation can pull media from other Aurora Edit workstations, you need to set up a workgroup.

To set up a workgroup:

1. Verify that your Share Name matches the folder name you configured for Default Bins on the General Tab.

   If your Default Bins folder has a different name than **VibrintAVFiles**, change it by typing the name in the Share Name field.

2. Click **Update Workgroup List**.

   The system lists the available machines for file import or export.

3. Click **OK**.

Setting Up Send Locations

After completing a sequence you can send it to a playout machine or to a network video server. To send completed sequences or individual clips, you first need to configure Aurora Edit with each of your send locations.

A send location can be another Aurora Edit workstation, a Media Server, or a Bin you specify. If you want to store completed sequences on your computer, you can also add a send location for your PC.

To set up a send location:

1. Click **Add**.

   The Add Named Destination to Send List window appears.

2. Enter the name of the send location.

3. Select the type of location from the drop-down list:

Send Type	Description
Vibrint	Select **Vibrint** when the send location is another Aurora Edit, FeedClip, or an Aurora Playout system.
Profile	Select **Profile** when the send location is a Profile Media Server, a K2 Server, or an M-Series iVDR.
Publish	Select when you want to transfer sequences.
GXF ftp	Select **GXF ftp** to send the completed sequence as a GXF stream which can be used for a generic FTP site.
GXF file	Select **GXF file** to send the completed sequence as a GXF file.
DV Video ES	Select **DV Video ES** to send the completed sequence as a DV video elementary stream; used for Publison NewsMix.

4. Configure the send location based on the location type:

Send Type	Option	Description
Vibrint	**Use Video ID**	Check **Use Video ID** if you will be linking to stories on a Newsroom Computer System (NRCS) that contain Video IDs. When you send an Aurora Edit sequence to this location, the system uses the Video ID for the name of the file that gets sent.
	Include Graphics	Check **Include Graphics** if you want all graphics to remain with the sequence.
	Send to	Click **Browse** and select the file destination path.

Send Type	Option	Description
Profile	**Use Video ID**	Check **Use Video ID** if you will be linking to stories on a Newsroom Computer System (NRCS) that contain Video IDs. When you send an Aurora Edit sequence to this location, the system uses the Video ID for the name of the file that gets sent.
	Include Graphics	Check **Include Graphics** if you want all graphics to remain with the sequence.
	Send to	Type in drive letter and destination folder; e.g., V: \ default.
	Host Name	Type in the host name of the destination server; e.g., Profile 1.
	User Name	Automatically fills in as **movie**; leave as is.
	Password	Leave this field blank.
	Aurora Playout Destination	Check **Aurora** Playout **Destination** if this send location is an Aurora Playout server.
	Send as LGOP	Check **Send as LGOP** to send the Aurora Edit sequence as a GXF stream with MPEG2 LGOP compression. To adjust the MPEG options, click the **Settings** button.
Publish	**Use Video ID**	Check **Use Video ID** if you will be linking to stories on a Newsroom Computer System (NRCS) that contain Video IDs. When you send an Aurora Edit sequence to this location, the system uses the Video ID for the name of the file that gets sent.
	Send to	Click **Browse** and select the file destination path.
	Render All Effects	Check **Render All Effects** if you want all transitions and effects rendered before sending.
	Aurora Playout Destination	Check **Aurora** Playout **Destination** if this send location is an Aurora Playout server.
GXF FTP	**Use Video ID**	Check **Use Video ID** if you will be linking to stories on a Newsroom Computer System (NRCS) that contain Video IDs. When you send an Aurora Edit sequence to this location, the system uses the Video ID for the name of the file that gets sent.
	Include Graphics	Check **Include Graphics** if you want all graphics to remain with the sequence.
	Send to	Click **Browse** and select the file destination path.
	Host Name	Enter the name of the server computer.
	User Name	Enter your user name.
	Password	Enter the password for the send location, if you have one.
	Send as LGOP	Check **Send as LGOP** to send the Aurora Edit sequence as a GXF stream with MPEG2 LGOP compression. To adjust the MPEG options, click the **Settings** button.

Send Type	Option	Description
GXF File	**Use Video ID**	Check **Use Video ID** if you will be linking to stories on a Newsroom Computer System (NRCS) that contain Video IDs. When you send an Aurora Edit sequence to this location, the system uses the Video ID for the name of the file that gets sent.
	Include Graphics	Check **Include Graphics** if you want all graphics to remain with the sequence.
	Send to	Click **Browse** and select the file destination path.
	Send as LGOP	Check **Send as LGOP** to send the Aurora Edit sequence as a GXF stream with MPEG2 LGOP compression. To adjust the MPEG options, click the **Settings** button.
DV Video ES	**Use Video ID**	Check **Use Video ID** if you will be linking to stories on a Newsroom Computer System (NRCS) that contain Video IDs. When you send an Aurora Edit sequence to this location, the system uses the Video ID for the name of the file that gets sent.
	Include EDL For Sequence	Check **Include EDL for Sequence** if you want an EDL of the sequence sent to the same destination folder as the DV video elementary stream.
	Send to	Click **Browse** and select the file destination path.
	Aurora Playout Destination	Check **Aurora Playout Destination** if this send location is an Aurora Playout server.

5. Click **OK**.
6. On the Send tab, configure these options:

Setting	Description
GXF Sequence Transfer	Check this option if you want to send sequences via GXF. If unselected, Aurora Edit can send sequences to a Profile Server or K2 in a shared storage system without using a fiber channel IP connection.
Test for Invalid Video Server Characters	Check this option to have Aurora Edit check for invalid characters when creating files, including creating a new clip, creating a new sequence, renaming a Bin object, sending a sequence with a video ID, importing a removable media clip, and editing the name of the sequence when sending to another destination. Invalid characters are: *** \ | / < > : “** ? [ ] % & **‘**

7. Click **OK**.

Setting Handles

Setting		Description
Handle Type	**Import**	Sets handle duration that will be used when you are importing a file from another workstation to your own; 1 second is the default duration.
	Export	Sets handle duration that will be used when you are exporting files from your workstation to another workstation or server; 1 second is the default duration.
	Trimmer	Sets handle duration that will be used when you are trimming a clip with the Trim Tool and trim the set duration from either side of your clip; 10 seconds is the default duration.
	Consolidation	Sets handle duration that will be used when you are consolidating a clip or sequence, which reduces the file size by removing unused footage; 10 seconds is the default duration.
	Render	Sets handle duration that will be used when you are using media with effects and transitions; provides handles to effects that are mixed down; 1 second is the default duration.

To change the handle durations, select the handle type from the drop-down menu and enter the new duration in the In or Out fields.

Setting Timeline Options

Setting	Options	Description
Default Audio Output	**1+2** **3+4** **All**	Select the output routing for each audio channel and set its pan direction. **1+2** is the default routing.
Undo/Redo Limit	**1 - 1024**	Enter the number of undo levels you want Aurora Edit to track. 32 is the default number of undo levels. ***NOTE: Increasing the number of undo levels increases Aurora Edit's system memory usage.***
Default Play Speed		Enter the speed at which to play clips when reviewing them in the Timeline. The default Play Speed is 200%.
Review Edit Duration		Enter the amount of preroll to play on a clip prior to playing the edit you're reviewing. The default Edit Duration is 3 seconds.
Output Channels	**1-8**	Select the number of output channels you are using; 4 is the default.
Map Hot Keys For Non-QWERTY Keyboards		Check this option to have Aurora Edit keep the color-coded hot key functions in place regardless of the keyboard input language; if unchecked, using a non-QWERTY keyboard causes the hot keys to follow the letter placement on the keyboard, changing the intended order. This setting is off by default.
Allow Frame Skipping During Playback		Check this option to allow Aurora Edit to view every other frame, which frees up resources. Frame skipping only affects preview, not the actual media itself. This setting is off by default.

Setting Graphics Options

Setting	Description
Initial Duration	Enter the initial duration for a graphic placed on the Timeline; 5 seconds is the default duration.
Fade In	Enter the number of frames over which the graphic fades in to the clip; 10 frames is the default setting.
Fade Out	Enter the number of frames over which the graphic fades out to the next clip; 10 frames is the default setting.
Editor	Indicates whether the Chyron plug-in is installed with the system.
Templates Folder	Enter the path to the Graphics template directory.
Enable Right to Left Input Mode	Check **Enable Right to Left Input Mode** to use the Title tool with bidirectional languages, allowing users to enter text that reads from right to left. This setting is off by default.

Setting Controller Options

Setting	Options	Description
422 Controller Comm Port	**None** **COM1** through **COM10**	If you are using an external controller with Aurora Edit, select the COM port to which it is connected. Otherwise, select None.
USB Controller Comm Port		
USB Controller Comm Port		
Reserve COM1 and COM2 for GPIO		Check this option to keep COM ports 1 and 2 available for GPIO triggers to control the Aurora Edit playback channel; off by default.

Setting Aurora Playout Options

Setting	Description
Primary Database Server	Enter the server name where the primary Aurora Playout database resides.
Backup Database Server	Enter the server name where the secondary Aurora Playout database resides.
XMOS Server	Enter the name of the computer hosting the XMOS Server.
Thumbnail Path	Enter the path to the thumbnail directory.

Setting Security Permissions

If you want to use security with your K2 server, refer to the *Open SAN Security Instruction Guide* for details on setting up a domain controller and configuring your system for security.

This section describes how to set security permissions for the Aurora Edit system. You need to be a Domain Administrator to perform this function.

You can set all permissions from one Aurora Edit machine. You need to set permissions in three different places—in the V:\ directory, in Aurora Edit options, and in the Aurora Edit bins.

Setting Initial Shared Volume Permissions

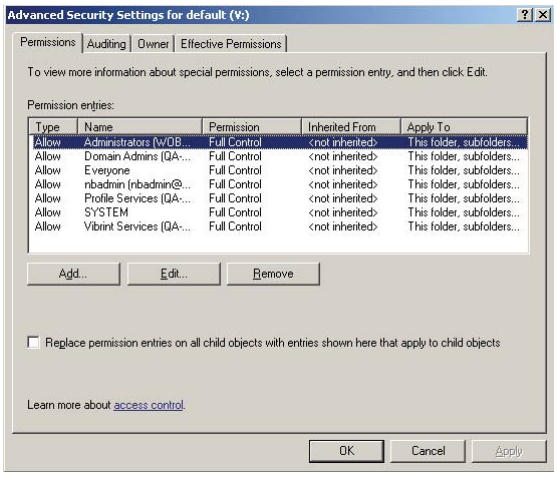
This task assures a uniform starting point in setting volume permissions, essentially establishing the secure volume's permissions to be identical to either a SNFS volume that does not implement Windows Security, or a default NTFS volume.

To set shared volume permissions:

1. Open a cmd window, switch to the V: drive, and type the following:

   cacls V:* /T /G Everyone:F

2. Open Windows Explorer, select the V: volume, right-click and select **Properties**.
3. Click the **Security** tab.
4. If necessary, add the user Everyone and allow Full Control.
5. Click **Advanced...** and check the box **Reset permissions on all child objects and enable propagation of inheritable permissions**.



6. Click **OK** and click **Yes** in response to the dialog **This will remove explicitly defined permissions... Do you wish to continue?**
7. Click **OK** to exit the Properties window.

Setting High Level Shared Volume Permissions

Permissions on the V:\ folders are set using Windows Explorer. First you add the group(s) to the drive and then set security permissions for that group. For the folders that are inheriting permissions from the folder above it, you don't need to set them; they automatically use the permissions they inherit.

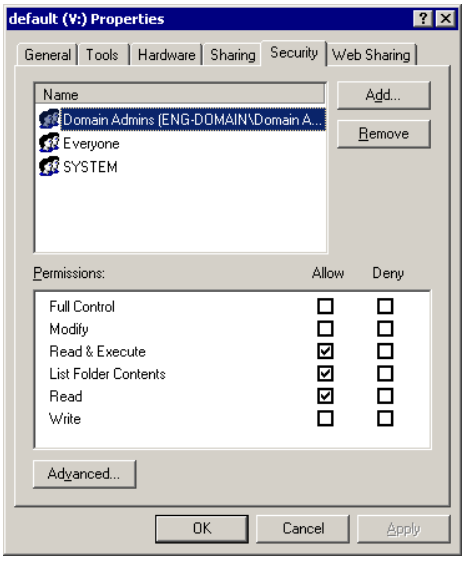
	Domain Admins	Everyone	SYSTEM	Archivists	Editors	Ingestors	Producers	Viewers	Profile Services	Vibrint Services
V:\	**F**	**F**	**F**						**F**	**F**
V:\media		**F***	**F***							
V:\PDR	**F**		**F**		**F**	**F**			**F***	**F***
V:\Thumbnails	(inherit Full Control from V:\)									
V:\VibrintAttic	(inherit Full Control from V:\)									

F = Full Control
* = Inherits permissions from the folder directly above it

To set permissions on the V:\ folders:

1. Open Windows Explorer and navigate to the V:\ drive.
2. Right-click on the desired folder and select **Properties**.

   The default V:\ Properties window opens:



3. Under the Security tab, click **Add**.

   The Select Users, Computers, or Groups window opens.

4. Select the group you want to add to the drive folder and click **Add**.

   The group adds to the bottom pane of the window.

5. Click **OK**.
6. Check the box for Full Control in the Allow column.
7. Click **OK**.
8. Give Full Control permission to the other groups—Domain Admins, Everyone, and SYSTEM.
9. Select the V:\PDR drive and do the following:

   a. Uncheck **Allow inheritable permissions from parent to propagate to this object**.

   b. Add these groups: Profile Services, Editors, and Ingestors.

   c. Set Full Control permissions for these groups.

Setting Aurora Edit Root Level Permissions

Permissions for V:\VibrintAVFiles are set in Aurora Edit options. First you add the group(s) to the drive and then set security permissions for that group. You need to login to this machine as Domain Administrator in order to set root permissions.

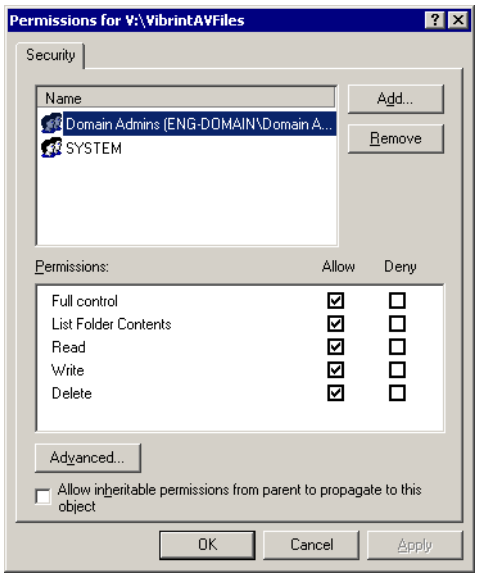
	Domain Admins	Everyone	SYSTEM	Archivists	Editors	Ingestors	Producers	Viewers	Profile Services	Vibrint Services
V:\VibrintAVFiles	**F**		**F**	**L R**	**L R**	**L R**	**L R**	**L R**	**F**	**F**

F = Full Control
L = List Folder Contents
R = Read

To set permissions for VibrintAVFiles:

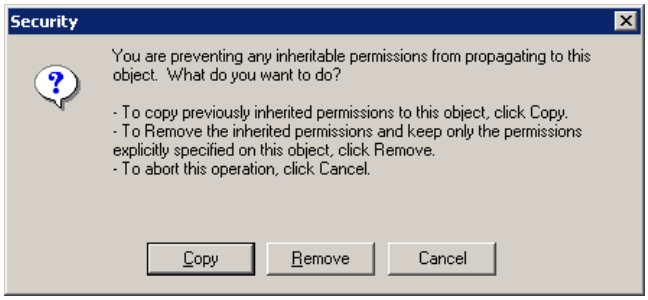
1. Open Aurora Edit and select **Tools | Set Root Permissions**.

The Permissions for V:\VibrintAVFiles opens:



2. Uncheck **Allow inheritable permissions from parent to propagate to this object**.

   A Security message appears:



3. Select **Copy**.
4. Remove the current permissions.
5. Select the Everyone group and click **Remove**.
6. Add each of the groups you created (if you are using the typical security schema, add the groups Archivists, Editors, Ingestors, Producers, and Viewers).
7. Set permissions for each group according to the chart on page 64.
8. Click **OK**.

Setting Aurora Edit Bin Permissions

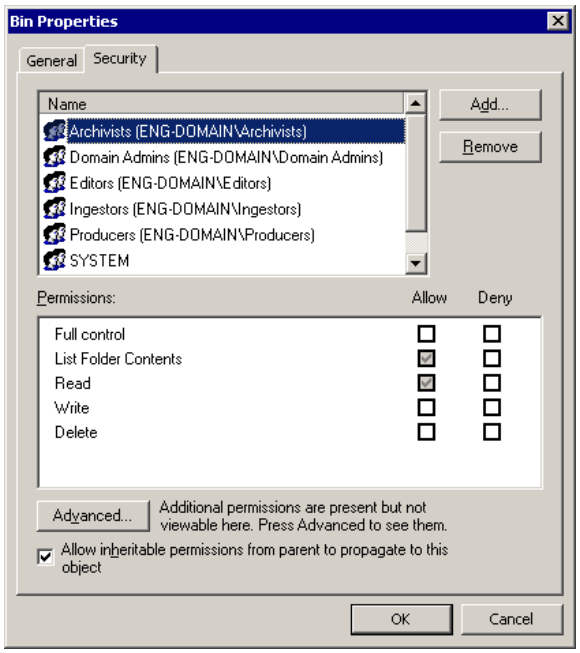
Permissions for the Aurora Edit bins are set in the Properties tab for each Bin. Follow the instructions below and set the permissions for each bin in your top-level Aurora Edit bin.

	Domain Admins	Everyone	SYSTEM	Archivists	Editors	Ingestors	Producers	Viewers	Profile Services
Monday-Sunday Bins	**F***		**F***	**-W -D**	**W D**	**-W -D**	**W -D**	**L R***	
Feeds Bin	**F***		**F***	**W -D**	**-W -D**	**W D**	**-W -D**	**L R***	
HFR Bin	**F***		**F***	**-W -D**	**W -D**	**-F**	**W D**	**L R***	
Archive Bin	**F***		**F***	**W D**	**W -D**	**W -D**	**W -D**	**L R***	

F = Full Control
L = List Folder Contents
R = Read
W = Write
D = Delete
- = Deny
* = Inherits permissions from the folder directly above it
** = Inheritance is blocked at this level

To set permissions for Aurora Edit bins:

1. In the Aurora Edit bin, right-click on the first bin and select **Properties**.



2. Click the Security tab.
3. Change permissions for each group listed based on the chart on page 66.
4. Click **OK** when you are done setting permissions.

Chapter 6

Installing and Creating SmartBins

SmartBins provide a way to automatically synchronize media access between Aurora Edit and media server bins. A SmartBin is an Aurora Edit bin that monitors a folder on a media server and automatically updates the SmartBin contents when new or updated media appears.

This chapter discusses the following topics:

Understanding SmartBins

A SmartBin is an Aurora Edit bin that monitors a folder on a media server and automatically updates the SmartBin contents when new or updated media appears. SmartBins work differently depending on the type of shared storage network you are using: Open SAN, NAS, or K2.

The Aurora Edit system offers three types of SmartBins:

- Transfer SmartBin—Sets up automatic clip transferring from a Media Server to an Aurora Edit Bin.
- Shared SmartBin—Sets up folder mapping between a Media Server and a bin in Aurora Edit.
- Media Import SmartBin—Sets up automatic QuickTime DV25 .mov and DV50 .mov file imports into an Aurora Edit Bin.

Transfer SmartBins

Transfer SmartBins set up automatic clip transfers from a media server to an Aurora Edit Bin. Transfer SmartBins handle clips from a Profile, an M-Series iVDR, or a K2 media server.

On an Aurora Share NAS or K2 System, Transfer SmartBins map folders from a bin in the Aurora Edit tree view to a bin in the media server view. Media is transferred, uni-directionally, via GXF from the media server to the Aurora Edit Bin and registered in the Aurora Share database so it can be seen from Aurora Edit.

Transfer SmartBins use a static directory mapping so all files in a particular media server bin are monitored and automatically transferred as they arrive to a selected Aurora Edit Bin, and are then (optionally) deleted from the media server.

Transfer SmartBins effectively create a buffered recording so that material is protected and redundantly saved (both on the media server and on the NAS or K2 storage) while still making the file available for shared editing or immediate playout. There is a 30-second delay before the recorded material is available on Aurora Edit.

Transfer SmartBins on a NAS or a K2 system require an external XRE Server or DSM to provide the folder monitoring and transfer services to the NAS system. A DSM can support up to 4 25-Mbit record streams (2 M-Series iVDR chassis). Beyond four streams, dedicated XRE Servers should be used as necessary, budgeting 6 streams per XRE Server. You also need to mount the NAS or iSCSI volume on the workstation running the SmartBins Service.

Shared SmartBins

Shared SmartBins allow the Aurora Edit bin to monitor a folder on a media server. Media is not moved between the server and bin; instead, media is mapped into the two directory structures — a process known as "winking". Shared SmartBins handle media from Profile Open SAN and K2 SAN media servers.

Shared SmartBins on an Open SAN or K2 SAN System

On an Open SAN or K2 SAN system, SmartBins map folders from a bin in the Aurora Edit tree view to a bin in the K2 view. As with drag and drop via Media Manager, this automatic synchronization never moves actual media files—the bin structure represents two different views into the shared media file system.

When you first create a bin in Aurora Edit, you can map that bin to a K2 bin; after an Aurora Edit bin is created, it cannot be mapped. Once an association is created, the Aurora Edit and K2 bins are kept synchronized.

SmartBins support simple (flattened) movies, but not sequences, sub-folders, or sub-clips that the K2 cannot use directly. Also, SmartBins cannot have sub-bins.

The workstation running the SmartBins SAN service must have a Fibre Channel-SCSI connection to the Open SAN and a CVFS or SNFS license.

Shared SmartBin Folder Synchronization

When the SmartBins Service starts, it determines which Aurora Edit bins are associated with media server bins and then queries the media server database for the movies in each associated bin. Any movies in media server bins that are not in the associated Aurora Edit bin are registered to the Aurora Edit database. The SmartBins service does not verify that Aurora Edit clips are in the media server database, so the synchronization is one way only—media server to Aurora Edit.

No files are moved—a mapping of the folders between the flat and tree views takes place.

Media Import SmartBins

Media Import SmartBins facilitate the automatic import of QuickTime DV25 and DV50 .mov files into Aurora Edit. This allows you to use Apple's Final Cut Pro video editing application, within a NAS environment, to create news or sports footage and then import it into Aurora Edit. Media Import SmartBins work with MOV import for Final Cut Pro (FCP).

You can only have one Media Import SmartBin server active at any given time.

Database Monitoring and Updating

A SmartBins Service constantly monitors both the Aurora Edit and media server databases. Examples of updates to the database are listed below.

Action		Media Server Database	Aurora Edit Database
Rename clip	on media server	Clip renamed.	SmartBins service renames clip; if clip cannot be renamed, the databases become out-of-sync.
	on Aurora Edit	Clip renamed per Aurora Edit unless there is a conflict, in which case renaming fails in both databases.	Clip renamed unless there is a conflict on the media server, in which case renaming fails in both databases.
Delete clip	on media server	Clip deleted.	SmartBins service deletes clip; if the clip is in use, databases become out-of-sync.
	on Aurora Edit	Clip deleted per Aurora Edit unless there is a conflict, in which case deletion fails in both databases.	Clip deleted unless there is a conflict on the media server, in which case deletion fails in both databases.
Delete bin	on media server	Bin (and all movies contained within) deleted, unless a clip is being used in Aurora Edit in which case the deletion fails in both databases.	
	on Aurora Edit	No change; bin not deleted.	SmartBin monitoring disabled; bin and bin contents deleted.
Add a movie	on media server	Movie added.	SmartBins service registers clip unless it is a complex movie, in which case the clip is not registered and the databases become out-of-sync.
Create master clip	on Aurora Edit	SmartBins service registers master clip when recording is complete.	Master clip created while recording

Installation Overview

Follow the steps in the table below for the type of SmartBin you want to create.

Type of SmartBin		What to do...	How to do it...
Transfer SmartBin	On the SmartBins Server	Install and configure the server • For K2, install GVG_MMlib software • For Open SAN, install Profile Client software	See the documentation that came with your media server and the NewsShare Technical Reference Guide.
		Install SmartBins Service	See "Installing the SmartBins Service" on page 74.
		Run the SmartBins Setup Tool	See "Running the SmartBins Setup Tool" on page 75.
		Verify DCOM Configuration	See "Verifying the DCOM Configuration on Your System" on page 77.
		Obtain a software license	See "Licensing Your SmartBins Software" on page 78.
	On an Aurora Edit Workstation	Create Transfer SmartBin(s)	See "Creating a SmartBin in Aurora Edit" on page 79.
Shared SmartBin	On the SmartBins Server	Install and configure the server • For K2, install CVFS • For Open SAN, install SNFS, Generic iSCSI, and GVG_Mlib software	See the documentation that came with your media server and the NewsShare Technical Reference Guide.
		Install SmartBins Service	See "Installing the SmartBins Service" on page 74.
		Run the SmartBins Setup Tool	See "Running the SmartBins Setup Tool" on page 75.
	On an Aurora Edit Workstation	Create Shared SmartBin(s)	See "Creating a SmartBin in Aurora Edit" on page 79.
Media Import SmartBin	On the SmartBins Server	Install and configure the server	See the documentation that came with your media server and the NewsShare Technical Reference Guide.
		Install SmartBins Service	See "Installing the SmartBins Service" on page 74.
		Run the SmartBins Setup Tool	See "Running the SmartBins Setup Tool" on page 75.
		Obtain a software license	See "Licensing Your SmartBins Software" on page 78.
	On an Aurora Edit Workstation	Create Media Import SmartBin(s)	See "Creating a SmartBin in Aurora Edit" on page 79.

Installing the SmartBins Service

The SmartBins Service is installed on the machine serving as the SmartBins Server.

To install the SmartBins Service:

1. Insert the Aurora Edit CD into your CD drive and navigate to the **SmartBins Service** folder.
2. Double-click on **SetupSmartBinsService.exe**.
3. Follow these instructions:

On this screen...	Do this...
Welcome	Click **Next**.
License Agreement	Click **I agree** and click **Next**.
Select Destination Directory	Leave set at the default location and click **Next**.
K2 Server Check	If a K2 Server is not present, clear the check mark in the indicator box and click **Next**.
Select SmartBin Option	1. Select **SmartBins Encoder** if you are installing this software on an Aurora Browse SmartBin Encoder; otherwise, select **Standard**. ***NOTE***: Selecting **SmartBins Encoder** also installs the Aurora FTP Service. See "Installing the NewsFTP Service" on page 45 for details. 2. Click **Next**.
Specify the Servers for the Shared Database	Enter the names of the primary and secondary (if applicable) Database System Managers. Click **Next**. If you want to use security on your shared volume, check **Domain Security.**
Specify Directory for Shared Video and Audio Files (Standard option only)	Leave set at the default location and click **Next**.
Specify Directory for AV Cache files	Leave set at the default location and click **Next**.
Specify the shared drive(s) for use with the shared storage	Leave set at the default location and click **Next**.
Ready to Install	Click **Next** to begin the installation.
Installation Complete	Click **OK** to close the installation program. The workstation prompts you to reboot so the new settings take effect.

Running the SmartBins Setup Tool

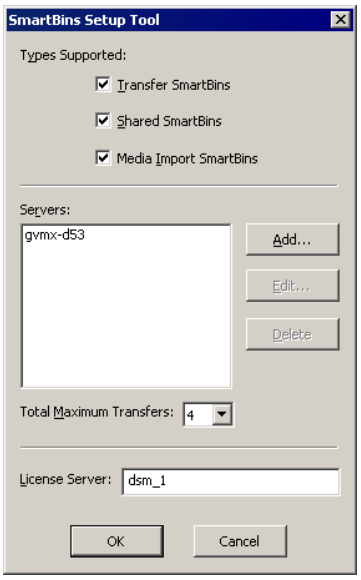
If you are using SmartBins on a NAS or K2 system, you need to configure your M-Series iVDR(s), Profile XP, or K2 Media Server to use SmartBins.

***NOTE:** You don't need to configure SmartBins on an Open SAN system.*

To configure the SmartBins Service on a NAS or K2 system:

1. Go to **Start | Programs | Aurora 6.3 | SmartBins Setup Tool**.

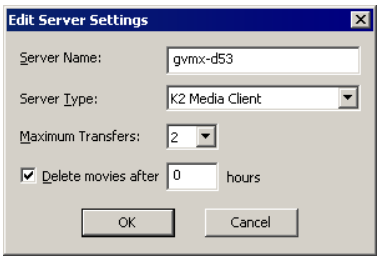
   The SmartBins Setup Tool opens.



2. Select the type(s) of SmartBins you are using with Aurora Edit.
3. For Shared SmartBins and Media Import SmartBins, no other configuration is needed. Click **OK** to close the tool.
4. For Transfer SmartBins:

   a. Click **Add**.

      The Edit Server Settings window appears:



   b. Enter the name of the Profile Server, M-Series iVDR, or K2 Media Client you are using.

   c. Select the Server Type from the drop-down list.

d. Select the number of **Maximum Transfers** per server from the drop-down list.

   If you are installing this software on a DSM, the maximum number of transfers is 4.

e. Check **Delete movies after __ hours**, and enter the number of hours after a transfer is complete for media to remain in the database before being automatically removed from the video server, not the Aurora Edit.

f. Click **OK** to close Server Settings.

g. Repeat steps a-f for additional servers.

h. Select the **Total Maximum Transfers** from the drop-down list.

   The Total Maximum Transfers is the total amount of streams for this particular instance of the SmartBins Service. Select **4** if the SmartBins Service is installed on a DSM and select **6** if the SmartBins Service is installed on a standalone PC.

   NOTE: *Increasing the number of Total Maximum Transfers affects the bandwidth on the NAS system*.

i. Enter the name of the License Server; this is the same as the License Server in Aurora Edit (see "Setting General Options" on page 54).

j. Click **OK** to close the setup tool.

The SmartBins Service restarts.

Verifying the DCOM Configuration on Your System

NOTE: *Use only when creating Transfer SmartBins; you don't need to perform this procedure when creating either Shared SmartBins or Media Import SmartBins*.

DCOM is the Microsoft Distributed Component Object Model that allows software to communicate over a network in a secure and reliable way. If DCOM permissions are not setup correctly on your system, network communications may not work properly. To verify that it is configured as required, perform the following steps:

1. Click the **Start** icon on your computer's toolbar and choose **Run**.
2. Type **Dcomcnfg.exe** and click **OK.**
3. Click **Component Services** under the Console Root.
4. Open the **Computers** folder.
5. Right-click **My Computer** and then **Properties**.
6. Click the **COM Security** tab.
7. Look at the **Access Permissions** section. Click the **Edit Limits** box.
8. Select **ANONYMOUS LOGON.** It should have a check mark in the **Remote** box .

   If there is not a check mark present, click the box.
9. Select **Everyone.** It should have a check mark in the **Remote** box .
   - If there is already a check mark, you are done. Exit Dcomcnfg.exe.
   - If there is not a check mark present, click the box. If you clicked the box and the check mark appeared, click **OK** to apply the changes and exit Dcomcnfg.exe.
10. Reboot your system.

Licensing Your SmartBins Software

Once you've installed the SmartBins Service software, you need to get a License Number from Grass Valley.

To license your SmartBins software:

1. Double-click the Aurora License Request icon on your desktop.
2. Create a license request file following these instructions:

On this screen...	Do this...
Welcome	Read the on-screen instructions and click **Next** to continue.
Customer	Enter your name, email, and company into the required fields. Filling in the address, country, and phone fields is optional. Click **Next** to continue.
Sales Number	Enter the Sales Order number located on the Aurora License Document provided by Grass Valley. Click **Next** to continue.
Licenses	Select each of the SmartBin types you purchased from the drop-down list and click **Add**. For Transfer SmartBins, select **GXF SmartBins**; for Shared SmartBins, select **SAN SmartBins**. Click **Next** when done.
Summary	Make sure the information is correct and click **Finish**. This creates a file on your desktop called **License_Request_*sales#*.txt**

3. Email the created file to **BVTN-AuroraLicenses@thomson.net**.
4. When you receive a licensing file back from Grass Valley Licensing, detach the .txt file to the desktop of your editing system.
5. Open License Manager (located on your desktop) and drag the license.txt file into the window.
6. Click **OK**.

   Your SmartBins software is now licensed.

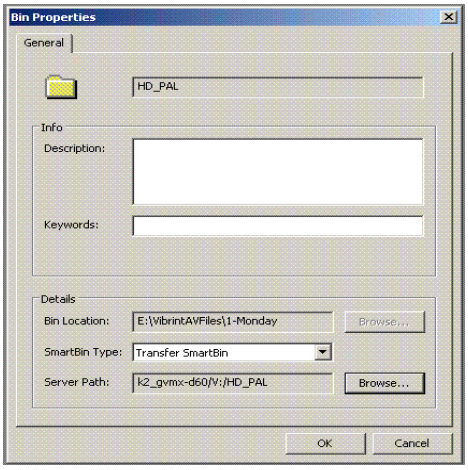
Creating a SmartBin in Aurora Edit

Once you've installed the SmartBins Service, you can create SmartBins that get automatically monitored and updated. A SmartBin monitors the server folder you specify and updates the content of the SmartBin automatically when new clips or updated feeds appear. You don't need to go into the server bin and copy the media into your Aurora Edit bin in order to use it for editing

To create a SmartBin:

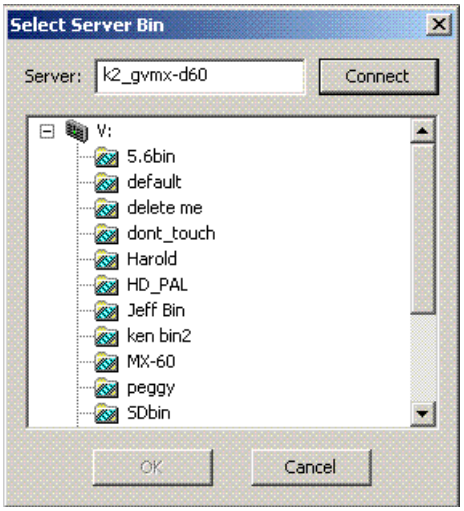
1. Open Aurora Edit on any client workstation.

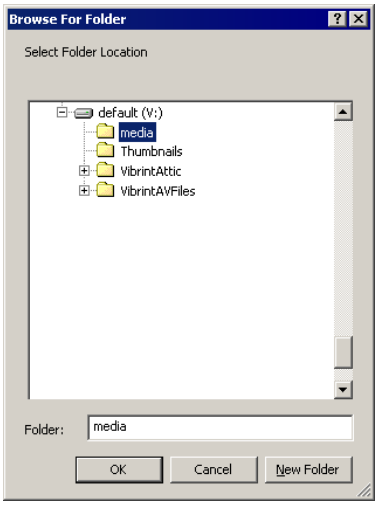
2. Click the **New Bin** button on the Bin toolbar.



3. Select the SmartBin Type from the drop-down list—**Transfer**, **Shared**, or **Media Import**.
4. Click **Browse** to the right of the Server Path field.

   The Select Server Bin window or Browse for Folder window appears:





5. Enter the name of the server and click **Connect** (If you have an Open SAN system, you don't need to enter the name of the server).

NOTE: *You only need to enter the name of the server the first time you connect; the server connects automatically once you've set it up*.

6. Select the bin or folder to monitor and click **OK**.
7. Click **OK** to create the SmartBin.

Once the mapping association is made, the SmartBin Service automatically keeps the bins synchronized.

Appendix **A**

Workstation Slot Map

This appendix lists the supported Aurora Edit workstations and the corresponding slot locations for the boards.

HP xw8400 Workstation Board Assignment

Single-CPU

		Aurora Edit Configuration	
Slot #	**Slot Type**	**SD/SDR**	**SDFX**
1	PCI	Controller(1394 or RS422)	Controller(1394 or RS422)
2	PCI-e	Video display	Video display
3	PCI-e	Network Interface	Network Interface
4	PCI-e	Network Interface	Network Interface
5	PCI-X	SDR I/O	SDFX I/O
6	PCI-X		SDFX Audio Adapter
7	PCI-X	Fibre Channel	Fibre Channel

Dual-CPU

		Aurora Edit Configuration	
Slot #	**Slot Type**	**HD/HDR**	**HDFX**
1	PCI	Controller(1394 or RS422)	Controller(1394 or RS422)
2	PCI-e	Video display	Video display
3	PCI-e	Network Interface	Network Interface
4	PCI-e	Network Interface	Network Interface
5	PCI-X	HDR I/O	HDFX I/O
6	PCI-X		HDFX Audio Adapter
7	PCI-X	Fibre Channel	HDFX Effects

HP xw9300 Workstation Board Assignment

Single-CPU

		Aurora Edit Configuration		
Slot #	**Slot Type**	**SD/SDR**	**SDFX (Option 1)**	**SDFX (Option 2)**
1	PCI-e	Video display	Video display	Video display
2	PCI	Controller(1394 or RS422)	Controller(1394 or RS422)	Controller(1394 or RS422)
3	PCI-e	—inactive—	—inactive—	SDFX Audio Adapter
4	PCI-X	Network Interface, Fibre Channel, or RS422	SDFX Audio Adapter	Network Interface
5	PCI-X	Network Interface	SDFX I/O	SDFX I/O
6	PCI-X	SDR I/O		SDFX Effects

Dual-CPU

		Aurora Edit Configuration	
Slot #	**Slot Type**	**HD/HDR**	**HDFX**
1	PCI-e	Video display	Video display
2	PCI	Controller(1394 or RS422)	Controller(1394 or RS422)
3	PCI-e	Network Interface	Network Interface
4	PCI-X	Network Interface or Fibre Channel	HDFX Audio Adapter
5	PCI-X	Network Interface or Fibre Channel	HDFX I/O
6	PCI-X	HDR I/O	HDFX Effects

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