



Avid[®] Motion Graphics

Setup and Configuration Guide

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Using This Guide

Congratulations on your purchase of the Avid Motion Graphics Server. This server is the foundation for reliable, high-productivity media production. It is designed for media facilities and broadcasters using the industry's most proven real-time storage software technology, delivering stable operation, high performance media access, and class-leading value. From character generation to full 3D animations, customers can create stunning imagery with a complete next-generation creative toolset, featuring an advanced 2D/3D real-time rendering engine accelerated by the latest GPU technology.

This guide contains all the task-oriented instructions, conceptual information, and reference material you need to setup and configure your new server. It is intended for use by those responsible for setup and configuration of the Avid Motion Graphics Server in your facility.

Unless noted otherwise, the material in this document applies to the Windows 7 operating system. The screen shots in this document were captured on a Windows 7 system.



This document describes all the features available for the Avid Motion Graphics Server. Depending on your particular configuration, your system might not contain certain features that are covered in this documentation.

If You Need Help

If you are having trouble using your Avid product:

1. Retry the action, carefully following the instructions given for that task in this guide. It is especially important to check each step of your workflow.
2. Check the latest information that might have become available after the documentation was published.

New information would be found in the ReadMe file available online.

You should always check online for the most up-to-date release notes or ReadMe because the online version is updated whenever new information becomes available. To view the online versions, visit the Knowledge Base at www.avid.com/US/support.

3. Check the documentation that came with your Avid application or your hardware for maintenance or hardware-related issues.
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Accessing the Online Documentation

The Avid Motion Graphics online documentation contains all the product documentation in PDF format. You can access the documentation in the Avid Motion Graphics Documentation folder on the Avid Motion Graphics installer device.



You need to download and install Acrobat Reader on your Avid Motion Graphics Server before you can access the PDF documentation.

To access the online documentation from the installer device:

1. Insert your Avid Motion Graphics USB flash drive (UFD) with the Avid Motion Graphics software into the USB port.
2. Navigate to the Avid Motion Graphics Documentation folder, and double-click the PDF file for the document you want to view.

1

Avid Motion Graphics Overview

Avid Motion Graphics solutions integrate industry-leading broadcast graphics systems and live production servers with both the newsroom and broadcast production. The result is facility-wide access to branded visual templates and elements—from traffic to the promotions department to the journalists—and a more consistent and competitive channel identity in all news, sports and entertainment programming.

Depending on your configuration, your Avid Motion Graphics Server might not contain certain features and hardware that are covered in this document. Information that applies to a specific model is specified as such. This document is intended for use during initial setup and installation and may also be useful for system maintenance or troubleshooting.

The following main topics describe:

- [Product Suite](#)
- [Unpacking a New System](#)
- [Avid Motion Graphics Hardware](#)
- [Avid Motion Graphics Server Front](#)
- [RAID Behavior](#)
- [Avid Motion Graphics Server Rear Panel](#)
- [Checklist: Pre-Installation Preparations](#)

Product Suite

The Avid Motion Graphics platform is built on a powerful rendering engine that lets everyone involved in graphics development make the most of their media. The product suite provides a foundation for a variety of applications, including news, sports, live events, post production, and channel branding. In addition, Avid Motion Graphics has a variety of tools and plug-ins that extend it's capabilities. The following table describes the different Avid Motion Graphics applications.

Application	Description
Avid Motion Graphics	Avid Motion Graphics is one of three Avid Motion Graphics design applications. It is geared towards the high-end broadcast graphics designer who needs to produce differentiated broadcast graphics with the highest production value. This application has a state-of-the-art feature set allowing for advanced, real-time 2D/3D graphics creation and playout, integrations with common workflows and infrastructure, turn-key or distributed hardware and control architecture. It also has support for Deko graphics.
Avid Motion Graphics Production	Avid Motion Graphics Production is one of three Avid Motion Graphics design applications. It is for broadcast graphics designers who need a cost-effective, easy to use, graphics solution with a w/ 2D/3D production capabilities. This application allows simplified real-time 2D/3D creation, and playout with basic effects, turn-key or distributed hardware and control architecture, and including support for Deko graphics.
Avid Motion Graphics Creation	Avid Motion Graphics Creation is one of three Avid Motion Graphics design applications. It is for graphics departments where graphics designers need separate graphics creation for later playout. They can import and edit third-party graphics objects using the full Avid Motion Graphics feature set for creation in a software only package, which can be installed on a laptop with a powerful graphics card and plenty of memory. This application includes the Clips and Stereoscopic options and has support for Deko graphics.
Avid License Control	Must be installed on any computer with a licensed component. For instance, the servers pass licenses to Journalist clients and News Control Clients. Installed on the Avid Motion Graphics computer, Avid Motion Graphics Journalist Server, Avid Motion Graphics Preview Renderer, and any Computers running 3DS, Photoshop, MAP or Avid Motion Graphics Control.
AMG Advanced Device Manager	Used for the iNEWS Command workflow or Automation and is installed on the Avid Motion Graphics Server.

Application	Description (Continued)
Avid Motion Graphics Control	Avid Motion Graphics Control is for non-newsroom graphics and control room operators. For those who need to control sequenced or non-sequenced graphics, and need the ability to adjust graphics on-the-fly. This application provides full graphics control for playout flexibility. It is installed with Avid Motion Graphics or on a separate 3rd party system.
Avid Motion Graphics Font Package	Allows use of graphics previously created in Deko and users can create new graphics using fonts from this package in Avid Motion Graphics too.Installed on the Avid Motion Graphics Server.
AMG Transcode	AMG Transcode is an application that allows you to convert from multiple types of clips into a known usable format, which allows playback in real-time and has aligned audio.
Deko Translator	The DekoTranslator is an application that allows you to utilize your existing Deko Graphics assets and convert them into native AMG Compositions. DekoTranslator is a standalone application not requiring AMG or Deko to be installed to work correctly. However, to confirm that the all the assets required to process the Deko Graphics are available, you need some version of the Deko application. It is recommended that you use a single computer that has a version of both Deko and AMG installed.
Deko Chart Designer	Allows use of Deko graphics previously created with Deko Chart Designer. Installed on the computer running Avid Motion Graphics with Deko Player or Deko Translator.
Deko Player	Deko Player is a component of Avid Motion Graphics that allows you to easily play your existing Deko graphics to air.
Avid Motion Graphics Journalist	Avid Motion Graphics Journalist is for the journalists who need template graphics for easy fulfillment of data.This application allows for use of the NRCS Integrated MOS plug-in along with flexibility in determining the level of functionality that journalists are exposed to for fulfillment of graphics data and adjustment of templates. Avid Motion Graphics News Control is also part of this installer.
Avid Motion Graphics News Control	Avid Motion Graphics News Control is designed for the news graphics operators who need graphics rundown automation with manual control. This application allows for automated graphics playout connected to the NRCS rundown, on-the-fly graphics adjustment, and third-party production automation integration. This application is part of the Avid Motion Graphics Journalist installer.
Avid Motion Graphics Operations Control	Avid Motion Graphics Operations Control provides a central mechanism for users to manage, diagnose and monitor all configured AMG render engines from a single interface.

Unpacking a New System

When you first receive a new Avid Motion Graphics system, it is important to carefully unpack and verify the condition of the components received.

The following main topics describe:

- [Opening the Shipping Container](#)
- [Verifying Components](#)
- [Inspecting Components for Damage](#)

Opening the Shipping Container

Before unpacking your new system, make sure the location is free of clutter and dust. Also, make sure you have a power source and a VGA monitor nearby.

When opening and unpacking the box, follow the diagram on the side of the cardboard shipping container. The diagram shows how the foam and inner cartons and boxes were packaged.



This information is helpful in the event that Customs officials need to unpack the system to inspect the serial number of the unit, or if you need to return the unit to Avid.

To unpack a new system:

1. Remove all of the boxes, including the rack rails and lay them out so you can verify that you have received all of the components that should have been shipped
2. After all of the boxes and components are unpacked, visually inspect the enclosure to make sure it is free of any scratches, dents or other types of visible damage.
3. Ensure there are straight connectors on the back, and that the power-supply securing screws are not bent.
4. Verify that you have received all of the components particular to your order. You should get between 3-5 boxes for each unit.



Keep the shipping boxes that come with your Avid Motion Graphics hardware in case you should ever need to repackage and ship the components in the future. If you are unpacking multiple systems, ensure that you keep the box of media drives with the original AMG system. Mixing the drives between AMG servers causes RAID import problems. This could result in needing to rebuild the raid configuration, which is a lengthy (8 hour) process.

Verifying Components

After unpacking everything, verify that you have all of the items or components that are listed on the packing slip. Each item is marked with a part number appears as a line item on the packing slip. If you are missing any of the items listed on your packing slip, contact Avid before proceeding.

Inspecting Components for Damage

After verifying that all of your components have been received, you must also ensure that they are not damaged.

To inspect components for damage:

1. Visually inspect all of the hardware components to ensure none of them were damaged during shipping.
2. If you received a hardware component that was damaged, contact Avid Customer Support or your Avid sales representative before proceeding.

Avid Motion Graphics Hardware

The Avid Motion Graphics Server uses industry standard components to deliver high capacity, high performance collaborative media solutions. A single Avid Motion Graphics enclosure is comprised of five 1 TB media storage drives, two mirrored system drives, RAID controller, Gigabit Ethernet, plus redundant power and fans.

Avid Motion Graphics Server assures media protection and availability using the following:

- Mirrored system drives are used for system operation.
- Media drive replacement without interrupting the operation of the Avid Motion Graphics Server.
- Data drives configured into one RAID 5 group.



If any of the RAID drives fail, the failed drive can be removed and replaced with a new drive without interrupting the operation of the Avid Motion Graphics Server.

The Avid Motion Graphics Server uses the Windows® 7 Ultimate operating system. The Windows Product Key Certificate of Authenticity is attached to the top cover of the Avid Motion Graphics Server enclosure, as shown in the following illustration. You only need this product key in the event that you need to reinstall the operating system.

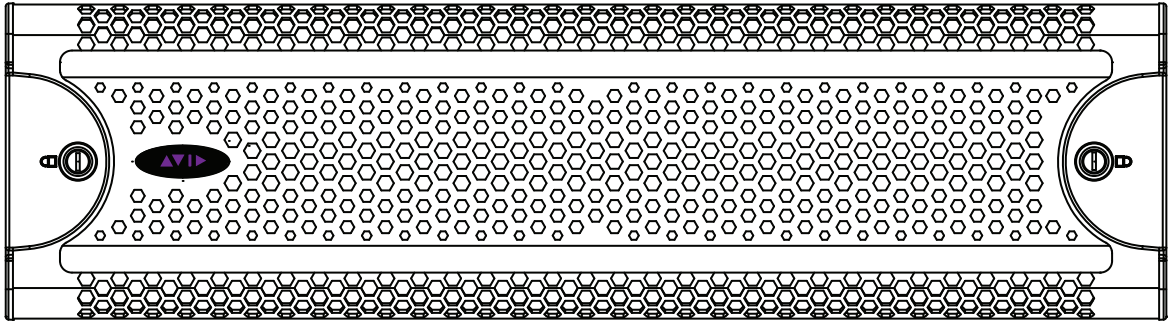


Avid Motion Graphics Server Front

The Avid Motion Graphics Server comes with an Avid bezel that covers the front of the enclosure. This bezel can be locked to prevent unauthorized personnel from accessing the buttons and data drives. Two keys are required to unlock and remove the bezel from the server. The keys are used at the same time in the lock on each side of the bezel. A total of three interchangeable keys are shipped with the server and are found wrapped with the bezel in the box.

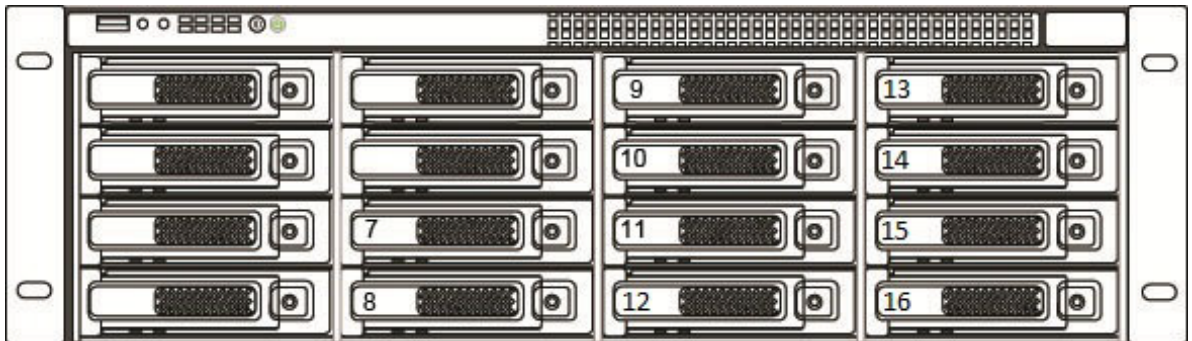


The following is an illustration of the Avid Motion Graphics Server enclosure with the front bezel installed.

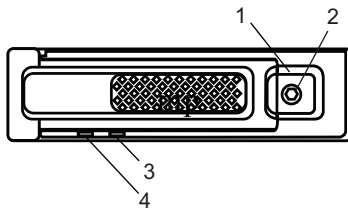


The front of the single-channel Avid Motion Graphics Server provides access to 5 data drives (dual-channel AMG servers have 10 data drives), a USB port, network port activity LEDs, an error LED, and the Power and Reset buttons. The following is an illustration with the front bezel removed and the data drives installed. The data drives are shipped separately and must be installed in the server. For more information, see, [“Installing the RAID Drives” on page 40](#). In the following illustration, the drives are numbered showing the locations where the data drives are installed. Single channel AMG servers only contain five drives (shown in the illustration as drives 12-16). Dual channel AMG servers contain a total of 10 drives (shown in the illustration as drives 7-16).

 *The actual drives are not numbered.*



Each of the data drives have a blue and red LED on the bottom front of the drive. The left LED (blue) is on when a drive has power and flashes when the drive is in use.



The following table describes the parts of the data drive.

Item Number	Description
1	Drive Carrier Latch
2	Drive Lock
3	Fault LED (Red)
4	LED (Blue) Power/Activity

The right Fault LED (red) is lit when an error is detected with the drive and the drive needs to be replaced, or when the drive is initializing. Details on the data drive LED indicators are in the following table.

Data Drive LED Functions

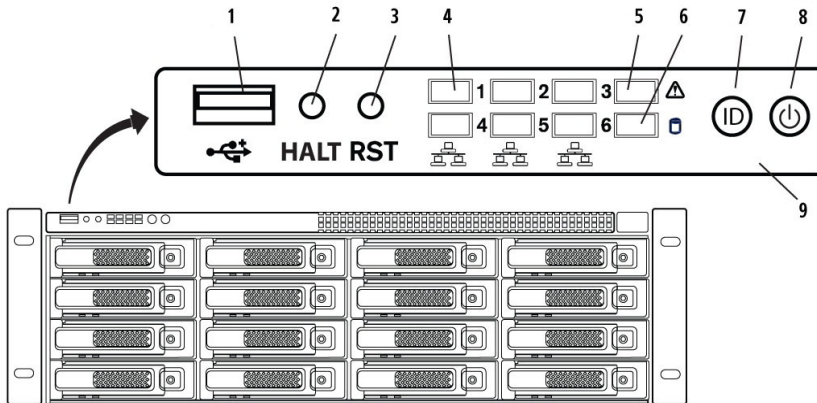
Drive State	Blue LED	Red LED	Comments
Online Inactive	On solid	Off	Healthy online drive, no disk I/O
On-line Active	Activity	Off	Healthy online drive, with disk I/O
Online Disk in a Degraded Set	On solid/Activity	Fast flashing	Nothing needs to be done to these online drives, but failed drive should be replaced
Spare Rebuilding	Activity	Slow flashing	Rebuild automatically occurs on drive failure when new drive is installed
Data Rebuilding	Activity	Fast flashing	Rebuild automatically occurs on drive failure when new drive is installed
Consistency Check	Activity	Off	No user intervention required

Data Drive LED Functions (Continued)

Drive State	Blue LED	Red LED	Comments
Initializing	Activity	Off	Happens on initial array creation
Failed Data Disk	On solid	On solid	Disk performance degraded, should replace disk
Unused Disk	On solid	Off	No user intervention required
Non-Branded	On solid	Slow flashing	Unapproved disk attempting to be added, should replace disk

Server Controls and LEDs

The server has 8 LEDs on the top of the front panel, under the bezel, organized into two rows, each row with four LEDs. The first 3 columns of LEDs (6 LEDs) represent activity on each of the six network ports. The top right LED represents system hardware errors. The bottom right LED represents system drive activity. The following illustration shows the front server controls and LEDs.



The following table describes the control panel shown in the previous illustration.

item Number	Control	Description
1	Universal serial bus (USB) port	USB 2.0 device port on the front of the system supports one USB device. Recommended for use when re-imaging the system drives or loading software. There are four more USB ports located on the back of the server. Two of them are located on the server itself and can be used for a USB Keyboard and Mouse. There are also two located on the USB/PS2 expansion card.
2	Halt button	This button is not implemented in the current release of this product.
3	System reset button	Performs a soft reset when pressed. Do not use this button unless the system has had a fatal error and you need to restart. A soft reset restarts the system; it clears all active program memory (you lose unsaved work) and shuts down all active programs.
4	Six green network activity LEDs	Illuminates green when a good network connection is established and blinks when there is network activity on the six built-in 1-GB network ports. The number beside the LED corresponds with the number beside the network port on the rear of the enclosure.
5	Red System error LED	Illuminates red when an error is detected with the system (fan, power supply, temperature, voltage).
6	System Drive activity LED	Indicates drive activity from the onboard SATA controller and blinks when either of the system drives is being accessed.
7	System ID button	When pressed, it illuminates blue and also illuminates an LED on the rear of the enclosure. The rear LED is also blue and is on the lower left-hand side of the Ethernet ports. It is used to identify a system for servicing when it is installed in a high-density rack/cabinet populated with several other similar systems.
8	Power button	Press to power on the enclosure. Power button illuminates green when the power is on.
9		Control panel located on the front of the server under the bezel.

Drive Array and Slot Locations (Single Channel Servers)

For single channel AMG servers, one RAID 5 group is created in the Avid Motion Graphics Server enclosure using the 5 data drives.

The single channel Avid Motion Graphics Server provides 5 TB of storage. The numbers assigned to the slots and the group numbers are not displayed in the Avid Motion Graphics Server software. These numbers and groups are only displayed in the LSI MegaRAID Storage Manager. For more information about installing drives, see [“Installing the RAID Drives” on page 40](#).



The LSI MegaRAID Storage Manager is a RAID utility that allows for viewing and management of disks in your media array. If your Avid Motion Graphics server OS image is later than version 4, it will not have the LSI MegaRAID Storage Manager software pre-installed. Earlier Avid Motion Graphics software versions had this software pre-installed on the server.

Therefore, if your system does not have it installed, you must install the LSI MegaRAID Storage Manager software yourself in order to view and manage the system. For more information on installing the LSI software, see [“Install the LSI MegaRAID Storage Manager Software” on page 57](#).

For information on using the LSI MegaRAID Storage Manager software to view and manage your media drives, see the relevant topics later in this guide.

Blank	Blank	Blank	13 — RAID Group 0
Blank	Blank	Blank	14 — RAID Group 0
Blank	Blank	Blank	15 — RAID Group 0
Blank	Blank	12 — RAID Group 0	16 — RAID Group 0

The RAID group 0 is configured with drives 12 - 16.

Drive Array and Slot Locations (Dual Channel Servers)

For dual channel AMG servers, two RAID 5 groups are created in the Avid Motion Graphics Server enclosure using the 10 data drives.

The dual-channel Avid Motion Graphics Server provides 10 TB of storage. The numbers assigned to the slots and the group numbers are not displayed in the Avid Motion Graphics Server software. These numbers and groups are only displayed in the LSI MegaRAID Storage Manager. For more information about installing drives, see [“Installing the RAID Drives” on page 40](#).



The LSI MegaRAID Storage Manager is a RAID utility that allows for viewing and management of disks in your media array. If your Avid Motion Graphics server OS image is later than version 4, it will not have the LSI MegaRAID Storage Manager software pre-installed. Earlier Avid Motion Graphics software versions had this software pre-installed on the server.

Therefore, if your system does not have it installed, you must you must install the LSI MegaRAID Storage Manager software yourself in order to view and manage the system. For more information on installing the LSI software, see [“Install the LSI MegaRAID Storage Manager Software” on page 57](#).

For information on using the LSI MegaRAID Storage Manager software to view and manage your media drives, see the relevant topics later in this guide.

Blank	Blank	9 — RAID Group 1	13 — RAID Group 0
Blank	Blank	10 — RAID Group 1	14 — RAID Group 0
Blank	7 — RAID Group 1	11 — RAID Group 1	15 — RAID Group 0
Blank	8 — RAID Group 1	12 — RAID Group 0	16 — RAID Group 0

For dual channel AMG servers, the RAID groups are as follows:

- The RAID group 0 is configured with drives 12 - 16.
- The RAID group 1 is configured with drives 7 - 11.

RAID Behavior

Once the RAID group has been created, any of the drives in the server can be swapped within the enclosure. The Avid Motion Graphics Server uses the drive IDs to track what drives are members of the RAID group.

Avid Motion Graphics Server Rear Panel

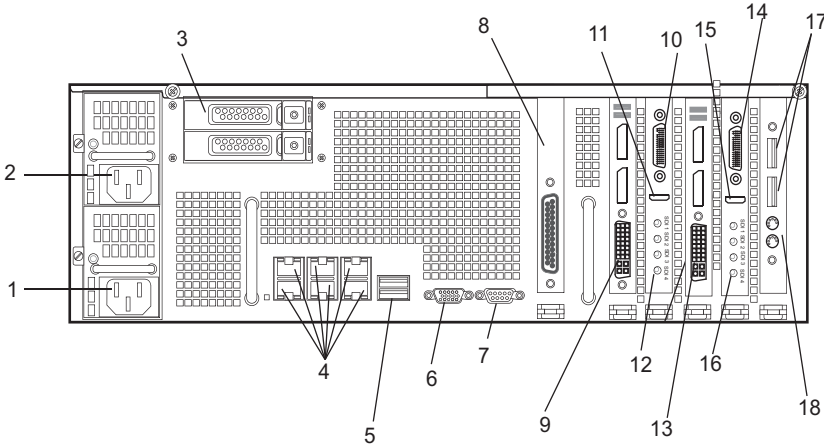
The rear panel provides access to the power supplies, system drives, 1 gigabit (Gb) Ethernet connectors, RS232 Serial Port, and two USB connectors for the standard or USB keyboard and mouse provided with the server.

If you purchased an AMG keyboard, you can connect it to one of the USB ports.

The AMG Server has two power supply modules that set the voltage automatically for either 100 V or 240 V at 50 to 60 Hz.

- Data drives — The single-channel Avid Motion Graphics Server enclosure has five 1TB, externally accessible, data drives located on the front side of the server. The dual-channel Avid Motion Graphics Server enclosure has ten 1TB, externally accessible, data drives located on the front side of the server.
- System drives — The Avid Motion Graphics Server uses two externally accessible, mirrored system drives for the operating system and application software, located on the back of the server.

 *The following illustration shows the rear configuration of a dual channel Avid Motion Graphics Server.*



The following table describes the back of the Avid Motion Graphics Server.

Item Number	Description
1	Power Connector
2	Power Connector
3	Mirrored System Drives
4	Intel Pro 1Gb Ethernet Ports
5	USB Ports (Recommended for use with Keyboard and Mouse)
6	Video Port (disabled)
7	Serial Port - RS232
8	Serial Card - RS422
9	VGA Adapter - used for KVM or VGA Monitor
10	Breakout Panel Interconnect
11	HDMI Preview Port - used for Breakout Panel Preview Monitor
12	Video I/O Card Supports Connection to the Output Program Monitor Through the Breakout box
13	(Dual Channel only) VGA Adapter - not used
14	(Dual Channel only) 2nd Breakout Panel Interconnect
15	(Dual Channel only) HDMI Preview Port used for the 2nd Breakout Panel Interconnect to the Preview Monitor
16	(Dual Channel only) Video I/O Card Supports Connection to the Output Program Monitor Through the Breakout box
17	USB Ports
18	PCI Card with PS/2 and USB Ports

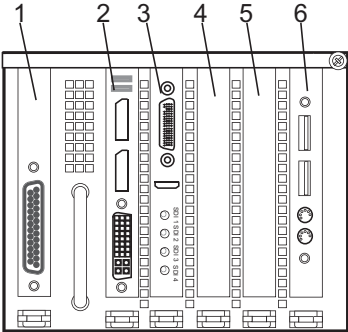
Expansion Slots

There are six expansion slots accessible from the rear of the Avid Motion Graphics Server enclosure.

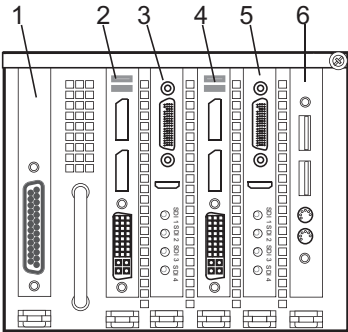


For Single-channel model servers, slots 4 and 5 are blank.

When upgrading a single-channel AMG server to a dual-channel AMG server, you must install the additional boards in slots 4 and 5. For more information, see [“Upgrading Your AMG Server Hardware to Dual Channel”](#) on page 140.



Single Channel Server
Expansion Slots




Dual Channel Server
Expansion Slots

The following table lists the standard boards and the expansion slots that are supported for both the single and dual-channel AMG Server models.

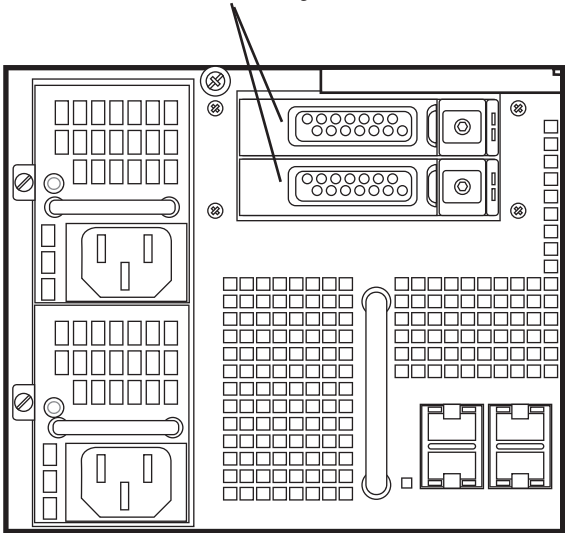
Item	PCI Slot	Interface	Description
1	Serial Card	SeaLevel® 7205eS PCI Express serial interface	The Sealevel 7205eS PCI Express serial interface provides two serial ports configurable for RS-232 or RS-422. Each serial port utilizes a 16C950 UART with 128-byte Tx/Rx FIFOs which enables data rates to 921.6K bps for reliable high-speed communications in data intensive applications, such as automation-type. An expansion cable is included, shipped with the server.
2	PCI-E x16	NVidia® Quadro 4000 VGA board	The NVidia Quadro 4000 VGA board is installed in the second PCI-E x16 connector on the Avid Motion Graphics Server.
3	PCI-E x4	AJA Kona 3G Video I/O board	The AJA Kona 3G Video I/O board is installed in the third PCI-E x4 connector.
4	N/A for single channel servers PCI-E x16 for Dual channel servers	(For Dual channel servers only): NVidia® Quadro 4000 VGA board	This slot is not used for single channel servers. For Dual channel servers, the NVidia Quadro 4000 VGA board is installed in the fourth PCI-E x16 connector on the Avid Motion Graphics Server.
5	N/A for single channel servers PCI-E x4 for Dual channel servers	(For Dual channel servers only): AJA Kona 3G Video I/O board	This slot is not used for single channel servers. For Dual channel servers, the AJA Kona 3G Video I/O board is installed in the fifth PCI-E x4 connector.
6	USB/PCI Card		Allows for 2 USB connections.

System Drives

There are two system drives accessible from the rear of the enclosure. These two drives are mirrored and if a failure occurs on either one of the system drives, you can pull the failed drive out of the enclosure and install a replacement drive without turning off the Avid Motion Graphics Server.

 *The drive carriers for the system drives are locked to prevent them from opening during shipment. The plastic drive carrier key is mounted on the rear of the enclosure beside the system drives, as shown in the following illustration.*

Mirrored System drives



Power Supplies

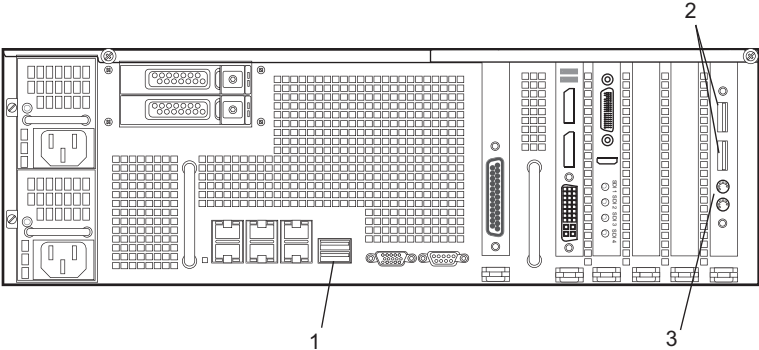
There are two power supplies accessible from the rear of the Avid Motion Graphics Server enclosure. If a failure occurs on either one of the power supplies, you can pull the failed power supply out of the enclosure and install a replacement power supply without turning off the Server. All operations continue to run uninterrupted. A faint beeping sound can be heard when there is a power supply failure. This sound is silenced by restoring the power or replacing the module.

USB Ports

There are four USB ports located on the rear of the Avid Motion Graphics Server. Avid recommends using the USB ports, located on the expansion card containing the PS/2 connections, for USB devices.

The following illustration shows the rear USB and PS/2 ports on the Avid Motion Graphics Server.

The illustration depicts a single-channel model Avid Motion Graphics server.



The following table describes the USB and PS/2 ports on the Avid Motion Graphics Server.

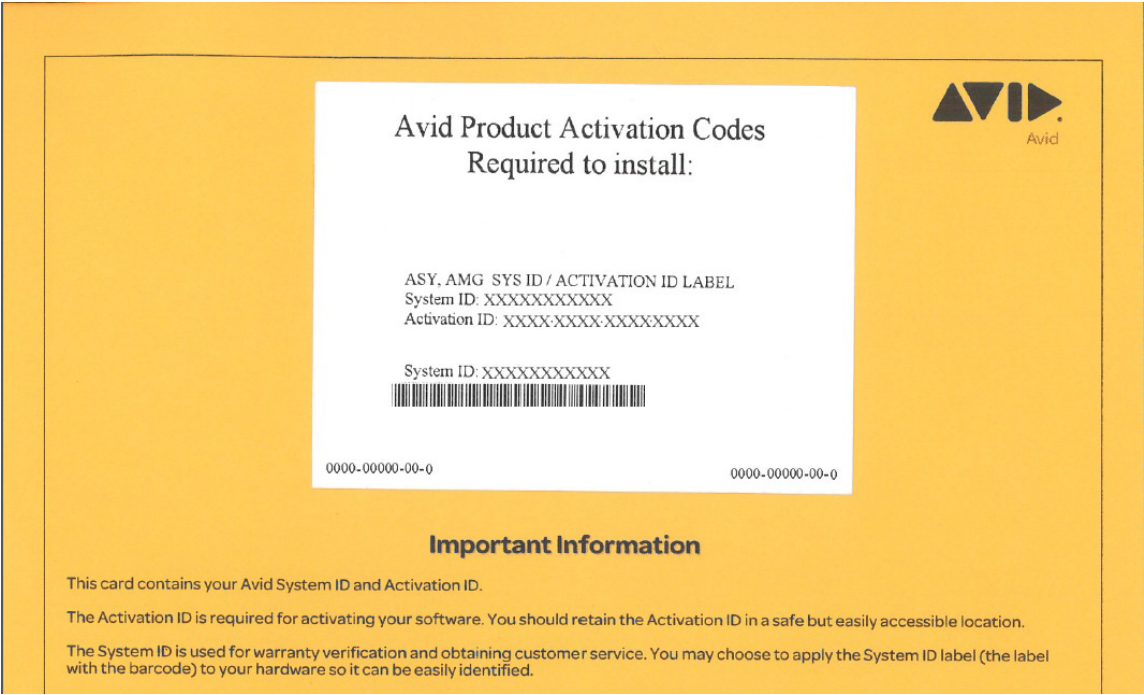
Item Number	Description
1	These USB Ports are recommended for use with your Keyboard and mouse
2	Available USB Ports
3	PS/2 Ports

USB Devices and License Activation ID

There two USB devices, one for software application installation and one that contains the AMG Drive recovery image.

The software license is provided on an Activation ID. Depending on your specific configuration you may receive more than one Activation ID card. The card ships in a box separately from the server and could potentially be in a box with another product that might be unrelated to the Avid Motion Graphics system, if you have purchased multiple products on the same order.

Below is an example of a AMG System ID/ Activation ID card:



Checklist: Pre-Installation Preparations

Before you start to install software and configure the Avid Motion Graphics Server, ensure the following tasks are completed.

Checked	Tasks	Refer to...
<input type="checkbox"/>	Unpack your system	For more information, see “Unpacking a New System” on page 16.
<input type="checkbox"/>	Verify System components against your packing slip	For more information, see “Verifying Components” on page 17.
<input type="checkbox"/>	Inspect components for damage	For more information, see “Inspecting Components for Damage” on page 17.
<input type="checkbox"/>	Rack mount the system and attach peripherals.	For more information, see “Installing the AMG Server in a Rack” on page 32.
<input type="checkbox"/>	Install RAID Drives	For more information, see “Installing the RAID Drives” on page 40.
<input type="checkbox"/>	Configure hardware (reference, video, & audio)	For more information, see “Rack Mounting and Cabling Your Server” on page 32.
<input type="checkbox"/>	Connect the Breakout box	For more information, see “Installing the Breakout Box” on page 41.
<input type="checkbox"/>	Cable the AMG server	For more information, see “Cabling Avid Motion Graphics” on page 43.
<input type="checkbox"/>	Connecting power cord and other cables	For more information, see “Connecting Power Cords to the AMG Server” on page 54.
<input type="checkbox"/>	Starting the AMG server	For more information, see “Powering on Avid Motion Graphics” on page 55.
<input type="checkbox"/>	Configure your Network and Operating System Settings	For more information, see “Network and Operating System Settings” on page 55.
<input type="checkbox"/>	Install the AMG and Related Software	For more information, see “Software Installation” on page 61.
<input type="checkbox"/>	Activate Licenses	For more information, see “Software Licensing” on page 73.

2 Rack Mounting and Cabling Your Server

The following describes how to rack mount and cable your Avid Motion Graphics server. It includes information about attaching peripherals, connecting the AMG keyboard, serial connections, and network protection.

The following main topics describe:

- [Installing the AMG Server in a Rack](#)
- [Installing the RAID Drives](#)
- [Installing the Breakout Box](#)
- [Cabling Avid Motion Graphics](#)
- [Connecting Power Cords to the AMG Server](#)
- [Powering on Avid Motion Graphics](#)
- [Network and Operating System Settings](#)

Installing the AMG Server in a Rack

The Avid Motion Graphics Server is designed for 19-inch (483-mm) racks and requires three EIA rack units (3U), or 5.25 inches (133.4 mm) of rack space. The rail kit installs into rails that are between 23-inches (584.2-mm) to 31-inches (787.4-mm) inches deep.

The Avid Motion Graphics Server includes rack mounting slide rails. If instructions are included with your rail kit, use them instead of the instructions included in this section. The standard rail configuration is for racks with square mounting holes. Optional brackets are included for racks with round holes. The rack-mounting kit requires inner slide rails be mounted to the Avid Motion Graphics Server and the outer slide rails are mounted to the rack. Once both the inner and outer rails are in place, slide the server with the inner rails attached into the outer rails. Secure the Avid Motion Graphics Server in the rack so it does not slide forward.



The Avid Motion Graphics Server is designed to be installed horizontally in a rack. Installing the server on an angle or in a sloped console causes the internal drives to wear faster than the intended life of the drive.



To ensure the stability of the rack enclosure, start from the bottom when you install the rack components in the rack enclosure.

Rack-mount Requirements

- **Elevated Operating Ambient** — If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment might be greater than room ambient. Therefore, consider installing the equipment in an environment compatible with the maximum ambient temperature specified by the manufacturer.
- **Reduced Air Flow** — Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised. Avid Motion Graphics Server airflow is from the front of the enclosure to the rear. Make allowances for cooling air to be available to the front panel surface and no restrictions at the rear.
- **Mechanical Loading** — Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading. Ensure your rack enclosure is stable enough to prevent tipping over when one or more Avid Motion Graphics Engines are extended on the sliding rails.
- **Circuit Overloading** — Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on surge protection and supply circuit wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- **Reliable Grounding** — Reliable grounding of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (for example, use of power strips).
- **Inside Enclosure Access** — If you want to extend the enclosure, and remove the top cover, you must allow 0.5 in (1.3 cm) clearance on top of the enclosure for cover removal.

Rack mounting your server involves the following tasks:

- [“Positioning the Server in the Rack” on page 36](#)
- [“Separating the Slide Rails” on page 37](#)
- [“Attaching Inner Slide Rails to the Server” on page 38](#)
- [“Attaching the Outer Rails to a Square-Hole Rack” on page 38](#)
- [“Attaching the Outer Rails to a Round-Hole Rack” on page 40](#)
- [“Securing the Server in a Rack” on page 42](#)

Positioning the Server in the Rack

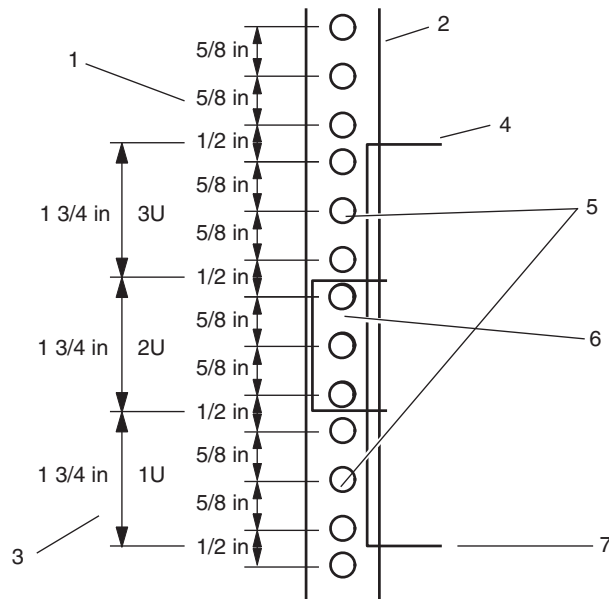
The following information helps you decide where to install the Avid Motion Graphics Server in the rack.



Avid recommends 5 rack spaces to allow for room between devices in future expansion.

To position the server in the rack enclosure:

- ▶ Select a position in the rack where the Avid Motion Graphics Server is at the proper baseline position.



The following table describes various positioning points in the previous illustration.

Item Number	Description
1	Rack mounting rail hole spacing
2	Rack mounting rail
3	EIA rack unit
4	Avid Motion Graphics Server
5	Avid Motion Graphics Server front panel mounting holes
6	Outer slide rail bracket assembly
7	Baseline position is between two 1/2 inch holes

Separating the Slide Rails

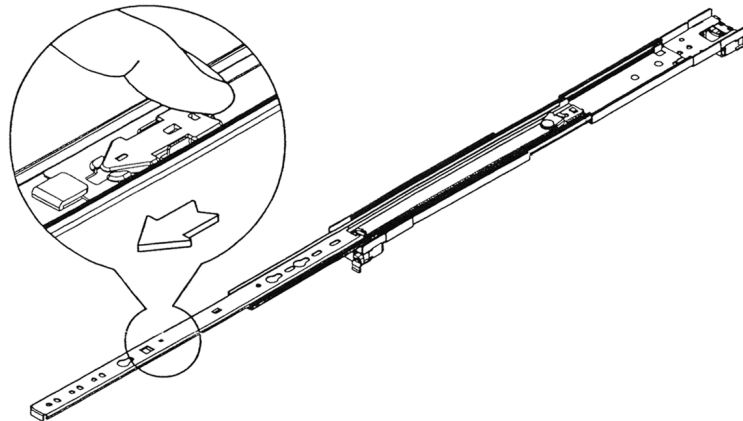
You need to separate the slide rails and attach the inner “movable” section to the File Gateway server and the outer “fixed” section to the rack rails.

To separate the slide rails:

1. Slide the slide rail completely open.
2. Press the spring clip on the inner slide rail as shown in the following illustration.



The blowup of the spring clip shown in the illustration is on the bottom side of the slide rail.



3. Pull and separate the two halves.

4. Repeat these steps to separate the second slide rail.

Attaching Inner Slide Rails to the Server

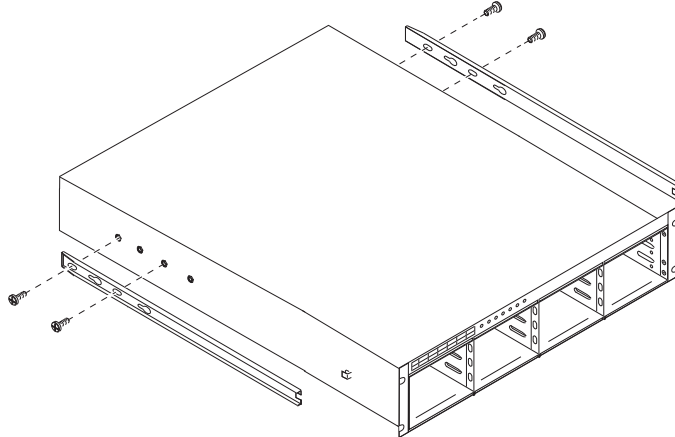
Attach the inner slide rails that were separated from the outer slide rails to the Avid Motion Graphics Server.

To attach the inner slide rails:

1. Position the inner slide rail against the side of the server so that the screw holes are toward the rear of the server, and front of the slide rail fits over the tab at the front of the server.
2. Secure the inner slide rail to the server with two of the small screws.



You might find more screws in the rail kit than is needed, and described in this procedure.



3. Repeat this procedure to attach the other inner slide rail on the other side of the server.

Attaching the Outer Rails to a Square-Hole Rack

After separating the slide rails as previously described (see Separating the Slide Rails), perform the following procedure. If your mounting rails have round holes, see [“Attaching the Outer Rails to a Round-Hole Rack”](#) on page 40.

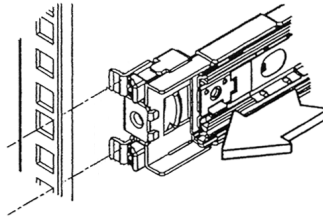
To attach the outer slide rails to the rack with square holes:

1. Align the outer slide rail bracket assembly with the front rack-mounting holes.

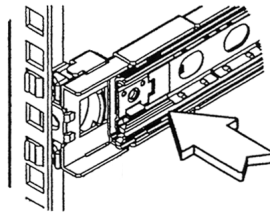


Have someone help you by holding the slide rails level while you are positioning them in the rack.

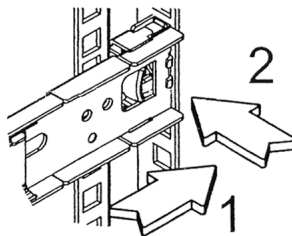
2. Slide the square tabs through the holes in the front, vertical rack-mounting rail.



3. Push the outer rail towards the outside of the rack, to secure the outer rail in place.



4. Adjust the outer slide rail bracket assembly to the rear mounting rail.
5. Secure the rear outer slide rail bracket assembly to the rear mounting rail as you did for the front rack-mounting rail.



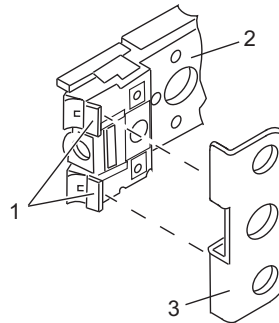
6. Repeat this procedure to attach the second outer slide rail on the other side of the rack.

Attaching the Outer Rails to a Round-Hole Rack

After separating the slide rails as previously described (see [“Separating the Slide Rails” on page 37](#)), perform the following procedure. If your mounting rails have round holes, you first need to clip on the round hole adapter.

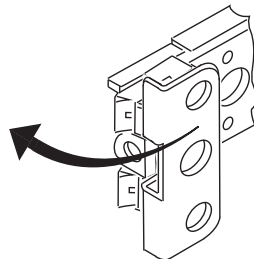
To attach the outer slide rails to the rack with round holes:

1. Locate the four round hole adapters (which ship in the accessory kit's plastic bag, not in the rack mount kit box) and position the adapter on the end of the outer slide rail bracket assembly as shown in the following illustration.



Item Number	Description
1	Bracket Assembly Tabs
2	Outer Slide Rail Bracket Assembly
3	Round Hole Adapter

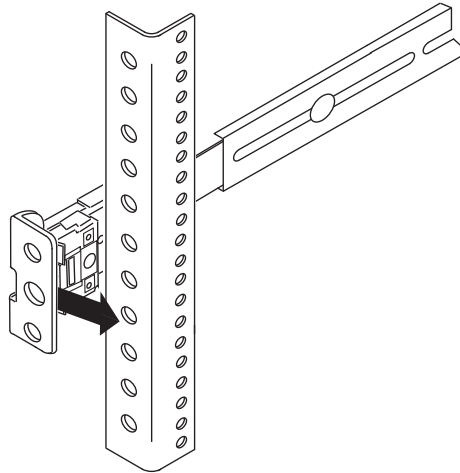
2. With the bracket assembly tabs aligning with the cut-out in the round hole adapter, swing the adapter so that the holes face the front of the bracket assembly as shown in the following illustration.



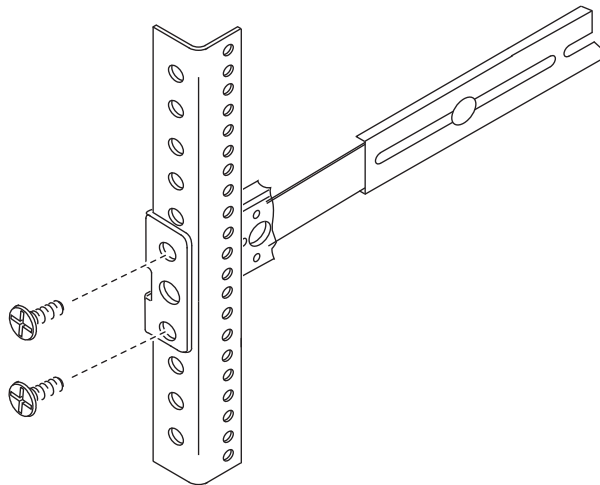
3. Slide the outer slide rail bracket assembly onto the side rack-mounting rail so that the round hole adapter is over the rack rail.



It is helpful to have someone holding the slide rails level for you when positioning them in the rack.



4. Insert the small (10-32) Phillips-head screws through the round-hole adapter and mounting rail, into the bracket. If the rack holes are different size, you need to supply your own screws.



5. Adjust the outer slide rail bracket assembly to the rear mounting rail.
6. Secure the rear outer slide rail bracket assembly to the rear mounting rail as you did for the front rack-mounting rail.

- Repeat this procedure to attach the second outer slide rail on the other side of the rack.

Securing the Server in a Rack



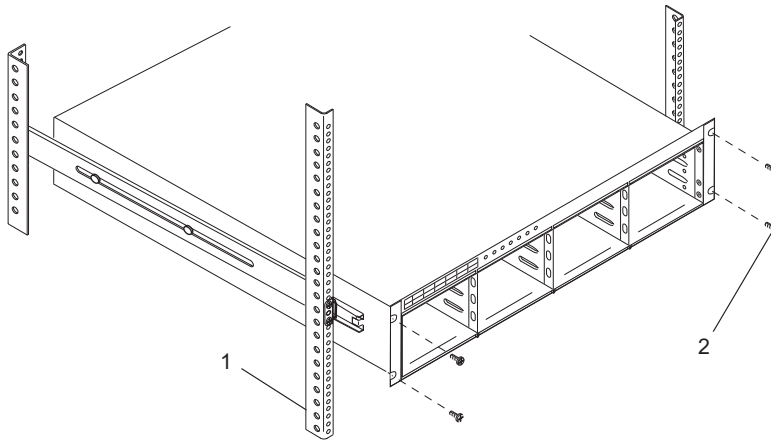
You should have someone helping you lift the Avid Motion Graphics Server while you are positioning it into the slide rails.

To secure the Avid Motion Graphics Server to the rack enclosure:

- Lift and position the Avid Motion Graphics Server so that the inner slide rails (secured to the Avid Motion Graphics Server) align with the outer slide rails secured to the rack.
- Push the front of the Avid Motion Graphics Server flush against the front mounting rail. The holes in the Avid Motion Graphics Server front panel align with the holes in the front mounting rail.
- From the front of the rack enclosure, insert the large screws through the Avid Motion Graphics Server and front mounting rail, and tighten.




You can use your own rack hardware if your rack has square holes or unique fasteners.



Item Number	Description
1	Rack Enclosure Front Mounting Rail
2	One of the four Screws

Installing the RAID Drives

After rack-mounting the hardware, you can install the RAID drives.

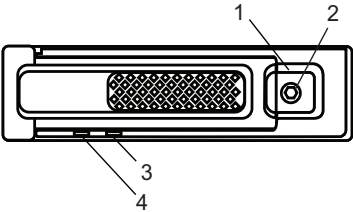
 For information about configuring the RAID drives after they are installed, see “Configuring the RAID Drives (For Single Channel Servers only)” on page 63.

To install the RAID drives:

1. Locate the drives shipped with your system.

 Single channel Avid Motion Graphics servers ship with 5 drives. Dual channel Avid Motion Graphics servers ship with 10 drives.

2. Select a drive. There is no particular drive assignment, it doesn’t matter which drive goes in which of the available open compartments.
3. Push the drive carrier latch in to release the handle and pull the handle completely open to insert the drive carrier.
4. Ensure the drive LEDs are on the bottom and that the drive carrier latch is on your right before you begin to slide the drive into the compartment.
5. Slide the drive into the open drive slot in the server until it stops. Approximately 1/2 inch of the drive carrier should be outside the compartment.



The following table describes the parts of the data drive.

Item Number	Description
1	Drive Carrier Latch
2	Drive Lock
3	Fault LED (Red)
4	LED (Blue) Power/Activity



Do not force a drive into a slot. If you are having problems installing a drive, check to make sure it is level and flat as you insert it into the compartment, that the drive carrier latch is open and at a 45 degree angle to the drive carrier, and that the LEDs are on the bottom of the drive carrier.

6. Push the handle into the drive carrier. This seats the drive in the server. You'll hear a click when the drive is fully seated and the handle latches in place.
7. Repeat these steps for each remaining drive.

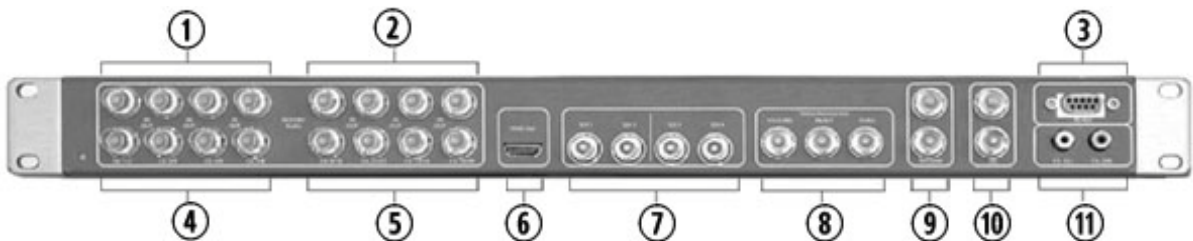
For information about configuring the RAID drives after they are installed, see [“Configuring the RAID Drives \(For Single Channel Servers only\)”](#) on page 63.

Installing the Breakout Box

A Breakout box is necessary to transfer any video from the video I/O card to the monitor. Avid recommends the AJA K3G Breakout box for use with the Avid Motion Graphics Server. The AJA K3G Breakout box is described in the following example.



Although AES Audio in and out channels are labeled in the following illustration, AES Audio is not enabled for the Avid Motion Graphics Server. RS-422 Machine Control is likewise labeled in the following illustration but is not enabled for the Avid Motion Graphics Server.



Item Number	Description
1	AES/EBU Audio In Channels 1 through 8 (not enabled)
2	AES/EBU Audio In Channels 9 through 16 (not enabled)
3	RS422 Machine Control (not enabled)
4	AES/EBU Audio Out Channels 1 through 8 (not enabled)
5	AES/EBU Audio Out Channels 9 through 16 (not enabled)
6	HDMI 1.4 Output (HDMI to SDI conversion necessary for preview out)

Item Number	Description (Continued)
7	SDI Input/Output (enabled)
8	Component/Composite Video Output (not enabled)
9	Reference In/Out Loop Terminate loop with 75 ohm termination
10	LTC Input/Output (enabled)
11	Analog Audio Output (not enabled)

The breakout box is required for cabling the Avid Motion Graphics system. The following information describes how to install the breakout box in a rack.



Ensure you have at least 1RU of rack space available prior to installing.

To connect the breakout box

1. Lift and position the breakout box so that the rack-mount brackets on the panel are aligned with the rear outer rack rails.
2. Position the front of the box flush against the rear mounting rails so that the holes in the bracket align with the holes in the rear mounting rails.



You may mount the breakout box above or below your Avid Motion Graphics Server. For single-channel models, allow a total of 5RUs of space between each server.

For dual-channel model servers, a 2nd breakout box is required for video cabling, and allow 6RUs of space between each server.

3. To connect video I/O to the breakout box, see [“Connecting Video Cables”](#) on page 48.

Cabling Avid Motion Graphics

After the Avid Motion Graphics server is placed in a rack, you can connect the VGA monitor, Mouse, and Keyboard. To do this you might need to use a KVM extender, Avid recommends Avocent®.

Video Connections

The are video setup guidelines based on your system type. Video reference must be present prior to the integration of the video output signal into customer production environment. The video reference synchronizes the in-house resolution with the Avid Motion Graphics server.



Although a video output can be generated without the presence of video reference, it is not going to integrate properly with other downstream devices that may be used in production. As a result, the time synchronization with the production house is incorrect.

Video inputs must be synchronized with the in-house reference signal supplied to the Avid Motion Graphics Server as there is no input timing adjustment included in the hardware settings.

The Video I/O card(s), located on the back of the Avid Motion Graphics Server, auto senses the presence of video reference and identifies the reference supplied in the Hardware Settings menu. Reference input is located on the input/output video reference cable supplied with your Avid Motion Graphics Server.



Dual channel Avid Motion Graphics Servers contain two (2) Video I/O cards.

Video Formats AMG 2.x Servers

The following are a list of video formats supported by the Avid Motion Graphics 2.x servers. As new technology is added, your software release could include additional formats.

525i 29.97 Hz	1080p 24.00 Hz
625i 25 Hz	1080p 50.00 Hz
720p 24 Hz	1080p 59.94 Hz
720p 50.00 Hz	1080p 60.00 Hz
720p 59.94 Hz	2048i 47.96 Hz
720p 60.00 Hz	2K: 2048 - 1080p 23.98
1080i 50.00 Hz	2K: 2048 - 1080p 24.00
1080i 59.94 Hz	2K: 2048 - 1080p 25.00

1080i 60.00 Hz	2K: 2048 - 1080p 29.97
1080PsF 23.98 Hz	2K: 2048 - 1080 30
1080PsF 24.00 Hz	2K: 2048 - 1080p 50
1080PsF 25.00 Hz	2K: 2048 - 1080p 59.94
1080PsF 29.97 Hz	2K: 2048 - 1080p 60
1080PsF 30.00 Hz	Custom Resolutions
1080p 23.98 Hz	



Custom Resolutions: Avid Motion Graphics allows users to set non-standard video formats (i.e. 1080 x 1920 9:16 for a digital signage type or studio display). Custom resolutions are set in the File / Preferences area of the Avid Motion Graphics interface.



Half frame rates of HD formats are also supported.

Video Formats AMG 1.x Servers and DekoPlayer Formats

The following are a list of video formats supported by the Avid Motion Graphics v1.x servers and DekoPlayer supported formats. As new technology is added, your software release could include additional formats.

NTSC (4x3 and 16:9)

PAL (4x3 and 16:9)

1080i 59.95Hz

1080i 60.00 Hz

1080i 50.00 Hz

720p 50.00 Hz

720p 59.94 Hz

720p 60.00 Hz

Connecting Video Cables

The following information explains how to make the video connections for the Avid Motion Graphics Server to the Monitor going through a breakout box. The breakout box transfers any video from the Video I/O card(s) to the monitor. The following illustration shows the front of the breakout box to which the video cables connect.

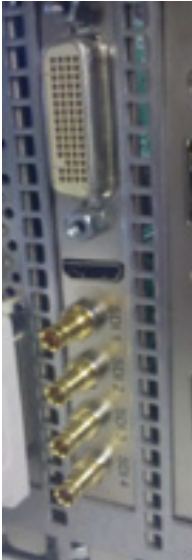


The following illustration shows the video connections on the back of the breakout box.



For more information, see [“Installing the Breakout Box”](#) on page 44.

The Video I/O card is located on the back of the Avid Motion Graphics Server. There are three different cables, which must be connected from this video card on the server to the breakout box. It has 4 mini-BNC connectors, labeled SDI 1 through 4 on the lower portion of the card, as shown in the following illustration.



The Avid Motion Graphics Server comes with a with a 4 foot breakout video cable to adapt the mini-BNC SDI 1-4 connections from the video card to the standard-BNC connections on the back of the video breakout box, for distribution. The following table describes the types of SDI connections.

SDI Connection	Connection Description
SDI 1	Provides Video In
SDI 2	Provides Key Channel In
SDI 3	Provides Program Video Out
SDI 4	Provides Key Channel Out

The cable(s) are labeled as are the connections on the Video I/O card(s) and the breakout box. The video cable supplied is shown in the following illustration.



For dual channel Avid Motion Graphics servers, you would have two video cables.



Also supplied with your Avid Motion Graphics Server is a 60-pin breakout connector cable, as shown in the following illustration.



For dual channel Avid Motion Graphics servers, you would have two 60-pin breakout connector cables.



The following illustration shows a close up of one of the ends of the breakout connector cable.



One end of this cable connects to the multi-port connector, located at the top of the Video I/O card on the back of the Avid Motion Graphics Server, and the other end connects to the multi-port connector on the back of the breakout box.

The final cable you must connect from your Video I/O card and the breakout box is the HDMI cable. The HDMI out provides Preview video. It has a mini end, which connects to the HDMI Preview connector in between the 4 mini-BNC connectors and the multi-port connector, on the video card. It also has a standard size end, which connects to the breakout box.



For dual channel Avid Motion Graphics servers, you would have two HDMI cables.

The HDMI cable and some close-up pictures of the ends are shown in the following illustrations.



The following illustration shows the standard size end of the HDMI cable.



The following illustration shows the mini size end of the HDMI cable.



Connecting the KVM Switch

The next step is to connect the KVM switch to your VGA adapter.

To do so, connect the KVM switch power cord into a Power outlet.



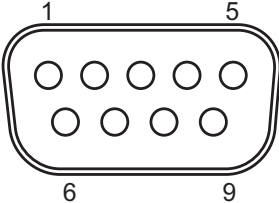
Your network switch might not have a Power switch and might be powered on when you plug the power cords into a power outlet.

The LEDs on the front of the switch light and the fan can be heard.

COM Port Pinouts

The Avid Motion Graphics Server comes with an RS-232 COM 1 port located off the motherboard. It is usually used for connecting to an automation system.

The male pinouts for COM Port 1 for automation control are shown in the following illustration.



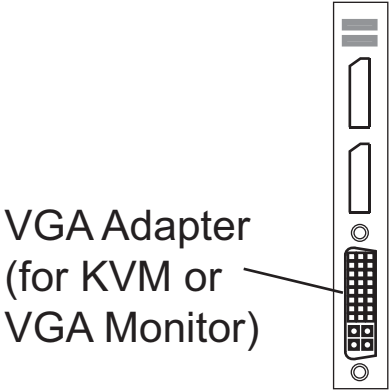
The following table lists the RS-232 signals for the male COM Port 1 connector on the rear panel of the Avid Motion Graphics Server. These COM ports operate as standard COM ports.

Pin Number	Signal
1	Data Carrier Detect (DCD)
2	Receive data
3	Transmit data
4	Data Transmit Ready (DTR)
5	Ground
6	Data Set Ready (DSR)
7	Request To Send (RTS)
8	Clear To Send (CTS)
9	Ring Indicator

Connecting VGA Cables

VGA cables are used to connect the VGA output to a VGA monitor or KVM.

The VGA card slots (s) are located on the back of the Avid Motion Graphics Server. Use a VGA cable (not supplied) to connect the VGA card on the server to a VGA monitor or KVM. the location of the VGA Adapter on the rear of the AMG server is shown in the following illustration.



A VGA cable is shown in the following illustration.



The following illustration shows a close up of one of the ends of the VGA cable.



Serial Input and Output Connections

For serial input connections, Pins 1 and 4 of the RS-232 connector can be used to detect a GPI from a standard contact closure (such as a GPI output from a switcher). Alternatively, a short pulse (minimum 10 milliseconds) on pin 1 also triggers the GPI input for a Deko application.

For serial output connections, Pin 7 on the RS-232 connector pulses high (for approximately 100 milliseconds) when a GPI output command is issued from, for instance, the Deko application. This can be used to trigger an external device that is expecting a pulse to trigger an event from Deko.

For more information, see [“COM Port Pinouts” on page 53](#).

Connecting the Serial Cable

Automation uses RS-232 communication between the serial port of the system and the serial port of the Newsroom Computer System. A standard nine-pin null modem cable can be used to connect the two systems. RS-232 serial cables are always female to female.

To connect the serial cable:

1. (Option) If making your own cable, connect the following pins (the system only uses three of the nine wires.)
 - 2 to 3
 - 3 to 2
 - 5 to 5
2. Connect one end of the cable to the desired port of the Newsroom Computer System, and the other end to COM Port 1 on the rear of the server.



RS-232 is rated for fifty feet.

Setting Serial Protocol

Set the serial protocol to the following:

- 9600 baud
- 8 bits
- No Parity
- One Stop Bit



The serial protocol of your system and the automation system must match.

To set the communication ports of your system:

1. Press the **Ctrl + Esc** keys on your keyboard.
A menu displays.
2. Select **Settings > Control panel**.
3. Double-click **Ports** to display the selection of serial ports (usually COM1).
The Ports window opens.
4. Double-click the port to which you connected the serial cable.
The Settings dialog box opens.
5. Change the settings as needed, to match those of the Newsroom Automation system.
6. Click OK to accept the changes in the settings dialog box.
7. Click Close in the Ports window.

Connecting to Ethernet Port 1

The Avid Motion Graphics Server ships with six on-board 1-Gb Ethernet (network) ports. A single Ethernet port (Port 1) is supported at this time.

To connect to Ethernet port 1:

1. Locate your Ethernet cable.
2. Connect the Ethernet cable to Port 1 (top left corner) as shown in the following illustration:

Ethernet port 1



3. Once you log on to your AMG server, you should disable Ethernet ports 2-6 prior to installing the AMG software or licensing. For more information, see [“Disabling Ethernet Ports”](#) on page 62.

Connecting a Keyboard, Monitor, and Mouse

An industry standard keyboard, mouse with center wheel and monitor are used to access the software on the server.

If you ordered an AMG keyboard, plug it into one of the USB ports. Following is an example of the AMG keyboard.

There are four USB ports located on the rear of the Avid Motion Graphics Server. Avid recommends using the USB ports, located on the expansion card, in slot 6. It contains the PS/2 connections, for USB devices For more information, see [“USB Ports”](#) on page 31.



The connection for the monitor is DVI. Therefore if a VGA Monitor is used, you must also use a VGA-to-DVI adapter or connector.

When installed in a rack with several servers, an optional KVM switch can also be used with your system. The keyboard, monitor, and mouse connections use the same ports described in the following procedure.



Follow the instructions supplied with your KVM switch. You need to supply KVM cables that are compatible with your KVM switch.

To connect a keyboard, monitor, and mouse to the Avid Motion Graphics Server:

1. (Option) Install your KVM switch in a suitable location next to the Avid Motion Graphics Server in the rack.

You can also place the monitor on a shelf, and the keyboard and mouse on a sliding tray in the rack. These items are optional and can be purchased locally or from Avid.

**Do not place the monitor on top of the Avid Motion Graphics Server.**

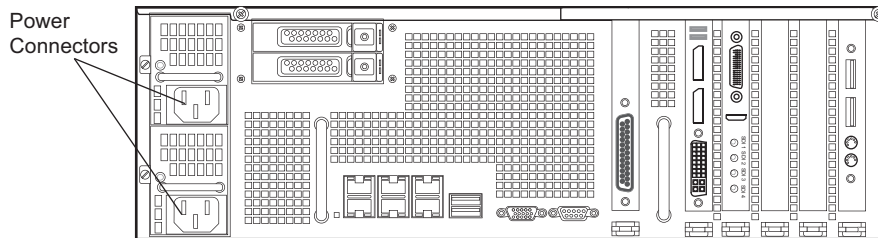
2. Attach the DVI connector on the monitor cable to the DVI port on the video card at the back of the Avid Motion Graphics Server. Ensure the connection is secure.

Connecting Power Cords to the AMG Server

Once your AMG server is cabled up, you can connect power to it. The last step you must perform when cabling up your AirSpeed 5000 is to connect the power cords. Two U.S. IEC power cords are shipped with the unit. If your local power distribution is not compatible with the supplied cords, you must provide your own IEC power cables that are compatible with your country's power system. The power connector accepts 100 to 240 Vac, 50/60 Hz.

To connect power to the AMG server:

1. Attach the power cords to both power receptacles on the rear of the AMG server as shown:



2. Connect the other end of both power cords to a properly grounded stable power source. The system will power on after you connect the first power supply. The Monitor application will also automatically launch.
3. Once powered on, you must set up your system. For more information, see [“Powering on Avid Motion Graphics”](#) on page 59.



For maximum power protection, Avid recommends a surge protected un-interruptible power supply (UPS).

Powering on Avid Motion Graphics

When you turn on the power to your Avid Motion Graphics Server hardware, you must do it in the following order so that the Avid Motion Graphics Server locate and acknowledge all of its connected components.



If you encounter an error when starting the Avid Motion Graphics application for the first time, close the error message and change the display resolution frequency to 60Hz. For further information contact Avid support.

To power on each component:

1. (Option) If you have a KVM switch as part of your system, ensure the power is on.
2. Ensure you have all your network cables connected before you turn on the power or load the Avid Motion Graphics Server software.
3. Push the Power button at the top left on the front of the your Avid Motion Graphics Server.
4. Wait for the Windows operating system to load *before* you attempt to use the Avid Motion Graphics Server. This can take several minutes.

Network and Operating System Settings

The Avid Motion Graphics Server arrives with the Windows 7 Ultimate operating system already installed. However, there are settings that must be configured based on the geographical location of your server. If you are setting up Avid Motion Graphics software only on a qualified, customer-supplied laptop or computer, if not already done, these settings must also be configured.

Server Log On

When you first power on your server, you are asked to login. The default login username is **AMG**, which is not case sensitive and the password is left blank (no password is assigned). When installing the software, you should log on as user of **AMG** and no password.



If you log on as Administrator when installing the software, it will not launch.

However, if you need to restore the operating system on the server using the USB drive provided, login as **Administrator**, and the password is **avid** (the password is case sensitive and is lower case).

When turning on your Avid Motion Graphics Server for the first time, the Apply Computer Setup message is displayed for approximately 3 to 5 minutes.

Complete the Windows installation by answering the Windows operating system prompts. When the system prompts you to enter the Windows activation key, locate the Windows Certificate of Authenticity.



The Windows Product Key Certificate of Authenticity is attached to the top of the Avid Motion Graphics Server.

Use the information in the following sections to configure the Avid Motion Graphics Server or qualified, customer-supplied laptop or computer with the correct date, time, computer name, and network properties.



On the Avid Motion Graphics Server, login with the username as AMG, which is not case sensitive, and leave the password blank. If you are logging in as an administrator, the username is Administrator and the password is “avid”. AMG software should be installed on the AMG user.

Specifying a Unique Computer Name

The Avid Motion Graphics Server has been imaged at Avid with the current operating system configuration and drivers that have been qualified with the Avid Motion Graphics Server. This image creates a unique Host name for the system based on the MAC ID of the system board.

If you change the computer name of the system you must also rename the computer after re-imaging the system. When you re-image the system, the Host system name is reset back to a Host name based on the MAC ID.

To specify a unique computer name:

1. Right-click the computer icon on the desktop, and select **Properties**.
The Control Panel/System dialog box opens.
2. In the Computer Name, Domain, and Workgroup Settings section, click **Change settings**.
The System Properties dialog box opens.
3. On the Computer Name tab, click the **Change** button.
The Computer Name /Domain Changes dialog box opens.
4. Type the name for the Avid Motion Graphics Server in the Computer name text box.
5. (Option) Determine if you need to select the Domain or Workgroup in the “Member of” section at the bottom of the dialog box. If you are unsure, contact your network administrator for assistance.
6. Click the **OK** button.

After a short delay, you are informed that you must restart your computer in order for your changes to take effect.

7. Close all open windows and restart the Avid Motion Graphics Server.

Configuring Date and Time Parameters

Assuming your Windows operating system is already installed, you must configure the date, time, time zone, and daylight saving time parameters.

To configure date and time parameters:

1. Click the time in the taskbar.
The Date/Time Properties dialog box opens.
2. Click **Change date and time settings**.
3. In the Date and Time tab, click the **Change date and time** button.
4. Set the date and time using the Date & Time tab.
5. Click **OK** to close the Date and Time Settings dialog box.
6. Click the **Change time zone** button.
7. Set the time zone for the geographic location of this Avid Motion Graphics Server.



Make sure the “Automatically adjust clock for Daylight Saving Time” option is selected if your location observes daylight saving time.

8. Click the OK button to close the Time Zone Settings dialog box.
9. Click the OK button to close the Date and Time dialog box.

Install the LSI MegaRAID Storage Manager Software

Install the LSI MegaRAID Storage Manager software. If your Avid Motion Graphics server OS image is later than version 4, it will not have the LSI MegaRAID Storage Manager software pre-installed. Earlier Avid Motion Graphics software versions had this software pre-installed on the server. Therefore, if your system does not have it installed, you must you must install the LSI MegaRAID Storage Manager software yourself in order to view and manage the system.

To install the LSI MegaRAID Storage Manager Software:

- ▶ To get the latest LSI MegaRAID Storage Manager software, it is available to download under LSI’s terms and conditions at **<http://www.lsi.com>**.

From the website, you can locate and download the latest Windows-based LSI MegaRAID Storage Manager software that supports the MegaRAID SAS 9260 4i product.

Once you install the software, you can access it from your Avid Motion Graphics by selecting **Start > All Programs > MegaRAID Storage Manager**.

This software should be used only when instructed to by Avid Customer Support.

Disabling Ethernet Ports

The AMG server has 6 Ethernet ports. By default, they are all enabled. Before you install your AMG software or license your system, you need to disable Ethernet ports 2-6.



Disable Ethernet ports 2-6 in Windows before you activate any licenses on the server. Failure to do so, will cause licensing issues. Once these ports are disabled, plugging or unplugging Ethernet ports or connecting them to different networks should have no effect.

To disable Ethernet ports on your AMG server:

1. Right-click on **Network**, and select **Properties**.
The Network and Sharing Center dialog box opens.
2. Click **Change adapter settings** in the left pane.
The Network Connections dialog box opens.
3. Right-click the Ethernet port you want to disable, and select **Disable** from the menu.
The status will change from “Network cable unplugged” to “Disabled”.
4. Close the Network Connections dialog box.

Network Protection

The System Administrator for the site must be contacted to obtain network configuration information for the system.



If you need Administrator privileges while accessing the server operating system, “avid” is the built-in default administrator password included in the image.

The following guidelines are intended for network System Administrators to use for protecting the system from viruses. While not always practical, following these suggestions provides the best level of protection against system compromise.

- Share a folder or drive to “Everyone” with full access.
- All systems have a local Administrator with the username of the Administrator and password of “avid” preassigned.



Always assign a local Administrator password on every machine. Not assigning a local Administrator password can introduce a serious security risk.

- Restrict Internet access on the Avid Motion Graphics server.
- Anti-virus software can be installed on Avid hardware components that are used on air. However, it must not be set for active virus detection and the schedule scan set up must be set for non-production times of the day. For instance, between 1:00 AM and 3:00 AM.

Configuring the RAID Drives (For Single Channel Servers only)

After the drives are installed and the server is powered on, the RAID configuration must be imported using the LSI MegaRAID Storage Manager tool. The following procedure summarizes the LSI MegaRAID procedure for importing a Foreign Configuration. For more information, see the LSI MegaRAID Storage Manager tool Help.



For more information about installing the RAID drives in the server, see “Installing the RAID Drives” on page 43.

To import the RAID configuration:

1. Start the server and give it about 3 minutes to initialize.
2. Start the LSI MegaRAID Storage Manager tool by double-clicking the shortcut on the desktop. If a shortcut is not on the desktop, start the tool by selecting **Start > Programs > MegaRAID Storage Manager > StartupUI**.



If your Avid Motion Graphics server OS image is later than version 4, it will not have the LSI MegaRAID Storage Manager software pre-installed. Earlier Avid Motion Graphics software versions had this software pre-installed on the server. To get the latest LSI MegaRAID Storage Manager software, it is available to download under LSI's terms and conditions at <http://www.lsi.com>.

From the website, you can locate and download the latest Windows-based LSI MegaRAID Storage Manager software that supports the MegaRAID SAS 9260 4i product.

3. Log in using the username “AMG” and no password or the username, “Administrator” and the password “avid”.
4. Double-click on the selected Host in the Remote Servers section.
5. Click the Logical tab
6. Select the LSI MegaRAID controller located in the left pane.
7. Select **Go To > Controller > Scan Foreign Configuration**.

A pop-up window appears reporting the detection of foreign configurations.



Do not select the Clear option. Clearing the configuration deletes the RAID configuration off the disks. Doing so renders the RAID set unusable. All of the data in the Storage Group becomes unrecoverable.

8. Select the **Import logical configuration from all foreign drives** option and click the **OK** button.

The Foreign Configuration Wizard window appears listing the foreign configurations.

9. Click the **Accept** button.

A dialog box appears asking you to confirm the import.

10. Click the **Yes** button.

A dialog box confirms when the import is completed.



A background initialization is started and can take several hours to complete. You can use the server during this process but performance is better after the initialization is finished. If you have a problem, contact Avid customer support.

3 Software Installation

The following provides instructions for installing and configuring Avid Motion Graphics software.



While Avid Motion Graphics and Avid Motion Graphics Production software is typically installed on the Avid Motion Graphics Server, the Avid Motion Graphics Creation software is installed on a qualified laptop or computer supplied by customers.

If you are installing Avid Motion Graphics Journalist or News Control, there is a separate installer required.

The following main topics describe:

- [Software Installation](#)
- [Installing Avid Motion Graphics Software and All Dependencies](#)
- [Installing Avid Motion Graphics Tools](#)
- [Installing Avid Motion Graphics Plug-ins](#)

Software Installation

After setting up and configuring operating system and network settings for your Avid Motion Graphics server, you can install the Avid Motion Graphics software.

The Avid Motion Graphics software is installed onto the system using a USB flash drive. For Avid Motion Graphics and Avid Motion Graphics Production the system comes with two USB flash drives. One USB flash drive contains the Avid Motion Graphics Server software. This USB flash drive contains approximately 4GB of data. The second USB flash drive is not used for initial software installation. This USB flash drive stores approximately 16 GB of data and is used should the operating system for the Avid Motion Graphics Sever ever need to be restored.



The Avid Motion Graphics software is also available on the Avid Download Center (www.avid.com/support/downloadcenter).



Make sure that you have disabled the network (Ethernet) ports 2-6 prior to installing any software. The software license device ID is generated based on active network ports. disabling a port after licensing will potentially break the license installed, preventing the operator from launching the application.



*When installing Avid Motion Graphics Creation, Journalist, or News Control there will be one USB flash drive containing the software. For more information, see *Installing and Configuring Avid Motion Graphics Journalist and Related Software* and *Installing Avid Motion Graphics News Control*.*

To Install This Software	See The Following Section
Avid Motion Graphics Server	See “ Installing Avid Motion Graphics Software and All Dependencies ” on page 67.
Avid Motion Graphics Tools	See, “ Installing Avid Motion Graphics Tools ” on page 73.
Avid Motion Graphics Plug-ins	See, “ Installing Avid Motion Graphics Plug-ins ” on page 76.

Installing Avid Motion Graphics Software and All Dependencies

There are two USB flash drives that arrived with your system. One contains the software applications, and the other is for server recovery. Locate the Avid Motion Graphics software on the USB flash drive that shipped with the system.



Prior to installing the Avid Motion Graphics software, ensure that you have available the Activation ID and System ID card, which shipped with your system.



Avid recommends that you click the Open Documentation Folder link to view the available documentation. The ReadMe file provides the latest information regarding the Avid Motion Graphics Server, and software. You must have Adobe Reader installed to view the PDF. The ReadMe is also available online in the Avid Knowledge Base.

To install the AMG software:

1. Log in to the Avid Motion Graphics Server with the username and password.
2. Insert the USB flash drive (containing the software kit) into any open USB port on your Avid Motion Graphics Server.



You can run the software installer from the USB flash drive.

If the USB flash drive does not automatically display:

- a. Double-click the computer icon on the desktop.
 - b. Double-click the USB flash drive icon in the window and copy the software kit into the new folder you created on the Avid Motion Graphics Server.
3. (Option) The Avid Motion Graphics software kit is also available on the Avid Download Center (www.avid.com/support/downloadcenter). Unzip the downloaded software kit in the new folder on the Avid Motion Graphics Server.

4. Navigate to and double-click on the **Avid_Motion_Graphics_setup.exe** file.

The installer splash screen appears.



5. Do one of the following: S

- ▶ To install Avid Motion Graphics, select **Avid Motion Graphics Online**.
- ▶ To install Avid Motion Graphics Creation, select **Avid Motion Graphics Offline**.

This begins the installation of the AMG software on the AMG server. The next screen appears:

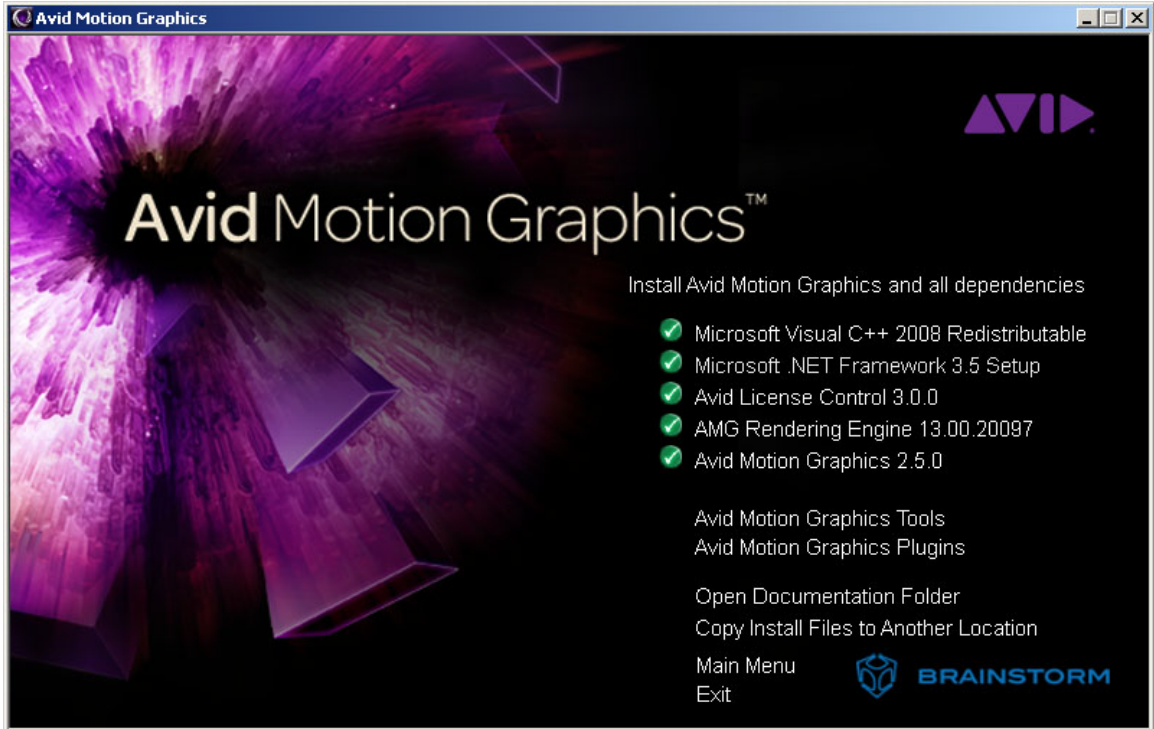
 *If you get a message saying “Driver Update Required! Click Here.”, click on it to install the latest drivers.*



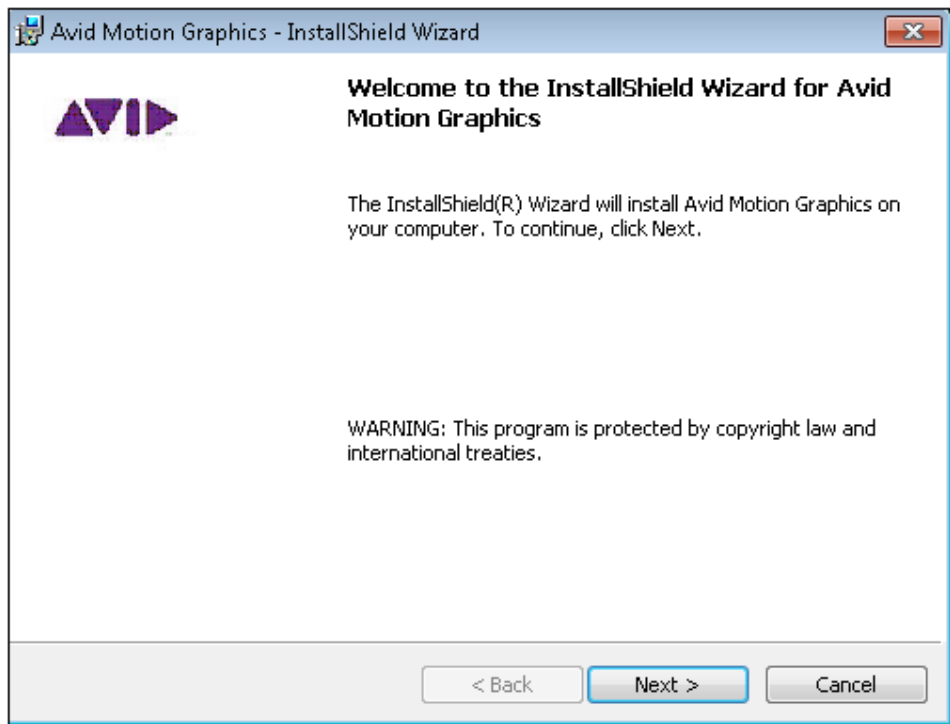
6. Click the **Install Avid Motion Graphics and all dependencies** option to install the AMG software and all the dependent applications.



Wait for all of the components to install before continuing. After each component successfully installs, a green circle, containing a white check mark, replaces all of the red circles, containing white Xs. If a component is already installed, it is detected and the green circle with the check mark appears immediately.



When all components have been installed, the InstallShield Wizard for the Avid Motion Graphics application opens.



7. Click **Next** to continue.
8. Follow the screen prompts accepting the defaults and the License agreement.
9. Click the **Install** button to begin installing the software.
The Status bar displays followed by the InstallShield Wizard Complete dialog box.
10. (Option) Mark the **Show Windows installer log** check box to view the install log.
11. Click the **Finish** button.

12. (Option) If you have connected an Avid Motion Graphics Keyboard (AMGK) you may now click the Avid Motion Graphics Tools option on the installer. A Windows Security dialog box appears alerting you that software is being installed. Do the following:
 - a. Mark the **Always trust software from this company** check box so the installation can continue.
 - b. Click the **Install** button. This is a quick installation. When it is finished, a green check mark next to the option confirms the installation is complete.
13. (Optional) Click the **Open Documentation** folder to view or print any of the user, workflow or ReadMe documentation for Avid Motion Graphics. This documentation is also available online at the Avid Knowledge Base www.avid.com/support.
14. Click **Exit**.



If you encounter an error when starting the Avid Motion Graphics application for the first time, close the error message and change the display resolution frequency to 60Hz. For further information contact Avid support. Open the Internet CS portal.

15. Next, you must install Avid Motion Graphics tools. For more see “[Installing Avid Motion Graphics Tools](#)” on page 73.

Installing Avid Motion Graphics Tools

When using your Avid Motion Graphics system in an environment with other software applications you can install the following Avid Motion Graphics Tools.



This Avid Motion Graphics Tools do not require any Avid licensing.

Tool Name	When/Why Needed	Where Installed
Avid License Control	Must be installed on all computers running AMG software, tools or plug-ins with a licensed component. For instance, the servers pass licenses to Journalist clients and News Control Clients.	Installed on the Avid Motion Graphics computer, Avid Motion Graphics Journalist Server, Avid Motion Graphics Preview Renderer, and any Computers running 3DS, Photoshop, MAP or Avid Motion Graphics Control.
AMG Advanced Device Manager (ADM)	Used for the iNEWS Command workflow or Automation.	Installed on the Avid Motion Graphics Server. <i>License Activation is required.</i>
AMG Control	Used to control playout of graphics. Used in non-newsroom playout situations.	Installed on any computer that has network access to Avid Motion Graphics Server. <i>License Activation is required.</i>
Avid Motion Graphics Font Package	This font package provides fonts to support graphics previously created in Deko. Users can create new graphics using fonts from this package in Avid Motion Graphics too.	Installed on the Avid Motion Graphics Server. This installer must also be run on all iNEWS clients so they can edit the templates in a newsroom workflow.
AMG Operations Console	Provides a central mechanism for users to manage, diagnose and monitor all configured AMG render engines from a single interface.	Installed on any computer that has network access to Avid Motion Graphics Server. <i>License Activation is required.</i>
AMG Transcode	AMG Transcode lets you convert from multiple clip types into a known usable format, which allows real-time playback with correct audio alignment. You can use it to convert clips that suffer from real-time playback and audio issues.	Installed on the Avid Motion Graphics Server.

Tool Name	When/Why Needed	Where Installed (Continued)
Deko Translator	The Deko Translator is an application that allows you to utilize your existing Deko Graphics assets and convert them into native AMG Compositions. DekoTranslator is a standalone application not requiring AMG or Deko to be installed to work correctly. However, to confirm that the all the assets required to process the Deko Graphics are available, you need some version of the Deko application. It is recommended that you use a single computer that has a version of both Deko and AMG installed	Can be installed on any Win7 64 bit system to translate .dtko files – it does not need to be installed on the Avid Motion Graphics system or any system running Avid Motion Graphics software. It is a good practice to have PostDeko running on the same computer.
Deko Chart Designer	Allows use of Deko graphics previously created with Deko Chart Designer.	Installed on the Avid Motion Graphics Server, This is installed automatically when installing Deko Player. Deko Chart Designer supports the chart design option from Deko systems running v5.3 or later. It cannot be run independently from Deko Player.
Deko Player	Deko Player is a component of Avid Motion Graphics that allows you to easily play your existing Deko graphics to air.	Installed on Avid Motion Graphics Server or Avid Motion Graphics Creation computer.
AMG Log Collector	AMG Log Collector is a component of Avid Motion Graphics that allows you to collect AMG logs for use in analyzing data.	Can be installed on any or all of the following: <ul style="list-style-type: none"> • AMG Server • AMG Creation computer • AMG News • AMG Journalist Server • AMG Preview Renderer • AMG Journalist Client plug-in

The following steps describe how to install the Avid Motion Graphics Tools.

To install Avid Motion Graphics Tools:

1. Do one of the following:

- ▶ Navigate to and double-click on the **Avid_Motion_Graphics_setup.exe** file. When the installer window opens, click the **Avid Motion Graphics Tools** option in the list.
- ▶ If the installer window is already open, click the **Avid Motion Graphics Tools** option in the list.



In the previous illustration, AMG License Control 3.0.0 was detected and shown as already installed.

2. Click the tool you want installed. Repeat this step for each tool that you want installed.

After the tools are installed, you can return to the main installer or exit the install.

3. Do one of the following:

- ▶ To return to the main installer window, click Avid Motion Graphics Main.
- ▶ To Exit the installer, click Exit.

Installing Avid Motion Graphics Plug-ins

There are plug-ins available to install for use with Avid Motion Graphics

To install Avid Motion Graphics Plug-ins:

1. Do one of the following:
 - ▶ Navigate to and double-click on the **Avid_Motion_Graphics_setup.exe** file. When the installer window opens, click the **Avid Motion Graphics Plug-ins** option in the list.
 - ▶ If the installer window is already open, click the **Avid Motion Graphics Plug-ins** option in the list.



License Control must be installed prior to installing any other plug-ins. AMG Plug-ins are installed on customer owned computers running 3D Studio Max and Adobe Photoshop. Photoshop or 3D Studio Max must be installed prior to installing AMG PSD or AMG 3D Studio Exporter.



Avid does not recommend installing any 3rd party applications on the AMG Servers directly as this impacts play-out performance when going to air.





In the previous illustration, AMG License Control 3.0.0 was detected and with a green check mark, shown as already installed.

2. Click the plug-in you want installed. Repeat this step for each plug-in that you want installed.

After the plug-ins are installed, you can return to the main installer or exit the install.

3. Do one of the following:

- ▶ To return to the main installer window, click **Avid Motion Graphics Main**.
- ▶ To exit the installer, click **Exit**.

4. After installing your plug-ins, make sure to activate your AMG 3DS or PSD plug-in option. For more information, see [“Software Licensing” on page 78](#).

4 Software Licensing

After you have installed the Avid Motion Graphics Software you must use the Avid License tool to activate the license for your products.

The following main topics describe:

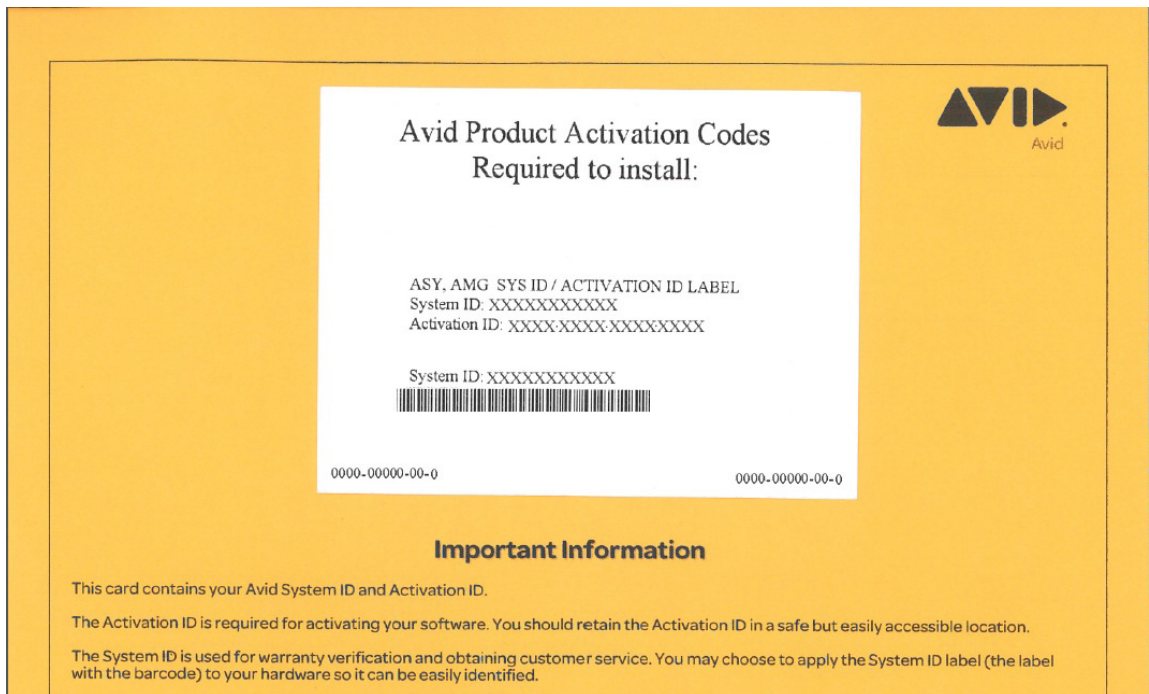
- [What You Need to Activate the Software License](#)
- [License Activation Using an Internet Connection](#)
- [License Activation Without an Internet Connection](#)
- [Deactivating the License](#)

What You Need to Activate the Software License

To activate the software using the Avid License Control tool you need the items listed in the following table.

The software license is provided on an Activation ID. Depending on your specific configuration you may receive more than one Activation ID card. The card ships in a box separately from the server and, if you have purchased multiple products on the same order, it could potentially be in a box with another product that might be unrelated to the Avid Motion Graphics system.

Below is an example of an AMG System ID / Activation ID card:



If you change your system configuration — for instance, by replacing your hard drive, a network adapter, or by upgrading your operating system — you must first deactivate your Avid software.



Your network administrator might need to open a few ports that are used during the license activation. The Avid License Control tool utilizes both port 3443 and port 443 for license request and response communication. Port 3443 is the primary port, but if this port is blocked, the Activation Service tries port 443, which is more likely to be open for Web communication.

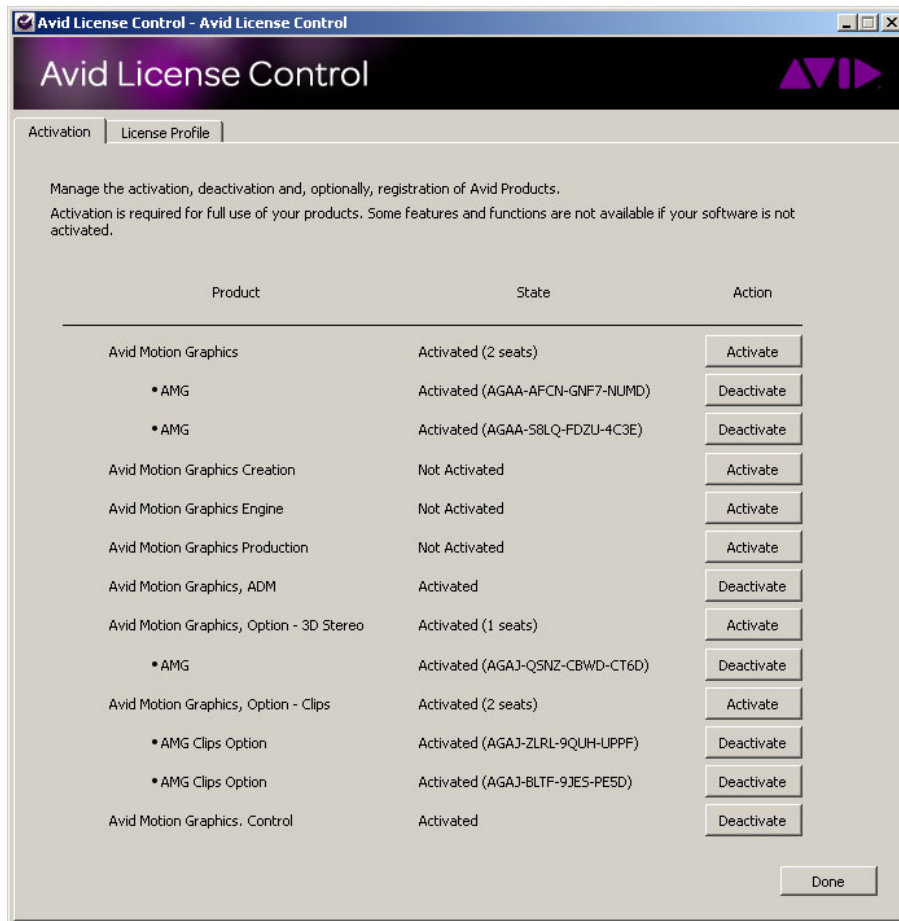
Identification Number Type	Where you can find it:
Activation ID	The Activation ID is provided on an Activation ID and System ID card shipped with your new Avid Motion Graphics system. The Activation ID is used to activate the software license and has been linked to your System ID.
System ID	The System ID is provided on an Activation ID and System ID card shipped with your new Avid Motion Graphics system. The System ID is used for expediting warranty verification and customer service. After activation, the License Profile tab of the Avid License Control tool displays information about your system. Click “Copy to Clipboard” to copy the information to your clipboard. You can then paste from the clipboard to an e-mail or create a text file. This is helpful if you need to save this information for your records or need to send system information to Avid Customer Support.
Device ID	The Device ID is only needed if you are activating your software on a system that is not connected to the Internet. This is provided through the Avid License Control tool during activation.

License Activation Using an Internet Connection

To activate the software license using an Internet connection:

1. Locate your System ID and Activation ID card(s) included with your new hardware (in a separate box).
2. Open the Avid License Control tool, click **Start > Programs > Avid > Utilities > Avid License Control**.

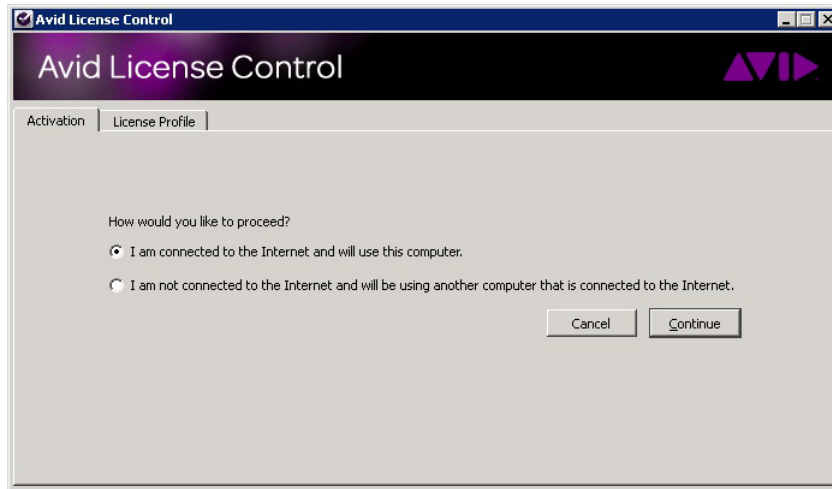
The Avid License Control tool opens.



After your Avid software is activated, the License Profile tab displays your System ID, Activation ID, and Device ID.

3. Click the Activate button located next to the Avid Motion Graphics software product name.

4. Select **I am connected to the Internet and will use this computer** and then click **Continue**.



If you select “I am not connected to the Internet and will be using another computer that is connected to the Internet” continue with “License Activation Without an Internet Connection” on page “License Activation Without an Internet Connection” on page 83.

5. Enter your system identification number in the System ID text box.



6. Enter your activation identification number in the Activation ID text box.
7. Click the **Activate** button.

The Activation tool confirms your system information. When the activation is complete, a message informs you that your software has been successfully activated and the Activate button changes to a Deactivate button.

License Activation Without an Internet Connection

License Activation Without an Internet Connection

When you do an indirect activation, you are given a “.bin” activation file. This file only works for a single activation. If you have done an indirect activation, and deactivate your license for any reason, you may not use the same activation file to reactivate your license. You must repeat the “License Activation Without an Internet Connection” procedure and obtain a new “.bin” activation file.

To activate the software license from a separate computer

1. Locate your System ID and Activation ID card included with your new hardware.
2. Open the Avid License Control tool, select **Start > Programs > Avid > Utilities > Avid License Control**.

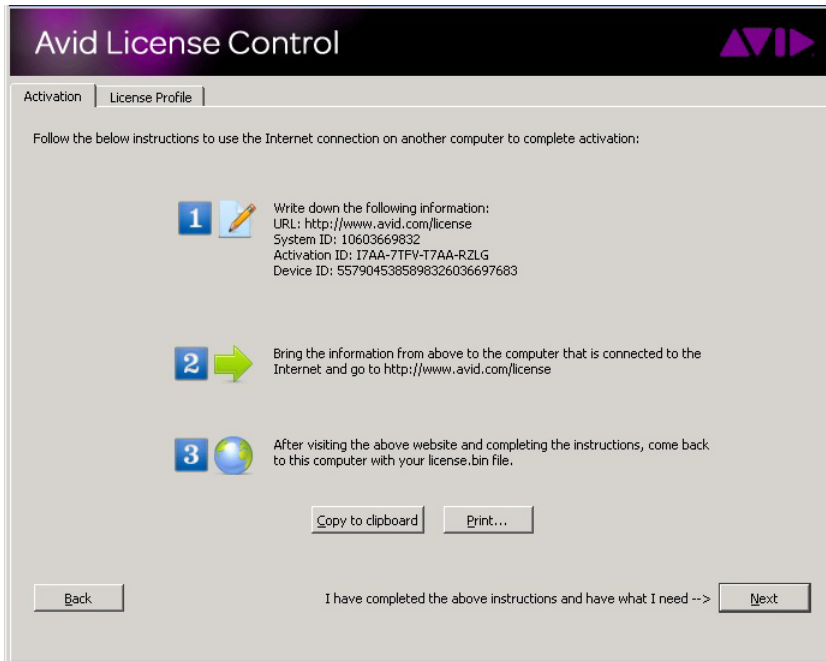
The Avid License Control tool opens.

3. Click the **Activate** button located next to the Avid product software name.
4. Select **I am not connected to the Internet and will be using another computer that is connected to the Internet**, then click the **Continue** button.
5. Enter your system identification number in the System ID text box.
6. Enter your activation identification number in the Activation ID text box.
7. Click the **Next** button.

8. Follow the instructions in the Avid License Control tool, then click the **Next** button.



Your System ID, Activation ID, and Device ID are displayed on the Activation tab, write these numbers down to use later. These IDs are displayed in the License Profile tab after your Avid software is activated.



9. On a computer with an Internet connection, open a Web browser and navigate to <http://avid.com/license>.

10. Follow the on screen instructions on the web page.

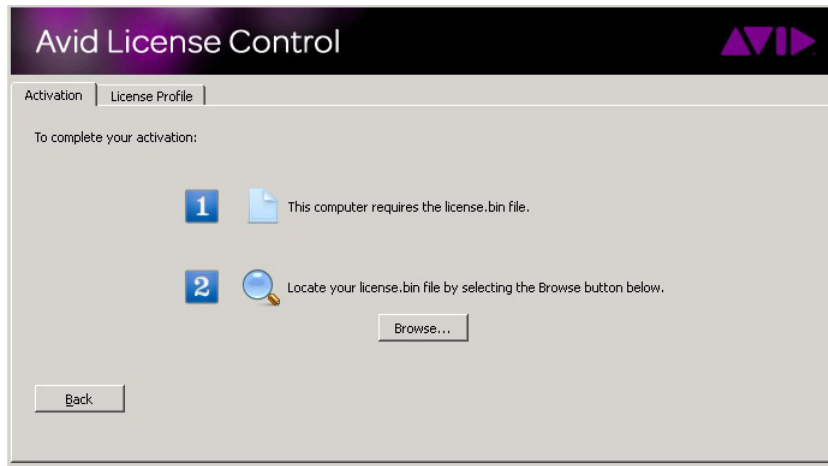
The Website creates a `license.bin` file. This file contains license information needed to activate your Avid Motion Graphics software.

11. Copy the `license.bin` file to the computer you want to activate.

A USB flash drive is a good method of moving the `license.bin` file.

12. Close the Web browser on the computer with the Internet connection.

- Return to the computer where you left off in the Avid License Control tool and click the **Next** button.



- Click the **Browse** button and navigate to the license.bin file on your computer, then click **Open**.

The Activation tool confirms your system information. When the activation is complete, a message informs you that your software has been successfully activated and the Activate button changes to a Deactivate button.

Deactivating the License

You must deactivate your Avid Motion Graphics software license when replacing the computer so you can use the license on your new computer.



To be able to deactivate the software and its options, you must have an Internet connection.

To deactivate the software license:

- Close any Avid Motion Graphics applications that are running.
- Open the Avid License Control tool, select **Start > Programs > Avid > Utilities > Avid License Control**.

The Avid License Control tool opens.

- Next to the Avid Motion Graphics software, click the **Deactivate** button.
- Click **Yes**.
- Click **Done** to close the Avid License Control tool.

5 Video Setup and Preferences

The following provides instructions for configuring the Avid Motion Graphics software.

You must complete your Avid Licensing before performing the video setup, and selecting preferences. For more information, see [“Software Licensing” on page 78](#).



While Avid Motion Graphics and Avid Motion Graphics Production software is typically installed on the Avid Motion Graphics server, the Avid Motion Graphics Creation software installation is performed on a qualified laptop or computer supplied by the customer.

If you are installing Avid Motion Graphics Journalist or News Control, there is a separate installer required.

The following main topics describe:

- [Video Setup](#)
- [Preferences](#)

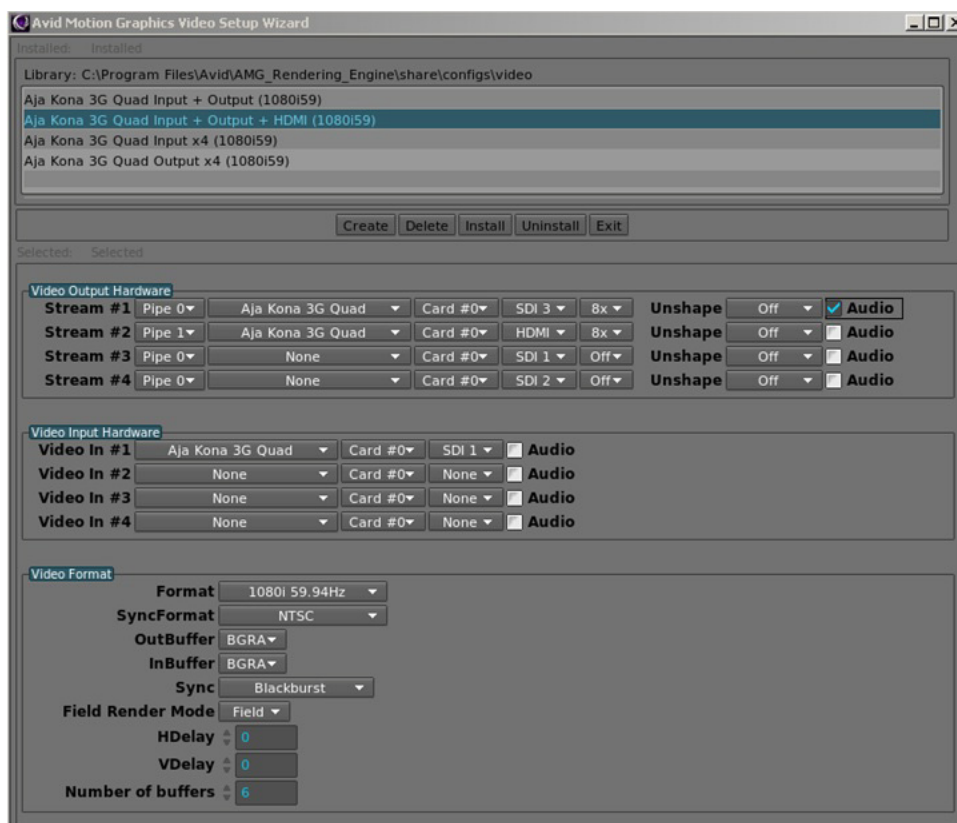
Video Setup

The Avid Motion Graphics Video Setup Wizard is used for video setup.

To open the Avid Motion Graphics Video Setup Wizard:

1. From the Start menu, do one of the following:
 - ▶ For single channel AMG servers, select **All Programs > Avid > Avid Motion Graphics A Channel Video Setup**.
 - ▶ For dual channel AMG servers, select **All Programs > Avid > Avid Motion Graphics B Channel Video Setup**.

The Avid Motion Graphics Video Setup Wizard opens.



- There are four templates available for video setup. The standard configuration to select for an AMG Server is: AJA Kona 3G Quad Input + Output + HDMI, as shown selected in the previous illustration.



A different template can get selected by default even if the Video Setup has already been performed on this particular computer. Ensure the correctness of the template selection on each start of the Video Setup.

- The Video Output Hardware settings must have the following default values.
 - Stream #1 Pipe 0 – Aja Kona 3G Quad – Card #0
 - Stream #2 Pipe 1 – Aja Kona 3G Quad – Card #0



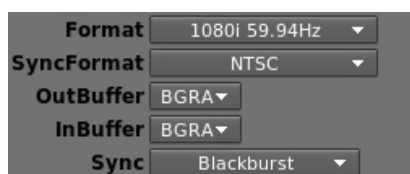
Stream #1 is used for Program/Key output and Stream #2 is used for HDMI/Preview Video output, no key. Audio is only supported for Stream #1. All other Audio check boxes should be cleared.

- In the Video Input Hardware Settings section, only Video In #1 is supported.
 - Aja Kona 3G Quad – Card #0 – SDI 1
 - Audio input check box should be unchecked

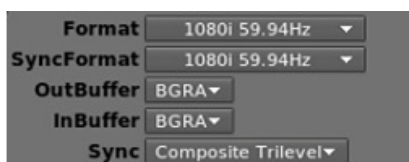
To configure video format settings:

- In the Video Format Settings section, select your video formats. For a list of video formats, see [“Video Connections” on page 46](#).
- After selecting the video format, set the Sync Format to properly genlock the system into a broadcast environment.

If the reference input is Blackburst, select the Sync to be **Blackburst** and the sync format to be either **NTSC** or **PAL**.



- For Composite Trilevel set the Sync field as **Composite Trilevel** and set the Sync-Format to the proper format of the tri-level signal you are providing.



- Do not change the OutBuffer or InBuffer settings from the default, **BGRA**.
- The Field Render Mode allows a choice of how the interlaced image is rendered. For most video formats (except for 1080i), the **Frame** mode should always be set. Failing to do so might result in incorrect rendering of the video output.



For 1080i modes, there are two choices:

- ▶ **Field** (default): For better performance. Select this for 1080i video mode only.
 - ▶ **Frame**: For better quality at the expense of performance. Select **Frame** for all video modes, except 1080i.
- H Delay and V Delay are the Horizontal and Vertical video delay adjustments.
 - The Number of buffers should not be changed from the factory default of 6.
 - After selecting the Video Setup options, click the **Install** button, and then the **Ok & Exit** buttons to confirm your changes.



If you click the Ok button instead of Ok & Exit, you will need to close the Video Setup window manually.

Shaped and Unshaped Keying

Working with multiple sources in a video production environment requires a mixing operation to properly combine independent Video + Key elements. This operation is normally found in graphics systems, character generators, DVE (Digital Video Effects) and switchers that are used for on air broadcasts. Traditionally, two different methods of keying have been used in this environment: Shaped and Unshaped Keying. These two methods cannot be used interchangeably and can sometimes lead to confusion and improper operation.

In the broadcast environment, video and key signals are normally transported on two separate signals. The terms Shaped and Unshaped refer to how a separate key signal is used in conjunction with an associated video (or fill) signal to represent a non-opaque source.

The Avid Motion Graphics video setting Unshape is by default Off. This default setting is for shaped keying. Shaped refers to a video and key pair that has the key pre-applied (or pre-multiplied) to the video signal.

If you need unshaped keying use the pull down for Stream #1 and select Expand1. The Stream #2 is for preview only output and should not be changed.

Preferences

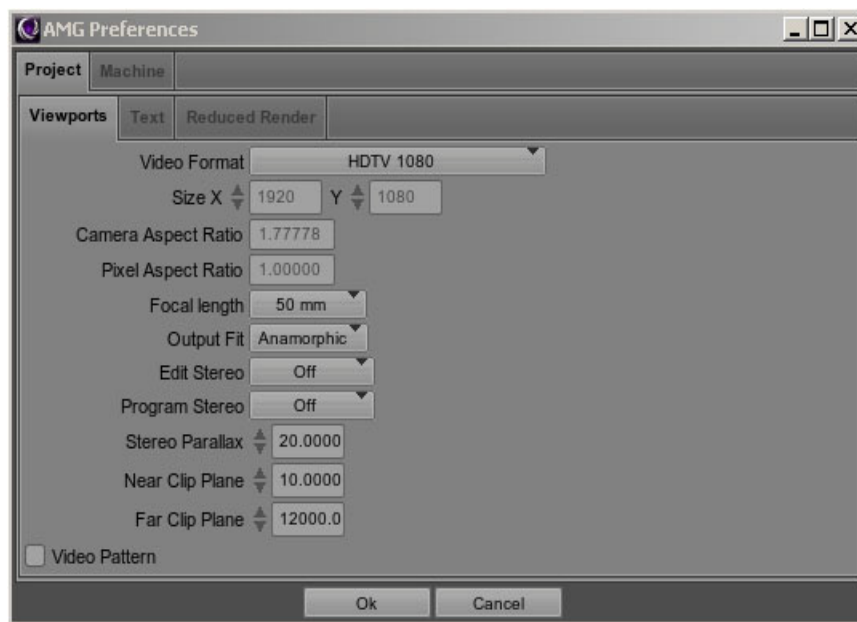
The preferences for Avid Motion Graphics are set using the Preferences option available from the Avid Motion Graphics user interface. This option is used to define the file structure and preferences for the Viewports, Text, Paths, Desktop Shortcuts, and other miscellaneous properties.

Configuring Viewports Preferences

The Viewports preferences are configured using AMG Preferences in the Viewports tab.

To configure Viewports preferences:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.
The AMG Preferences window opens.
2. Click the **Viewports** tab.



When you select a Video Format the Size, Camera Aspect Ratio, and Pixel Aspect Ratio are populated based on the correct default settings for the particular video format selected.



This is setting the size of the viewport and will not impact your video output. Avid recommends a setting of HDV/HDTV 1080.

3. (Optional) If you want, you can select the Focal Length for the viewport camera. The Optimal setting is 50mm – 3D objects might appear stretched when moving to the corners of the viewport with lower value settings.
4. (Optional) If you want, you can select the Output Fit Anamorphic (the default) Output Fit or Letterbox (4x3 video). Avid recommends the Anamorphic option.
5. (Optional) If you want, you can turn on or off the Edit Stereo for the edit viewport for stereoscopic.



Stereoscopic settings are not available unless properly licences for these settings.

6. (Optional) If you want, you can turn on or off the Program Stereo for the output for stereoscopic.
7. (Optional) If you want, you can set the Stereo Parallax for stereoscopic 3D (the higher the number the more dramatic the affect).
8. (Optional) In the Viewports Reduced Render section you can set parameters for viewport rendering. Avid recommends accepting defaults for the settings in this section for optimal performance.
9. (Optional) Mark the Video Pattern check box to display a test pattern for diagnostics (testing output or video signal). A test pattern is displayed on the video output for testing and configuration – this is disabled when closing preference menu.

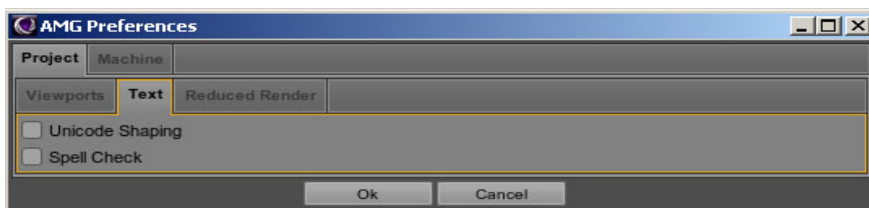
Configuring Text Preferences

The Text preferences are configured using AMG Preferences in the Text tab.

To configure Text preferences:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.
The AMG Preferences window opens.
2. Click the **Project** tab.

3. Click the **Text** tab.



4. (Optional) Select **Unicode Shaping** to support Unicode characters such as Arabic.
5. (Optional) Select **Spell Check** to enables spell checking.
6. Click the **Ok** button.

Configuring Path Preferences

The Avid Motion Graphics Design applications allows multiple designers to work with one common project library. Path preferences are defined and configured using AMG Preferences on the Path tab. The tab allows you to define the following four main paths:



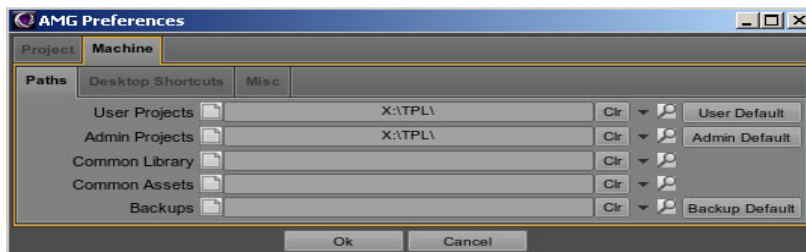
The illustrations that follow represent examples of paths and are not intended as best practice examples. It is best to create your content on the terabyte storage drive of the AMG server (drive letter E) as originally configured by Avid. Reserve drive letter X for all mapped media as this drive letter is used in the AMG News and AMG Journalist workflows.

- **User Projects paths** — User Projects is the path where all projects are saved. By default, it is set to Documents\Avid\AMG\Projects. It can be changed to another folder.
- **Admin Projects paths** — The Admin Projects path is where all shared projects are saved. When you publish a composition, the composition is saved to the Admin Projects path. By default, Admin Projects is the same as the User Projects path.
- **Common Library paths** — The Common Library path, which is not set by default, is where you save all custom objects, materials, textures, fonts and other items which are available for other designers.
- **Common Assets paths** — Common Assets path, which is not set by default, is where all shared media files are saved (clips, JPG, PNG, etc.), so they can be used by multiple designers without copying them to their local computers.

To configure a User Projects path:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.
The AMG Preferences window opens.
2. Click the **Machine** tab.

3. Click the **Path** tab.



4. Do one of the following:
 - ▶ Click the down-arrow to browse the AMG browser.
 - ▶ Click the magnifying glass to use the Windows browser.
 - ▶ Click the **User Default** button to select the default path.
5. Select a location.
6. Click the **Ok** button.

To configure a Admin Projects path:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.
The AMG Preferences window opens.
2. Click the **Machine** tab.
3. Do one of the following:
 - ▶ Click the down-arrow to browse the AMG browser.
 - ▶ Click the magnifying glass to use the Windows browser.
 - ▶ Click the **Admin Default** button to select the default Admin location.
4. Double-click the folder in which to keep the published compositions.
5. Click the **Ok** button.

When a designer publishes a composition for the first time, Avid Motion Graphics saves the composition to the `_published` folder and creates a special folder for the designer with their credentials. Each designer has their own folder where their compositions are automatically saved. Thus, if you want to load a published composition, you select the Load published option from **File > Composition**. Avid Motion Graphics opens the FileLoader window where you can select a designer, whose composition you want to load.

To configure a Common Library path:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.

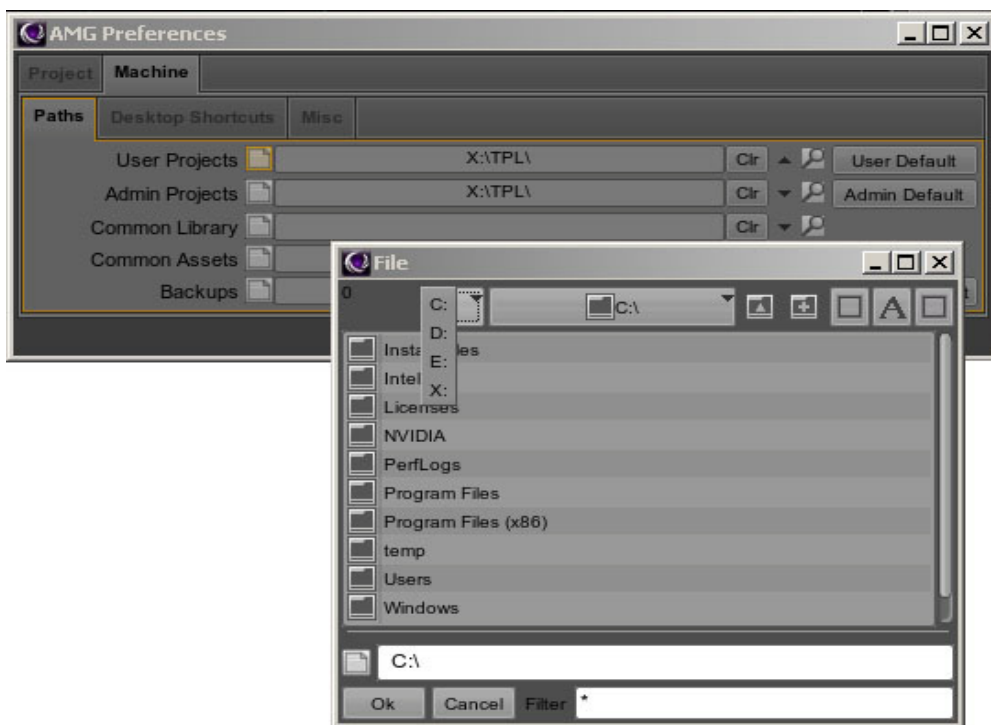
The AMG Preferences window opens.

2. Click the **Machine** tab.

3. Click the **Path** tab.

4. Click the black arrow to open the File browser window (or magnifying glass icon if you prefer to use a Windows browser).

The File window opens.



5. Select the network drive on which to keep the Common Library.

6. Double-click the folder in which to save your objects.

7. Click the **Ok** button.

When you save a custom object to the Common library AMG automatically creates a folder with the object type ('obj' for objects, 'font' for fonts, etc) and puts your item into the proper folder.

To configure a Common Assets path:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.

The AMG Preferences window opens.

Common Assets path (empty by default) is where all shared media files are saved (clips, .jpg,.png files, etc) to be used by many designers without having to copy them to their local computers.

2. Click the **Machine** tab.
3. Click the **Path** tab.
4. Click the magnifying glass to open the browser.
5. Navigate to the network drive and the folder in which Media will be saved.
6. Click the **Ok** button on the File window to set the Assets path.
7. Click the **Ok** button on the Path tab to save the Assets path.

Configuring Desktop Shortcut Preferences

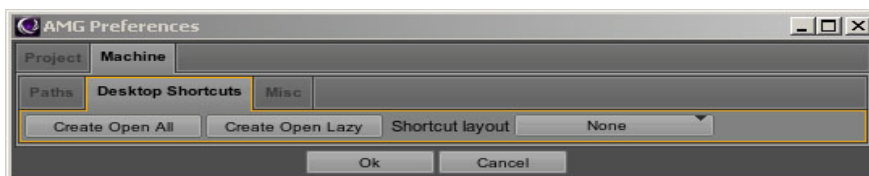
The Desktop Shortcut preferences are configured using AMG Preferences in the Desktop Shortcuts tab.

To configure Desktop Shortcut preferences:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.

The AMG Preferences window opens.

2. Click the **Machine** tab.
3. Click the **Desktop Shortcuts** tab.



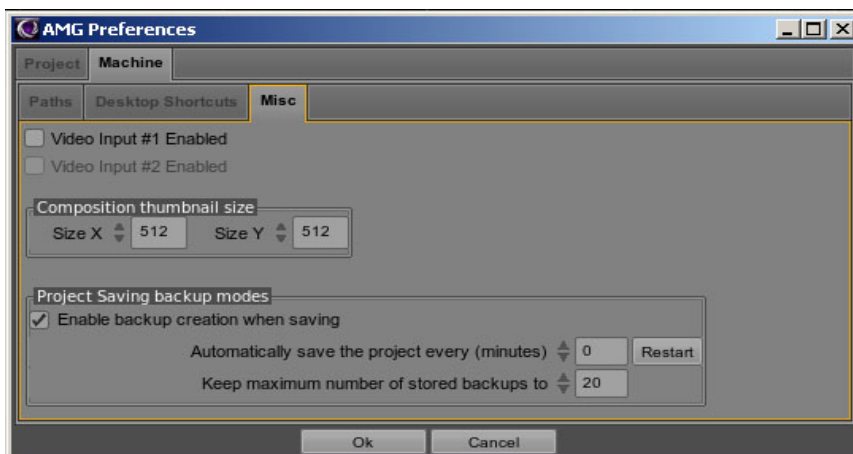
4. Do one of the following:
 - ▶ **Shortcut layout** — This allows the user to select the layout into which they want AMG open when double clicking the AMG shortcut. By default, this is set to None, which then uses the default layout.
 - ▶ **Create Open All** — When this is selected, when the user double-clicks the shortcut, it opens that project and loads all compositions contained in that project.
 - ▶ **Create Open Lazy** — When this is selected, when the user double-clicks the shortcut, it opens that project but does not load any of the compositions associated with that project. The compositions appear in the Stormlogic tab but the contents of the compositions are not loaded. This is typically used when the Avid Motion Graphics Server is used in a newsroom controlled workflow.
5. Click the **Ok** button.

Configuring Miscellaneous Preferences

The miscellaneous preferences are configured using AMG Preferences in the Misc tab.

To configure Miscellaneous preferences:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.
The AMG Preferences window opens.
2. Click the **Machine** tab.
3. Click the **Misc** tab.



4. Do one of the following:
 - ▶ **Video Input #1 Enabled** —If you use a Video In signal and you want to enable Video Input #1.
 - ▶ **Composition thumbnail size** — The size of the Composition thumbnail.
5. In the Project Saving backup modes section:
 - ▶ **Enable backup creation when saving** —When checked (default) it saves the copy of the project that was in memory to disk. The location it saves it to is
C:\Users\ - ▶ **Automatically save the project every (minutes)** —The number of minutes to have the project automatically saved. Recommended to set at a number greater than 10.
 - ▶ **Restart button** —resets the minute value to 0.
 - ▶ **Keep maximum number of stored backups to** — the number of backups stored if the previously described number is set to something other than 0.
6. Click the **Ok** button.

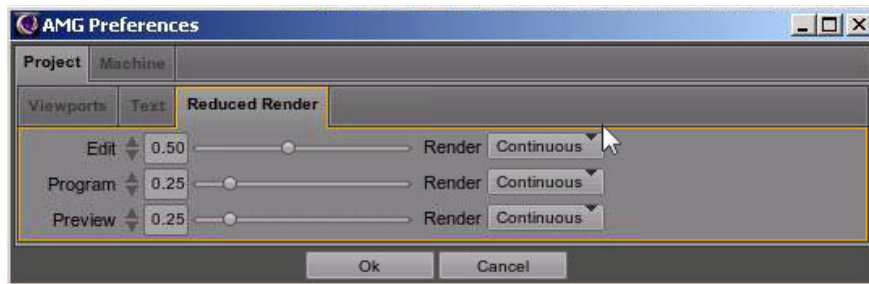
Configuring the Reduced Renderer Preferences

The reduced renderer preferences are configured using AMG Preferences in the Reduced Renderer tab.

To configure Miscellaneous preferences:

1. In the Avid Motion Graphics user interface, select **File > Preferences**.
The AMG Preferences window opens.
2. Click the **Project** tab.

3. Click the **Reduced Renderer** tab.



4. Adjust the Render settings for Edit. These settings are auto set when using playout mode. For example, when in Playout mode, it does not need to use performance to render the edit pipe. Options are:
 - Off
 - OnMouse
 - OnFocus
 - Continuous
5. Click the **Ok** button when you are done adjusting the render settings.

6 Installing and Configuring Avid Motion Graphics Journalist and Related Software

The following provides instructions for installing and configuring Avid Motion Graphics Journalist software and related applications.

The following main topics describe:

- [AMG Journalist Server Software Installation](#)
- [AMG Journalist Client Installation](#)
- [AMG Preview Renderer Installation and Configuration](#)
- [AMG Device Service and Advanced Device Manager Installation](#)

After setting up and configuring settings of the operating system for your Avid Motion Graphics system you can install the Avid Motion Graphics Journalist software and related applications.

For installing Avid Motion Graphics Creation, Journalist, or News Control there will be one USB flash drive containing the News software.



The Avid Motion Graphics software is also available on the Avid Download Center (www.avid.com/support/downloadcenter).

To Install This Software	See The Following Section
---------------------------------	----------------------------------

AMG Journalist Server	See “ AMG Journalist Server Software Installation ” on page 100.
AMG Journalist Client	See “ AMG Journalist Client Installation ” on page 109.
AMG Preview Renderer	See “ AMG Preview Renderer Installation and Configuration ” on page 110.
AMG Device Service and Advanced Device Manager	See “ AMG Device Service and Advanced Device Manager Installation ” on page 120.

AMG Journalist Server Software Installation

The following steps describe how to install the Avid Motion Graphics Journalist Server software (AMG Journalist Server) for integration with Avid iNEWS Command and Avid iNEWS newsroom computer system.



A different configuration is necessary if using ENPS.

Before performing this procedure, the Avid Motion Graphics servers must have already been installed and licensed.

-
- Confirm the Win2008 R2 64 bit installation, as described in the topic [“Confirming the Win2008 R2 64 bit Installation”](#) on page 100.
 - Install both the veredist_x64 and vcredist_86 installers, as described in the topic [“Install the veredist_x64 and vcredist_88 Installers”](#) on page 100.
 - Install the Avid Motion Graphics Journalist Server software, as described in the topic [“Configuring the Avid Motion Graphics Journalist Server for iNEWS”](#) on page 102.

Confirming the Win2008 R2 64 bit Installation

Prior to starting the Journalist installation, confirm the Win2008 R2 64 bit installation on the AMG server.

To confirm the Win2008 R2 64 bit installation:

1. Open a command prompt by selecting **Start > Run**.
2. Type **cmd**, and press **Enter**.
3. Type **ver** and press **Enter**.

Make sure the version of server is **6.1.7601**.

Install the veredist_x64 and vcredist_88 Installers

Once you have confirmed Win2008 R2 64 bit installation, you must install or confirm that both the vcredist_x64 and vcredist_86 installers on the AMG server, before installing the AMG Journalist server software.

To install both veredist_x64 and vcredist_86 installers

1. Open the AMG Journalist Folder and locate the folder labeled **VS2008.O**
2. Open the **VS2008** folder and install both the **vcredist_x64** and **vcredist_86** installers.

- ▶ If you get an option to modify, then the installers are already installed. Cancel the installation, and go to the next step.
 - ▶ If you do not get an option to modify, continue with the installation. Go to the next step.
3. Make sure that Windows Media Player is enabled. This is part of the Windows Desktop Experience feature for Windows Server 2008. To verify that it is enabled, do the following:
 - a. Open the **Control Panel**, and select **Programs and Features**.
 - b. In the left pane, select **Turn Windows Features on and off**. The Event Viewer dialog box opens.
 - c. From the Server Manager tree, select **Features**.
 - d. Confirm whether Desktop experience is enabled. If not, click **Add features**, and select the check box next to Desktop Experience.

Installing Avid Motion Graphics Journalist Server Software

Once you have installed both the vcredist_x64 and vcredist_86 installers, you can now install the AMG Journalist server software on the AMG server.



Once an option is installed, there will be a green check mark next to it.

To Install the Avid Motion Graphics Journalist Server:

1. Navigate to and double-click **AMG_Journalist_Server_setup.exe**.
2. Click the option to install **Microsoft Visual C++ Redistributable**.
3. Click the option to install **Avid Motion Graphics Journalist Server**.



This will share the AMGNews folder and configure the X: drive. It also installs the AMG Drive Monitor.

4. Click the option to install **Avid License Control**.
The screen refreshes with more options.
5. Click the option to install **PostgreSQL 8.4.4**.
It will install the next three options automatically.
6. Click the option to install **PostgreSQL Subnet Selection**.
The AMG PostgreSQL Database Access Configuration opens.
7. Select the **Save pg_hba** option at the bottom left of the screen.
8. Select **Create AMG Databases**.

9. Select **Click here to Install AMG Journalist Databases**.

Wait until the AMG Journalist databases are installed. When it is done, the message “AMG Database Creation Complete” appears.

10. Select **Return** to return to the AMG Journalist Installer main menu.

11. Click the option to install **AMG ODBC**.

12. Select **Yes** on the pop-up menu.

13. Select **Exit** to exit the AMG Journalist Installer and return to the Windows desktop.

Configuring the Avid Motion Graphics Journalist Server for iNEWS

After installing the AMG Journalist Server software, you must configure the Avid Motion Graphics Journalist Server for use with iNEWS.

This procedure is for use with iNEWS only. For use with ENPS or other MOS-based systems, see the ENPS section of the *iNEWS Command Installation and Configuration Guide*.



This procedure contains instructions for updating fields that are necessary, or recommended only. Remaining fields and values not discussed in this procedure should be left as defaults.

To configure the Avid Motion Graphics Journalist Server for iNEWS:

1. On the Avid Motion Graphics Journalist Server, navigate to:

C:\AMGNews\bins\conf\AMGConf.ini.

2. In the GENERAL section:

- ▶ Set VIDEO FRAMES to **NTSC** or **PAL** (depending on your site requirements).
- ▶ Set the SLUG FORMAT to **<tpl>:<id>**.



All values in the AMG.ini files must be surrounded by quotes. When editing values, remember to keep the quotes in tact.

3. In the PREVIEW SNAPS section:

- ▶ Set the IP to the specific address for the local AMG Journalist Server.



Do not use 127.0.0.1, or a host name.

4. In the [GATEWAY] section, set the IP to the specific address for the local AMG Journalist Server.



Do not use 127.0.0.1, or a host name.

5. In the [MOS DEVICE] section:
 - ▶ Confirm that the NAME is set to **AMGNews**.
 - ▶ In the CHANNELS field, enter the channels names that you intend to use in the system. Each name must be separated by a comma and space (e.g., 1, 2, 3, for graphics channels).



Command will need to use the same channel names, so it's a good idea to write down or remember the channel names used here.

6. In the [CONTROL] section (where NAME = COMMAND1):
 - ▶ Set the IP to the specific address for the AMG Payout chassis.
 - ▶ If you have a second device, you need to add a new section with the name COMMAND2, for the second device. This is done by doing the following:
 - Copy the [CONTROL] section, and paste it just below the original CONTROL section.
 - Change the NAME field to **COMMAND2**.
 - Change the IP field to that of the second AMG Payout chassis.
7. In the [MANAGER] section, set the IP to the specific address for the local AMG Journalist Server.



Do not use 127.0.0.1, or a host name.

8. In the [NCS] section:
 - ▶ In the NAME field, enter the NRCS server name.
 - ▶ If you want to see more than the first 2 replaceable fields in the Command playlist, change the ABSTRACT FMT field from <2values> to the desired number of fields.
9. Select **File > Save**, and then close the AMGConf.ini file.
10. On the AMG Journalist Server, go to **C:\AMGNews\bins\cfg** and open the **Previewunits.ini** file.
 - ▶ There are 2 UNITS sections. In each UNIT field, the default UNIT1 and UNIT2 are for Render Engines A, and B on the Preview Renderer machine.
11. In the [UNIT] section, for UNIT1, and UNIT2, set the IP address to the IP address of the Preview Renderer machine.

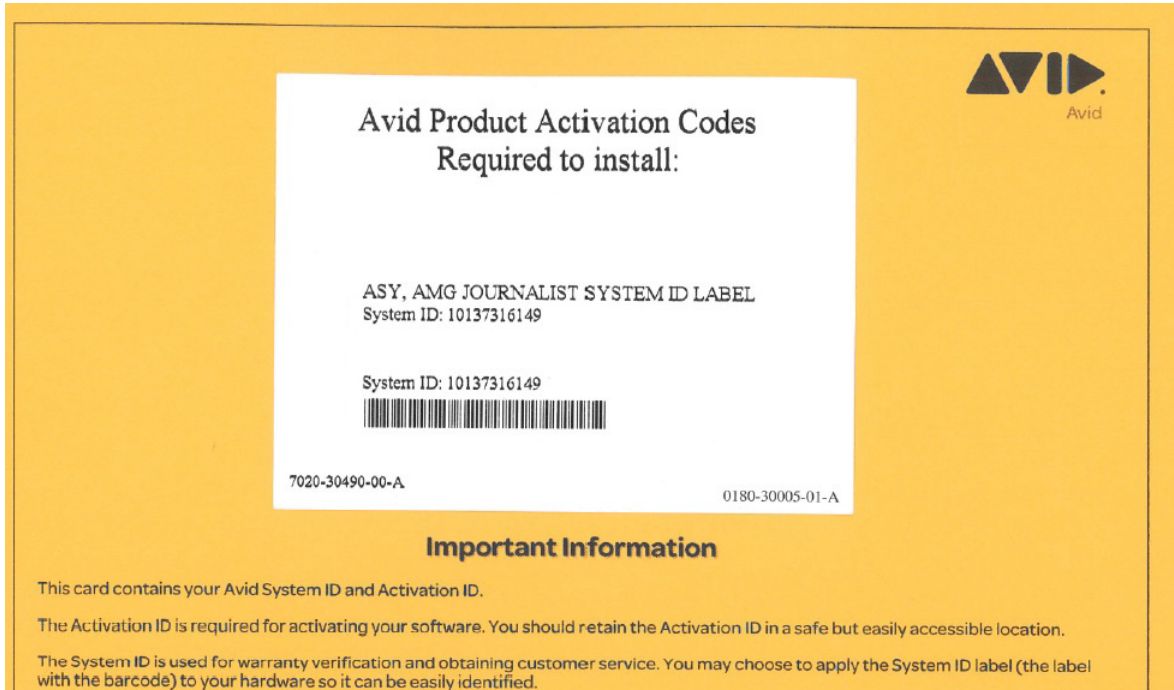
If any additional Preview Renderers are added, you need to create two additional UNIT sections. This is done by doing the following:

 - Copy the [UNIT] section, and paste it just below the original UNIT section.
 - Change the UNIT1 field to **UNIT3**.
 - Change the UNIT2 field to **UNIT4**.
 - Change the IP field to that of the second Preview Renderer.
12. Select **File > Save**, and then close the Previewunits.ini file.
13. Double-click on **My Computer** and navigate to the **X:** drive.
14. Open **TPL_example**, and copy and paste the contents to the TPL folder on the X: drive.
15. Launch the AMG Monitor application.

Licensing Avid Motion Graphics Journalist Server

The Avid Motion Graphics NRCS License is the only License required for the Avid Motion Graphics Journalist server. The server itself does not have a license.

The Avid Motion Graphics Journalist System ID label, as shown in the following illustration, is used as the System ID number to activate the Avid Motion Graphics NRCS Clients.



The Avid Motion Graphics NRCS Client activation is performed on the AMG Journalist Server.

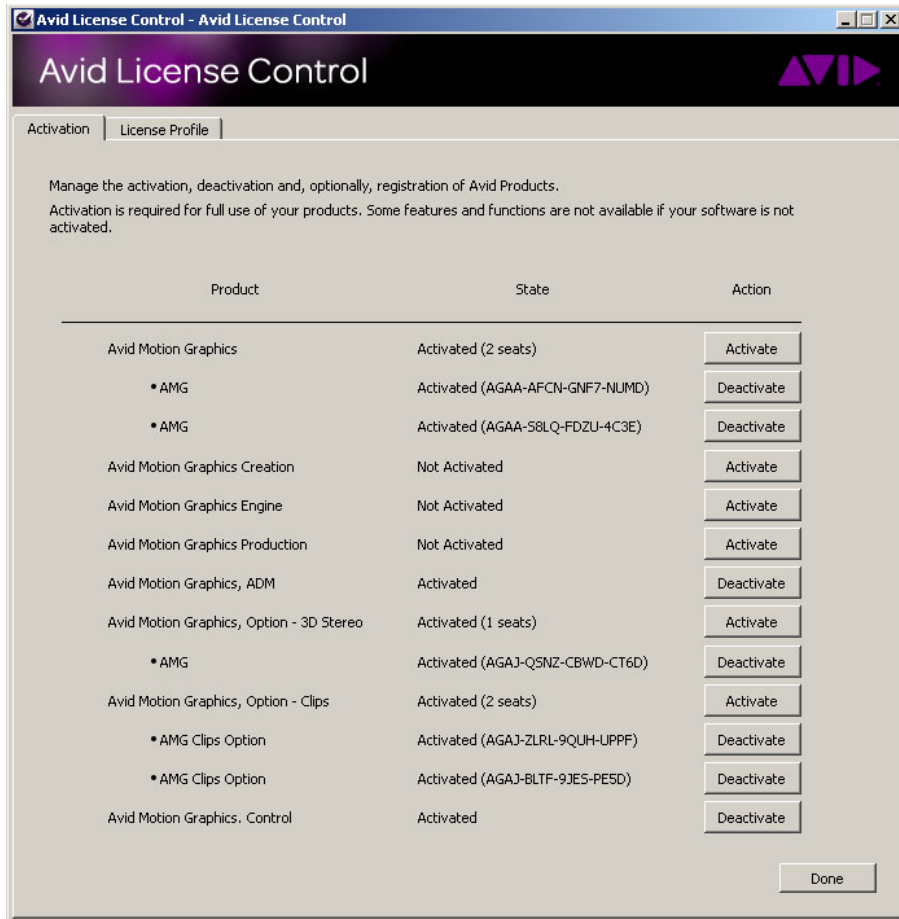


The license is most easily added with an internet connection, so that the computer can connect to the Avid license server and verify the license. For more information, see “Software Licensing” on page 78.

To activate the license for Avid Motion Graphics NRCS Clients:

1. Locate your System ID and Activation ID card(s) included with your new hardware (in a separate box).
2. Open the Avid License Control tool, click **Start > Programs > Avid > Utilities > Avid License Control**.

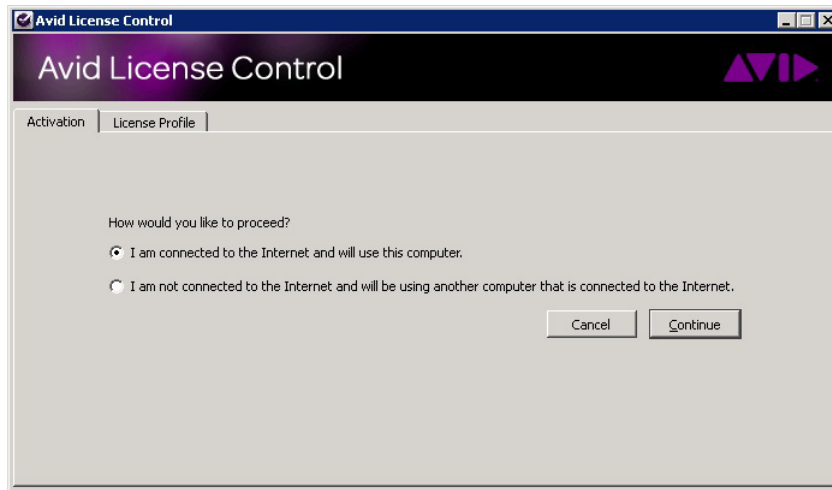
The Avid License Control tool opens.



After your Avid software is activated, the License Profile tab displays your System ID, Activation ID, and Device ID.

3. Click the **Activate** button for **Avid Motion Graphics NRCS Clients** license.

4. In the **How would you like to proceed?** section, select the **I am connected to the Internet and will use this computer** option, and then click **Continue**.



If you select “I am not connected to the Internet and will be using another computer that is connected to the Internet” continue with “License Activation Without an Internet Connection” on page 83.

5. Enter your system identification number in the System ID text box.



6. Enter your activation identification number in the Activation ID text box.
7. Click the **Activate** button.

The Activation tool confirms your system information. When the activation is complete, a message informs you that your software has been successfully activated and the Activate button changes to a Deactivate button.

8. Back up your license profile information, and save it somewhere that you can access it.

Starting the AMG Journalist Server Applications

After the AMG Journalist server configuration is complete, you can start the AMG Journalist Server application.

To start the AMG Journalist Server applications:

1. Turn on the Avid Motion Graphics Journalist server.
2. Double-click the AMG Application Monitor shortcut on the desktop, and enable and start the Avid Motion Graphics Journalist Server applications.
 - AMG Gateway: manages communication between NRCS, database, and Command.
 - AMG News Licenser: gives out Avid Motion Graphics Journalist client license seats.
 - AMG Preview Renderer: manages Avid Motion Graphics Preview Renderer requests
3. Select **AMG Gateway**, and click **Enable Application**.
4. Select **AMG News Licenser**, and click **Enable Application**.
5. Select **AMG News Preview Server**, and click **Enable Application**.
6. The Avid Motion Graphics Journalist Server applications should start automatically.

AMG Journalist Client Installation

This section contains the following topics:

- “Installing AMG Journalist Client Software” on page 109
- “Testing the AMG Journalist Client” on page 109

Installing AMG Journalist Client Software

The following steps describe how to install the Avid Motion Graphics Journalist Client for integration with Command, and iNEWS or ENPS.

To install the AMG Journalist client:

1. Navigate to the Avid Motion Graphics Journalist Server (via UNC path - \\servername).
2. Open the install folder.
3. Double-click the **Avid_Motion_Graphics_Journalist_setup.exe** to run the executable.
4. In the AMG Journalist Applications window, click the **AMG NRCS Client** to install it.
5. Select **Microsoft Visual C++ Redistributable** to install it.
6. Select **AMG Drive Monitor** to install it. Make sure the IP address for the AMG Journalist server is populated. Follow the prompts (Install, Next, Finish) to complete the installation.
7. Select **AMG ODBC** to install it.



A database password is not necessary, and should not be entered.

8. Select **AMG NRCS** to install, and click **Finish** to complete the installation.
9. Select **Exit** to close the installer.

You can now test the AMG Journalist Client.

Testing the AMG Journalist Client

After starting the AMG Journalist Client, you can test the functionality of it.

To test the AMG Journalist Client:

1. Open the **AMG Journalist Client**.
2. Double-click an item to open it in the template editor.
3. Add replacement data and click **Save**.

The new item should appear in the Graphic Database area list with a unique ID for the item.

4. Open the new item and edit the first replaceable field.

5. Click **Save** and confirm that the data has updated.
6. Open the created item and click the **Preview** button.
7. Confirm that the correct replacement data appears.
8. Open the created item and click the **Movie** button.
9. Confirm that the item appears with motions and correct replacement data.
10. Create several more items and drag them into the rundown.
11. Create a hand-entered item.
12. Designate one of the items as a library graphic and drag into a playlist.
13. MON Load the show, and confirm that all graphics appear in the Command playlist.

AMG Preview Renderer Installation and Configuration

This section contains the following topics:

- [“Installing the AMG Preview Renderer” on page 110](#)
- [“Licensing the AMG News Preview Renderer and AMG Clips” on page 112](#)
- [“Installing Fonts on the AMG Preview Renderer” on page 115](#)
- [“Starting the Avid Motion Graphics Preview Renderers” on page 119](#)
- [“Starting the Avid Motion Graphics Preview Renderers” on page 119](#)

Installing the AMG Preview Renderer

The following describes installing the Avid Motion Graphics Preview Renderer on a dedicated computer (not on the AMG Journalist Server) with the following minimum specifications:

- Windows 7 system, 64 bit
- Single quad-core Intel processor
- NVidia Quadro 4000 graphics card or higher
- 500 Gb of storage or higher

To install the Avid Motion Graphics Preview Renderer:

1. Navigate to the Avid Motion Graphics Journalist Server (via UNC path - \\servername).
2. Select **AMG NewsShare**, and open the Install folder.
3. Double-click the **Avid_Motion_Graphics_Journalist_setup.exe**.

4. Select **Yes**.

The User Account Control dialog box opens.

5. In the AMG Journalist Applications window, click **AMG News Preview Renderer** to install it.
6. Click the **Microsoft Visual C++ 2008 Redistributable** to install it.
7. Click **Avid Motion Graphics Drive Monitor** to install it.
8. Type the IP address for the Avid Motion Graphics Journalist server.

The Host name or IP address for the Avid Motion Graphics Journalist Server will appear in the AMG Drive Monitor dialog box. Follow the prompts, clicking **Next**, to proceed. Then, click **Install**. When finished installing, click **Finish**.

9. Click Avid Motion Graphics ODBC to install. Follow the prompts, clicking **Install**, and then click **Next** to proceed.



A database password is not necessary, and should not be entered.

10. Click **Avid License Control** to install it.
11. Click AMG News Preview Renderer to install it. Follow the prompts, clicking Install, to proceed. Then, click **Next**. When finished installing, click **Finish**.
12. Click **Exit** to close the installer licensing.
13. Open the Avid License Control tool.
14. Add the Preview Renderer licenses (Preview and Clips). If you do not have a Preview Renderer license, contact your sales representative to obtain a license.



The license is most easily added with an internet connection, so that the computer can connect to the Avid license server and verify the license.

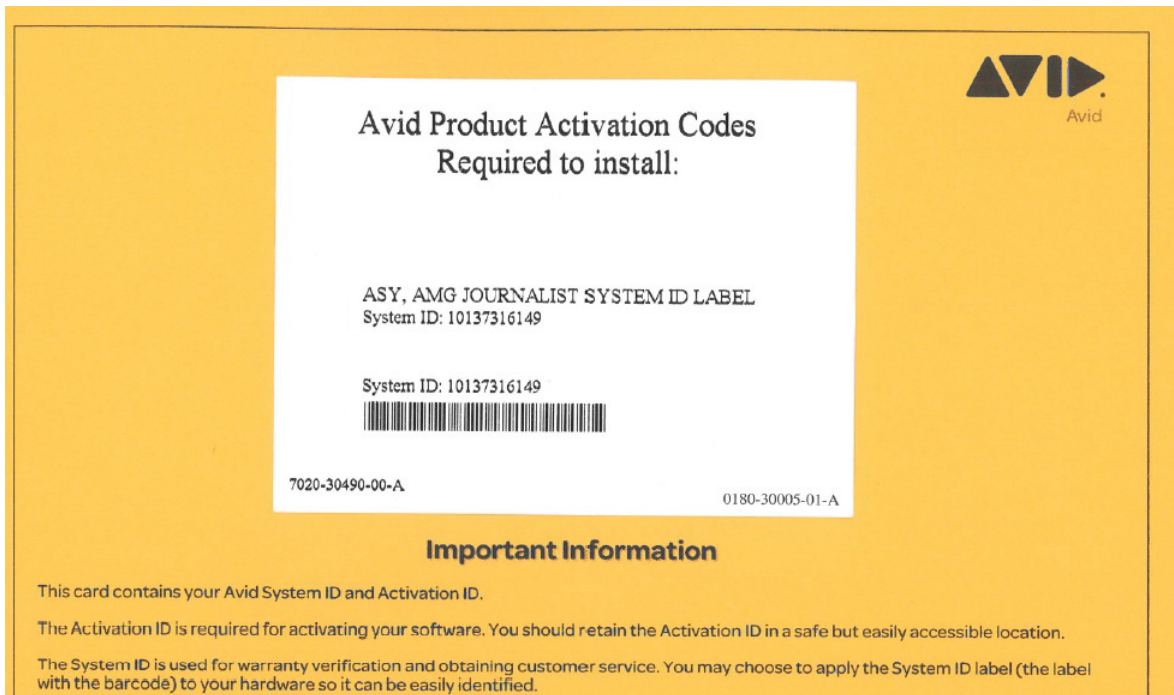
Licensing the AMG News Preview Renderer and AMG Clips

Once you have installed the AMG Preview Renderer on a dedicated computer., you need to license the AMG News Preview Renderer, and the AMG Clips products.

Before you begin, you should have the following two Activation labels:

- AMG News Preview Renderer Activation label
- AMG Clips Activation label

You will also need to the System ID from the AMG Journalist System ID label. The Avid Motion Graphics Journalist System ID label, as shown in the following illustration, is used as the System ID number to activate the AMG News Preview Renderer and AMG Clips products.



The activation is performed on the computer that you installed the AMG Preview Renderer on.

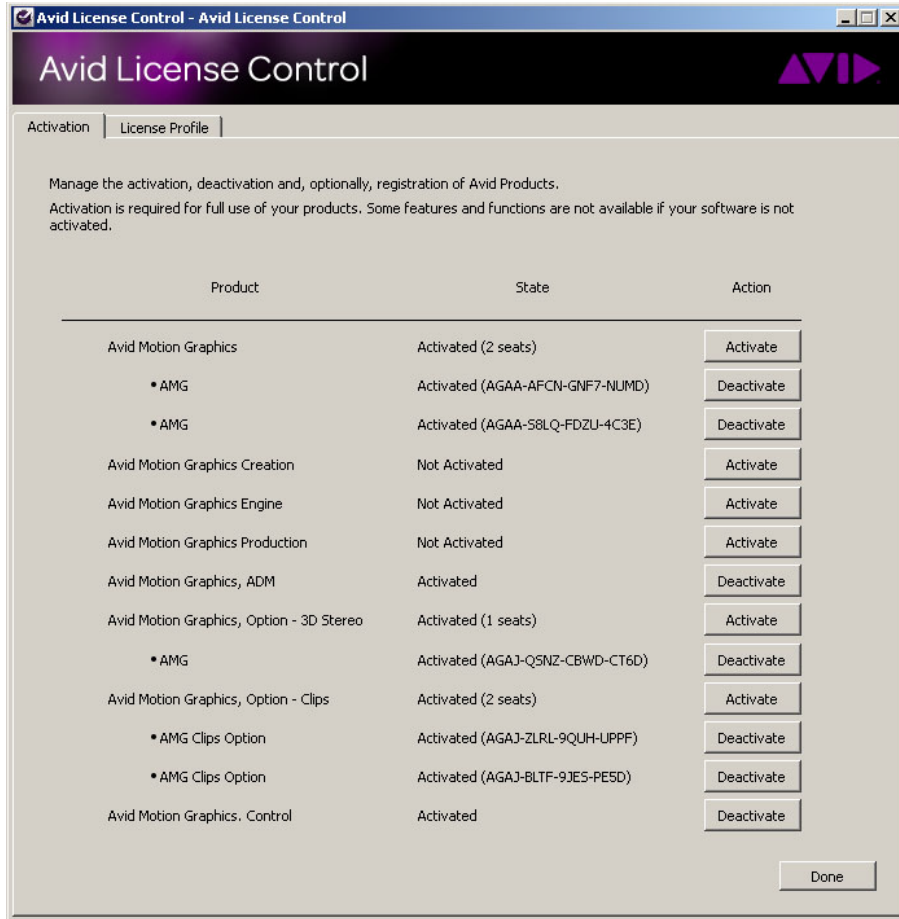


The license is most easily added with an internet connection, so that the computer can connect to the Avid license server and verify the license. For more information, see “Software Licensing” on page 78.

To activate the license for AMG News Preview Renderer and AMG Clips:

1. Locate your System ID and Activation ID card(s) included with your new hardware (in a separate box).
2. Open the Avid License Control tool, click **Start > Programs > Avid > Utilities > Avid License Control**.

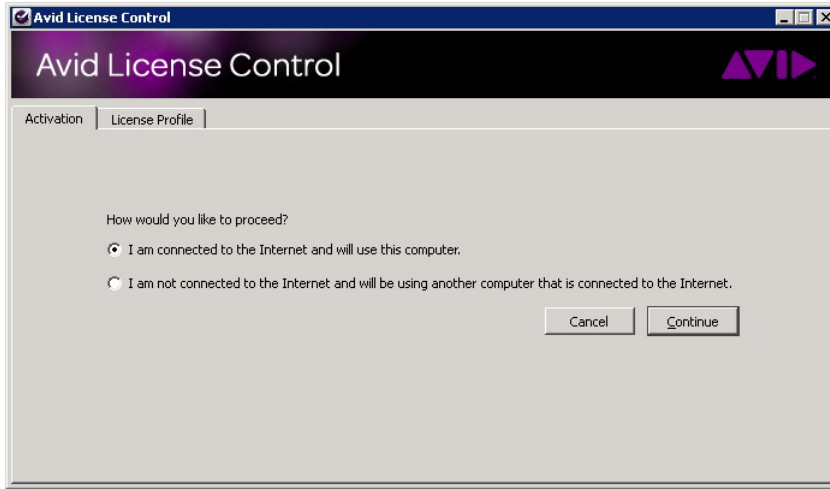
The Avid License Control tool opens.



After your Avid software is activated, the License Profile tab displays your System ID, Activation ID, and Device ID.

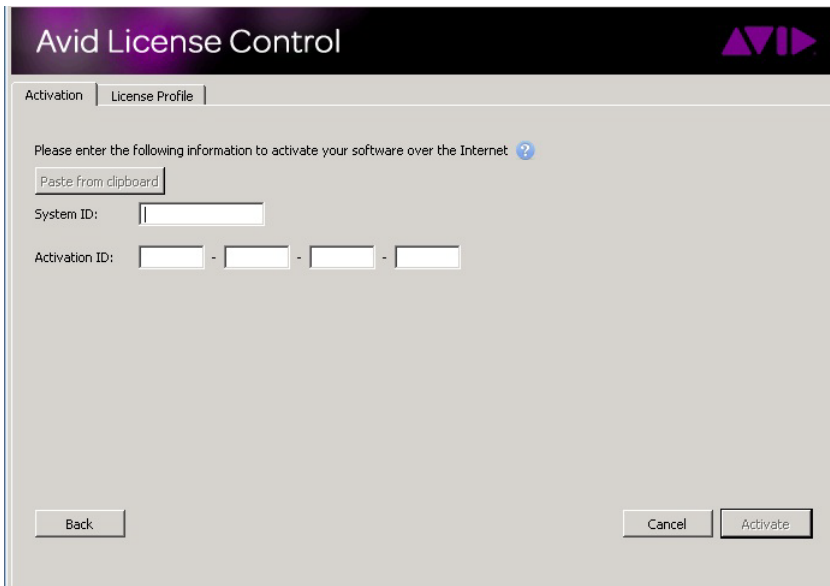
3. Click the **Activate** button for **AMG News Preview Renderer** license.

- In the “How would you like to proceed?” section, select the **I am connected to the Internet and will use this computer** option, and then click **Continue**.



If you select “I am not connected to the Internet and will be using another computer that is connected to the Internet” continue with “License Activation Without an Internet Connection” on page 83.

- Enter your system identification number in the System ID text box.



6. Enter your activation identification number in the Activation ID text box.
7. Click the **Activate** button.

The Activation tool confirms your system information. When the activation is complete, a message informs you that your software has been successfully activated and the Activate button changes to a Deactivate button.

8. Repeat Steps 3-7 to activate the AMG Clips license.
9. Back up your license profile information, and save it somewhere that you can access it.

Installing Fonts on the AMG Preview Renderer

This topic contains information on how to install the Avid Motion Graphics Fonts Package on the AMG Preview Renderer

This procedure must later be performed on all NRCS Clients.

To install fonts on the AMG Preview Renderer:

1. Locate the AMG USB drive and insert it into a vacant USB port on your AMG Preview Renderer.
2. (Option) The Avid Motion Graphics software kit is also available on the Avid Download Center (www.avid.com/support/downloadcenter). Unzip the downloaded software kit in the new folder on the AMG Preview Renderer.

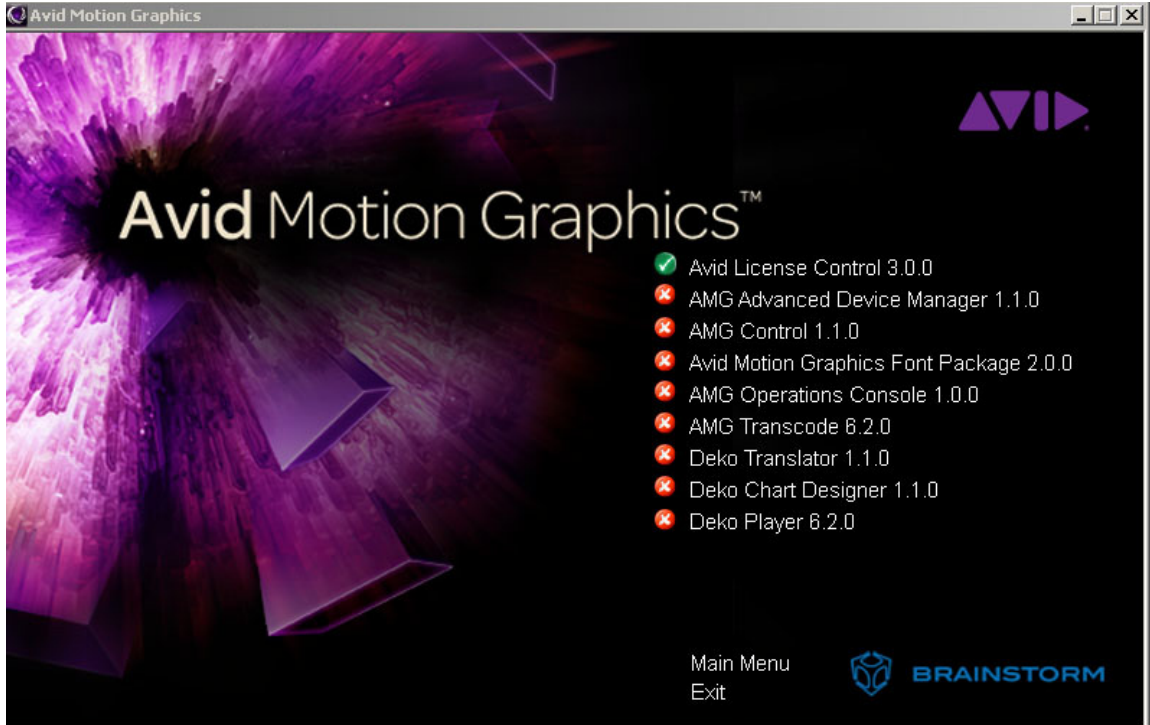
3. Navigate to and double-click on the **Avid_Motion_Graphics_setup.exe** file.

The installer splash screen appears.



4. Select **Avid Motion Graphics Tools**.

This begins the installation of the AMG Tools software on the AMG Preview Renderer. The next screen appears:

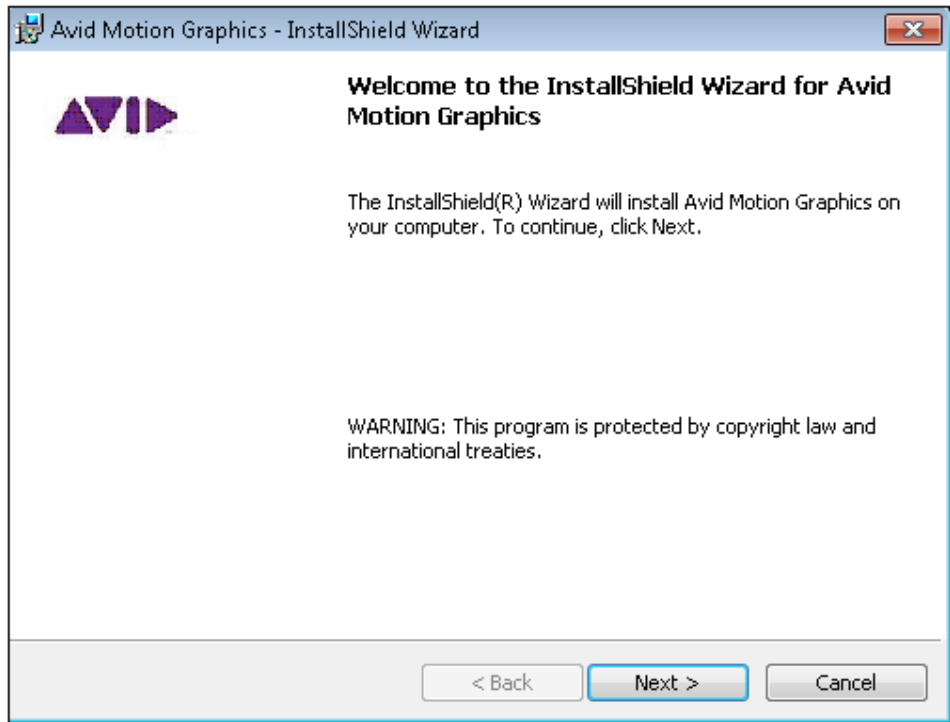


5. Click the **Avid Motion Graphics Font Package** option to install the AMG fonts package onto the AMG Preview Renderer.



Wait for all of the components to install before continuing. After each component successfully installs, a green circle, containing a white check mark, replaces all of the red circles, containing white Xs. If a component is already installed, it is detected and the green circle with the check mark appears immediately.

When all components have been installed, the InstallShield Wizard for the Avid Motion Graphics application opens.



6. Click **Next** to continue.
7. Follow the screen prompts accepting the defaults and the License agreement.
8. Click the **Install** button to begin installing the software.
The Status bar displays followed by the InstallShield Wizard Complete dialog box.
9. Click the **Finish** button.
10. Click **Exit** to close the AMG setup.exe.

Starting the Avid Motion Graphics Preview Renderers

After starting Avid Motion Graphics and the Avid Motion Graphics Journalist Server, you must start the Avid Motion Graphics Preview Renderers A and B.

To start the Avid Motion Graphics Preview Renderers A & B

1. On the Avid Motion Graphics Preview Renderer computer, select **Start > AMGNews Preview Renderer A**.
2. Select **File > Project > Open All**, and navigate to the **X:\TPL** folder to open the project.
3. On the Avid Motion Graphics Preview Renderer computer, select **Start > AMGNews Preview Renderer B**.
4. Select **File > Project > Open All**, and navigate to the **X:\TPL** folder to open the project.

Creating Project Shortcuts on the AMG Preview Renderer

After the on-air project is finalized, you can create Start Menu shortcut to open the project on the AMG Preview Renderer.

To create project shortcuts on the AMG Preview Renderer:

1. Navigate to **X:\TPL\basic.ldr**.
2. Create a shortcut to that file on the desktop.
3. Double-click the file to open the project in **Preview Renderer A**.
4. With the project open, double-click the shortcut again, to open the project in **Preview Renderer B**.
5. Drag the **Preview Renderer A** shortcut to the **Start** menu.

Now you can click **Start**, point to the **Preview Renderer A**, and select the project to open both Preview Renderers.

AMG Device Service and Advanced Device Manager Installation

This section contains the following topics:

- “Installing the AMG Advanced Device Manager” on page 120
- “Installing Avid Motion Graphics Device Service” on page 123
- “Configuring the Avid Motion Graphics Device Service” on page 126
- “Installing the iNEWS Command AMG Device Service” on page 127

Installing the AMG Advanced Device Manager

This topic contains information on how to install the AMG Advanced Device Manager on each Avid Motion Graphics Payout chassis.

To install the AMG Advanced Device Manager:

1. Locate the AMG USB drive and insert it into a vacant USB port on your AMG Payout chassis.
2. (Option) The Avid Motion Graphics software kit is also available on the Avid Download Center (www.avid.com/support/downloadcenter). Unzip the downloaded software kit in the new folder on the AMG Preview Renderer.

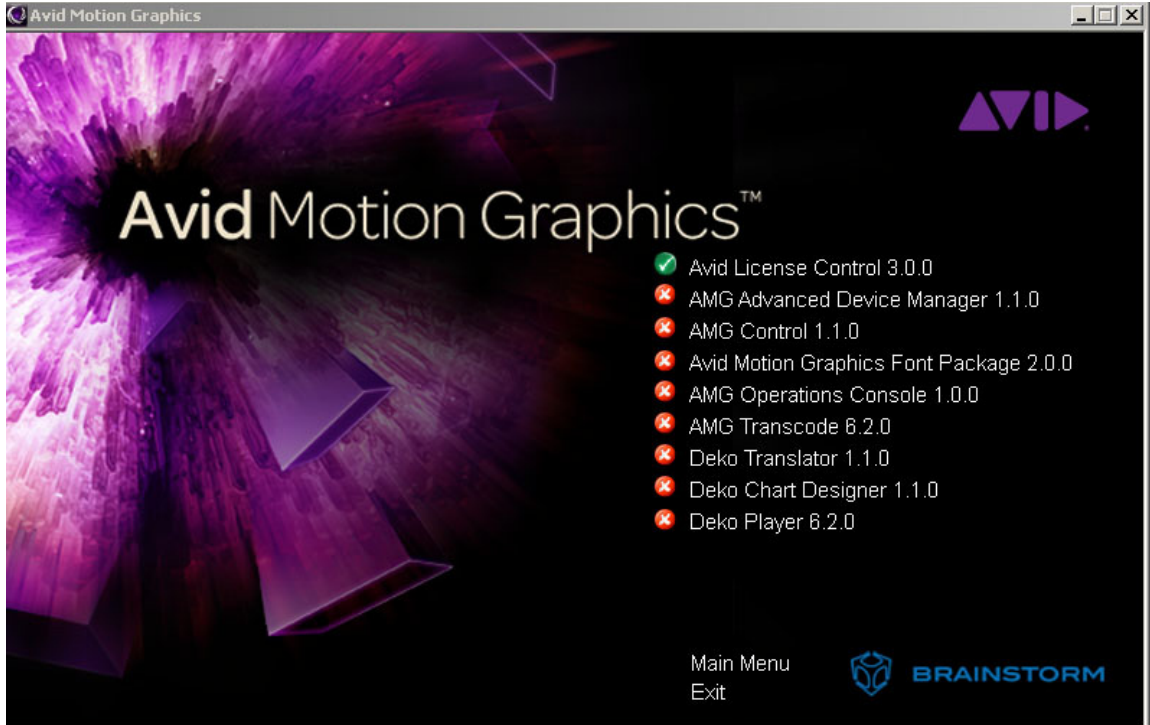
3. Navigate to and double-click on the **Avid_Motion_Graphics_setup.exe** file.

The installer splash screen appears.



4. Select **Avid Motion Graphics Tools**.

This begins the installation of the AMG Tools software on the AMG Preview Renderer. The next screen opens:



5. Click the **AMG Advanced Device Manager** option to install the AMG Advanced Device Manager onto the AMG Payout server.



Wait for all of the components to install before continuing. After each component successfully installs, a green circle, containing a white check mark, replaces all of the red circles, containing white Xs. If a component is already installed, it is detected and the green circle with the check mark appears immediately.

When all components have been installed, the Installshield Wizard for the Avid Motion Graphics application opens.

6. Click **Exit** to close the installer.

7. Open the Avid License Control tool and activate the Avid Motion ADM with the respective license supplied.



The license is most easily added with an internet connection, so that the computer can connect to the Avid license server and verify the license. For more information, refer to “Software Licensing” on page 78.

Installing Avid Motion Graphics Device Service

This section provides the standard procedure for installing the device service.

To install the Avid Motion Graphics Device Service on the device:

1. Install iNEWS Command and select the **AMG Device Service** from the install menu.

When the autorun program starts, select the Avid iNEWS Command button. The InstallShield Wizard starts and displays the Welcome screen.

2. Click **Next**.

The License Agreement appears.



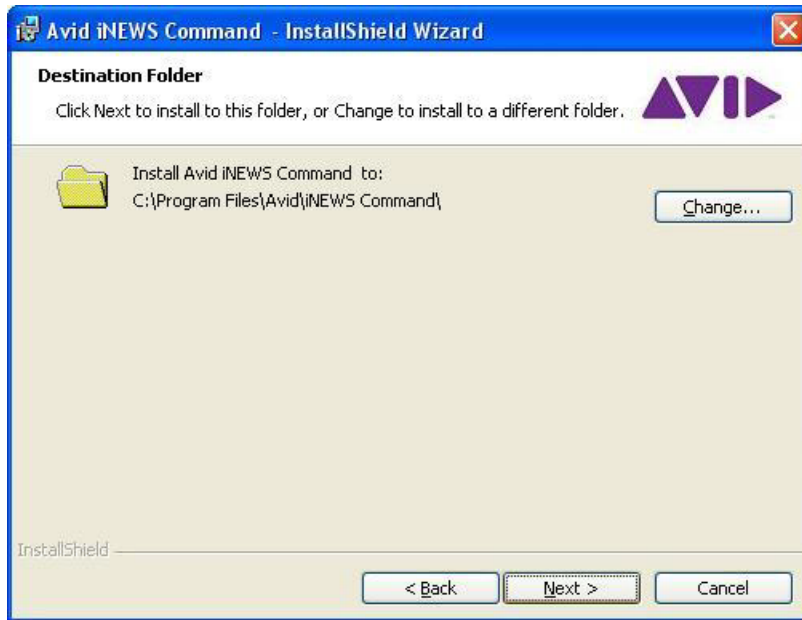
3. Read the License Agreement, accept the terms, and click **Next**.

If you do not accept the terms, the installation program will not continue.



You can print the terms if you want to read them later or keep a copy for your records.

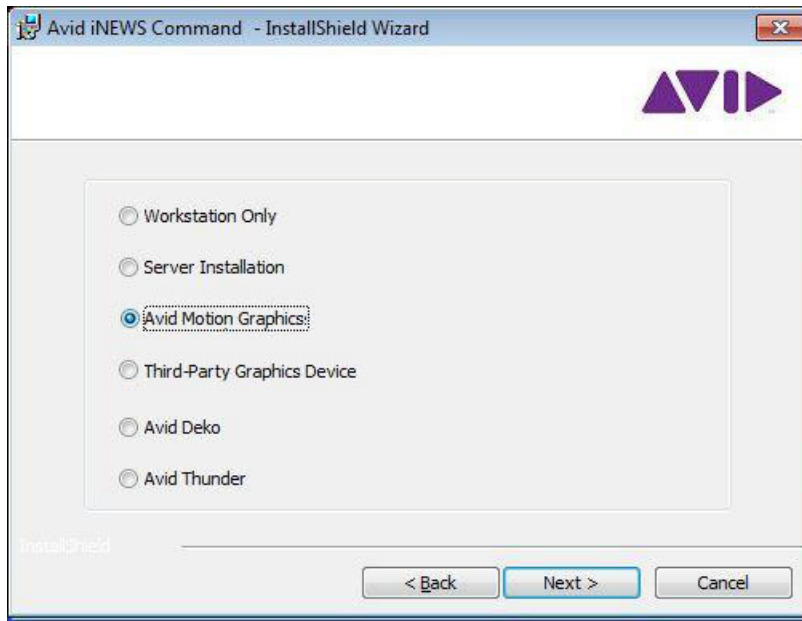
The Destination Folder dialog box opens.



4. Do one of the following:

- ▶ Click Change to designate an install directory, and then click **Next**.
- ▶ Accept the default location by clicking **Next**.

The Options dialog box opens.

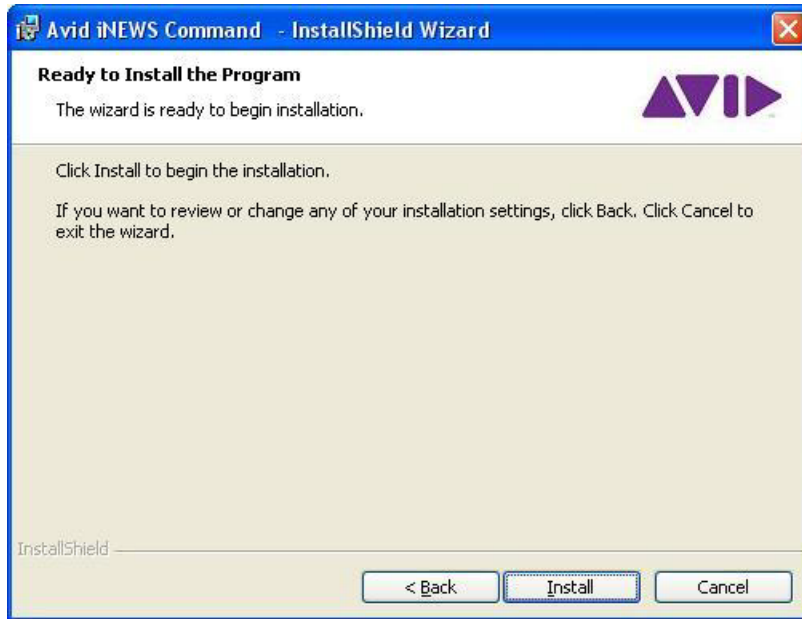


5. Select **Avid Motion Graphics** and click **Next**.

The Custom Setup dialog box appears with the default services selected for installation of client software. However, for CII integration, you must modify the selections to customize your installation.

6. Deselect **Avid iNEWS Command Workstation** so that it is not installed.
7. Expand **Avid Graphic Device Service** and select **Avid Graphic Device Service 01**.

- Click **Next** to continue.



- When the Ready to Install the Program dialog box appears, click **Install**.
- When the installation is complete, click **Finish**.

You are now ready to install the appropriate plug-in or the Graphic Inventory Editor (GIE), if necessary.

Configuring the Avid Motion Graphics Device Service

Once you have installed the Avid Motion Graphics Device Service on each Avid Motion Graphics playback chassis, you must next configure it.

To configure the Avid Motion Graphics Device Service:

- Select **Start > All Programs > Avid Service Framework**.
- Open the **Avid Service Configuration** application.
- Navigate to the local machine, open the drop down menu, and select the **Avid Motion Graphics Device Service**.
- Enter a Device name (in lowercase), such as “**amg1**”, and set the channel count to **1** for single-channel, or **2** for dual-channel playback chassis.
- Click the **AMG Device Service Settings** tab.

6. In the ADM IP field, type the local machine's specific IP address.
7. In the NET CONNECT AS, type the computer name\user name for the AMG Journalist Server, so that the device service connects to the AMG Journalist Server with the right credentials.



If the Journalist Server uses a local log in, enter the local computer name and user name, such as AMGJourn\Admin. A domain login also works here.

8. In the NET PASSWORD field, type the password for that user name (if there is one). Otherwise, leave it blank.
9. In the NET SHARED RESOURCE field, type the AMG Journalist computer name and share name. For instance, \\AMGJourn\AMGNews.



Make sure the case matches.

10. Confirm that the SYSTEM MOS ID is correct. It should be the same (including the case) as was configured in the AMGConf.ini and the ADM Configuration.



After changing any value, select a different field before clicking Apply, so that the last change is kept. Or press Enter.

11. After the configuration is complete, click the **Apply** button.
The service restarts automatically.
12. Close the window.

Installing the iNEWS Command AMG Device Service

The iNEWS Command Device Service must be installed on each AMG payout chassis.

To install the iNEWS Command AMG Device Service:

1. Navigate to the network location of the iNEWS Command install files.
2. Double-click **AvidiNEWSCommand_setup.exe**.
3. In the Command installer window, click **Avid Service Framework**, and click **Next**.
4. In the Workgroup name, type the name of your Command workgroup, and click **Next**.
5. Select the Avid Service Framework client to install, and click **Next**.
6. Confirm all of the Framework applications are installed:
 - ▶ Health Monitor
 - ▶ Service Configuration
 - ▶ Diagnostics

7. Confirm that the Avid Motion Graphics Playout Server can see the Command Server. If the Command server is in a different subnet, add the FQDN or IP address to the Locator tab in the Avid Service Framework, Workgroup Properties application.
8. Install **Avid iNEWS Command**, and select the **AMG Device Service** from the install menu.

Configuring Command and iNEWS or ENPS

Command device channels, channel groups, and iNEWS rundowns must also be configured for Avid Motion Graphics. This is done on the Command server.

For more information, see the topic “Configuring iNEWS Command Device Channels and Channel Groups” the *iNEWS Command Installation and Configuration Guide*.

Confirming AMG Functionality with Command

Once you have created a project to test with, you can confirm AMG functionality with Command by doing the following:

- [Starting Avid Motion Graphics](#)
- [Testing Command Inventory, Playout, and Editing](#)

Starting Avid Motion Graphics

Starting the Avid Motion Graphics server is the first task in confirming functionality.

After starting the AMG Application Monitor for the first time, make sure that you enable all applications.

To start Avid Motion Graphics:

1. Turn on the Avid Motion Graphics server.
2. Start the Avid Motion Graphics application.
3. Click **File > Project > Open** and navigate to the X:\TPL folder to open the project.
4. Click the **Playout** button. This step is required for any playout operation.

5. Open the **Advanced Device Manager**. This initiates the Open All command. You are now ready to play items in Command. If you have to close and open the UI for any reason, do the following:
 - Open the Avid Motion Graphics application from your shortcut.
 - In the Avid Motion Graphics user interface, switch to Playout mode.
 - In the open Advanced Device Manager, click the **Connect** button, which initiates the Open All.
6. Next, you should test Command Inventory, playout and editing functionality. for more information, see [“Testing Command Inventory, Playout, and Editing” on page 129](#).

Testing Command Inventory, Playout, and Editing

After confirming functionality of the AMG Journalist Client, you must test the Command inventory, playout, and editing functionality.

To test Command inventory, playout, and editing:

1. In the Inventory Panel, confirm that you can see the templates from the your project, and the library graphic you created.
2. Confirm that thumbnails appear in the playlist.
3. Lock channel group:
 - ▶ Confirm that the replacement fields update (if not already updated).
 - ▶ Cue and play items – confirm on output.
4. Open item in media viewer and change replacement data:
 - ▶ Confirm that data is updated in the playlist.
 - ▶ Confirm that the thumbnail updates.
 - ▶ Open the item in the Avid Motion Graphics Journalist client, and confirm that the replacement data has also changed here.
5. Play the cued item. Confirm that it appears on the output, and that the next item cues as expected. Eject the item from the program channel.

Installing Avid Motion Graphics News Control

When you do not have iNEWS Command but use scripts and rundowns in a MOS environment you can use Avid Motion Graphics News Control. The following steps describe how to install and configure the Avid Motion Graphics News Control for use in a MOS workflow environment. They assume that the Avid Motion Graphics Servers have already been installed and licensed. You must have licenses for AMG News components. (NRCS, AMG News Preview Renderer (2), AMG Clips (2), AMG News Control (if applicable). First, you must install and configure the Avid Motion Graphics Journalist Server.



If you are not using iNEWS Command, you will need AMG MOS Gateway and Avid MOS Gateway.

To Install the Avid Motion Graphics Journalist Server:

1. Navigate to and double-click `AMG_Journalist_Server_setup.exe`.
2. Click the option to install Microsoft Visual C++ Redistributable.
3. Install Avid Motion Graphics Journalist Server.

This will share the AMGNews folder and configure the X: drive.

4. Install Avid License Control.
5. Install PostgreSQL 8.4.4.
6. Install AMG ODBC.

Configuring the Journalist Server for use with Avid Motion Graphics News Control

After installing, the Avid Motion Graphics Journalist Server components on your Journalist Server, they must be configured.



Installers for other related Avid Motion Graphics News components are opened from the Journalist server.

To configure the Avid Motion Graphics Journalist Server:

1. On the Avid Motion Graphics Journalist Server, navigate to:
`C:\AMGNews\bins\conf\AMGConf.ini`
2. In the General section:
 - ▶ Set VIDEO FRAMES to NTSC or PAL.

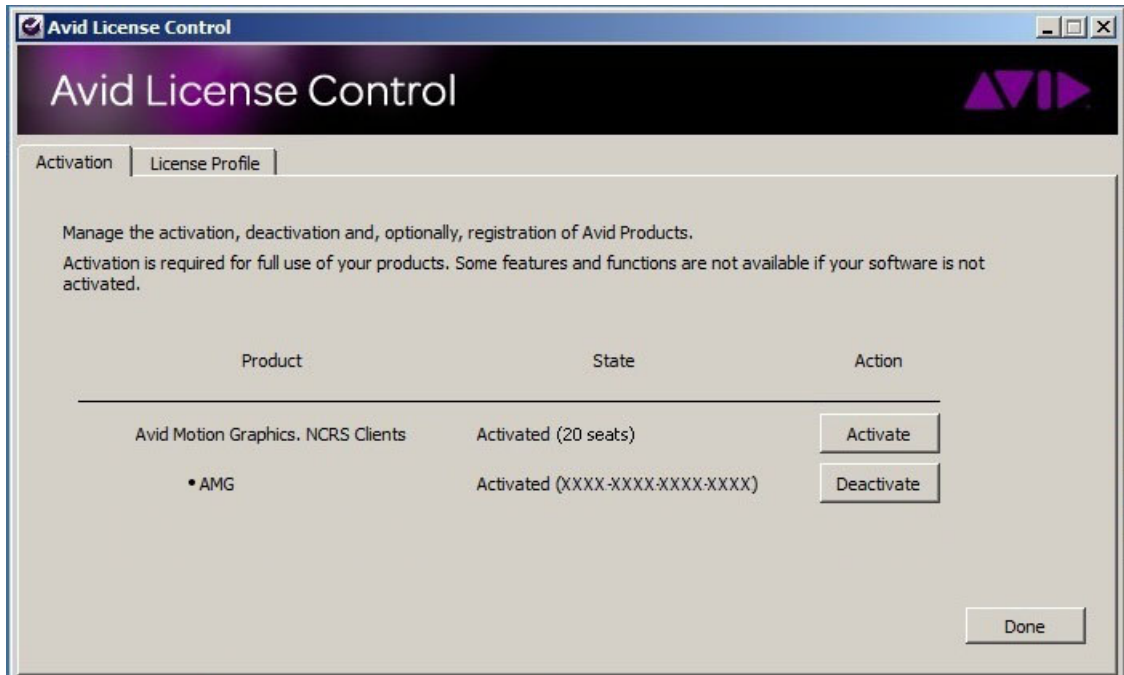
3. In the Preview section:
 - ▶ Set the IP to the specific address for the local machine (do not use 127.0.0.1, or a host name).
4. In the Gateway section:
 - ▶ Set the IP to the specific address for the local machine (do not use 127.0.0.1, or a host name).
5. In the MOS Device section:
 - ▶ Confirm the NAME is set to set to your desired MOS DEVICE ID for the AMG playout system.
6. In the Control section (where NAME = CTRL1):
 - ▶ Set the IP address to the specific address on which AMG News Control will run.
7. In the Control section (where NAME = COMMAND1):
 - ▶ For AMG News Control, comment out this entire section with a ;.
8. In the Render Sections (There are two.):
 - ▶ Set the IP to the specific address for the AMG Playout Servers.
9. In the Manager section:
 - ▶ Set the IP to the specific address for the AMG Journalist server (do not use 127.0.0.1, or a host name).
 - ▶ For iNEWS, confirm that IS NCS is set to NO.
10. In the NCS section:
 - ▶ In the NAME field, enter the iNEWS server name in the NAME.
 - ▶ In the IP field, enter the IP address of the computer running the Avid MOS Gateway.
11. On the AMG Journalist Server, go to C:\AMGNews\bins\conf\Previewunits.ini.
 - ▶ In both IP fields, enter the IP address for where the AMG News Preview Renderer will be running.

Licensing Avid Motion Graphics News Control

Open Avid License Control and confirm that you have an NRCS license and Avid Motion Graphics News Control licenses (if necessary). If you do not have an NRCS license, contact your sales representative to obtain a license.

To License the Avid Motion Graphics Journalist:

1. Open Avid License Control tool.



2. Activate the Avid Motion Graphics NRCS license.



The license is most easily added with an internet connection, so that the computer can connect to the Avid license server and verify the license.

X: Drive Network Share

The AMG News system includes a network share folder known as the X: Drive. This is a centralized location where many of the components for the AMG News system reside. The X: Drive includes installers and configuration files for components. The X: Drive is also the centralized repository for the sites graphic templates and assets. It is vital that consistent network connectivity is available between AMG News components and the X: Drive. By default, the X: Drive is installed on the AMG Journalist Server as part of the AMG News installation.

The following is the X: Drive directory structure overview.

- Bins — Include executable files for AMG News Components, cfg folder containing configuration ini files, plug-in folder containing plug-ins for use within Journalist client, and a log folder for log files.
- Bins\cfg — Contains ini files for configuration.
- Install — Installers for AMG News Components.
- TPL — Graphic templates for AMG News Project
- RSC — Shared assets for use as replaceable fields in AMG Journalist Clients.
- TPL_Example—An example news project with replaceable fields for testing

When this is this is done, there is an AMG News icon on the desktop. Double-click it to start the following AMG server applications:

- AMG News Licenser: gives out AMG Journalist client license seats
- AMG Gateway: manages communication between NRCS, database, and Avid MOS Gateway.
- AMG News Preview Server: manages Preview requests for Journalist Clients.

The install comes with a ‘basic’ project, that can be used for initial testing and confirmation.

Installing Avid Motion Graphics Journalist Client

The following steps describe how to install the Avid Motion Graphics Journalist client for integration with Avid Motion Graphics News Control. They assume that the Avid Motion Graphics servers have already been installed and licensed.

To install the Avid Motion Graphics Journalist client:

1. Navigate to the Avid Motion Graphics Journalist Server (via UNC path - \\servername).
2. Open the install folder.
3. Click AMGDriveMonitor to install. This configures the x: Drive and configures the system tray icon.

4. Click AMGODBC to install. This configures the database connection.
5. Click the AMGNRCS to install. This configures the AMG Journalist Client.

Installing the Preview Renderer

The following describes installing the Avid Motion Graphics Preview Renderer on a dedicated computer.

To install the Avid Motion Graphics Preview Renderer:

1. Navigate to the Avid Motion Graphics Journalist Server (via UNC path - \\servername).
2. Open the install folder.
3. Click Avid Motion Graphics Drive Monitor to install. This configures the x: Drive and configures the system tray icon
4. In the AMG Journalist Applications window, click Avid Motion Graphics News Preview Renderer. This installs the News Preview Renderer Engines (A and B)
5. Open the Avid License Control tool.
 - ▶ confirm that you have News Preview Renderer and Clips licenses. If you do not have those licenses, contact your sales representative to obtain a license.



the license is most easily added with an internet connection, so that the computer can connect to the Avid license server and verify the license.

Creating a Project Shortcut

Create a Start Menu shortcut to open the project in the Preview Renderer.

To create a project shortcut:

1. Navigate to X:\TPL\basic.ldr (or the specific project name).
2. Create a shortcut to that file on the desktop.
3. Double-click the file to open the project in Preview Renderer A.
4. With the project open, double-click the shortcut again, to open the project in Preview Renderer B.

This enables you to click Start, point to the Preview Renderer A, and select the project to open both Preview Renderers.

5. Navigate to the AMG Journalist Server.
 - ▶ Click AMNGDriveMonitor to install. This configures the x: Drive and configures the system tray icon
 - ▶ Click AMGODBC to install. This configures the database connection.

6. Open Avid License Control.
7. Confirm that the AMG licenses are in place: AMG, Clips, 3D Stereo (if purchased).

Configuring Avid MOS Gateway, AMG News Control and iNEWS

The last steps are to configure the MOS device channels, and iNEWS rundowns.

To Configure Avid MOS Gateway:

1. In iNEWS SYSTEM.MOS-MAP, add an entry for the new MOS ID. See the following example:

```
:ShowActiveXLaunch = yes
ReplaceTime = yes
ReadOnlyVideoID = no

TABLE-START DeviceTable
:MOSID AMCPDeviceName
;=====
MSNAMG2 MSNAMG2
```

2. In iNEWS SYSTEM.MAP, add an entry for the MOS device and its corresponding MOS Gateway. See the following example:

```
SHOW.NEWS.AMG.RUNDOWN    SHOW.NEWS.AMG    SHOW.NEWS.AMG.COMPOSITE-
-
mossvr    msn-news-mosgw    -    event-mos
mos    MSNAMG2    -
```

3. Configure the Avid MOS Gateway – MOS devices controlled by the Avid MOS Gateway must appear as an entry in the Avid MOS Gateway’s mosconfig.xml file. See the following example:

```

<!-- The listDevices element contains device-specific configurations. It contains -->
  <!-- one or more mosDevice elements. The mosDevice element contains configuration -->
  <!-- settings that are specific to a particular MOS. In our AMG Setup, we are giving my AMG
  playout server the MOS name MSNAMG2.-->
    <!-- The acmp corresponds to the iNEWS setup-->
    <!-- the network denoted here is listed in the hosts file on the Avid MOS GW machine and points
    to the IP of the AMG Journalist Server to allow a connection to AMG News GW-->
    <listDevices>
      <mosDevice>
        <names>
          <mos>MSNAMG2</mos>
          <amcp>MSNAMG2</amcp>
          <network>msn-amg-2</network>
        </names>
      </mosDevice>
    </listDevices>

```

Configuring ENPS to Host AMG Journalist Client

If you are using AMG Journalist with ENPS, then you must configure ENPS to host the AMG Journalist client.



This can be done from any ENPS client machine.

Once configured, the AMG Journalist client will need to be installed (from the X: drive) on all ENPS client machines that need access to it.

To configure ENPS to host AMG Journalist client:

1. Open the ENPS client.
2. Select the green 'rover' on the 4th folder in the client, point to System Maintenance, and then MOS Configuration.
3. If you already have a MOS ID configured for the Command system, add the following information to the respective fields:
 - a. In the Description field, if a description is already entered, it should be changed to **AMG Journalist**, so users can easily identify it.
 - b. In the IP field, type the IP address of the Command server, if not already done.
 - c. In the ActiveX field, type **RCGPLUGIN.RCGpluginCtrl.1**, which identifies the AMG Journalist client plugin.

- d. In the Program field, select the group that was created specifically for Command.
- e. In the MOS Version field, 2.8 is the recommended version.



Make sure that the AMGConf.ini is also set to use MOS 2.8.

- f. In the Local DragDrop field, make sure it is set to **Off**.
- g. In the Story Send field, make sure this option is selected.



Using the same MOS ID as the Command system allows the journalist to open graphics that have already been created.



If you are using more than one ActiveX plugin (such as AMG Journalist and Deko Select), only one ActiveX plugin can be configured to use the same MOS ID as Command. The second ActiveX plugin will need to be set up with a separate MOS ID.

Confirming Avid Motion Graphics Journalist Functionality

After installing and configuring the Journalist and News Control components, confirm the functionality.

To confirm Journalist functionality:

1. Open the AMG Journalist client.
2. Double-click an item to open it in the template editor.
3. Add replacement data, and click **Save**.
The new item should appear in the Graphic Database area list with a unique ID for the item.
4. Open the new item and edit the first replaceable field.
5. Click Save and confirm that the data has updated.
6. Open the created item, and click the **Preview** button.
7. Confirm that the correct replacement data appears.
8. Open the created item, and click the **Movie** button.
9. Confirm that the item appears with motions and correct replacement data.
10. Create several more items and drag them into a rundown.
11. Create a hand-entered item. Confirm that it appears in News Control.
12. Designate one of the items as a library graphic and drag into a playlist.
13. MON Load the show, and confirm that all graphics appear in the Avid Motion Graphics News Control Workstation.

7 Installing and Configuring Avid Motion Graphics News Control

The following provides instructions for installing and configuring Avid Motion Graphics Journalist software and related applications.

The following topic is included:

- [Installing Avid Motion Graphics News Control](#)

After setting up and configuring settings of the operating system for your Avid Motion Graphics system you can install the Avid Motion Graphics News Control software and related applications.

For installing Avid Motion Graphics News Control there will be one USB flash drive containing the News software.



The Avid Motion Graphics software is also available on the Avid Download Center (www.avid.com/support/downloadcenter).

To Install This Software See The Following Section

Avid Motion Graphics News Control See, “[Installing Avid Motion Graphics News Control](#)” on page 139.

Installing Avid Motion Graphics News Control

When you do not have iNEWS Command but use scripts and rundowns in a MOS environment you can use Avid Motion Graphics News Control. The following steps describe how to install and configure the Avid Motion Graphics News Control for use in a MOS workflow environment. They assume that the Avid Motion Graphics Servers have already been installed and licensed. You must have licenses for AMG News components. (NRCS, AMG News Preview Renderer (2), AMG Clips (2), AMG News Control (if applicable). First, you must install and configure the Avid Motion Graphics Journalist Server.



If you are not using iNEWS Command, you will need AMG MOS Gateway and Avid MOS Gateway.

To Install the Avid Motion Graphics Journalist Server:

1. Navigate to and double-click `AMG_Journalist_Server_setup.exe`.
2. Click the option to install Microsoft Visual C++ Redistributable.
3. Install Avid Motion Graphics Journalist Server.

This will share the AMGNews folder and configure the X: drive.

4. Install Avid License Control.
5. Install PostgreSQL 8.4.4.
6. Install AMG ODBC.

Configuring the Journalist Server for use with Avid Motion Graphics News Control

After installing, the Avid Motion Graphics Journalist Server components on your Journalist Server, they must be configured.



Installers for other related Avid Motion Graphics News components are opened from the Journalist server.

To configure the Avid Motion Graphics Journalist Server:

1. On the Avid Motion Graphics Journalist Server, navigate to:
`C:\AMGNews\bins\conf\AMGConf.ini`
2. In the General section:
 - ▶ Set VIDEO FRAMES to NTSC or PAL.

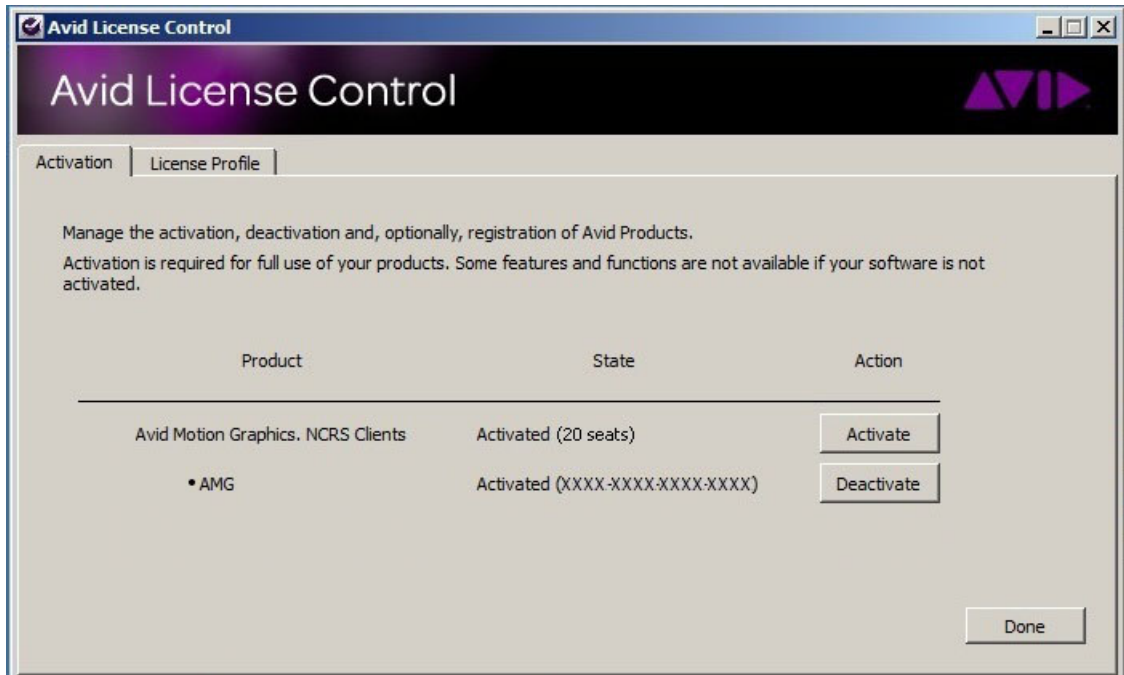
3. In the Preview section:
 - ▶ Set the IP to the specific address for the local machine (do not use 127.0.0.1, or a host name).
4. In the Gateway section:
 - ▶ Set the IP to the specific address for the local machine (do not use 127.0.0.1, or a host name).
5. In the MOS Device section:
 - ▶ Confirm the NAME is set to set to your desired MOS DEVICE ID for the AMG playout system.
6. In the Control section (where NAME = CTRL1):
 - ▶ Set the IP address to the specific address on which AMG News Control will run.
7. In the Control section (where NAME = COMMAND1):
 - ▶ For AMG News Control, comment out this entire section with a ;.
8. In the Render Sections (There are two.):
 - ▶ Set the IP to the specific address for the AMG Playout Servers.
9. In the Manager section:
 - ▶ Set the IP to the specific address for the AMG Journalist server (do not use 127.0.0.1, or a host name).
 - ▶ For iNEWS, confirm that IS NCS is set to NO.
10. In the NCS section:
 - ▶ In the NAME field, enter the iNEWS server name in the NAME.
 - ▶ In the IP field, enter the IP address of the computer running the Avid MOS Gateway.
11. On the AMG Journalist Server, go to C:\AMGNews\bins\conf\Previewunits.ini.
 - ▶ In both IP fields, enter the IP address for where the AMG News Preview Renderer will be running.

Licensing Avid Motion Graphics News Control

Open Avid License Control and confirm that you have an NRCS license and Avid Motion Graphics News Control licenses (if necessary). If you do not have an NRCS license, contact your sales representative to obtain a license.

To License the Avid Motion Graphics Journalist:

1. Open Avid License Control tool.



2. Activate the Avid Motion Graphics NRCS license.



The license is most easily added with an internet connection, so that the computer can connect to the Avid license server and verify the license.

X: Drive Network Share

The AMG News system includes a network share folder known as the X: Drive. This is a centralized location where many of the components for the AMG News system reside. The X: Drive includes installers and configuration files for components. The X: Drive is also the centralized repository for the sites graphic templates and assets. It is vital that consistent network connectivity is available between AMG News components and the X: Drive. By default, the X: Drive is installed on the AMG Journalist Server as part of the AMG News installation.

The following is the X: Drive directory structure overview.

- Bins — Include executable files for AMG News Components, cfg folder containing configuration ini files, plug-in folder containing plug-ins for use within Journalist client, and a log folder for log files.
- Bins\cfg — Contains ini files for configuration.
- Install — Installers for AMG News Components.
- TPL — Graphic templates for AMG News Project
- RSC — Shared assets for use as replaceable fields in AMG Journalist Clients.
- TPL_Example—An example news project with replaceable fields for testing

When this is this is done, there is an AMG News icon on the desktop. Double-click it to start the following AMG server applications:

- AMG News Licenser: gives out AMG Journalist client license seats
- AMG Gateway: manages communication between NRCS, database, and Avid MOS Gateway.
- AMG News Preview Server: manages Preview requests for Journalist Clients.

The install comes with a ‘basic’ project, that can be used for initial testing and confirmation.

Installing Avid Motion Graphics Journalist Client

The following steps describe how to install the Avid Motion Graphics Journalist client for integration with Avid Motion Graphics News Control. They assume that the Avid Motion Graphics servers have already been installed and licensed.

To install the Avid Motion Graphics Journalist client:

1. Navigate to the Avid Motion Graphics Journalist Server (via UNC path - \\servername).
2. Open the install folder.
3. Click AMGDriveMonitor to install. This configures the x: Drive and configures the system tray icon.

4. Click AMGODBC to install. This configures the database connection.
5. Click the AMGNRCS to install. This configures the AMG Journalist Client.

Installing the Preview Renderer

The following describes installing the Avid Motion Graphics Preview Renderer on a dedicated computer.

To install the Avid Motion Graphics Preview Renderer:

1. Navigate to the Avid Motion Graphics Journalist Server (via UNC path - \\servername).
2. Open the install folder.
3. Click Avid Motion Graphics Drive Monitor to install. This configures the x: Drive and configures the system tray icon
4. In the AMG Journalist Applications window, click Avid Motion Graphics News Preview Renderer. This installs the News Preview Renderer Engines (A and B)
5. Open the Avid License Control tool.
 - ▶ confirm that you have News Preview Renderer and Clips licenses. If you do not have those licenses, contact your sales representative to obtain a license.



the license is most easily added with an internet connection, so that the computer can connect to the Avid license server and verify the license.

Creating a Project Shortcut

Create a Start Menu shortcut to open the project in the Preview Renderer.

To create a project shortcut:

1. Navigate to X:\TPL\basic.ldr (or the specific project name).
2. Create a shortcut to that file on the desktop.
3. Double-click the file to open the project in Preview Renderer A.
4. With the project open, double-click the shortcut again, to open the project in Preview Renderer B.

This enables you to click Start, point to the Preview Renderer A, and select the project to open both Preview Renderers.

5. Navigate to the AMG Journalist Server.
 - ▶ Click AMGDriveMonitor to install. This configures the x: Drive and configures the system tray icon
 - ▶ Click AMGODBC to install. This configures the database connection.

6. Open Avid License Control.
7. Confirm that the AMG licenses are in place: AMG, Clips, 3D Stereo (if purchased).

Configuring Avid MOS Gateway, AMG News Control and iNEWS

The last steps are to configure the MOS device channels, and iNEWS rundowns.

To Configure Avid MOS Gateway:

1. In iNEWS SYSTEM.MOS-MAP, add an entry for the new MOS ID. See the following example:

```
:ShowActiveXLaunch = yes
ReplaceTime = yes
ReadOnlyVideoID = no

TABLE-START DeviceTable
:MOSID AMCPDeviceName
;=====
MSNAMG2 MSNAMG2
```

2. In iNEWS SYSTEM.MAP, add an entry for the MOS device and its corresponding MOS Gateway. See the following example:

```
SHOW.NEWS.AMG.RUNDOWN    SHOW.NEWS.AMG    SHOW.NEWS.AMG.COMPOSITE-
-
mossvr    msn-news-mosgw    -    event-mos
mos    MSNAMG2    -
```

3. Configure the Avid MOS Gateway – MOS devices controlled by the Avid MOS Gateway must appear as an entry in the Avid MOS Gateway’s mosconfig.xml file. See the following example:

```

<!-- The listDevices element contains device-specific configurations. It contains -->
  <!-- one or more mosDevice elements. The mosDevice element contains configuration -->
  <!-- settings that are specific to a particular MOS. In our AMG Setup, we are giving my AMG
  <!-- The acmp corresponds to the iNEWS setup-->
  <!-- the network denoted here is listed in the hosts file on the Avid MOS GW machine and points
  to the IP of the AMG Journalist Server to allow a connection to AMG News GW-->
  <listDevices>
    <mosDevice>
      <names>
        <mos>MSNAMG2</mos>
        <amcp>MSNAMG2</amcp>
        <network>msn-amg-2</network>
      </names>

```

Configuring ENPS to Host AMG Journalist Client

If you are using AMG Journalist with ENPS, then you must configure ENPS to host the AMG Journalist client.



This can be done from any ENPS client machine.

Once configured, the AMG Journalist client will need to be installed (from the X: drive) on all ENPS client machines that need access to it.

To configure ENPS to host AMG Journalist client:

1. Open the ENPS client.
2. Select the green 'rover' on the 4th folder in the client, point to System Maintenance, and then MOS Configuration.
3. If you already have a MOS ID configured for the Command system, add the following information to the respective fields:
 - a. In the Description field, if a description is already entered, it should be changed to **AMG Journalist**, so users can easily identify it.
 - b. In the IP field, type the IP address of the Command server, if not already done.
 - c. In the ActiveX field, type **RCGPLUGIN.RCGpluginCtrl.1**, which identifies the AMG Journalist client plugin.
 - d. In the Program field, select the group that was created specifically for Command.
 - e. In the MOS Version field, 2.8 is the recommended version.



Make sure that the AMGConf.ini is also set to use MOS 2.8.

- f. In the Local DragDrop field, make sure it is set to **Off**.
- g. In the Story Send field, make sure this option is selected.



Using the same MOS ID as the Command system allows the journalist to open graphics that have already been created.



If you are using more than one ActiveX plugin (such as AMG Journalist and Deko Select), only one ActiveX plugin can be configured to use the same MOS ID as Command. The second ActiveX plugin will need to be set up with a separate MOS ID.

Confirming Avid Motion Graphics Journalist Functionality

After installing and configuring the Journalist and News Control components, confirm the functionality.

To confirm Journalist functionality:

1. Open the AMG Journalist client.
2. Double-click an item to open it in the template editor.
3. Add replacement data and click Save.
 - The new item should appear in the Graphic Database area list with a unique ID for the item.
4. Open the new item and edit the first replaceable field.
5. Click Save and confirm that the data has updated.
6. Open the created item and click the Preview button.
7. Confirm that the correct replacement data appears.
8. Open the created item and click the Movie button.
9. Confirm that the item appears with motions and correct replacement data.
10. Create several more items and drag them into a rundown.
11. Create a hand-entered item. Confirm that it appears in News Control.
12. Designate one of the items as a library graphic and drag into a playlist.
13. MON Load the show, and confirm that all graphics appear in the Avid Motion Graphics News Control Workstation.

8 Upgrading Your AMG Server Hardware to Dual Channel

This chapter provides procedures for upgrading a single channel Avid Motion Graphics Server to a dual channel Avid Motion Graphics server. This includes adding five additional media drives one additional VGA board, and one additional Video I/O board in your Avid Motion Graphics server.

Do *not* add any hardware if there are any issues with the system. Correct all problems before adding new hardware and making changes to the system. Perform a quick check to verify that the system is in good working order.



Before you begin, back up your media. This process adds media drives to your system. Once they are added, you must Re-RAID your system.

Topics in this chapter include:

- [Avid Motion Graphics Server Board Slots](#)
- [Electrostatic Discharge Precautions](#)
- [Removing and Installing the System Cover](#)
- [\(Optional\) Upgrading AJA and NVidia Driver Configuration Settings](#)



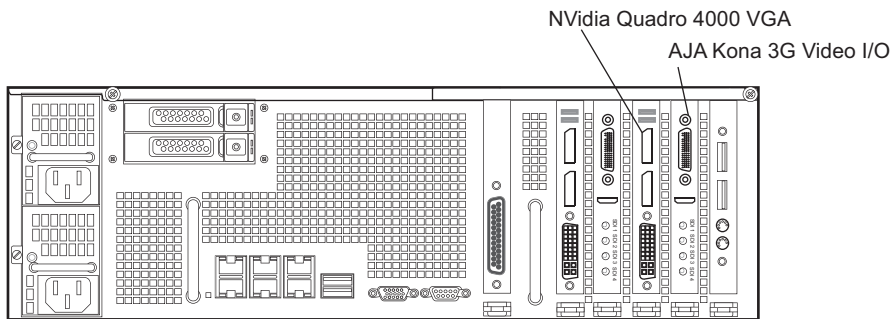
You will need both #1 and #2 Phillips-head screwdrivers to perform the procedures described in this section. You will also need wire cutters to cut the tie-strap to the power bundle.

Avid Motion Graphics Server Board Slots

The following illustration shows the dual channel Avid Motion Graphics server rear panel as it looks with the two additional boards installed in Slots 4 and 5.

- The NVidia® Quadro 4000 VGA board is shipped installed in Slot 4 of the dual channel Avid Motion Graphics servers. When upgrading a single channel Avid Motion Graphics Server to dual channel, you must add this board to Slot 4.
- The AJA Kona 3G Video I/O board is shipped installed in slot 5 of the dual channel Avid Motion Graphics servers. When upgrading a single channel Avid Motion Graphics server to dual channel, you must add this board to Slot 5.

Avid Motion Graphics Server Dual Channel Rear Panel



Electrostatic Discharge Precautions

Electrostatic discharge (ESD) can damage disk drives, electronic components, and other parts. Avid recommends that you perform all procedures in this chapter only at an ESD workstation. If one is not available, provide some ESD protection by wearing an antistatic wrist strap attached to chassis ground (any unpainted metal surface) on your Server when handling parts.

Always handle boards carefully. They can be extremely sensitive to ESD. Hold electronic boards only by their edges. After removing a board from its protective wrapper, place the board component side up on a grounded, static free surface. Use a conductive foam pad if available but not the wrapper. Do not slide the board over any surface.

Upgrade Checklist

The following table provides a checklist of tasks that must be performed when upgrading a single channel Avid Motion Graphics server to a dual channel Avid Motion Graphics server.

-
- Disconnect all cables from your AMG server chassis, and remove the AMG server from the rack.
 - Remove the system cover, as described in [“Removing and Installing the System Cover” on page 150.](#)
 - Install the additional VGA and Video I/O boards, as described in [“Installing the Additional VGA and Video I/O Boards” on page 152.](#)
 - Replace the server cover., as described in [“Removing and Installing the System Cover” on page 150.](#)
 - Re-rack the AMG server, as described in [“Installing the AMG Server in a Rack” on page 34.](#)
 - Install the additional five (5) RAID media drives, as described in [“Inserting Additional Media Drives in Your AMG Server” on page 156.](#)
 - Connect your power and other cables to your AMG server, as described in [“Connecting Power Cords to the AMG Server” on page 58.](#)
 - Power on your Avid Motion Graphics server, as described in [“Turning on Your Avid Motion Graphics Server” on page 157.](#)
 - Re-RAID your media drives, as described in [“Re-RAIDing Media Drives” on page 158.](#)
-

Materials Checklist

The following materials are included in the upgrade kit:

- 1 Nvidia VGA board
- 1 AJA Video I/O Board
- 1 Breakout Panel
- 1 cable needed for Breakout panel
- 1 DVI-VGA Adapter (not needed)
- 1 USB Software Drive
- 1 USB Drive Image (TBD)
- 1 Avid Motion Graphics Activation Card

Removing and Installing the System Cover

To remove the top cover:

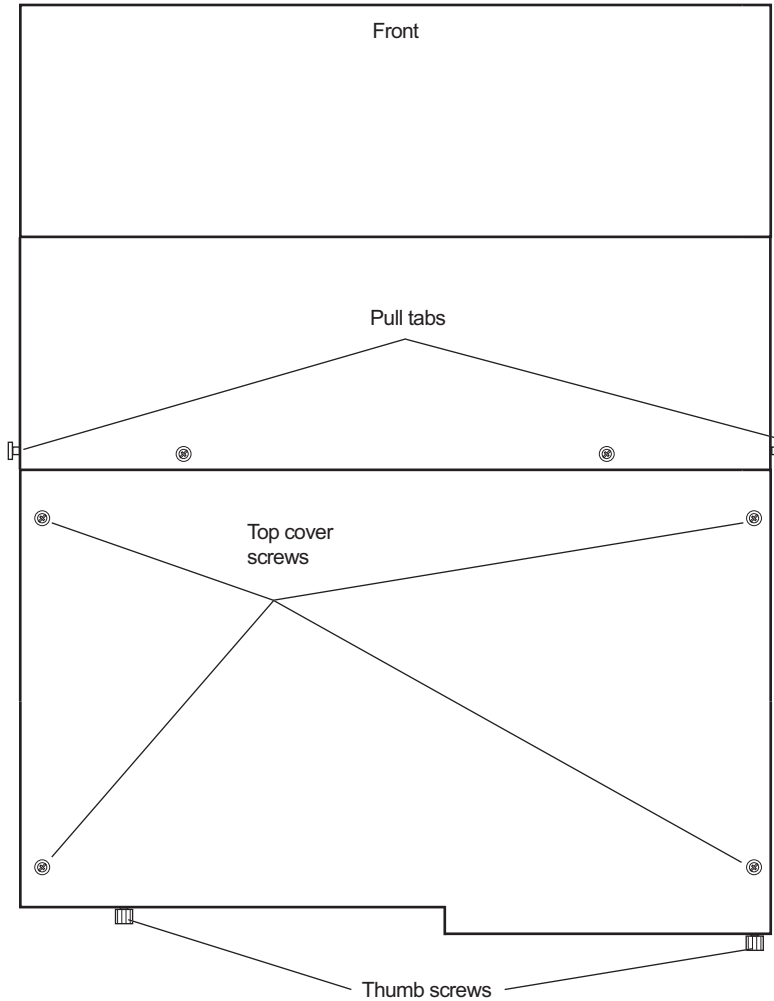
1. Observe the safety precautions described in [“Electrostatic Discharge Precautions” on page 148](#).
2. Make sure the Avid Motion Graphics server is powered off and all peripheral devices and AC power cords are disconnected.
3. Use a #2 Phillips Screwdriver to remove the four top cover screws shown in the following illustration.
4. Completely loosen the captive thumb screws on the back of the server.

5. Pull the two pull tabs on the sides of the cover outward.



Make sure the top of unit first needs to slide to the rear to dis-engage it from the chassis front cover.

Removing the Top System Cover



6. Lift and slide the cover off the system to remove it.

To install the server system cover:

1. Place the cover over the server so that the side edges of the cover sit just outside the server sidewalls.
2. While pulling the tabs outward, slide the cover forward until the tabs click into place and release the pull tabs.
3. Replace the four top cover screws previously removed.
4. Tighten the rear thumbscrews.
5. Reconnect all peripheral devices and the AC power cords.

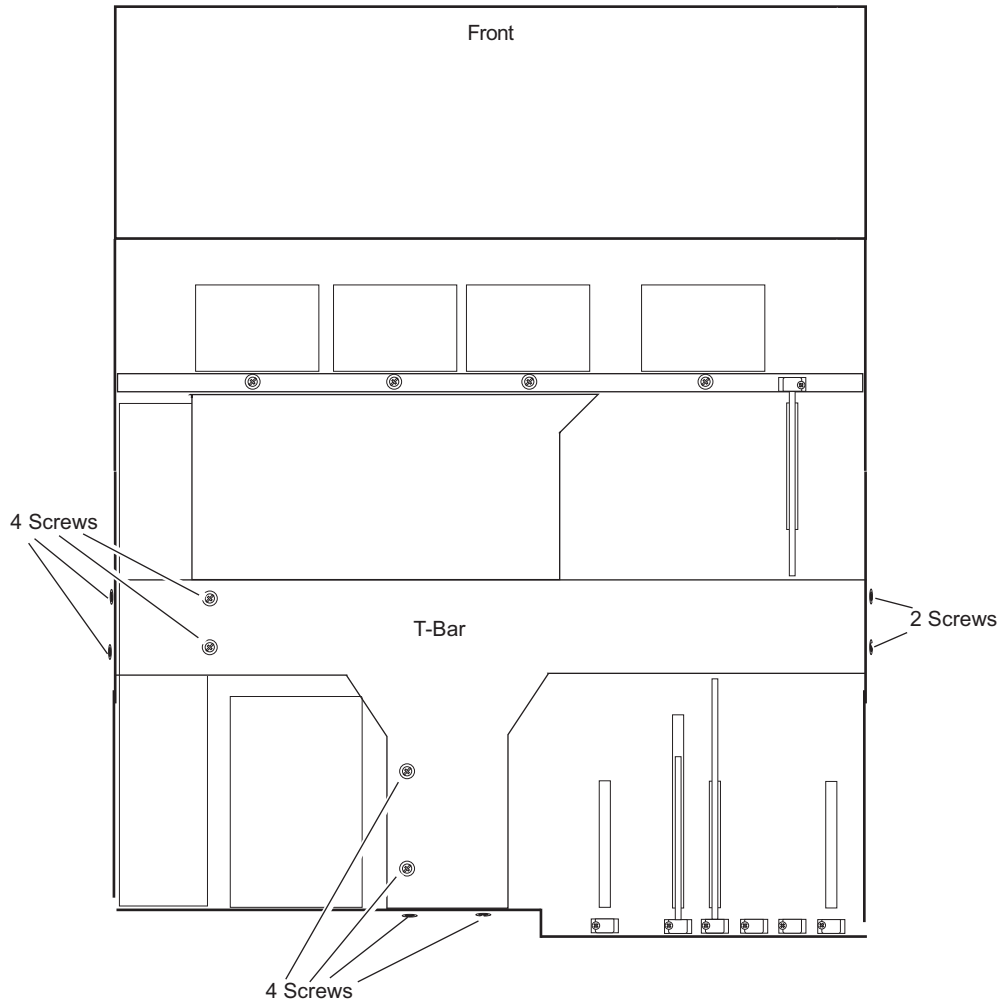
Installing the Additional VGA and Video I/O Boards

To install the additional VGA and Video I/O boards:

1. Observe the safety precautions described in [“Electrostatic Discharge Precautions” on page 148](#).
2. Use a #2 Phillips Screwdriver to remove the cover and then lift cover out as previously described, see [“Removing and Installing the System Cover” on page 150](#).

3. Remove the T-bar by removing the ten (10) screws that are securing it to the chassis. After removing the T-Bar, there is a cover (that directs heat to the rear of the system). Remove that cover also.

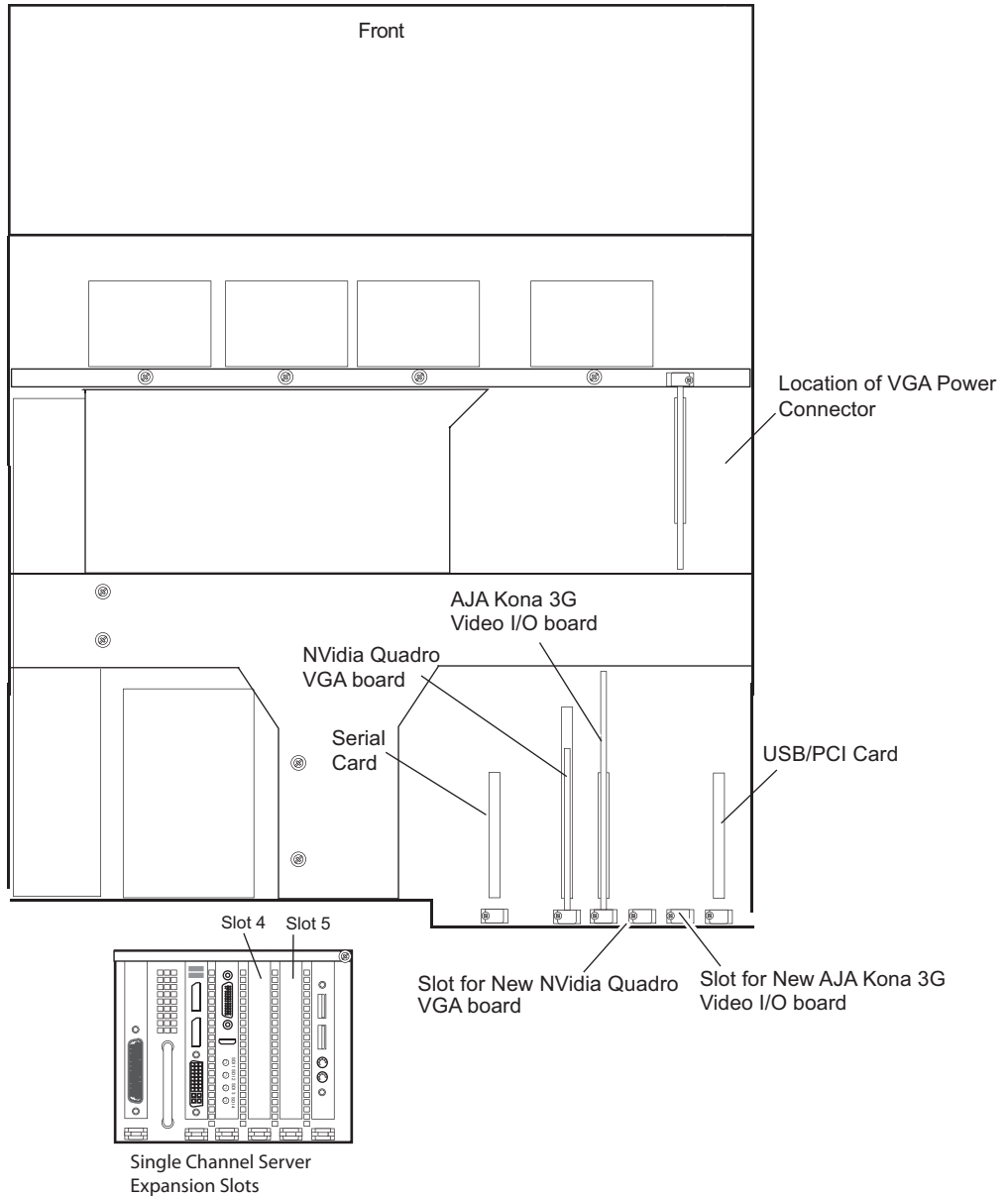
Removing the T-Bar



4. Identify the appropriate slot for the additional VGA and Video I/O boards you are installing.

- Remove the screw securing each of the blank panels associated with the slots where you are installing the additional VGA and Video boards.

Removing the Blank Card Slot cover



6. Insert the Video I/O board in Slot 4 so that it fits into the connector and fills the hole where you previously removed the blank panel (Slot 4).



Be sure that the tab at the bottom panel seats into the slot on the bottom of the server chassis.

7. Insert the VGA board in Slot 5 so that it fits into the connector and fills the hole where you previously removed the blank panel (Slot 4).



When installing the VGA board, be careful not to pinch the cables that connect the PS/2 USB board.



Be sure that the tab at the bottom panel seats into the slot on the bottom of the server chassis.

8. Connect power to the VGA board by doing the following:
 - a. Pull aside the shroud.
 - b. Locate a 6-pin power connector from rear of the fan base.



If two power connectors are attached together, you might need to release one by cutting the plastic fasteners that bundle the power connectors.

Locating the VGA Power Connector



- c. Pull one power connector out and slide it under the midplane and attach it to the connector on the rear of the new VGA board that you just installed.

- d. Replace the heat shroud using the 2 Phillips screws.
9. Re-attach the T-Bar with the ten (10) screws that you removed earlier.
10. Replace the top cover, see [“Removing and Installing the System Cover”](#) on page 150.
11. Re-rack the AMG server, see [“Positioning the Server in the Rack”](#) on page 36.
12. Reconnect all peripheral devices and the AC power cords into the server.

Inserting Additional Media Drives in Your AMG Server

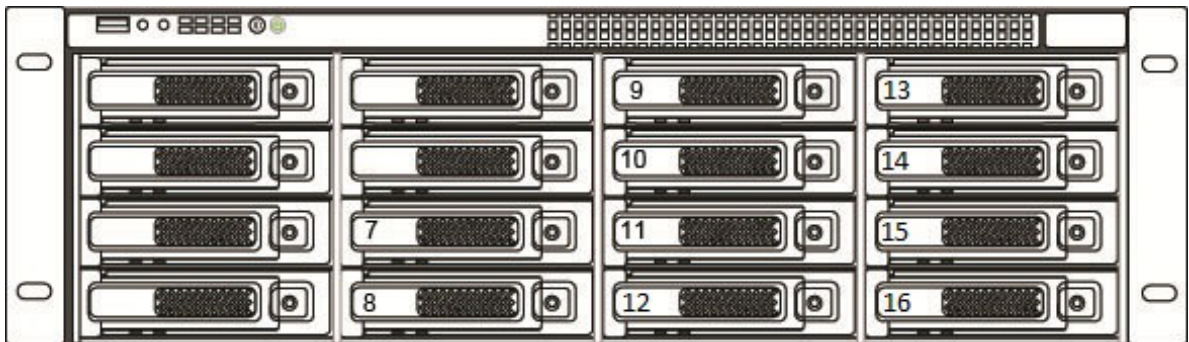
This procedure contains information on how to insert the additional five (5) media drives into your Avid Motion Graphics server so that it will be a dual channel capable Avid Motion Graphics server.

To insert the additional media drives in your AMG server:

1. Obtain the five (5) additional media drives.
2. Remove the drive carriers from Slots 7-11 of the chassis by pushing the button, then pull the handle to unlatch the drive and slide each empty drive carrier out of the Avid Motion Graphics chassis.

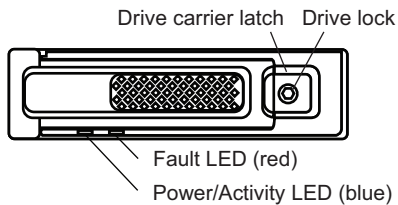


The actual drives are not numbered.



3. For each new media drive, push the drive carrier latch in, to release the handle and pull the handle completely open prior to inserting the drive carrier into the open slot.

4. Make sure the drive LEDs are on the bottom *before* you begin to slide the drive into the server.



Do not force a drive into a slot. If you are having problems installing a drive, check to make sure it is level and flat as you insert it into the server, that the drive carrier latch is open and at a 45 degree angle to the drive carrier, and that the LEDs are on the bottom of the drive carrier.

5. Slide the drive into the open drive slot in the Avid Motion Graphics server chassis until it stops. Approximately 1/2 inch of the drive carrier should be outside the server.
6. Push the handle into the drive carrier. This seats the drive in the Avid Motion Graphics server. You'll hear a click when the drive is fully seated and the handle latches in place.

Turning on Your Avid Motion Graphics Server

When you turn on the power to your Avid Motion Graphics Server hardware, you must do it in the following order so that the Avid Motion Graphics Server locate and acknowledge all of its connected components.



If you encounter an error when starting the Avid Motion Graphics application for the first time, close the error message and change the display resolution frequency to 60Hz. For further information contact Avid support.

You should re-connect the system to the KVM as you had prior to removing the chassis. It is not required to connect a second KVM connection to the Nvidia board installed during this upgrade process. This board is for internal use only and is not required to connect. In fact, if it is connected, you might not see your desktop or post as it boots.

To power on each component:

1. (Option) If you have a KVM switch as part of your system, ensure the power is on.
2. Ensure you have all your network cables connected before you turn on the power or load the Avid Motion Graphics Server software.
3. Push the power button at the top left on the front of the your Avid Motion Graphics Server.

4. Wait for the Windows operating system to load *before* you attempt to use the Avid Motion Graphics Server. This can take several minutes. When the system starts up, login to your system with your current username and password.

If you haven't changed it, the default login username is **AMG**, which is not case sensitive and the password is left blank (no password is assigned).

When installing the software, you should log on as user of **AMG** and no password.



If you log on as Administrator when installing the software, it will not launch.

If you need to restore the operating system on the server using the USB provided, the username is **Administrator** and the password is **avid** (the password is case sensitive and is lower case).

It will recognize the new drives, but you must now re-RAID your media drives. For more information, see “[Re-RAIDing Media Drives](#)” on page 158.

(Optional) Upgrading the AMG Software

If you do not have AMG v2.5 or later software installed, you must upgrade to the latest software.

For more information, see the latest version *Avid Motion Graphics Server ReadMe*, located on the Knowledge Base at www.avid.com/US/support.

(Optional) Upgrading AJA and NVidia Driver Configuration Settings

After you have installed the NVidia Quadro 4000 VGA board, and the AJA Kona 3G Video I/O board into the server and power it on, the Windows Hardware Wizard displays. You might need to update the AJA and NVidia drivers for Avid Motion Graphics v2.0 and earlier.

For instructions on updating the drivers, see the *Avid Motion Graphics Server ReadMe*.

Re-RAIDing Media Drives

This topic contains information on how to re-RAID your media drives in the event that you are converting a single channel Avid Motion Graphics Server to a dual channel Avid Motion Graphics server.



Before you perform this procedure, you must back up your media if you haven't already done so.

This procedure creates a new RAID50 drive group on the Avid Motion Graphics server.

Before you begin this procedure, you must have already removed the physical media drives from the chassis and replaced them with new drives, as described in the topic “[Inserting Additional Media Drives in Your AMG Server](#)” on page 156.

To re-RAID Media Drives:

1. On the Avid Motion Graphics server, right click on **Computer**, and select **Manage**.

The Computer Management dialog box opens.

2. In the Storage folder, select **Disk Management**.

The Disk Management window opens.

3. Right-click on the **(D:)** partition in Disk 1, and select **Delete Volume** from the menu. Then, right-click on the **(E:)** partition in Disk 1, and select **Delete Volume** from the menu.

The Disk Management dialog box should appear as in the following example.



*If Disk 2 also appears, right-click on the **(F:)** partition in Disk 2, and select **Delete Volume** from the menu.*

Volume	Layout	Type	File System	Status	Capacity	Fr
	Simple	Basic		Healthy (Active, Recovery Partition)	10.00 GB	10
	Simple	Basic	NTFS	Healthy (Primary Partition)	3223.87 GB	30
	Simple	Basic	NTFS	Healthy (Primary Partition)	500.00 GB	49
	Simple	Basic	NTFS	Healthy (Boot, Page File, Crash Dump, Primary Partition)	222.88 GB	16

Disk 0 Basic 232.88 GB Online	 10.00 GB Healthy (Active, Recovery Partiti	OS (C:) 222.88 GB NTFS Healthy (Boot, Page File, Crash Dump, Primar
Disk 1 Basic 3723.88 GB Online	Graphics (D:) 500.00 GB NTFS Healthy (Primary Partition)	Clips (E:) 3223.87 GB NTFS Healthy (Primary Partition)

4. Once you have verified that you have deleted the existing volumes, you can close the Disk Management window, and go to the next step.
5. Start the MegaRAID Storage Manager by selecting **Start > All Programs > MegaRAID Storage Manager > StartupUI**, or select the MegaRAID Storage Manager desktop icon.



If your Avid Motion Graphics server OS image is later than version 4, it will not have the LSI MegaRAID Storage Manager software pre-installed. Earlier Avid Motion Graphics software versions had this software pre-installed on the server. To get the latest LSI MegaRAID Storage Manager software, it is available to download under LSI's terms and conditions at <http://www.lsi.com>.

From the website, you can locate and download the latest Windows-based LSI MegaRAID Storage Manager software that supports the MegaRAID SAS 9260 4i product.

The MegaRAID Storage Manager - Host View dialog box opens.

6. Select the IP address URL link of the Avid Motion Graphics server in the IP Address field.

The Enter User Name & Password dialog box opens.

7. Type the local machine login credentials.
 - a. In the User Name field, type **administrator**.
 - b. In the Password field, type **avid**.

Make sure the Login Mode is set to **Full Access**.

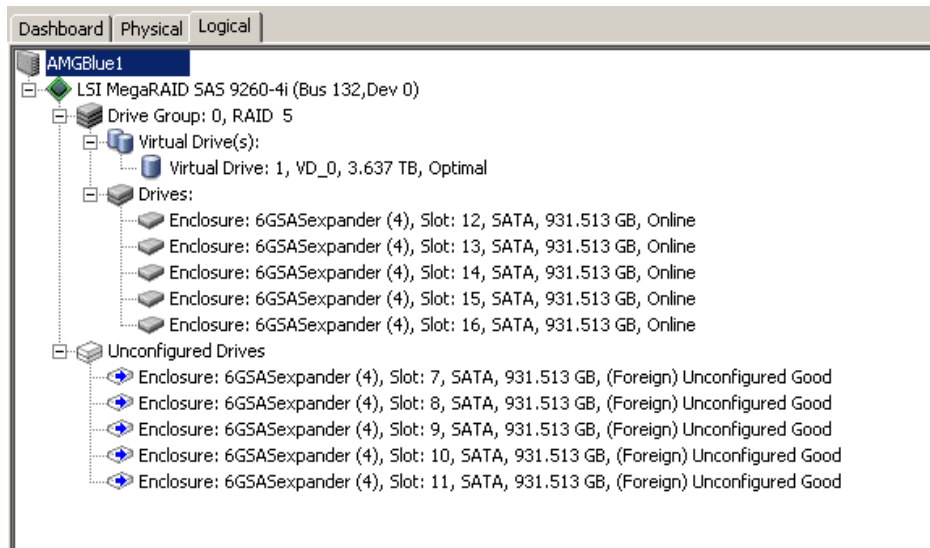
- c. Click **OK (Login)**.

The LSI MegaRAID Storage Manager application opens.

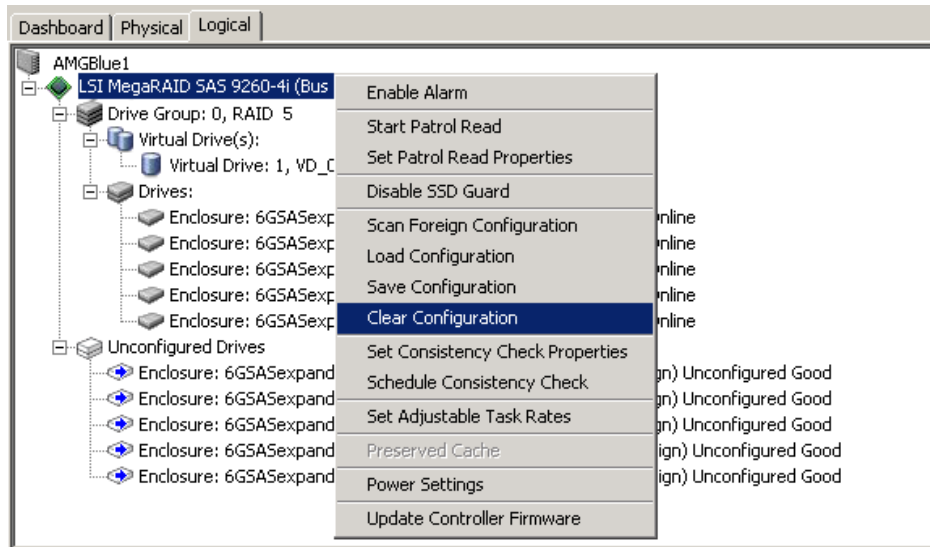
- Click the **Logical** tab to confirm that the new drives you inserted appear in the Unconfigured Drives tree.

In the following example, note the following:

- The previously installed drives (Slots 12 -16) appear in the Drives tree.
- The drives you just installed in Slots 7-11 appear In the Unconfigured Drives tree, as “Unconfigured Good”. This indicates that they are new un-configured media drives.



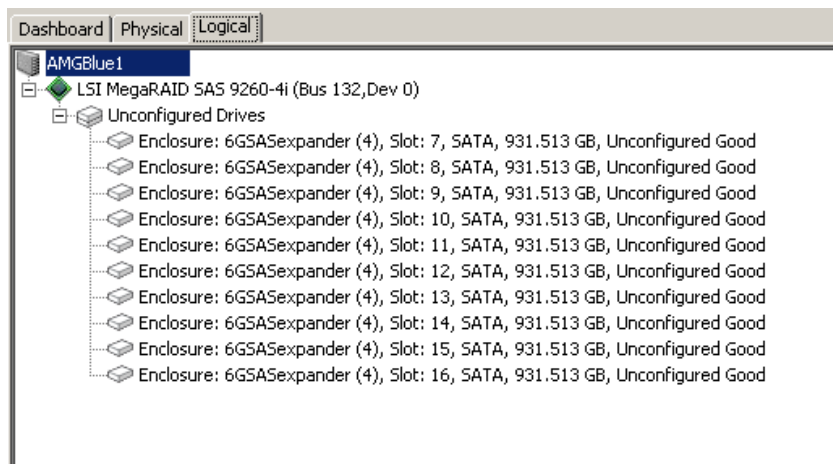
9. Clear the existing configuration by doing the following:
 - a. Right-click on the **LSI MegaRAID SAS**.
 - b. Select the **Clear Configuration** option from the list



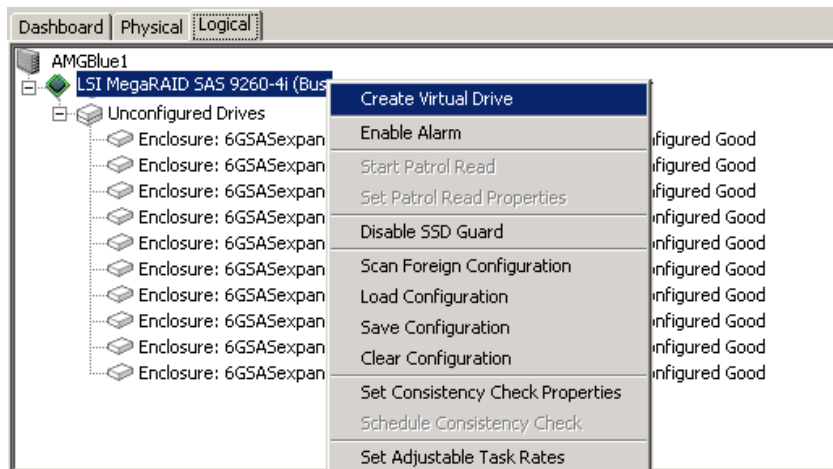
The Confirm Clear Configuration dialog box opens.

10. Select the **Confirm** check box, and click **Yes** to clear the existing configuration.

After the existing configuration is cleared, all of the drives that were in the Span: 0, and Span:1 trees should now appear in the Unconfigured Drives tree as “Unconfigured Good”.



11. Right-click the **LSI MegaRAID SAS** again, and select **Create Virtual Drive**.



The Create Virtual Drive - Choose mode dialog box opens.

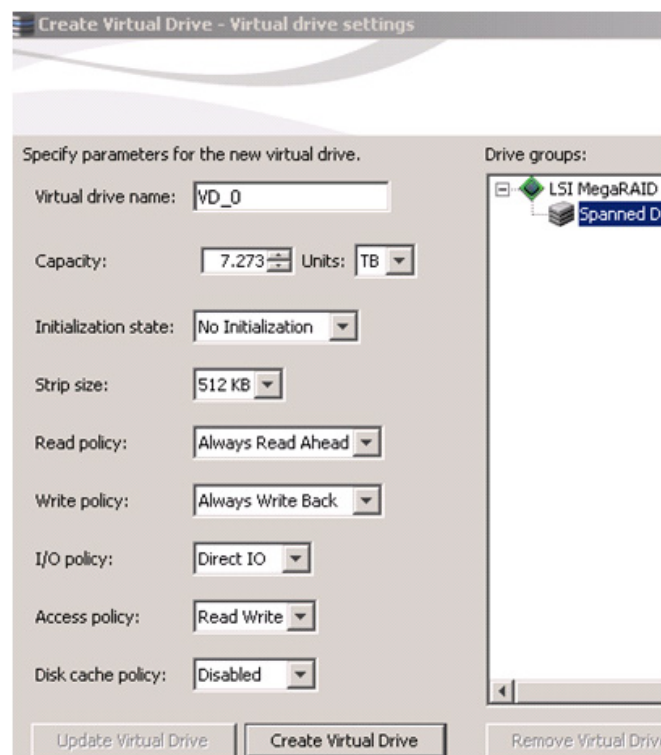
12. Select the **Advanced** radio button, and click **Next**.

The Create Drive Group - Drive Group Settings dialog box opens.

13. Select the Drive group settings by doing the following:
- In the RAID level field, select **RAID 50 - Spanned Drive Group**.
 - Select five drives by pressing **Ctrl** and clicking on the five drives.
The Add > button becomes enabled.
 - Click the **Add >** button to add the five drives to Span: 0 in the Drive Group0 tree.
 - Create a new Span by clicking the **Create Span** button.
It will generate Span: 1 at the bottom of the Drive groups field.
 - Select the remaining five drives by pressing **Ctrl** and clicking on the remaining five drives.
 - Click the **Add >** button to add them to Span: 1.
 - Click the **Create Drive Group** button.
 - Click the **Next** button.

The Create Virtual Drive - Virtual drive settings dialog box opens.

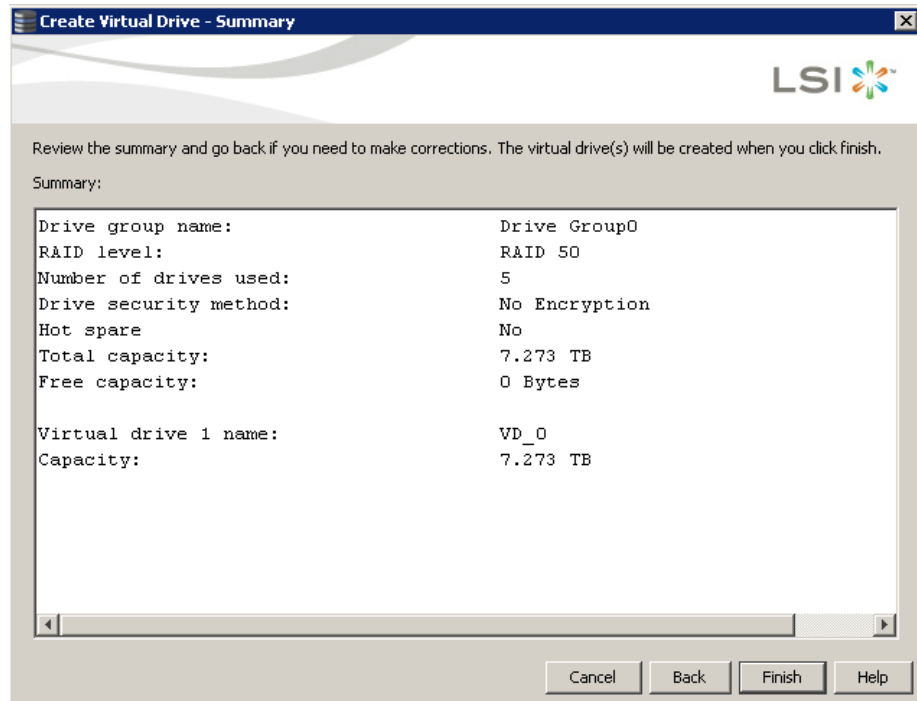
14. In the Virtual drive settings dialog box, do the following:
 - a. In the Virtual drive name field, make sure it says **VD_0**.
 - b. In the Capacity field, leave the default of **7.273**.
 - c. In the Initialization state field, select **No Initialization**.
 - d. In the Units field, leave the default of **TB**.
 - e. In the Strip(e) size field, select **512 KB**.
 - f. In the “Read Policy, select **Always Read Ahead**.
 - g. In the “Write policy” field, select **Always Write Back**.
 - h. In the I/O Policy field, select **Direct I/O**.
 - i. In the Access policy field, select **Read Write**.
 - j. In the Disk Cache Policy field, select **Disabled**.



- k. Click the **Create Virtual Drive** button.
The Always Write Back Selected dialog box opens.
- l. Click **Yes** to confirm the changes for the write policy setting.

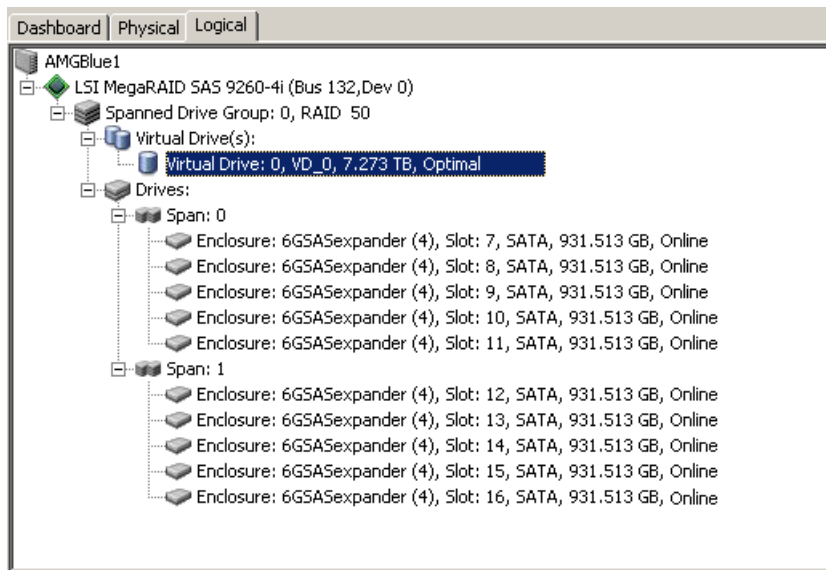
- m. Click the **Next** Button.

The Create Virtual Drive - Summary dialog box opens.



15. Review the summary for the settings you selected to create the virtual drives. Make sure the settings are correct before you create the virtual drive.
16. Once you have confirmed your settings are correct, click the **Finish** button to create the virtual drive.

17. When you are done, the Logical Tab should appear as it does in the following example:

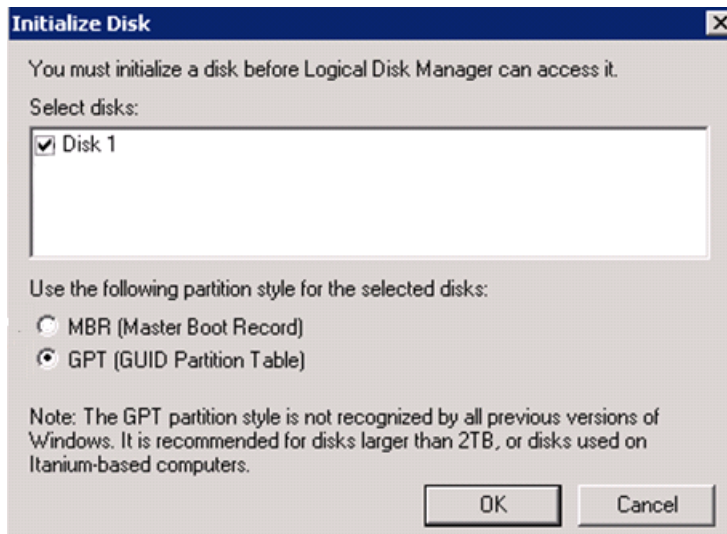


After the configuration, the system might go to “initializing mode”. This takes about 6 or 7 hours to initialize a single disk.



To view your progress, select **Manage > Show Progress**.

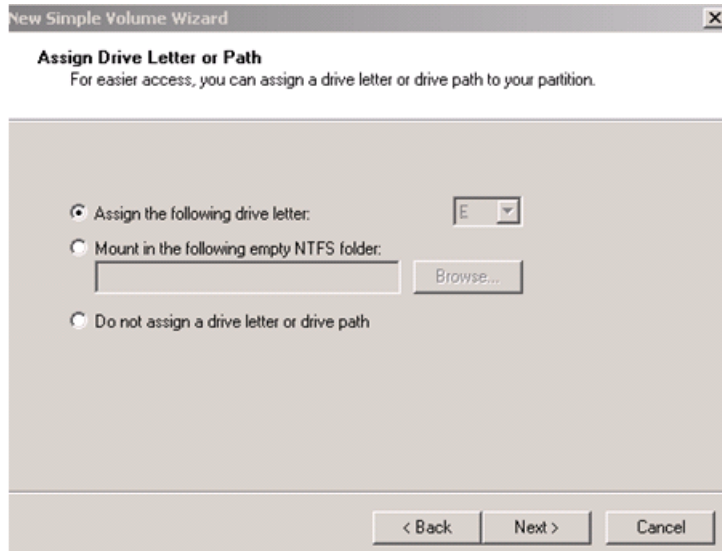
18. In Windows, do the following:
 - a. Right-click on **Computer**, and select **Manage**.
The Computer Management dialog box opens.
 - b. In the Storage tree, select **Disk Management**.
The Initialize Disk dialog box opens.



19. In the Initialize Disk dialog box, do the following:
 - a. Select **Disk 1**
 - b. Select the **GPT (GUID Partition Table)** option.
 - c. Click **OK**.
20. In **Computer Management > Storage > Disk Management**, right click on the new Unallocated Drive space for Disk 2, and select **New Simple Volume**.
21. Click **Next** on the volume wizard screen.
The Specify Volume Size dialog box opens. It should show **512000 MB** for the volume size. This gives you a 500 GB partition.

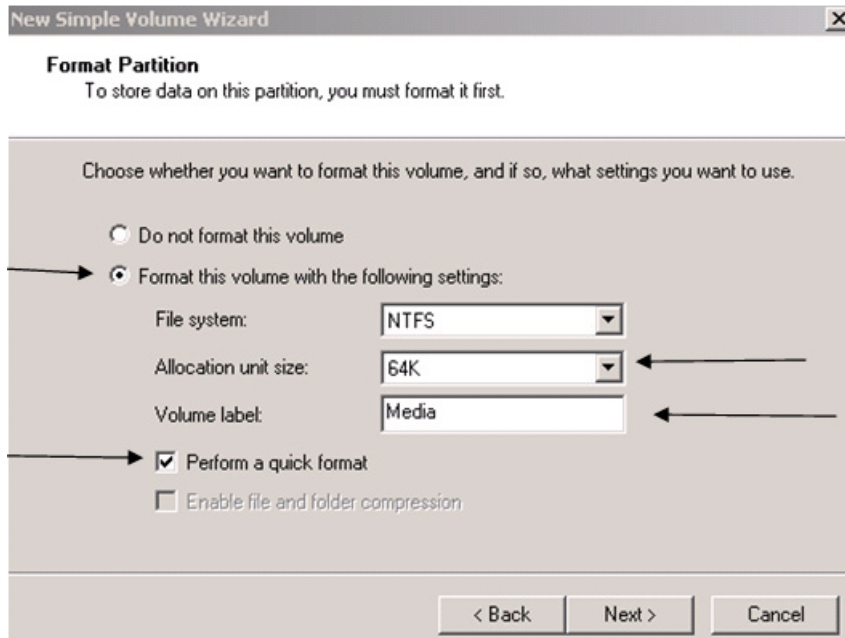
22. Click **Next**.

The Assign Drive Letter or Path dialog box opens.



23. In the “Assign the following drive letter” field, make sure the drive letter is set to “**D**” and click **Next**.

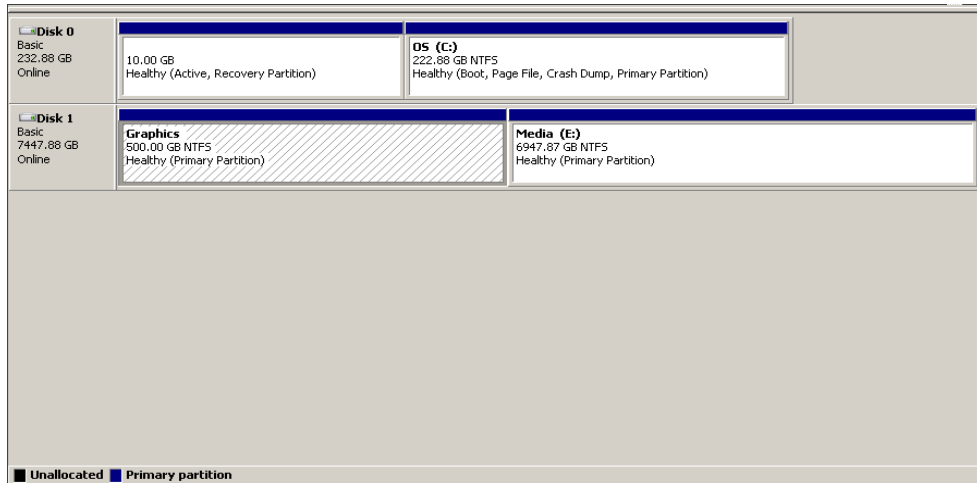
The Format Partition dialog box opens.



24. In the Format Partition dialog box, do the following:
- Select the “Format this volume with the following settings” option.
 - Set the Allocation unit size to **64K**.
 - Change the Volume label to **Media**.
 - Make sure the “**Perform a quick format**” check box is selected.
 - Click **Next**.

25. Click **Finish**.

After the format is complete, the drive should show Healthy (Primary Partition).



26. Close the Disk Manager.

27. Reboot the system.

You are now done creating the new media drives.

9 Adding and Replacing Hardware

This section provides procedures for replacing components in your Avid Motion Graphics server.

Removing and Replacing Data Drives

The Avid Motion Graphics server automatically uses the spare drive in the server to repair the RAID group where the drive has failed or was taken offline.



You do not need to stop the Avid Motion Graphics server to replace a single drive.

As long as you have a spare drive in the server, the RAID controller automatically starts repairing a RAID group using the spare when:

- The RAID controller identifies a drive has failed.
- A data drive has been taken offline (Make Drive Offline) using the LSI MegaRAID Storage Manager.
- A data drive has been physically pulled from the server (without being identified using one of the two previous conditions).

Removing a Drive

When a RAID data drive fails, the Avid Motion Graphics server automatically rebuilds the RAID set when a new drive is installed. You can identify the failed drive by locating the data drive on the front that has both the blue and red LEDs on solid, for a list of data drive LED meanings, see [“Avid Motion Graphics Server Front” on page 19](#). You can remove the failed RAID data drive whenever the red and blue LEDs have indicated that the drive has failed. When the new drive is inserted, the Avid Motion Graphics server automatically starts the rebuild process. The rebuild process does not need to be completed before you can use Avid Motion Graphics server.

To remove a drive from the Avid Motion Graphics server:

1. Locate the data drive on the front of the Avid Motion Graphics server that has the solid blue and red LEDs on solid.



The RAID group uses the other four drives in the RAID to repair the group.

2. Push the button, then pull the handle to unlatch the drive and slide the drive carrier out of the Avid Motion Graphics server.

Replacing a Drive

After removing a data drive as previously described (see “[Removing a Drive](#)” on page 171), install the replacement data drive as described in the following procedure. When the new data drive is inserted, the Avid Motion Graphics server automatically adds the new drive into the RAID group.

To replace a drive in the Avid Motion Graphics server:

1. Make sure the handle on the drive carrier is unlatched and pulled open as far as possible.
2. Slide the drive into the open drive location in the Avid Motion Graphics server until it stops. Approximately 1/2 inch of the drive carrier should be outside the server.
3. Push the handle into the drive carrier. This seats the drive in the server.

The new drive becomes part of the RAID group.

Replacing the Avid Motion Graphics Server

Use the following procedure when replacing an and Avid Motion Graphics server. For purposes of this procedure, the server to be replaced is referred to as “old server” and the replacement server as “new server.”



If your Avid Motion Graphics server OS image is later than version 4, it will not have the LSI MegaRAID Storage Manager software pre-installed. Earlier Avid Motion Graphics software versions had this software pre-installed on the server. To get the latest LSI MegaRAID Storage Manager software, it is available to download under LSI's terms and conditions at <http://www.lsi.com>.

From the website, you can locate and download the latest Windows-based LSI MegaRAID Storage Manager software that supports the MegaRAID SAS 9260 4i product.



Although not required for this procedure, it might be helpful to note the host names, passwords, IP address, and other important network details.

To replace an Avid Motion Graphics server:

1. Power-off the old server by clicking Start > Shut Down.
2. Disconnect the two power cords from the back of the old server.
3. Disconnect the 1-Gb connections from old server.

4. Carefully remove both system drives from the rear of the old server. Put them in a safe place.
These are mirrored drives. The order in which you replace these drives in the new server should not matter. Although it would be good practice to mark the system drives as the upper and lower and replace them back in the same order in the new server.
5. Carefully remove all (5 or 10) data drives from the front of the old server and put them in a safe place.
These data drives are labeled by the system as a RAID group (5 drives in the RAID group). The order in which you replace these drives in the new server should not matter. Although it would be good practice to mark the data drives as to the slot location and replace them back in the same order in the new server.
6. Remove the old server from the rack.
7. Install the new server into the rack (without the system or data drives).
8. Carefully reinsert the both system drives into the rear of the new server.
If you recorded the locations from which the drives were removed on the original server, insert them into the same upper and lower locations.
9. Carefully reinsert all data drives into the original position in which they were in on the old server.
If you recorded the locations from which the drives were removed on the original server, insert them into the same drive slot locations.
10. Insert the two power cords into the power supplies on the back of the server.
11. Reconnect any 1-Gb cables that were disconnected earlier.
12. Move the Application Key (dongle) or software license from the old Avid Motion Graphics server to the new Avid Motion Graphics server.
13. Power-on the new server.
Give the new server at least 3 minutes to initialize



When the replacement server starts, the LSI MegaRAID BIOS reports the presence of foreign drive arrays and asks you to press “F” to import Foreign Configuration, press “C” to enter the setup utility, or press any key to continue. Do not import the foreign configuration, press the space bar to continue and proceed to step 14.

14. You need to import the RAID configuration using the LSI MegaRAID Storage Manager tool.



If your Avid Motion Graphics server OS image is later than version 4, it will not have the LSI MegaRAID Storage Manager software pre-installed. Earlier Avid Motion Graphics software versions had this software pre-installed on the server. To get the latest LSI MegaRAID Storage Manager software, it is available to download under LSI's terms and conditions at <http://www.lsi.com>.

From the website, you can locate and download the latest Windows-based LSI MegaRAID Storage Manager software that supports the MegaRAID SAS 9260 4i product.

The following procedure summarizes the LSI MegaRAID procedure for importing a Foreign Configuration. For more information, see the LSI MegaRAID Storage Manager tool Help.

- a. Start the LSI MegaRAID Storage Manager tool and log in using the Administrator name and password.
- b. Click the Logical tab.
- c. Select the LSI MegaRAID controller in the left pane.
- d. Select Go To > Controller > Scan Foreign Configuration.

A pop-up window appears reporting the detection of foreign configurations.

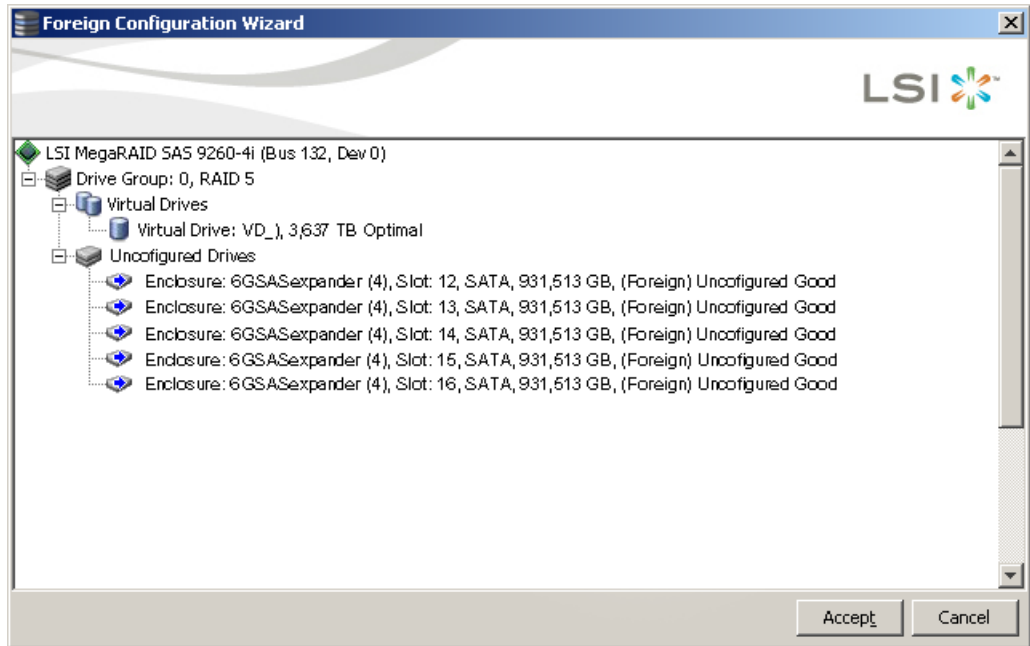


Do not select the Clear option. Clearing the configuration deletes the RAID configuration off the disks. Doing so renders the RAID set un-usable. All of the data in the Storage Group (in which this server is a part of) becomes unrecoverable.



- e. Select the “Import logical configuration from all foreign drives” option and click OK. The Foreign Configuration Wizard window appears listing the foreign configurations.

This example depicts the configuration for a single channel (5 drive) model AMG server.



- f. Click Accept.
- g. A dialog box appears asking you to confirm the import, click Yes.
- h. You are informed when the import completes, click OK.



A background initialization is started and can take several hours to complete. You can use the server, but performance is best once the initialization is finished.

Replacing System Drives in the Server

There are two system drives installed in the Avid Motion Graphics server. The two drives are mirrored and accessible from the rear of the server. If you have a failure on either one of the two system drives you can pull the failed drive out of the server and install a replacement without turning off the Avid Motion Graphics server. The Avid Motion Graphics server continues to run properly if one of the two system drives are removed.



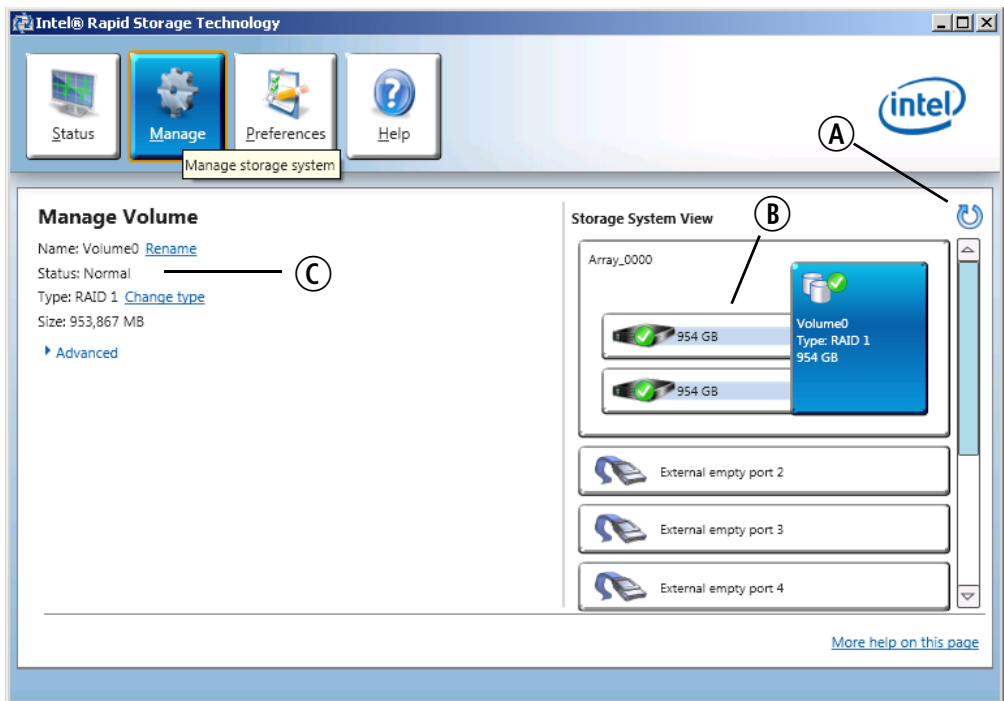
The drive carriers for the system drives are locked to avoid them from opening during shipment. The plastic drive carrier key is mounted on the rear of the server beside the system drives.

Replacing System Drives in the Server

If replacing the system drives as part of a complete server replacement, see “[Replacing the Avid Motion Graphics Server](#)” on page 172. When moving the systems drives from one server to another, the order in which you replace these drives in the new server should not matter. Although it would be good practice to mark the system drives as the upper and lower and replace them back in the same order in the new server.

To replace a single failed system drive:

1. Open the Intel Rapid Storage Technology application:
Start > Programs > Intel > Intel Rapid Storage Technology
2. Click the Manage button in the application.



- A. Run hardware scan button
 - B. Disk icons
 - C. Status line
3. Pull the failed drive out of the server and install a replacement without turning off the server. Once the drive is installed, use the Intel Rapid Storage Technology application to initiate the rebuild operation as described in the following steps.

4. Click the Run hardware scan button (identified as A in the above illustration) to refresh the RAID data to the current state.
5. The volume icon has two smaller disk icons attached to it - one for each disk of the RAID set. Perform one of the following operations:
 - If the disk has previously been part of the RAID set, the disk appears as an icon attached to the Volume 0 icon and the application immediately begins the rebuild. You can monitor the status, in this case the status line displays “Rebuilding x% complete.”
 - If the replacement disk has never been part of this RAID set, the disk icons display a list of available disks. The Status line will display “Degraded,” and the words “rebuild to another disk” is underlined. Click on the underlined text.
6. A window opens that offers a choice of drives to add to the array. Click on the one drive that needs to be added to the RAID set. The rebuild operation begins immediately.

You can use the Status line to monitor the status of the rebuild. The top of the screen says Manage Volume, and the status line says “Rebuilding x% complete.”



You can perform other work while the rebuild completes.

To replace both system drives:

1. If both system drives fail, shut down the system, and unplug the power cords.
2. Remove both system drives.
3. Install new system drives into the two drive carriers and insert them into the two system drive slots
4. Replace the power cords and restart the system.
5. Enter the Intel RAID BIOS by pressing CTRL+I when the text MATRIX RAID BIOS appears on the screen.
6. Choose Create the new RAID set. This will create the system drive mirror.
 - a. Change RAID type from RAID 0 Stripe to RAID 1 Mirror (volume name and capacity can be left at the defaults).
 - b. Select Create RAID, answer yes to the “are you sure” messages.
 - c. The RAID set (Volume 0) should be shown as online with the two physical disks (port0 and 1) listed below as array members.
 - d. Exit the RAID BIOS and allow the system to restart.

7. Turn on your server and reimage your system drives which includes loading the Windows operating system, see [“Reinstalling the Windows Operating System”](#) on page 180.
8. Use the same IP addresses previously assigned.
9. Install the Avid Motion Graphics server software on the new system drives, see [“Software Installation”](#) on page 66.
10. Verify the Avid Motion Graphics server is functioning. If not, call customer support before continuing.

10 Product Recovery

This section describes the procedures to recover your Avid Motion Graphics server drive by reinstalling Windows 7 Ultimate and Avid specific additions and changes.

This procedure restores only the Windows operating system and the hardware drivers. It does not restore the Avid Motion Graphics software. The Avid Motion Graphics software must be reinstalled separately, after the operating system recovery is complete.

The version number of your current image on the Avid Motion Graphics server can be found in the C:\IMAGE.TXT file on the root directory of the system drive. There is also an IMAGE.TXT file on the USB flash drive to inform you of the version you are about to install. To find out the current version of the Avid Motion Graphics server image, see the *Avid Motion Graphics ReadMe*.



When reimaging an Avid Motion Graphic server that is currently licensed, you must first deactivate the Avid licence, see “Deactivating the License” on page 85.

You might need to reinstall the Windows 7 Ultimate operating system on your Avid Motion Graphics server if you are directed to do so by Avid Customer Support or if you are initializing a new system drive. The Product Recovery performs a Windows 7 Ultimate installation to the *entire* system drive and replaces all the data on your system drive partitions.



After reimaging the system, the Windows and Administrator password are set to avid.

Reinstalling the Windows Operating System

Avid provides a recovery image on the 16 GB USB flash drive provided with your Avid Motion Graphics server. The USB flash drive you allows you to re-install the operating system and drivers as it was shipped from Avid.

To reinstall the Windows operating system from the Avid Product Recovery flash drive:

1. Locate the 16 Gb USB flash drive with the Avid Motion Graphics image.
2. Stop all activity on Avid Motion Graphics server and select Start > Shut Down.

The Shut Down Windows dialog box opens.

3. Insert USB flash drive into the front USB port in the system.



You must enter the BIOS with USB flash drive plugged-in to set correct drive boot order.

4. Remove all USB devices except for the USB flash drive plugged into the front of the AMG Server before continuing.
5. Restart the AMG server and press the **Delete** key several times during startup until you see “Entering Setup.”
6. Set the USB drive to boot first.
 - a. Using the arrow keys, navigate to the Boot tab.
 - b. Down arrow and select Hard Disk Drives and press **Enter**.
 - c. Select 1st Drive and press **Enter**.
 - d. Down arrow and select “USB Kingston DataT.”



Depending on the manufacturer of the USB flash drive, this USB selection in the BIOS might change. The initial release includes a Kingston USB flash drive. This might not be the manufacturer of the USB flash drive in future releases.

7. Press **ESC** to escape from the Hard Disk Drive menu. Select Boot Device and set priority to “USB Kingston DataT.”
8. Press **F10** to Exit and Save your changes.
9. Press **Enter** or click OK to confirm the changes.

The system continues to start from the USB flash drive.

Wait until two windows appear, click on the blue window and select one of the available options:

- Recover the OS partition only.
- Recover the entire system disk.

- Exit without doing a recovery.

10. At the prompt, type **2** to “Recover the entire system disk.”

When you type **2**, a warning screen opens, informing you that you are about to recover the Windows operating system.



*If you type **3**, the recovery quits to the Main menu. You need to type **3** again to get to command window. Press **Ctrl+Alt+Delete** to quit in any of these windows.*

11. A yellow screen appears type **Y**.

12. A red screen appears type **Y**.

The reimaging takes about 1 hour and 30 minutes.



Do not remove the USB flash drive while performing the product recovery. If you remove the USB flash drive an error is displayed stating it cannot write the Ghosterr.txt file. If the USB flash drive was removed, you cannot continue the process by re-installing the USB flash drive. You would have to start the recovery process from the beginning.

13. A gray screen prompts you to reboot. Type **S** to eject the media and shut down the system and remove the USB flash drive from the system.

14. (If removed) Reconnect all the network Ethernet cables.

15. Continue with configuring the operating system as described in see “[Network and Operating System Settings](#)” on page 59.

11 Specifications

This information provides on the dimensions, weight, environmental, electrical, and the power cord specifications for the Avid Motion Graphics Server. It also recommends the use of an un-interruptible power supply (UPS) and supported network cabling.



For safety and regulatory information about your Avid Motion Graphics Server, see “Safety and Regulatory Information” on page 185.

The following main topics describe:

- [Dimensions and Weight](#)
- [Environment](#)
- [Electrical](#)
- [Uninterruptible Power Supply \(UPS\)](#)
- [Supported Cabling](#)

Dimensions and Weight

The following describes the dimensions and weight of the Avid Motion Graphics Server.

Component Name	Height	Width	Depth	Maximum Weight
Avid Motion Graphics Server	5.25 in (133 mm)	17.0 in (432 mm)	29 in (737 mm)	112 lbs (50.8 kg) with the maximum numbers of drives installed

Environment

The following describes the optimal operating environmental specifications for the Avid Motion Graphics Server.

Component Name	Operating Temperature	Operating Humidity	Storage Temperature
Avid Motion Graphics Server	32°F to 104°F (0°C to 40°C)	5% to 95% (at 38°C) non-condensing	-4°F to 140°F (-20°C to 60°C)

Electrical

The following describes the electrical specifications for the Avid Motion Graphics Server.

Component Name	Voltage	Frequency	Watts
Avid Motion Graphics Server	100 to 240 Vac, 8 amps, Two hot-swap redundant AC power supplies	50 to 60 Hz	1100 W System Watts; running load software and 100% CPU usage

Uninterruptible Power Supply (UPS)

Avid recommends you purchase an Uninterruptible Power Supply (UPS) to use with your Avid Motion Graphics Server. A UPS protects you against sudden power surges or losses that could cause you to lose files or experience data corruption. The power outlets need to be from the same distribution panel. This helps prevent ground loops that can be caused by plugging equipment into power sources with different ground potentials. Make sure there is adequate, dedicated power for each UPS.



All the electrical work at your site should be done by a licensed electrician. All the electrical changes must meet country, state, and local electrical codes.

The Avid Motion Graphics Server supports UPS devices that are connected using network connections, USB connections, and serial connections. Install the software from the UPS manufacturer for advanced shutdown behavior, calibrate the UPS device. These software packages also allow for a connected Windows-based servers to send alerts to other Windows-based servers to perform actions.

The Motion Graphics Server is connected to a network and the network policy settings might also prevent you from completing this procedure. Make sure there is adequate power and the correct receptacle type for each hardware component, the rack power strips, and the UPS. Do not use extension cords to plug in any of the hardware components.

Supported Cabling

Avid supports the following cable types for connecting an Avid Motion Graphics Server.









Supported Cables	Function	Connector Style and Maximum Cable Length
Cable Connection Type: Ethernet network cable, CAT5e, CAT6, or CAT6a	Ethernet Avid ISIS clients, Avid Interplay servers to shared storage networks Avid AirSpeed capture and playback servers to shared storage networks	RJ45 connector 100 Meters; If using CAT5e the cable it must be rated for 350 MHz for maximum length. The minimum GigE cable length for Avid network products is 6 feet or 2 meters.

A Safety and Regulatory Information

This document contains safety and regulatory information for Avid hardware.

- [Warnings and Cautions](#)
- [FCC Notice](#)
- [Canadian Notice \(Avis Canadien\)](#)
- [European Union Declaration of Conformity](#)
- [Disposal of Waste Equipment by Users in the European Union](#)
- [Argentina Conformity](#)
- [Australia and New Zealand EMC Regulations](#)
- [Japan EMC Regulations](#)
- [Korean EMC Regulations](#)

Warnings and Cautions

-  **This equipment is intended only for installation in a RESTRICTED ACCESS LOCATION.**
-  **Never install equipment if it appears damaged.**
-  **Disconnect the power cord before servicing unit.**
-  **Only perform the services explicitly described in this document. For services or procedures not outlined in this document, speak with authorized Avid service personnel.**
-  **Follow all warnings and cautions in the procedures.**
-  **Operate the device within its marked electrical ratings and product usage instructions.**
-  **If you need to replace a battery in an Avid hardware unit, be sure to use the correct battery type. There might be a risk of explosion if a battery is replaced by an incorrect type. Dispose of used batteries according to the manufacturer's instructions.**
-  **For products with a power switch the main power switch should remain accessible after installation.**

FCC Notice

Part 15 of the Federal Communication Commission Rules and Regulations has established Radio Frequency (RF) emission limits to provide an interference free radio frequency spectrum. Many electronic devices produce RF energy incidental to their intended purpose.

Class A Equipment

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 instructions, 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 personal expense.

Modifications

The FCC requires the user to be notified that any changes or modifications made to Avid hardware that are not expressly approved by Avid Technology may void the user's authority to operate the equipment.

Cables

Connections to Avid hardware must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

Canadian Notice (Avis Canadien)

Class A Equipment

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Union Declaration of Conformity



Declaration of conformity
Konformitätserklärung
Déclaration de conformité
Declaración de Confomidad
Verklaring de overeenstemming
Dichiarazione di conformità

We/Wir/Nous/WIJ/Noi:

Avid Technology
75 Network Drive
Burlington, MA, 01803 USA

European Contact: Nearest Avid Sales and Service Office or
Avid Technology International B.V.
Sandyford Industrial Estate
Unit 38, Carmanhall Road
Dublin 18, Ireland

declare under our sole responsibility that the product,
erklären, in alleniniger Verantwortung, daß dieses Produkt,
déclarons sous notre seule responsabilité que le produit,
declaramos, bajo nuestra sola responsabilidad, que el producto,
verklaren onder onze verantwoordelijkheid, dat het product,
dichiariamo sotto nostra unica responsabilità, che il prodotto,

Product Name(s): Avid Motion Graphics Server

Model Number(s): 7020-30333-xx

Product Option(s): This declaration covers all options for the above product(s).

to which this declaration relates is in conformity with the following standard(s) or other normative documents.

auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder Richtlinie(n) übereinstimmt.

auquel se réfère cette déclaration est conforme à la (aux) norme(s) ou au(x) document(s)

normatif(s).

al que se refiere esta declaración es conforme a la(s) norma(s) u otro(s) documento(s) normativo(s).

waarnaar deze verklaring verwijst, aan de volende norm(en) of richtlijn(en) beantwoordt. a cui si riferisce questa dichiarazione è conforme alla/e seguente/i norma/o documento/i normativo/i.

The requirements of the European Council:

Safety: Directive 2006/95/EEC

UL 60950-1, 2nd edition

CAN/CSA-C22.2 No. 60950-1-07; 2007

IEC 60950-1, 2nd edition

EN 60950-1:2006

EMC: Directive 2004/108/EC

EN55022:2006 /A1:2007

EN55024:1998 /A1:2001 /A2:2003

EN61000-3-2:2006

EN60000-3-3:1995 /A1:2001 /A2:2005

Gerrett Durling, VP of Engineering, Shared Services

Issued In Burlington MA, USA 2011

Disposal of Waste Equipment by Users in the European Union



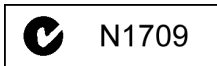
This symbol on the product or its packaging indicates that this product must not be disposed of with other waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city recycling office or the dealer from whom you purchased the product.

Argentina Conformity



Made in USA

Australia and New Zealand EMC Regulations



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Avid Technology (Aust) Pty Ltd
c/o – Elliot House
Suite 810, Level 8
140 Arther St
North Sydney
NSW – 2060

Japan EMC Regulations

Class A Equipment

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take corrective actions. VCCI-A

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 VCCI-A

Korean EMC Regulations

Class A Equipment

Please note that this equipment has obtained EMC registration for commercial use. In the event that it has been mistakenly sold or purchased, please exchange it for equipment certified for home use.

이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.



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Burlington, MA 01803-2756 USA

Technical Support (USA)
Visit the Online Support Center at
www.avid.com/support

Product Information
For company and product information,
visit us on the web at www.avid.com