

# Interplay® | Engine and Interplay | Archive Engine Administration Guide

Version 3.3

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### **Using This Guide**

Congratulations on your purchase of Interplay® | Production, a powerful system for managing media in a shared storage environment. This guide describes how to use Interplay | Administrator, an Interplay client application that provides tools to configure the Interplay | Engine and to manage the database on the server.

This guide is intended for all Interplay administrators who are responsible for installing, configuring and maintaining an Interplay Engine or Interplay Archive Engine (database, server, and all related client connections and user rights) in an Interplay workgroup. This guide includes a detailed description of each of the Interplay Administrator task groups and how you can use them to administer your server and databases. Some of the settings that you are able to change affect the server itself, while others only affect the database stored on the server.

The Interplay Administrator is supported on both the Microsoft® Windows® and the Mac OS® X platforms. When necessary, the guide describes platform-specific differences.



The documentation describes the features and hardware of all models. Therefore, your system might not contain certain features and hardware that are covered in the documentation.



Limited number of client applications per user per machine: A user can run only one Interplay Access session and one Interplay Administrator session on one machine. This software does not support terminal/server sessions.

### **Symbols and Conventions**

Avid documentation uses the following symbols and conventions:

Symbol or Convention	Meaning or Action
	A note provides important related information, reminders, recommendations, and strong suggestions.
$\triangle$	A caution means that a specific action you take could cause harm to your computer or cause you to lose data.
	A warning describes an action that could cause you physical harm. Follow the guidelines in this document or on the unit itself when handling electrical equipment.

Symbol or Convention	Meaning or Action
>	This symbol indicates menu commands (and subcommands) in the order you select them. For example, File > Import means to open the File menu and then select the Import command.
•	This symbol indicates a single-step procedure. Multiple arrows in a list indicate that you perform one of the actions listed.
(Windows), (Windows only), (Macintosh), or (Macintosh only)	This text indicates that the information applies only to the specified operating system, either Windows or Macintosh OS X.
Bold font	Bold font is primarily used in task instructions to identify user interface items and keyboard sequences.
Italic font	Italic font is used to emphasize certain words and to indicate variables.
Courier Bold font	Courier Bold font identifies text that you type.
Ctrl+key or mouse action	Press and hold the first key while you press the last key or perform the mouse action. For example, Command+Option+C or Ctrl+drag.
(pipe character)	The pipe character is used in some Avid product names, such as Interplay   Production. In this document, the pipe is used in product names when they are in headings or at their first use in text.

### 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. 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 these online versions, select ReadMe from the Help menu, or visit the Knowledge Base at www.avid.com/support.
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# Viewing Help and Documentation on the Interplay Production Portal

You can quickly access the Interplay Production Help, links to the PDF versions of the Interplay Production guides, and other useful links by viewing the Interplay Production User Information Center on the Interplay Production Portal. The Interplay Production Portal is a Web site that runs on the Interplay Production Engine.

You can access the Interplay Production User Information Center through a browser from any system in the Interplay Production environment. You can also access it through the Help menu in Interplay | Access and the Interplay | Administrator.

The Interplay Production Help combines information from all Interplay Production guides in one Help system. It includes a combined index and a full-featured search. From the Interplay Production Portal, you can run the Help in a browser or download a compiled (.chm) version for use on other systems, such as a laptop.

### To open the Interplay Production User Information Center through a browser:

1. Type the following line in a Web browser:

```
http://Interplay_Production_Engine_name
```

For *Interplay\_Production\_Engine\_name* substitute the name of the computer running the Interplay Production Engine software. For example, the following line opens the portal Web page on a system named docwg:

```
http://docwg
```

2. Click the "Interplay Production User Information Center" link to access the Interplay Production User Information Center Web page.

### To open the Interplay Production User Information Center from Interplay Access or the Interplay Administrator:

▶ Select Help > Documentation Website on Server.

### **Interplay Documentation**

The following documents describe how to use Interplay Production:

- Interplay | Production Best Practices provides an overview of the major Interplay components, shows sample configuration diagrams, and describes several of the key features, such as setting up a user database and using the Interplay Archive Engine.
- Interplay | Production Software Installation and Configuration Guide describes how to use the Interplay Production installation programs to install and configure software on the various systems that make up a Interplay environment.
- Interplay | Engine Failover Guide describes how to set up a cluster configuration for the Interplay Engine and the Interplay Archive engine. There are two versions of this guide: one for SR2500 systems and one for AS3000 systems.
- Interplay | Engine and Interplay | Archive Engine Administration Guide describes how to administer your Interplay Engine or Interplay Archive Engine and Avid Interplay database.
- Interplay | Access User's Guide describes how to use Interplay Access to browse, search, and work with assets in the Avid Interplay database.
- Interplay | Assist User's Guide describes how to use Interplay Assist for logging, archiving, and sending to Playback material in an Interplay environment.
- Avid Instinct User's Guide describes how to use the Avid Instinct application to write iNEWS stories and put together simple audio and video sequences.
- Interplay | Production Services Setup and User's Guide Interplay Media Services lets you control and automate Transcode, Archive, and other Interplay Media Services.
- Interplay | Transfer Setup and User's Guide describes how to use Interplay Transfer to transfer media to and from another workgroup, send finished sequences to a configured playback device, ingest media from a configured ingest device, and perform standalone transfers between workstations.
- Avid Service Framework User's Guide describes how to use the logging, monitoring, and management features of the Avid Service Framework applications.
- Interplay | Capture User's Guide describes how to use Interplay Capture, a newsroom ingest tool that enables automated recordings.
- Interplay | Capture Administrator's Guide describes administrative concepts, tasks, and reference material for Avid Interplay Capture.

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# 1 Getting Started with the Interplay | Administrator

The Interplay Administrator provides database administrators and maintenance engineers with the tools required to configure the Interplay Engine and to manage the database on the server.

The following topics provide basic information for using the Interplay Administrator:

- Understanding the Interplay Engine and Interplay Workgroups
- Using the Interplay Administrator
- Starting the Interplay Administrator
- Using the Interplay | Administrator Window
- Opening an Interplay | Administrator View
- Opening Interplay | Production Help
- Exiting the Interplay Administrator

For an overview of all Interplay components, see the *Interplay Best Practices Guide*.

# Understanding the Interplay Engine and Interplay Workgroups

The Interplay Engine forms the backbone of the Interplay environment. The Interplay Engine is a server that combines an asset database with workflow management software, both of which are integrated with Avid shared storage and Avid archive solutions. This topic provides basic information about the functions and components of the Interplay Engine.

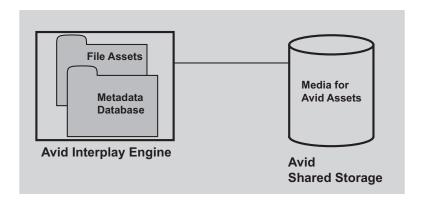
### One Interplay Engine, One Interplay Database, One Shared Storage Network

The Interplay Engine is one component of an Interplay workgroup. At a minimum, an Interplay workgroup is composed of one Interplay Engine, one Interplay database, one Avid ISIS shared-storage network, and associated software and services.

An Interplay database consists of two parts:

- A metadata database, which holds information about the assets, or *metadata*.
- Source files for the assets, for example, graphics files and Avid media files. The source files
  for file assets can be stored on the Interplay Engine or on an Avid shared-storage system.
  The source files for Avid assets are always stored on shared storage.

The following illustration shows the metadata database and the source files for file assets stored on the internal drive of the Interplay Engine server and the source files for Avid assets stored on an Avid shared storage workspace.



For information about all Interplay components and detailed sample configurations, see *Interplay Best Practices*.

### Avid Assets, File Assets, and Splitting the Database

Interplay manages two different kids of assets. *Avid assets* are assets that are created by Avid applications through capture, ingest, import, or transfer. Avid assets include:

- Master clips
- Subclips
- Sequences
- Effects
- Motion effects
- Rendered effects
- Group clips

*File assets* are any assets that are not created by an Avid application. Any file you can create on your workstation, through applications such as Adobe Photoshop or Microsoft Word, can be added to the Interplay database and managed by Interplay as a file asset.

Media files for Avid assets are always stored on an Avid shared-storage system. Source files for file assets can be stored on the Interplay Engine or on an Avid shared-storage workspace. The location that holds file assets is called the *file repository*.



Previous versions of this guide described how to set up a split database. A split database refers to a configuration in which only the metadata database is stored on the Interplay Engine. All other database files and folders are stored on an Avid shared-storage workspace. This configuration is no longer recommended. See "Reuniting a Split Database" on page 233.

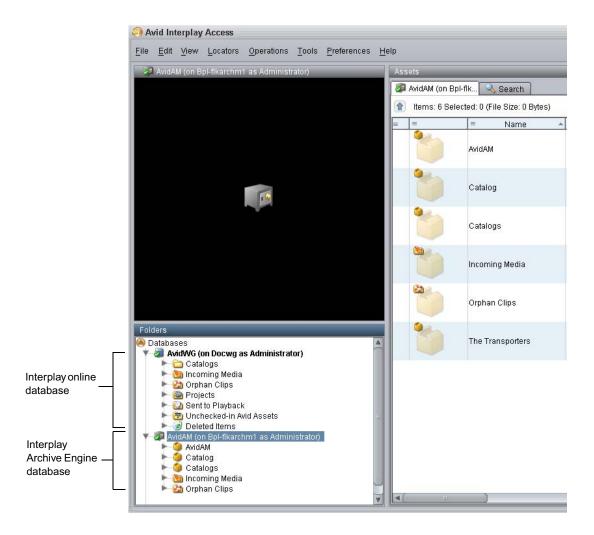
### **Multiple Workgroups**

A large production facility can have more than one Interplay workgroup. Each workgroup must have its own Interplay Engine, database, and shared storage network. Users on Interplay Access can view and access assets from more than one workgroup and can transfer them from one to another using a file copy procedure for file assets and Interplay Transfer for Avid assets. You can also use the Interplay Delivery service to transfer Avid assets.

### **Interplay Archive Engine**

A facility might also include an Interplay Archive Engine. An Interplay Archive Engine is configured similarly to an Interplay Engine. An Archive Engine is integrated with a third-party archive system. An Interplay Archive database is always named AvidAM. An Interplay database is always named AvidWG.

An Interplay Archive database and an Interplay database use different icons, as shown in the following illustration from Interplay Access. The archive database is represented by a safe, and archive folders are represented by boxes.



For more information about the Interplay Archive Engine, see *Interplay Best Practices*.



In this guide, references to the Interplay Engine also refer to the Archive Engine, unless otherwise noted.

### **Central Configuration Server**

If a production facility includes more than one Interplay workgroup, you can specify one Interplay Engine as the *Central Configuration Server* (CCS). The CCS is an Interplay Engine module that stores information that is common to all other Interplay Engines. The CCS provides a means to manage user accounts across multiple workgroups. For more information, see "Understanding the Central Configuration Server" on page 104.

#### Server Execution User

The Server Execution User is a Windows operating system user that runs the Interplay Engine processes. You specify the user name and password for the Server Execution User when you install the Interplay Engine on the server. The Server Execution User needs local administrator rights on the operating system for the Interplay Engine server and read/write access to the Avid shared-storage file system.

For more information, see "Troubleshooting the Server Execution User Account" on page 228.

### Interplay as a Client-Server Application

Interplay is designed as a client-server application. The Interplay Engine is configured to run on a central machine that is accessible to all users through a network. An Interplay application that runs on a client machine is a client of the Interplay Engine server. Interplay client applications, such as Interplay Access, Interplay Assist, Avid Instinct®, and Avid editing applications that use the Interplay Window can access and browse multiple databases. The Interplay Administrator is also a client application.

Interplay uses TCP/IP and related protocols for its network communication. Therefore, TCP/IP must be installed on all machines. Since TCP/IP is used to access the Internet, most users already have this component installed. See "Required TCP/IP Ports" on page 253 for more information.

### Using the Interplay Administrator

The Interplay Administrator is a client application that you use to manage either the Interplay Engine or the Interplay Archive Engine. The Interplay Administrator is installed at the same time that you install Interplay Access. You can install the Interplay Administrator as a client on any computer in your network and then use it to manage any Interplay Engine or Interplay Archive Engine that is available on the network. For information on installing Interplay Access and the Interplay Administrator, see the Interplay Software Installation and Configuration Guide.

The Interplay Administrator provides you with the tools you need for the following major tasks:

- Setting up a new database. See "Creating an Interplay Database" on page 26.
- Backing up the database. Backing up the database regularly protects your data, allowing you
  to restore the database to a saved state in the event of failure. See "Creating and Restoring
  Database Backups" on page 29.
- Maintenance tasks, such as locking, unlocking, and restarting the server. See "Server Settings" on page 86.
- Creating, editing, and deleting user accounts and managing user authorization. See "User Management" on page 104.

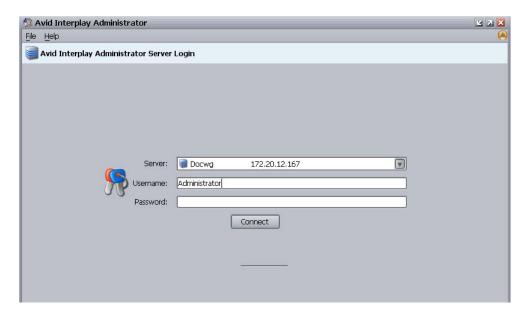
- Configuring client applications and the workgroup. See "Site Settings" on page 144.
- Configuring the Interplay Archive Engine. See "Specifying Archive Settings" on page 172.
   For more information on archiving, see *Interplay Best Practices* and the *Interplay Media Services Setup and User's Guide.*.
- Configuring Application Settings and Interplay Services. See "Application Settings" on page 194 and "Interplay Services" on page 223.

### Starting the Interplay Administrator

### To start the Interplay Administrator:

- 1. Do one of the following:
  - ► Click the Start button and then select All Programs > Avid > Avid Interplay Access Utilities > Avid Interplay Administrator.
  - ▶ From Interplay Access, select Tools > Open Interplay Administrator.

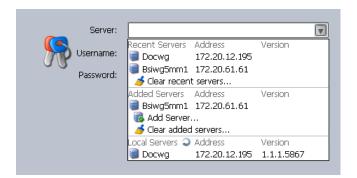
The Interplay Administrator Server Login screen appears.



The first time you open the Interplay Administrator, the Server text box is empty. If you have already logged into a server, the text box shows the last server you logged in to.

- 2. Select the server you want to work with by doing one of the following:
  - Accept the server that is displayed.

- Type the name of the server that you want to log in to. You can also use an IP address.
- ▶ Click the arrow for the Server list and select the server name from the list.



The first part of the list shows recent servers, the second part of the list shows servers that were added manually (not on a local area network), and the third part shows servers available on your local area network.

- ▶ Click the arrow for the server list and select Add Server. Type a new server name.
- 3. Type a user name and password for an account with administration rights.

On the first start after installing the Interplay Engine, only the user Administrator exists. Type "Administrator" in the dialog box. The password is empty by default. Change the password of the Administrator as soon as possible (see "Viewing and Setting Attributes" on page 127).



The Interplay Administrator account is different from the Server Execution User account. The Interplay Administrator account is used to manage users and the database. The Server Execution User account is used to run the Interplay Engine processes.

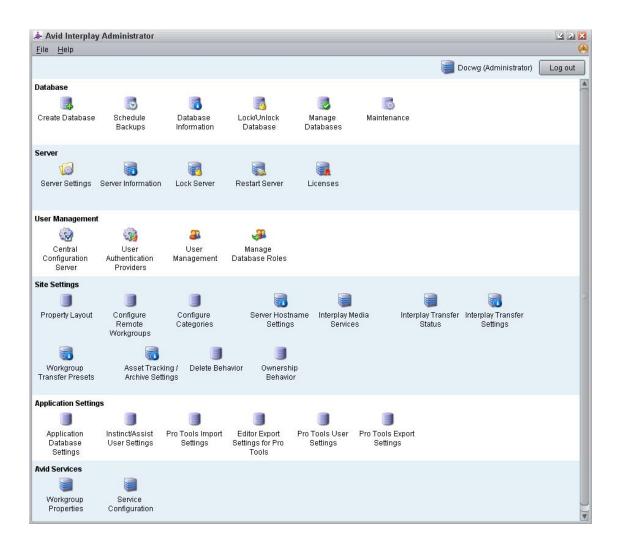
4. Click Connect.

The Interplay Administrator window opens.

If you have any problems logging in, see "Troubleshooting Login Problems" on page 225.

### **Using the Interplay | Administrator Window**

The Interplay Administrator window is divided into six groups: Database, Server, User Management, Site Settings, Application Settings, and Interplay Services. The name of the Interplay Engine server you are connected to is displayed in the upper right of the window.



Each group contains views for managing components of the Interplay Engine. Each group is described in a separate section of this guide:

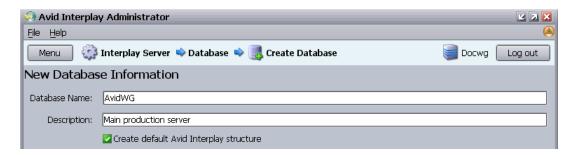
- "Database Settings" on page 26
- "Server Settings" on page 86
- "User Management" on page 104
- "Site Settings" on page 144
- "Application Settings" on page 194
- "Interplay Services" on page 223

### **Opening an Interplay | Administrator View**

### To open an Interplay Administrator view:

In the Interplay Administrator window, click an icon.

The view you select replaces the Interplay Administrator window. Each view includes a path that shows the relative location of that view. The following illustration shows part of the Create Database view. In this example, the path shows that the Create Database view is included in the Database section of the Interplay Administrator window (In the path, the Interplay Administrator window is represented as the Interplay Server).



#### To return to the Interplay Administrator window:

• Click the Menu button in the upper left of the view.

### Opening Interplay | Production Help

The Interplay Production Help system is installed when you install the Interplay Engine. The Interplay Help system provides all user and administrator information that is contained in the Interplay manuals. The Interplay Administrator Help menu provides five entry points: one for the Welcome screen and four that correspond to four Interplay applications:

- Interplay Administration Help
- Interplay Media Services Help
- Interplay Transfer Help
- Interplay Installation Help

You can access the entire Help system, including the Search and Index tabs, from any of those entry points.

### To access Interplay Production Help:

Select Help, and then select the desired application.

Select Documentation Website on Server.

The Interplay Production User Information Center page opens. You can open the Help, PDF versions of the Interplay user guides, and other useful links. See "Viewing Help and Documentation on the Interplay Production Portal" on page 13

### **Exiting the Interplay Administrator**

When you are finished using the Interplay Administrator, you should log out or close the application. Logging out can be convenient if you want to log in to a different database.

### To log out:

▶ Click the Log out button in the upper right of the Interplay Administrator window. The application remains open, with the login screen displayed.

### To close the Interplay Administrator, do one of the following:

- ▶ Select File > Exit.
- ► Click the close button in the upper right of the window. The Interplay Administrator window closes.

# 2 Database Settings

The Database settings allow you to create, configure, and manage the Interplay database. The following topics describe how to use these settings:

- Creating an Interplay Database
- Interplay Databases, Folders, and Files
- Creating and Restoring Database Backups
- Performing a Consistency Check
- Viewing Database Information
- Locking and Unlocking Databases
- Managing Databases: Deactivating, Activating, and Migrating
- Moving a Database to Another Server (Non-Clustered Systems)
- Moving a Database and Users to Another Server (Non-Clustered Systems)
- Moving a Database to Another Server (Clustered Systems)
- Moving a Database and Users to Another Server (Clustered Systems)
- Moving a Database Under Low Disk Space Conditions
- Renaming a Database
- Running Database Maintenance Tools

### **Creating an Interplay Database**

The Create Database view lets you name and create a new Interplay database. You need to create an Interplay database after you install the Interplay Engine and Interplay Access software.



Avid supports only one database for each Interplay Engine. The database must be named AvidWG, or for an Archive Engine database, AvidAM.

The root folder for a new database is set during the installation of the Interplay Engine software. By default, the installation program creates one shared folder for both the metadata database and the source files for file assets (the file repository). The default location is the D:\Workgroup\_Databases folder (or S:\Workgroup\_Databases on a cluster system). This folder is represented by the administrative share name WG\_Database\$. The \$ indicates a hidden share.



To identify the actual folder, open a Command Prompt window and type net share.

#### To create an Interplay database:

1. In the Database section of the Interplay Administrator window, click the Create Database icon.

The Create Database view opens.

- 2. In the New Database Information area, leave the default "AvidWG" in the Database Name text box. For an archive database, leave the default "AvidAM." These are the only two supported database names.
- 3. Type a description for the database in the Description text box, such as "Main Production Server."
- 4. Select "Create default Avid Interplay structure."

After the database is created, a set of default folders within the database are visible in Interplay Access and other Interplay clients. For more information about these folders, see the *Interplay Access User's Guide*.

- 5. Keep the root folder for the New Database Location (Meta Data).
  - The metadata database must reside on the Interplay Engine server.
- 6. Keep the root folder for the New Data Location (Assets).
- 7. Click Create to create directories and files for the database.

The Interplay database is created. For information about the folders and files that compose the database, see "Interplay Databases, Folders, and Files" on page 27.

### Interplay Databases, Folders, and Files

When the Interplay Engine creates a database, it creates a set of directories and files in the locations you specified in the Create Database view (see "Creating an Interplay Database" on page 26).

The Interplay Engine also creates a user database, which is located on the server that you designated as the Central Configuration Server during the installation (see "Understanding the Central Configuration Server" on page 104).

#### **Database File Structure**

The database file structure is based on the administrative share that was set during the Interplay Engine installation. By default, this administrative share is named WG\_Database\$ and is associated with the folder D:\Workgroup\_Databases (S:\Workgroup\_Databases for cluster systems). The "\$" indicates a hidden share. To identify the actual folder, open a Command Prompt window and type net share.

This folder contains either the AvidWG or the AvidAM folder. If the server is functioning as the Central Configuration server, the folder also includes the \_InternalData folder. The following table describes these folders:

Database	Description
_Internal Data	User database: Contains Central Configuration Server information such as users and roles.
AvidWG	Interplay Engine database: Contains metadata for Avid assets and file assets, and source files for file assets.
AvidAM	Interplay Archive Engine database: Contains archived metadata for Avid assets and file assets, and source files for file assets.

#### **Database Folders and Files**

The following table lists the folders that are included in the AvidWG or AvidAM folders. During normal work, users or administrators do not need to work directly with these folders and files. All access for normal work is through Interplay products. You need to work with these files when splitting a database or possibly when troubleshooting a problem.



You should exclude the \_Database and \_PropertyStore folders of each database from any kind of virus checking because virus checking tools might try to lock the database files).

Database Directories and Files		
Directory or File	Directory or File Description	
_Database	The main database directory, which contains database files and the database journal. These files contain the database structure and all metadata. All files within this folder contain binary information and cannot be viewed or edited with a text editor.	
_Master	The main data directory, which contains the source files for file assets that are managed by the database (the file repository). This directory contains source files for all versions of the file assets.	
	Source files for Avid assets are always stored in Avid media folders on shared storage.	
Handover Directories: _Import, _CheckIn, _PropertyHandover, _Handover	Whenever a file is copied from the client to the server, the file is first copied into one of these directories, depending on what operation (check in, import, and so on) was performed. The server then moves the file from these handover directories into the _Master directory.	

Database Directories and Files (Continued)	
Directory or File	Directory or File Description
_PropertyStore	The database directory that contains files holding the contents of streamed properties. <i>Streamed properties</i> include metadata about Avid assets, such as head frames and AAF information.
_Backup	The data folder that contains backup versions of the database that are created through the automated backup process (see "Scheduling Automatic Database Backups" on page 35).
AvidWG.pro, AvidAM.pro	A cookie file representing the database. It contains no vital information, but it is needed to activate a deactivated database (see "Activating a Deactivated Database" on page 65).
Folderlocations.xml	A file that informs the server about the location of the _Database directory.
_Buckets	Not currently used.

### Maximum Number of Characters for Clip Names, Folders, and Files

Avid recommends adhering to a best practice of a 255 character limit for clip names. While it is technically possible for clip names to be longer, folders and files are hard set at this 255 maximum and using it as a guideline may be easier to enforce over time across staff or teams.

### **Maximum Number of Characters in Interplay Path**

The maximum number of characters you can have in a path on the Interplay Engine is 32,767, based on the Windows operating system limit.

### **Creating and Restoring Database Backups**

There are two basic approaches to backing up an Interplay database:

- Using a combination of backups scheduled through the Interplay Administrator (automatic backups) and manual backups of other parts of the database. This approach should be used as part of a regular backup strategy.
- Using a professional backup tool to do a complete backup to offline media. This backup should include both the Interplay backup and the folders that Interplay backup process does not include.

Creating a complete copy of the complete database using Robocopy or 7-Zip is useful before doing a major system upgrade. These tools can be used in place of a professional backup tool. However, keep in mind that performance and stability might suffer.

The following topics provide information about creating and restoring database backups:

- "Types of Interplay Administrator Backups" on page 30
- "Recommendations for Backup Configuration" on page 31
- "Scheduling Automatic Database Backups" on page 35
- "Setting the Number of Database Backups to Keep" on page 34
- "Starting a Backup Manually" on page 39
- "Using an Archiving Tool for Backup" on page 39
- "Restoring an Earlier Version of a Database" on page 41
- "Performing a Partial Restore of an Interplay Production Database" on page 52
- "Creating a Metadata-Only Backup for Customer Support" on page 56

### **Types of Interplay Administrator Backups**

The Interplay Administrator lets you run create two different kinds of metadata backups: a Complete metadata backup and a Fast metadata backup. You can schedule backups to run automatically or you can run a backup manually. The following table describes the different types of backups.

Backup Type	Description
Complete (Full) backup	Creates copies of database files in the _Database folder and streamed properties files in the _PropertyStore folder. Streamed properties include metadata about Avid assets, such as head frames and AAF information. This is the preferred backup.
Fast backups:	
- Incremental	Creates copies of database files and streamed properties files that were added to the database since the last Complete Backup, the last Incremental Backup, or the last Differential Backup.
- Differential	Creates copies of database files and streamed properties files that were added to the database since the last Complete Backup. In most cases, this backup takes longer to perform than an Incremental backup.
- Metadata Only	(Manual backup only) Creates copies of database files in the _Database folder, but not streamed properties files in the _PropertyStore folder. This type of Fast backup is less useful than an Incremental or Differential backup. See "Starting a Backup Manually" on page 39.



The \_PropertyStore folder is critical if you need to completely restore Avid assets. Avid recommends that you schedule a Complete backup once a week and a Fast backup (either Incremental or Differential) daily.

For information on how to restore a database, see "Restoring a Complete Backup or a Fast Backup" on page 43.

### **Recommendations for Backup Configuration**

Automatic backups, as scheduled through the Interplay Administrator, do not back up the entire database, so they are only one component of a complete backup strategy.

The following table lists the different types of backups needed to completely back up the Interplay database. For an Interplay archive, substitute AvidAM for AvidWG.

Type of Backup	Folders or Files Backed Up				
Fast Metadata Only backup	AvidWG\_Database				
Complete (Full) backup Fast Incremental backup Fast Differential backup	AvidWG\_Database AvidWG\_PropertyStore				
Automatic Full Backup	WG_Database\$\_InternalData				
	This folder is automatically backed up once a week at 1 a.m. on Sunday.				
Manual backup	AvidWG\_Master AvidWG\AvidWG.pro AvidWG\FolderLocations.xml				
	See "Interplay Databases, Folders, and Files" on page 27 for descriptions of these folders and files. It is not necessary to back up AvidWG\_Backup unless you want to make a backup of automated backups. Other folders in AvidWG do not need to be backed up because they are temporary folders that are automatically recreated.				

This type of manual backup might involve tape backup or another kind of backup process.



The \_Master folder, which holds source files for file assets, is not included in the automatic backup, which includes only metadata. It must be backed up by another backup method regularly. Also be aware that the automatic backup process does not back up Avid media files on shared storage workspaces.

It is extremely important to use the automatic backup process available through the Interplay Administrator instead of just a tape backup for backing up the \_Database and \_PropertyStore folders. Tape backups can be:

- Inconsistent: A tape backup of the \_Database folder while the server is running can lead to
  inconsistent backup files because the server might not have applied all the transactions to the
  database yet.
- Inconvenient: Because it is not safe to make tape backups of the \_Database folder while the server is running, the server must be completely shut down during tape backup, causing inconvenience.
- Unpredictable and dangerous: The backup might lock the database files. This prevents the server from reading and writing those files. The database could become damaged.

Automatic backup ensures database consistency.

### **Recommended Backup Configuration**

Avid recommends the following backup configuration:

- Enable a daily Interplay database backup. The backup should be set to run once daily at night, when the server is not being used or usage is lowest. See "Scheduling Automatic Database Backups" on page 35.
- Decide whether to schedule the daily backup as a Complete backup or Fast backup. If you have a very large database, you can save time by scheduling a Fast backup daily and a Complete backup every few days. However, keep in mind that a Complete backup is needed to restore Avid assets. Because Complete backups can affect system performance, schedule Complete backups when the server is not being used or when usage is lowest. See "Types of Interplay Administrator Backups" on page 30.
- Check the "number of backups to keep" setting. The Interplay Engine always keeps the last Complete backup and any later Fast backups. If you want to keep more than one Complete backup, change the "number of Backups to keep" setting to be larger than the number of scheduled Fast backups. For more information, see "Setting the Number of Database Backups to Keep" on page 34.
- **Determine where to store the automatic backups.** By default, the \_Backup folder is located in the Workgroup\_Databases folder. Depending on the size of the database, you might need to change the location to store backups. If you select a custom location, you can rename the folder from \_Backup to another name.

Non-cluster systems: The default path is

- D:\Workgroup Databases\AvidWG\ Backup

Storing backups on shared storage is an acceptable configuration, as a custom location.



Prior to Interplay Engine v1.2.4, storing backups on shared storage was not recommended because of the large number of small files included in the backup. However, the backup mechanism included with Interplay Engine v1.2.4 or later significantly reduces the number of files created in the \_PropertyStore folder, which reduces the amount of storage required.

Alternatively, you can store the backups on an external file server. You need to use a UNC path when you specify the location. Make sure the Server Execution User has read/write access to this external file server and the backup folder. See "Troubleshooting the Server Execution User Account" on page 228.

**Cluster systems:** The default path is

- S:\Workgroup\_Databases\AvidWG\\_Backup

On cluster systems, Avid recommends that you specify \\?\d:\backup as the path for Interplay backups. (This syntax, with a question mark, is known as a Long UNC or UNCW path, and allows for more characters than the 260-character limitation of the short UNC path.) This path will create backups on the local drive of the active node, rather than the Infortrend, thus avoiding a single point of failure.



SR2400 systems were shipped with 73 GB drives, which are too small for regular backups. These systems should be upgraded to include larger drives.

Ensure that the backups are working and actually creating backups. To test the backup, check that the backup subfolders databasename\_date\_time are being created at the specified times (according to the backup configuration) and that these subfolders are not empty. Every backup should create its own subfolder.

For example, on a non-cluster system, your backup folders might be created in the following location:

- D:\Workgroup\_Databases\AvidWG\\_Backup
   A backup subfolder might be named AvidWG\_2007-05-22\_03-00.
- Enable a different backup mechanism, such as tape backup, for all folders except the \_Database and \_PropertyStore folders (see the table at the beginning of this topic). The \_Master folder of each database is the most important for the tape backup. Do not include the \_Database and \_PropertyStore folders of each database in the tape backup.
- After a Complete backup, copy the backup folder to offline media to prevent data loss. You can do this as a separate step or as part of a backup of the complete database to offline media (see the next bullet). Use a backup tool (such as Robocopy or 7-Zip) that can handle long path names and does not use excessive bandwidth, to avoid slowing down activity on the Interplay Engine. (See "Using an Archiving Tool for Backup" on page 39).

- Perform a backup of the complete database to offline media. Avid recommends a complete backup to offline media using a professional backup tool. Archive tools such as Robocopy or 7-Zip are useful before doing a major system upgrade. They can be used in place of a professional backup tool. However, performance and stability might suffer.
- If you schedule a regular restart of the engine, set it after the regular backup is created. If you restart the Interplay Engine, you cannot create a backup until at least one client connects to the engine. This could be a problem if you schedule a restart and backup at a time when there is little or not activity, such as the middle of the night.



The \_Database and \_PropertyStore folders of each database should be excluded from any kind of virus checking (virus checking tools might try to lock the database files).

### **Setting the Number of Database Backups to Keep**

The Interplay Engine always keeps the last Complete backup and any later Fast backups. If you want to keep more than one Complete backup, change the "number of Backups to keep" setting to be larger than the number of scheduled Fast backups. The default setting is 10.

The number of backups to keep includes Complete and Fast backups. After the Interplay Engine finishes a Complete backup, it checks the number of backups in the \_Backup folder. If the number of backups to keep is exceeded, the Interplay Engine deletes the extra backups regardless of backup type (Complete or Fast), starting with the oldest. In this way, there is always at least one Complete Backup available.

### **Keeping More Than One Complete Backup**

If you want to keep more than one complete backup, you must carefully calculate the number of backups to keep. For example, if you schedule Complete backups once a week and schedule Fast backups on the other 6 days, the number of backups to keep must be at least 8 (2 Complete backups and 6 Fast backups). If the number of backups to keep is less than 8, on the day of the Complete backup the Interplay Engine will delete the second-to-last Complete backup.

The following illustration shows Complete backups on Sundays and Fast backups on the other days of the week. On Sunday the 8th, after finishing a Complete backup, the Interplay Engine checks the number of backups. Because the number of backups to keep is 8, it keeps the Complete backup performed on Sunday the 1st, the 6 Fast backups, and the last Complete backup.

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7	8
C	F	F	F	F	F	F	С

In the same example, the Interplay Engine does not check the number of backups again until it performs a Complete backup on Sunday the 15th. On that day, it deletes the 7 oldest backups, leaving 8. The following illustration shows the 7 oldest backups deleted.

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
-	F	_		4	-	-	С	F	F	F	F	F	F	С



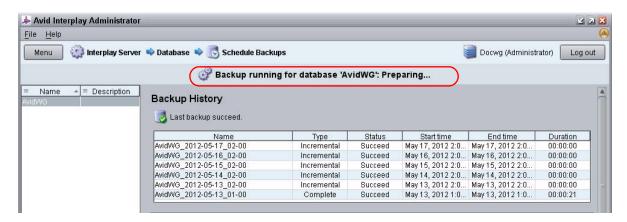
If you check the \_Backup folder before the Interplay Engine finishes a Complete backup, it is possible for the \_Backup folder to contain more than the specified number of backups to keep.

### **Scheduling Automatic Database Backups**

The Backups view in the Interplay Administrator lets you schedule the type and frequency of your automatic backups. You can schedule two kinds of backups: Complete and Fast. You can schedule one of two different Fast backups: Incremental or Differential. For a description of the different types of backups, see "Types of Interplay Administrator Backups" on page 30.

The Interplay Engine performs an automatic backup without locking or shutting down the server, and users can continue to work with the database. During a backup operation, all actions on the engine are cached to ensure a fully consistent backup. As a result, the performance of the Interplay Engine is slower. You should not schedule large-scale deletions during a backup operation.

When a backup is in progress, status messages are displayed at the top of the view.



The Backup History section displays incremental and differential backups up to the last successful complete backup. Administrators can use this as a troubleshooting tool to see if the last backup was successful and if not, which backups have failed. It also can be used to view which incremental and differential backups are required for the most recent full restore. This display does not necessarily match the backups stored in the \_Backup folder.

Automatic backups create copies of metadata files, but do not create copies of the assets. You need to use a different process, such as tape backup, to back up your assets, as described in "Recommendations for Backup Configuration" on page 31.



Only \_Database and \_PropertyStore are backed up through the Interplay Administrator backup process. Other directories, such as \_Master, need to be backed up through a different process.



The \_PropertyStore folder is critical if you need to completely restore Avid assets. Avid recommends that you schedule a Complete backup once a week and a Fast backup (either Incremental or Differential) daily.

By default, backups are stored in the following folder:

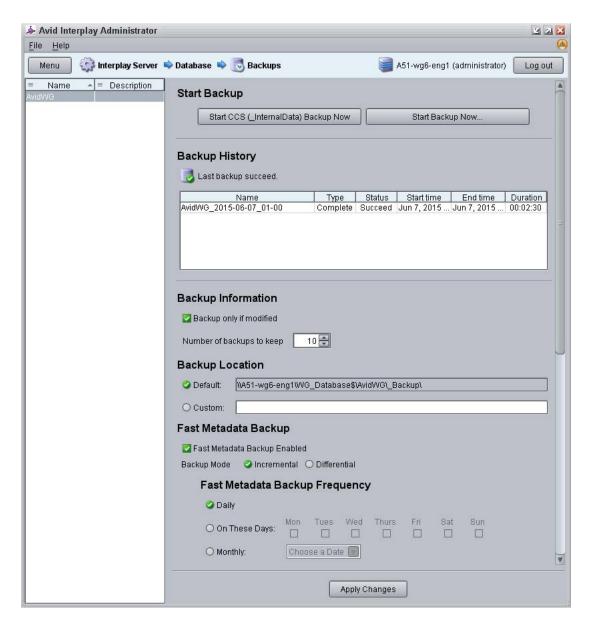
\\InterplayEngine\\workgroup\_Databases\AvidWG\\_Backup

You can specify another location, including shared storage. Make sure the Server Execution User has read/write access this location. For more information, see "Recommendations for Backup Configuration" on page 31.

For information on restoring a database, see "Restoring a Complete Backup or a Fast Backup" on page 43.

### To schedule database backups:

1. In the Database section of the Interplay Administrator window, click the Backups icon. The Backups view opens.



- 2. In the list on the left side of the view, select the database for which you want to view or specify automatic backup settings. The current settings are displayed.
- 3. (Option) In the Backup Information area, change your preferences if necessary.

"Backup only if modified" is selected by default to save space and avoid duplicate identical copies. The default number of versions to keep is 10. The Interplay Engine always keeps the last Complete backup and later Fast backups. For more information, see "Recommendations for Backup Configuration" on page 31.

4. (Option) In the Backup Location preference, select Custom to change the default backup location.

The custom location must be specified as a UNC path. You can also change the name of the folder from \_Backup to another name. See "Recommendations for Backup Configuration" on page 31.

- 5. (Option) In the Fast Metadata Backup area, select "Fast Metadata Backup Enabled" (disabled by default).
- 6. (Option) If Fast Metadata Backup is enabled, you can change the Fast backup frequency. The default is set to Daily. You can select any number of days on which you would like to perform Fast backups or you can set a Fast backup for one day a month.
- 7. (Option) If Fast Metadata Backup is enabled, you can change the Fast backup time by doing one of the following:
  - Select Once at and change the hour and minutes (within 10 minute intervals) on which it occurs using the up and down arrows.
  - Select Every and set the backup to occur at regular intervals starting at midnight. Use the down arrow to select the interval.
  - Select Custom and specify custom backup times. Use the up and down arrows to select the time, and then select Add. Repeat to add more times to perform the backup. Select a time and then Remove to cancel a backup.

The Backup time is the Interplay Engine server's local time.

8. In the Complete Metadata Backup area, make sure the option "Complete Metadata Backup Enabled" is selected (default).

Avid recommends that you schedule a Complete backup once a week.

- 9. (Option) Change the Complete backup frequency. Because Complete backups can take a long time and affect system performance, Avid recommends that you perform Complete backups when the server is not being used or when usage is lowest. The default is set to Sunday. You can select any number of days you would like to perform Complete backups.
- 10. (Option) Change the Backup time by selecting one of the following:
  - Select Once at and change the hour and minutes (within 10 minute intervals) on which it occurs using the up and down arrows.
  - ▶ Select Every and set the backup to occur at regular intervals starting at midnight. Use the down arrow to select the interval.

- ▶ Select Custom and specify custom backup times. Use the up and down arrows to select the time, and then click Add. Repeat to add more times to perform the backup. Select a time and click Remove to cancel a backup.
- 11. Click the Apply Changes button.

## **Starting a Backup Manually**

You can start an Interplay Administrator backup manually, rather than waiting for a scheduled automatic backup or changing the existing backup schedules.

#### To start a backup manually:

- 1. In the Database section of the Interplay Administrator window, click the Backups icon. The Backups view opens.
- 2. In the list on the left side of the view, select the database for which you want to view or specify automatic backup settings. The current settings are displayed.
- 3. At the top of the view, click the "Start Backup Now" button.



You can also manually back up the user database on the Central Configuration Server (CCS) from this view. Click Start CCS (\_InternalData) Backup Now.

- 4. Select the kind of backup you want to create. For a description of the different types of backups, see "Types of Interplay Administrator Backups" on page 30.
- 5. Click OK

The backup is created in the location you specified. If you navigate to the location, and the backup is still being created, the folder name includes the words "backup in progress."

## **Using an Archiving Tool for Backup**

In some circumstances, such as performing a system upgrade, you might want to use an archive tool to create a backup copy of the complete database folder (AvidWG or AvidAM) and the user database folder (\_InternalData). For information on the location and contents of the databases, see "Interplay Databases, Folders, and Files" on page 27.

If you create a backup archive, keep in mind that a complete backup can take several hours, during which the Interplay database is locked and deactivated. Also, you need to use a backup tool that can handle long path names (longer than 256 characters). For example, use Robocopy (contained in rktools.exe, available on Microsoft.com) or 7-Zip (an open source utility) to create the archive. You can save backup time by removing old backups from the \_Backup folder.

#### To make a backup copy of the database on a non-cluster system:

- 1. Open the Interplay Administration tool.
- 2. Use the following steps to lock the database:
  - a. Click Lock/Unlock Databases.
  - b. Select the database in the Unlocked Databases list.
  - c. Click Lock Database.
- 3. Click Menu and click Manage Databases.
- 4. Select the AvidWG database and click Deactivate. Select AvidAM for an Archive Engine.
- 5. Click Menu and click the Restart Server view.
- 6. Click Restart Server and close the Interplay Administration tool.
- 7. Use a backup tool to make a copy of the following folders and record their location. The following table shows the default locations.

#### Interplay Engine or Interplay Archive Engine

Folder Name	Default Location
AvidWG (Interplay Engine database)	D:\Workgroup_Databases\AvidWG
AvidAM (Archive Engine database)	D:\Workgroup_Databases\AvidAM
_InternalData (user database if engine is a Central Configuration Server)	D:\Workgroup_Databases\_InternalData

#### To make a backup copy of the database on a cluster system:

- 1. Open the Interplay Administration tool.
- 2. Use the following steps to lock the database:
  - a. Click Lock/Unlock Databases.
  - b. Select the database in the Unlocked Databases list.
  - c. Click Lock Database.
- 3. Click Menu and click Manage Databases.
- 4. Select the AvidWG database and click Deactivate. Select AvidAM for an Archive Engine.
- 5. Close the Interplay Administration tool.
- 6. Click Start and select Programs > Administrative Tools > Cluster Administrator.
- 7. Open the Groups folder.
- 8. Select the Avid Workgroup Server group.

- 9. Select the Avid Workgroup Engine Monitor resource and take it offline.
- 10. If you performed the previous step correctly, drive S: should still be accessible within the Windows environment. If it is not available, use the Cluster Administration tool to put drive S: online by clicking on the disk resource within the "Avid Workgroup Server Group" and selecting online.
- 11. Use a backup tool to make a copy of the following folders and record their location.

#### Interplay Engine or Interplay Archive Engine

Folder Name	Default Location
AvidWG (Interplay Engine database)	S:\Workgroup_Databases\AvidWG
AvidAM (Archive Engine database)	S:\Workgroup_Databases\AvidAM
_InternalData (user database if engine is a Central Configuration Server)	S:\Workgroup_Databases\_InternalData



On cluster systems, Avid recommends that you specify \\?\d:\backup as the path for Interplay backups. See "Recommendations for Backup Configuration" on page 31.

### Restoring an Earlier Version of a Database

Restoring a backup version of the \_Database and \_PropertyStore folders returns a database to the state it was in when the backup was created. Before restoring a database, make sure that it is really necessary, because changes since the backup will be lost.

To restore a backup, you need to run the InterplayRestore tool in a Command Prompt window. The InterplayRestore tool is installed in the following folder:

C:\Program Files\Avid\Avid Interplay Engine\Server

The tool includes in-line help that describes all options for using the tool.

The following topics provide instructions for restoring an earlier version of a database:

- "Restoring a Complete Backup or a Fast Backup" on page 43
- "Using the InterplayRestore Tool on the Interplay Engine Server" on page 46
- "Database Restore Session Example" on page 48
- "Using the BackupArchive Tool to Restore Files" on page 50
- "Restoring Archived Log Files" on page 52

You cannot restore parts of a backup, for example, a specific sequence or folder. You can restore only a Complete backup or a Fast backup.

#### **How the Restore Tool Works with Streamed Properties Files**

Beginning with Interplay Engine v1.2.4, the Interplay backup mechanism consolidates the streamed properties files (all files in the \_PropertyStore folder) into large "archive" files. These files are written into the \_PropertyStore folder of the corresponding backup folder. The archive files are named streamed\_propx.bar, where x is replaced with an increasing number starting with 1. The files are about 1 GB each, except for the last one (with the highest suffix number), which can be smaller. The exact file size varies depending on the size of the individual streamed property files, because a single streamed property file is never split up between two .bar files. The backup mechanism also writes a file named streamed\_prop.bin in the same folder. This file contains a directory of all streamed property files contained in the backup and is used only by the BackupArchive tool (see "Using the BackupArchive Tool to Restore Files" on page 50). The .bin file is not required by the InterplayRestore tool.

The InterplayRestore tool is able to work with both the consolidated streamed property files as well as a backup created by an earlier version of the Interplay Engine. The tool looks for the streamed\_prop1.bar file in the \_PropertyStore folder of the backup. If this file does not exist, it assumes that the backup was created by an earlier version of the engine and resumes with the restore procedure in the same way as earlier versions of the restore tool. Otherwise, it restores the streamed properties from the consolidated .bar files.

#### **How the Restore Tool Renames Folders**

When the tool begins the restore, it locks the database and then renames the existing folder \_Database to \_Database.1. If you are performing a restore from a Complete backup, the tool also renames \_PropertyStore to \_PropertyStore.1.

If a folder \_Database.1 already exists, the tool creates \_Database.2, and so on up to \_Database.9. The tool uses the first free number between 1 and 9 when it renames the \_Database and \_PropertyStore folders. If no number is free, you need to delete some of the previously renamed folders so that the tool can run.

If the backup restore is not completed (if you kill the process, if the system crashes, if you get an error message, and so on), you can restore the system to its previous state by deleting the \_Database folder (and possibly the \_PropertyStore folder) that the tool created and renaming \_Database.1 to \_Database (and \_PropertyStore.1 to \_PropertyStore).

After you verify that the backup ran successfully and your database is working correctly, you can save storage space by deleting the numbered backup folders (\_Database.x and \_PropertyStore.x) created during the restore process.

#### Restoring a Complete Backup or a Fast Backup

To restore a database, you need to restore a Complete backup, a Fast backup, or both, depending on the type of backups available. (see "Types of Interplay Administrator Backups" on page 30 for a description of each type of backup).

- A Complete backup contains a \_Database folder and a \_PropertyStore folder. A Complete backup is needed if the complete database needs to be restored, for example, if a hard disk crashes.
- A Fast Incremental Backup and a Fast Differential Backup also contain a \_Database folder and a \_PropertyStore folder. If you restore a Differential or Incremental backup, all backups it depends on must be in the same backup location.

The following backups must be in the same folder:

- For a Differential backup, the last Complete backup before the backup you are restoring.
- For an Incremental backup, the last Complete backup and the necessary Incremental or Differential backups between the last Complete backup and the backup you are restoring.

You do not need all backups between the last Complete backup and the backup you are restoring. You need the most recent Complete backup, the most recent Differential backup (if any), and any Incremental backups since the last Complete or Differential backup.

For example, if a sequence of backups looks like this:  $c(complete)1 \rightarrow i(incremental)1 \rightarrow i2 \rightarrow d(differential)1 \rightarrow i3 \rightarrow i4 \rightarrow d2 \rightarrow i5 \rightarrow i6$ , to restore i6 the backups you need in the same folder are c1, d2, i5, and i6. You need these files because i6 contains the changes since i5, which contains the changes since d2, which contains the changes since c1.

A Fast Metadata Only backup contains only a \_Database folder, and can only be run
manually. A Fast Metadata Only backup is limited in its usefulness. You can use it to restore
the database structure if it becomes corrupted, but it does not restore the contents of the
\_PropertyStore folder. To restore the contents of the \_PropertyStore folder, you need to
restore the most recent Complete backup, Incremental backup, or Differential backup, as
described above.

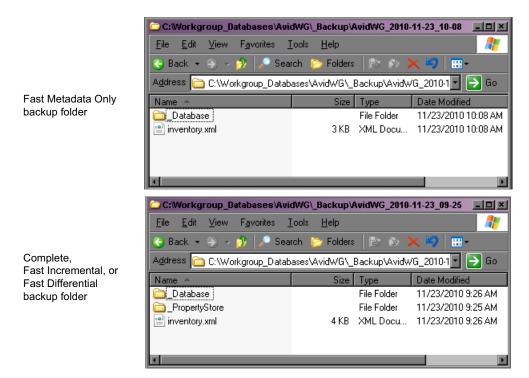
The InterplayRestore tool automatically identifies the type of backup that you select.



Earlier versions of the Interplay Engine did not delete streamed properties from the \_PropertyStore folder until the next Complete backup was performed. Starting with Interplay Engine v3.0, streamed properties are deleted immediately on deletion request unless there is an active backup. In this case, the deletion takes place after the next Complete backup.

#### **Distinguishing Between Types of Backups**

To distinguish between a Fast Metadata Only backup and the other types of backups, open the backup folder and check if a \_PropertyStore folder exists. A Fast Metadata Only backup does not contain a \_PropertyStore folder.dd



To distinguish between Complete, Fast Incremental, and Fast Differential backups, open the backup folder and then open the inventory.xml file in Notepad or another text editor. The type of backup is listed, along with other information.

File Edit Format View Help

\*\*\*Price Type="increment" to "control of the strain of the

Fast Incremental backup type

#### **Example of a Complete Restore Process**

Imagine that you have a backup schedule of a Complete backup on Saturday and a Fast Differential backup every other day of the week. If there is a failure on Friday in which the \_Database folder, the \_PropertyStore folder, and other Interplay folders are lost or corrupted, you need to perform the following steps:

- 1. Use the InterplayRestore tool to restore the latest Fast Differential backup (from Thursday).
- 2. To add metadata missing from the \_PropertyStore folder, check in bins created for projects since the Thursday backup.
- 3. Use the InterplayRestore tool to restore the \_InternalData folder.
- 4. Restore the \_Master folder and other folders through whatever mechanism you use for backup.
- 5. Resynchronize media files with shared storage workspaces. In Interplay Access, right-click the database name and select Resync. For more information, see "Resyncing Media Files with Avid Shared-Storage Workspaces" in the Interplay Access User's Guide or the Interplay Access Help.

#### Using the InterplayRestore Tool on the Interplay Engine Server

To restore a backup, you need to run the InterplayRestore tool in a Command Prompt window. There are two ways to run the tool:

- Without parameters, in which case the tool prompts you for the necessary entries (interactive mode).
- With parameters, in which case the tool runs without prompting, depending on the number
  of parameters included. You can use these parameters to create a batch file that partially
  automates the restore process.



You can use the InterplayRestore tool to restore the AvidAM or the \_InternalData folder. In the following procedure, substitute AvidAM or \_InternalData for AvidWG.

#### To restore an earlier version of a database from a backup using interactive mode:

- 1. On the Interplay Engine server, click Programs and select Accessories > Command Prompt.
- 2. At the command line, navigate to the folder that contains InterplayRestore. For example, type:

```
cd C:\Program Files\Avid\Avid Interplay Engine\Server and press Enter.
```

3. Type:

```
InterplayRestore and press Enter.
```

4. InterplayRestore prompts you for the database root directory. Type the path and press Enter.

You can use a local path or a UNC path. For example:

```
D:\Workgroup_Databases\AvidWG
\\IEServer\WG_Database$\AvidWG
```

You can use the administrative share name WG\_Database\$ only in a UNC path.

5. The next prompt asks if you are restoring a split database configuration.

If you answer yes, the next prompt asks you to enter the Interplay database asset path, which is the path to the AvidWG folder on shared storage. Enter a UNC path, for example:

\\SharedStorageServer\WorkspaceName\AvidWG\



Split databases are no longer recommended. See "Reuniting a Split Database" on page 233.

6. At the next prompt, type the backup home directory and press Enter. For example:

```
D:\Workgroup_Databases\AvidWG\_Backup
```

If you are working with a split database, this location is probably on the shared storage server. For example:

\\SharedStorageServer\WorkspaceName\AvidWG\\_Backup

7. At the next prompt, select the correct backup from the numbered list of available backups. Complete backups are labeled "full" and Fast backups are labeled "increment" "difference," or "metadataonly." After you select the backup, press Enter.

The restore process begins. For an example of the process, see "Database Restore Session Example" on page 48. At the end of the process, a message informs you that you need to restore the Master directory manually.

8. Restore your \_Master folder through whatever mechanism you use for backup.



The \_Master database is not backed up by the automated backup feature of Interplay. See "Recommendations for Backup Configuration" on page 31.

- 9. Unlock the database by using the Lock/Unlock Database view in the Interplay Administrator.
- 10. Check to make sure you can access the restored database from Interplay Access, and that you can preview clip headframes.
- 11. Delete the \_Database.1 and \_PropertyStore.1 directories, or whatever numbered backup directories were created through the restore process. See "Restoring an Earlier Version of a Database" on page 41.

# To restore an earlier version of a database from a backup by passing parameters to the tool, do one of the following:

For a non-split database, navigate to the folder that holds InterplayRestore, type the following, and press Enter:

InterplayRestore /m <database metadata root dir> /backupdir <database backup dir>

#### For example:

InterplayRestore /m d:\Workgroup\_Databases\AvidWG
/backupdir d:\Workgroup\_Databases\AvidWG\\_Backup

InterplayRestore prompts you to choose from a numbered list of available backups and then restores the earlier version. Continue with steps 8 through 11 above.



The parameter /m is a short version of the parameter /metadata. You can view information on the complete syntax for the tool by entering InterplayRestore /help.



Because the paths for the /metadata and /backupdir parameters are unlikely to change, you can create a batch file that includes these values, as in the previous example. To restore the database, run the batch file and select the number of the backup you want to restore.



Split databases are no longer recommended. See "Reuniting a Split Database" on page 233.

For a split database, navigate to the folder that holds InterplayRestore, type the following, and press Enter:

```
InterplayRestore /m <database metadata root dir>
/assets <split database asset directory>
/backupdir <database backup dir>
```

#### For example:

```
InterplayRestore /m d:\Workgroup_Databases\AvidWG
/assets \\isis\workspace1\AvidWG
/backupdir \\isis\workspace1\AvidWG\_Backup
```

InterplayRestore prompts you to choose from a numbered list of available backups and then restores the earlier version. Continue with steps 8 through 11 above.



Because the paths for the /metadata ,/assets , and /backupdir parameters are unlikely to change, you can create a batch file that includes these values, as in the previous example. To restore the database, run the batch file and select the number of the backup you want to restore.

If you know the specific backup you want to restore, navigate to the folder that holds InterplayRestore, type the following, and press Enter:

InterplayRestore /m <database metadata root dir> /backupdir <database
backup dir> /backuptorestore <backup folder for restore>

#### For example:

InterplayRestore restores the earlier version. Continue with steps 8 through 11 above.

#### **Database Restore Session Example**

The following is an example of an interactive session, which begins with the command for starting the InterplayRestore tool.



Split databases are no longer recommended. See "Reuniting a Split Database" on page 233.

```
C:\>"C:\Program Files\Avid\Avid Interplay Engine\Server\InterplayRestore"
******************
InterplayRestore - Restore Interplay databases from backup
A non interactive mode is also available.
Run "InterplayRestore.exe /?" for help
Enter the Interplay database root or metadata directory:
D:\Workgroup Databases\AvidWG
Is this a split database configuration? <y/n> y
Enter the Interplay database asset path: \\isis\workspace1\AvidWG
Enter the backup root directory: \\isis\workspace1\AvidWG\_Backup
Choose a backup to restore from:
       Tuesday, June 10, 2010 3:05:00 AM full
[1]
[2]
       Thursday, June 12, 2010 3:04:00 AM increment
       Friday, June 13, 2010 3:05:00 AM
[3]
       Saturday, June 14, 2010 3:00:00 AM full
[4]
Choose an entry (1 - 4):
Assume you choose 1. The tool locks the project so that no one can access the database and then
copies the files:
Beginning restore from
\\isis\workspace1\avidwg\_Backup\AvidWG_2010-06-10_03-05\
This is a Full backup
Restoring split database. Metadata restored to
```

Locked project AvidWG

\\isis\workspace1\avidwg

Copying files into d:\Workgroup\_Databases\avidwg\\_Database

Copying file AvidWG.dor

. . .

d:\Workgroup Databases\avidwg\. PropertyStore Assets restored to

It leaves the database locked and gives you the following message:

Database AvidWG is still locked because you need to restore \_Master manually, or through your existing tape backup mechanism.

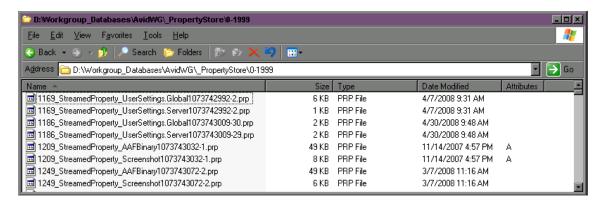
When you are done restoring \_Master, use the Lock/Unlock Database view in Interplay Administrator to unlock the AvidWG database. This will complete your restore operation.

#### Using the BackupArchive Tool to Restore Files

The BackupArchive tool is a command-line program that lets you work with files contained in the \_PropertyStore folder contained in a database backup. The \_PropertyStore folder holds streamed properties, which are files that include metadata about Avid assets, such as headframes and AAF information. The streamed property files are backed up (as an archive) in one or more .bar files in the \_PropertyStore backup folder. For more information about .bar files, see "Restoring an Earlier Version of a Database" on page 41.

You can use the BackupArchive tool to display a list of all streamed properties files in the \_PropertyStore backup folder. You can also use it in an emergency situation in which the online database is missing and the backup file is corrupt. In this case, you would use the tool to extract as many files as possible from the corrupt backup. It is not a replacement for the InterplayRestore tool.

For example, the following illustration shows the contents of the 0-1999 subfolder in the active \_PropertyStore folder on the Interplay Engine:



The following illustration shows the corresponding files as they appear in the archive file \AvidWG\\_Backup\AvidWG\_2008-05-04\_01-00\\_PropertyStore\streamed\_prop1.bar:

The .bar file is a file that you can only open by using the BackupArchive tool.



In previous versions of Interplay, you could use Windows Explorer to view and work with the streamed properties files in the \_PropertyStore backup folder. Because the current backup mechanism uses archive files, you need this tool to view and work with files in the \_PropertyStore backup folder.

The following procedures describe how to view a list of streamed properties, how to unpack an archive, and how to extract specific files. If you need to restore the streamed properties to a database in an emergency situation, contact Avid support.

The complete syntax for using the BackupArchive tool is provided in the in-line help, which you can display by typing BackupArchive in a Command Prompt window.

#### To list all streamed properties files in an archive file:

- 1. On the Interplay Engine, click Programs and select Accessories > Command Prompt.
- 2. At the command line, navigate to the folder that contains the BackupArchive tool.

For example, type the following and press Enter:

cd C:\Program Files\Avid\Avid Interplay Engine\Server

3. Type the following and press Enter:

backuparchive /L <archive>

Do not use the file extension when typing the name of the archive file. For example,

backuparchive /L

\\docisis\workspace3\AvidWG\\_Backup\AvidWG\_2008-05-04\_01-00\\_PropertySt ore\streamed\_prop

Make sure to type the command on a single line.



To direct the output of this command to a text file for easier review, add > textfile.txt to the end of the command.

#### To unpack all streamed properties files:

▶ Type the following and press Enter:

```
backuparchive /U <archive> <destination folder>
```

Do not use the file extension when typing the name of the archive file. For example, the following command unpacks all property store files into a temporary folder on the Interplay Engine:

Make sure to type the command on a single line.

#### To extract and restore specific streamed properties files:

▶ Type the following and press Enter:

```
backuparchive /E /P:<pattern> <archive> <destination folder>
```

Do not use the file extension when typing the name of the archive file. To define a pattern, you can use the standard Windows syntax. For example, the following command extracts all files whose names include Scr (screenshots) into a temporary folder on the Interplay Engine:

```
backuparchive /E /P:*Scr*
\\docisis\workspace3\AvidWG\_Backup\AvidWG_2008-05-04_01-00\_PropertySt
ore\streamed_prop D:\Workgroup_Databases\TempPropertyStoreScreenshots
Make sure to type the command on a single line.
```

## **Restoring Archived Log Files**

In Interplay version 1.6 and later, the Interplay Engine compresses and archives log files older than 7 days. The log compression process runs during project backup. (This process runs at most once per day, even if multiple backups are scheduled on the same day.) Archive files (with the extensions .bar and .bin) are stored in the same directory as the log files for 30 days and then are automatically deleted. You can extract the compressed log files from an archive by using the BackupArchive tool described in "Using the BackupArchive Tool to Restore Files" on page 50.

### Performing a Partial Restore of an Interplay Production Database

Interplay Administrator v3.0 introduces a new option to the InterplayRestore tool that lets you select an incremental backup to use for the restore process, without restoring the complete database. Restoring from one or more incremental backups is referred to as a *partial restore*.

Prior to this release, the InterplayRestore tool always restored the complete database, even if you selected to restore from an incremental backup. Performing a partial restore can save a significant amount of time, depending on the size of the database.



See the Interplay Engine and Interplay Archive Engine Administration Guide for complete information about backing up and restoring.

#### When to Perform a Partial Restore

One example of an effective use of a partial restore is if a facility is replacing its Interplay Engine with a new server. This is often a gradual process that takes several days. For example, you might create a database on a new server by performing a complete restore of the existing database on Monday. You test the system on Tuesday. If all goes well, you perform a partial restore on Wednesday to add changes that took place in the database since the last complete backup, and then bring the new server on line.



Make sure you have performed a full restore of the last complete backup before you perform a partial restore. A partial restore only restores incremental changes since the last complete backup.

#### Selecting from the Backup Chain

When you run the InterplayRestore tool in interactive mode (without command line options), and select a backup to restore, a *backup chain* of files is displayed. The backup chain is determined by the backup you selected to restore. In the following example, you select incremental backup entry 3. The backup chain lists the last full backup and any subsequent incremental backups.

```
[1] 04 February 2013 16:00:00 full
[2] 05 February 2013 16:00:00 incremental
[3] 06 February 2013 16:00:00 incremental
[4] 07 February 2013 16:00:00 incremental
Choose an entry (1 - 4): 3
Backup restore chain
0. Test_2013-02-04_16-00 full
1. Test_2013-02-05_16-00 incremental
2. Test_2013-02-06_16-00 incremental
3. Test_2013-02-07_16-00 incremental
```

The InterplayRestore tool gives you an option of selecting a partial restore. If you type "y," you are asked to select which file in the restore chain from which to start the restore. In the following example, backup file 1 (Test\_2013-02-05\_16-00) is selected.

```
Is this a partial restore (y/n): y Choose an entry in the restore chain to start from ( 1 - 2 ): 1
```

You are then asked to select how many entries forward you want to restore:

```
Choose how many entries to restore (1 - 2): 2
```

In the example, starting with file 1 and selecting two entries mean that the partial restore will be run from the following files:

```
1. Test_2013-02-05_16-00 incremental
2. Test 2013-02-06 16-00 incremental
```

#### **Results of a Partial Restore**

If you perform a full backup, the Interplay Engine renames the original \_Database and \_PropertyStore folders before the restore procedure, and creates new folders for restored files during the restore procedure. The resulting files are similar to the following:

```
_Database
_Database.1
...
_PropertyStore
_PropertyStore.1
```

where \_Database\_and PropertyStore are newly restored from backup files, and \_Database.1 and \_PropertyStore.1 are renamed original files.

If you perform a partial restore, the Interplay Engine does not rename the original folders. Instead, it overwrites database files in the \_Database folder with latest versions from the restore chain and merges streamed property files to the existing \_PropertyStore folder.

#### **Displaying a Restore Chain**

You have the option of displaying the restore chain for a selected backup without performing the restore. To display the restore chain, use the /printchain option in a interactive or non-interactive command line, as shown in the following examples:

#### Non-interactive mode:

```
InterplayRestore /metadata F:\Workgroup_Databases\Test /backupdir
F:\Workgroup_Databases\Test\_Backup /printchain
```

#### Interactive mode:

InterplayRestore /printchain

In either case, you are asked to choose a backup starting point.

Choose a backup to restore from:

```
[1]
      04 February 2013 16:39:00 full
[2]
      04 February 2013 16:42:00
                                    incremental
[3]
      04 February 2013 16:44:00
                                    incremental
[4]
       24 February 2013 01:00:00
                                    full
Choose an entry (1 - 4): 3
Backup restore chain
0. Test_2013-02-04_16-39 full
1. Test_2013-02-04_16-42 incremental
2. Test_2013-02-04_16-44 incremental
```

#### **Example of Partial Restore**

The following is an example of an interactive session, which begins with the command for starting the InterplayRestore tool.

```
C:\Program Files\Avid\Avid Interplay Engine\Server>InterplayRestore
*************************
  InterplayRestore - Restore Interplay databases from backup
Entering interactive mode.
A non-interactive mode is also available.
Run "InterplayRestore.exe /help" for help
Enter the Interplay database root or metadata directory:
F:\Workgroup Databases\Test
Is this a split database configuration (y/n): n
Enter the backup root directory: F:\Workgroup Databases\Test\ Backup
Choose a backup to restore from:
      04 February 2013 16:39:00
[1]
                                     full
[2]
      04 February 2013 16:42:00
                                    incremental
                                    incremental
[3]
      04 February 2013 16:44:00
[4]
      24 February 2013 01:00:00
                                    full
Choose an entry (1 - 4): 3
Backup restore chain
0. Test 2013-02-04 16-39 full
1. Test_2013-02-04_16-42 incremental
2. Test_2013-02-04_16-44 incremental
Is this a partial restore (y/n): y
Choose an entry in the restore chain to start from (1 - 2): 1
Choose how many entries to restore (1 - 2): 2
Project Test already locked
```

```
Restoring to F:\Workgroup Databases\Test\
Beginning restore from
F:\Workgroup_Databases\Test\_Backup\Test_2013-02-04_16-42\
This is a incremental backup
Copying streamed properties...
Opening archive file
F:\Workgroup_Databases\Test\_Backup\Test_2013-02-04_16-42\_PropertyStore\s
treamed prop1.bar
Extracting file
F:\Workgroup Databases\Test\_PropertyStore\2013-35\1373_StreamedProperty_A
AFBinarv1073743196-1.prp
Verifying that we have all streamed property BAR files...
Beginning restore from
F:\Workgroup_Databases\Test\_Backup\Test_2013-02-04_16-44\
This is a incremental backup
Copying streamed properties...
Opening archive file
F:\Workgroup Databases\Test\ Backup\Test 2013-02-04 16-44\ PropertyStore\s
treamed_prop1.bar
Extracting file
F:\Workgroup_Databases\Test\_PropertyStore\2013-35\1428_StreamedProperty_A
AFBinary1073743252-0.prp
Extracting file
F:\Workgroup_Databases\Test\_PropertyStore\2013-35\1436_StreamedProperty_A
AFBinary1073743260-0.prp
Verifying that we have all streamed property BAR files...
Copying files into F:\Workgroup_Databases\Test\ Database
Copying file Test.jdf
Restore operation successful
Project Test is still locked for your restore of _Master.
The database is still locked because you need to restore the Master
directory manually, or through your existing tape backup mechanism.
When you are done restoring Master, use the Lock/Unlock Database view in
Interplay Administrator to unlock the database. This will complete your
restore operation.
```

## **Creating a Metadata-Only Backup for Customer Support**

In some support situations, Avid customer support might request a metadata-only backup of your Interplay Production database. A metadata-only backup creates copies of database files in the \_Database folder, but not streamed properties files in the \_PropertyStore folder.

#### To create a metadata-only backup file:

- 1. In the Database section of the Interplay Administrator window, click the Backups icon. The Backups view opens.
- 2. In the list on the left side of the view, select the database for which you want to create the backup. The database is named either AvidWG (Interplay Engine) or AvidAM (Interplay Archive Engine).
- 3. At the bottom of the view, click the "Start Backup Now..." button.



4. In the Start Backup dialog box, select Metadata only and click OK.



The backup file is created in specified backup location, for example:

AvidWG\\_Backup\AvidWG\_2013-02-12\_01-00

To distinguish between a metadata-only backup and the other types of backups, open the backup folder and check if a \_PropertyStore folder exists. A metadata-only backup does not contain a \_PropertyStore folder.

5. Use an archive program like 7-Zip to create a compressed file to send to customer support.

## **Performing a Consistency Check**

The database Consistency Check compares the version of the database or databases on the master directory with the current database file. The Perform Consistency Check view provides a useful tool for checking if all references are correct, seeing if all necessary files are on the disk, and checking other aspects of the database.



The Consistency Check is for support purposes. You should perform this check only if requested by Avid Technical Support.

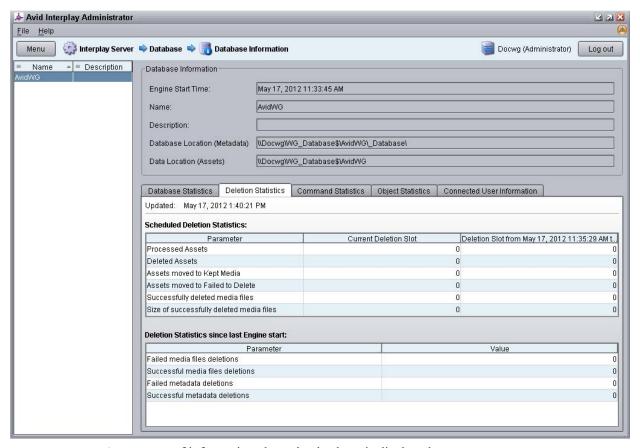
## **Viewing Database Information**

Use the Database Information view to display information about an Interplay database. This information includes various statistics and the connected users.

#### To view the information about a database:

1. In the Database section of the Interplay Administrator window, click the Database Information icon.

The Database Information view opens. This might take a minute or two, depending on how long the engine has been running.



A summary of information about the database is displayed:

- Engine Start Time: The date and time that the Interplay Engine began running.
- Name and description: Either AvidWG (Interplay Engine) or AvidAM (Interplay Archive Engine) with a description supplied when the database was first created.
- Root folder for database (Meta Data): See "Creating an Interplay Database" on page 26.
- Root folder for data (Assets): See "Creating an Interplay Database" on page 26.
- 2. Click one of the following tabs:
  - Database Statistics
  - Deletion Statistics
  - Command Statistics
  - Object Statistics
  - Connected User Information

For information about these tabs, see "Database Information Tabs" on page 60.

#### **Database Information Tabs**

The following sections describe the individual tabs in the Database Information view.

#### **Database Statistics**

Statistics in this tab provide information about the number of pages in the database, cache usage, and how they relate to each other. These statistics are useful in determining database scalability. For more information, see "Determining Interplay Database Scalability" in the *Interplay Best Practices Guide*.

#### **Deletion Statistics**

Statistics in this tab provide information about deletion activity.

The time at the top of the tab is the last time information was received from the Interplay Engine and is automatically updated every minute.

Statistics are divided into two categories:

- Scheduled Deletion Statistics. If the Engine is currently performing a scheduled deletion, the Current Deletion Slot column shows statistics from the deletion in progress. If the Engine is not currently performing a scheduled deletion, the column is not displayed.
  - The third column shows statistics about the last completed scheduled deletion. If there has not been a scheduled deletion since the last time the Interplay Engine was started, the column is not displayed.

Statistics in this tab refer to assets that were sent to the Orphan Clips folder as a result of a scheduled deletion. Statistics are shown for the following parameters:

- Processed Assets: The number of assets in the Orphan Clips folder that the Interplay Engine processed during the deletion. This process includes examining whether the assets should be deleted or moved to another folder. This number is usually higher than other similar statistics. For example, if the deletion is delayed (a setting in the Scheduled Deletion section of the Delete Behavior view), the Engine examines the assets before a deletion takes place.
- Deleted Assets: The number of assets in the Orphan Clips folder that were deleted.
- Assets moved to Kept Media: The number of objects moved as a result of the scheduled deletion.
- Assets moved to Failed to Delete: The number of objects that failed to delete as a result of the scheduled delete.

- Successfully deleted media files: The number of media files deleted from shared-storage. Only media files deleted by a scheduled deletion from Orphan Clips are counted, not media files deleted by the interactive part of a deletion.
- Size of successfully deleted media files. The cumulative size of the successful deletions in KB, based on information in the Interplay Engine database. This information is not necessarily the most recent information from the Media Indexer.
- Deletion Statistics Since Last Engine Start: These parameters list cumulative totals since the
  last time the Interplay Engine was started. The statistics in this section include deletions
  outside of the scheduled deletion slots. for example, media files deleted directly in Interplay
  Access. Statistics are shown for the following parameters:
  - Failed media files deletions
  - Successful media files deletions
  - Failed metadata deletions
  - Successful metadata deletions

#### **Command Statistics (Engine Search Requests)**

The statistics in this tab provide information about commands executed by the Interplay Engine. Currently the only command included is Search, which is listed as Engine Search Requests. These commands are search requests made in Access or other clients that are processed by the Interplay Engine.

Because searches are a common way that users notice a slowdown in Interplay Engine performance, these statistics can be useful in troubleshooting performance problems.

The time at the top of the tab is the last time information was received from the client and is automatically updated every minute.

Statistics are shown for the following parameters:

- Period: The ten most recent measurement periods are listed in the Period column. Periods
  are a maximum of one minute and are created only if there are search commands executed.
  You cannot check statistics for earlier periods.
- Duration: The length of the measurement period, from the finish of the first search until the finish of the last search in this period. Note that the summary for the Duration column displays the time from the oldest to the latest measurement period, not a summary of the Duration periods.

Other parameters are described in the tab.

#### **Object Statistics**

Statistics on this tab show totals for objects in the database. This information is not updated until you open the view again.

- Total number of database objects: A sum of the objects listed below.
- Database objects per database page: This statistic is calculated as total number of database objects / total number of database pages
- masterclip, sequence, subclip, group, motioneffect, effect, renderedeffect: the number of these object types.
- filemob: the number of file locations that are known to the Engine, regardless of online or offline status. Matches the files listed in the File Locations tab in Interplay Access.
- avid asset (in browse tree): the number of links or representations visible in the database tree.
- folder: the number of folders in the database, both those visible in the database tree and those not visible in the database tree.
- user: the number of users in the database.
- other objects: additional versions of sequences, internal database management objects, and file assets

#### **Connected User Information**

Statistics on this tab show information about each user currently connected to the Interplay Engine. This information is not updated until you open the view again. This information is also displayed in the Server Information view. For more information, see "Viewing Server Information" on page 87.

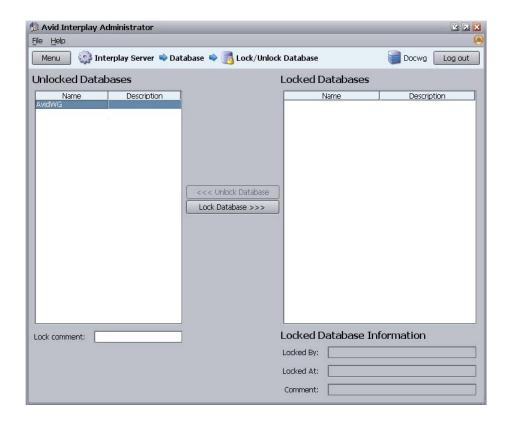
## **Locking and Unlocking Databases**

Use the Lock/Unlock Databases view to prevent users from connecting to the database. You might need to lock the database if you are upgrading the database or using a archive tool to create a backup of the database. By default, the database is unlocked.

#### To lock a database:

1. In the Database section of the Interplay Administrator window, click the Lock/Unlock Database icon.

The Lock/Unlock database view opens.



- 2. Select the database in the Unlocked Databases list.
- 3. (Option) Type a Lock comment explaining why you are locking the database. This information appears in the Locked Database Information area for the database.
- 4. Click Lock Database.

Your user ID and the time at which you locked the database are filled in, and the database is displayed in Locked Databases.

#### To unlock a database:

- 1. Select the database in the Locked Databases list.
- 2. Click Unlock Database.

The database is displayed in Unlocked Databases.

# Managing Databases: Deactivating, Activating, and Migrating

Use the Managing Databases view to remove a database from the list of active databases (deactivate) or to restore it to the list (activate). This view also lets you migrate a database to a new Central Configuration Server (CCS) when necessary.

The following topics provide more information about activating, deactivating, and migrating databases:

- Deactivating a Database
- Activating a Deactivated Database
- Migrating a Database

## **Deactivating a Database**

You might want to prevent users from connecting to a database if the database has been "retired" and the files have been moved elsewhere. In other cases, such as when you are backing up or moving databases, you might need to ensure that no connections can be made to the database to avoid interference. Deactivating the database removes it from the list of active databases.

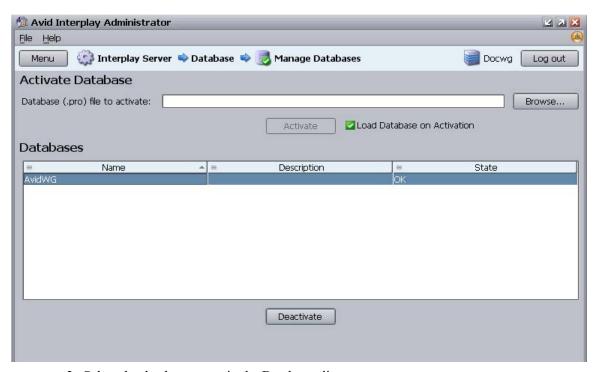


Deactivating a database does not delete the database files. It makes the database inactive so that users cannot connect to it until it is activated again. The database data is kept at the location that was specified when the database was created.

#### To deactivate a database:

1. In the Database section of the Interplay Administrator window, click the Manage Databases icon.

The Manage Databases view opens.



- 2. Select the database name in the Databases list.
- 3. Click Deactivate.

The database name is removed from the Databases list.

### **Activating a Deactivated Database**

If a specific database is not listed in the Databases view, it means that it is unknown to the Interplay Engine and users cannot connect to it. If the database exists but is not listed, it is probably deactivated. You activate a database by navigating to the database .pro file (AvidWG.pro or AvidAM.pro). This file is located in the Workgroup\_Databases folder, represented by the administrative share name WG\_Database\$ (see "Creating an Interplay Database" on page 26).

#### To add an existing but inactive database to the list of active databases:

1. In the Database section of the Interplay Administrator window, click the Manage Databases icon.

The Manage Databases view opens.

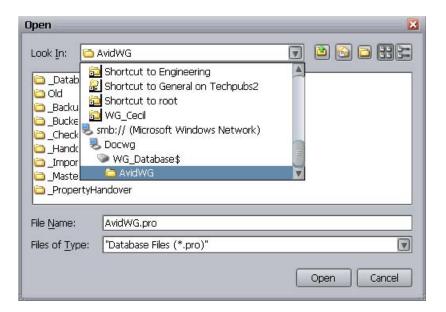
2. Do one of the following:

In the "Database (.pro) file to activate" text box, type the full UNC path to the .pro file. For example:

\\ IEServer\WG\_Database\$\AvidWG\AvidWG.pro

▶ Click the Browse button, log in if prompted, navigate to the .pro file using a network, select the file, and click Open.

The following illustration shows the path to AvidWG.pro, using the Microsoft Windows smb network and the administrative share WG Database\$.

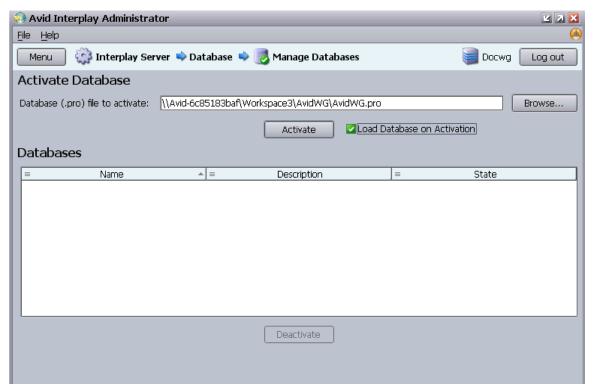




Avid recommends keeping the default share name WG\_Database\$. If you decide on a different share name, consider that if the name is longer than 12 characters, you cannot browse to it graphically. If a share name is longer than 12 characters, you need to type the complete path in the "Database (pro) file to activate" text box.

Make sure to navigate through a network to select the file (for example, do not navigate through a mapped network drive). You must use a UNC path.

The .pro file is displayed in the Activate Database dialog box.



- 3. Make sure the option "Load Database on Activation" is selected. Deselect this option only if directed by Avid support.
- 4. Click Activate.

The database is activated and loaded. The database name is displayed in the Databases list and users can connect to the database. If the option "Load Database on Activation" is selected, the database is automatically unlocked.

## Migrating a Database

You usually need to perform a database migration under the following circumstances:

- When you want to remove all users and group-related data from a database. This allows you
  to start with new users and groups and maintain the metadata and the data inside the
  database.
- When you are troubleshooting a problem with customer support. For example, customer support might ask you to provide a copy of your database.
- If you changed the Central Configuration Server (CCS) for a database without first moving the \_InternalData folder. If a database needs to be migrated, the State reads "Database Requires Migration."

Do not use a database that requires migration; always migrate a database to a CCS. You cannot administer an unmigrated database.

If a database needs migration, the database icon shows a red box with an X and a yellow arrow. The database icon appears in several views in the Interplay Administrator, including the Manage Database Roles view.

(Red box with X and yellow arrow) Database needs migration.





When you migrate a database, the system deletes all the information inside the database that was stored from the old CCS, including users, user settings and local administration settings.

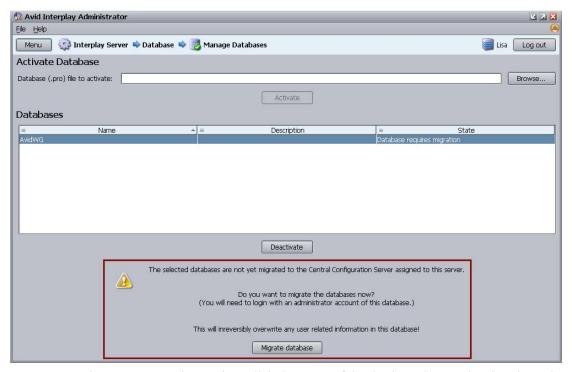


If you plan to migrate an Interplay Engine or Interplay Archive Engine database, turn off the database backup process before you perform the migration. If you do not turn off the backup process and it coincides with the migration, your backup will write out an inconsistent state of the database (half current and half migrated).

#### To migrate a database to a new CCS:

1. In the Database section of the Interplay Administrator window, click the Manage Databases icon.

The Manage Databases view opens.



2. In the Manage Databases view, click the name of the database that needs migration. The State reads "Database Requires Migration."

A warning explains the consequences of a database migration.

3. Click Migrate Database.

After the migration, the State reads "OK." The database now has the CCS users and administration properties of the new CCS you have set.

# Moving a Database to Another Server (Non-Clustered Systems)

Under special circumstances, you might need to move a database to a different server.

The following procedure refers to Interplay Engine servers that are not configured as failover clusters. For clustered systems, see "Moving a Database to Another Server (Clustered Systems)" on page 73.



Avid recommends that you have telephone support from Avid during the process in case complications arise.



If you move a database to a server that points to a different CCS, all the old CCS information that was stored, including users, user settings, and local administration settings for the database, will be lost because you will have to migrate the database (see "Migrating a Database" on page 67). If you move a database to another server and also move the CCS, however, this information is preserved. To move both a database and a CCS, see "Moving a Database and Users to Another Server (Non-Clustered Systems)" on page 71.

#### To move a database to another server (non-clustered systems):

1. Install the Interplay Engine on a new server (the target server).

Make sure the configuration is the same on both systems. For example, if you are moving an AvidWG database, create an AvidWG database on the new server.

2. On the source server, lock the database by using the Lock/Unlock Database view (see "Locking and Unlocking Databases" on page 62).

All clients are disconnected from the source server.

- 3. Deactivate the database by using the Manage Databases view (see "Deactivating a Database" on page 64).
- 4. Make sure the database is unloaded from the server by opening the Restart Server view and clicking Restart.
- 5. Locate the database folder on the source server.

The default path is \\server\_name\\WG\_Database\\AvidWG (or AvidAM for an Archive Manager). By default, the administrative share WG\_Database\\$ refers to D:\\Workgroup\_Databases.

6. Pack the database folder into a zip file or use Robocopy from the Microsoft Windows Resource Kit for path names longer than 256 characters.

To save time and storage, you do not need to copy all the backups in the D:\Workgroup\_Databases\AvidWG\\_Backup folder. One complete backup and the most recent Fast backup are sufficient.

If you are moving a split database, create two zip files, one for D:\Workgroup\_Databases\AvidWG and the other for \\server\_name\\workspace\_name\\AvidWG.



Split databases are no longer recommended. See "Reuniting a Split Database" on page 233.

- 7. Copy the zipped file or files to a network server, removable media, laptop, or directly to the target server.
- 8. Open the Interplay Administrator, log on to the target server, and deactivate the database (AvidWG or AvidAM) if one is active, using the Manage Databases View.

- 9. On the target server, rename the existing database folder, for example, rename AvidWG to AvidWG old.
- 10. Copy the zipped file to the target server and unzip the file to the Workgroup\_Databases folder. Make sure the path on the target server matches the path on the source server.
- 11. Activate the database by using the Manage Databases view (see "Activating a Deactivated Database" on page 65).
- 12. On an Interplay Access client, log in to the new server and verify that all data is available. If all data is available, the new database is ready for use.
  If necessary, remove the old database from Interplay Access by right-clicking the database
- 13. (Option) On the source server, rename the original database folder to avoid unwanted future access.

# Moving a Database and Users to Another Server (Non-Clustered Systems)

name and then clicking Remove Databases.

Under special circumstances, you might need to move a database and users to a different server.

The following procedure refers to Interplay Engine servers that are not configured as failover clusters. For cluster systems, see "Moving a Database and Users to Another Server (Clustered Systems)" on page 75.



Avid recommends that you have telephone support from Avid during the process in case complications arise.



If you move a database to a server that points to a different CCS, all the old CCS information that was stored, including users, user settings, and local administration settings for the database, will be lost because you will have to migrate the database (see "Migrating a Database" on page 67). If you move a database to another server and also move the CCS, however, this information is preserved. To move both a database and a CCS, use this procedure. For more information about a CCS, see "Understanding the Central Configuration Server" on page 104.

#### To move a database and users to another server (non-clustered systems):

- Install the Interplay Engine on a new server (the target server).
   Make sure the configuration is the same on both systems. For example, if you are moving an AvidWG database, create an AvidWG database on the new server.
- 2. On the source server, lock the database by using the Lock/Unlock Database view (see "Locking and Unlocking Databases" on page 62).

- 3. Deactivate the database by using the Manage Databases view (see "Deactivating a Database" on page 64).
- 4. Make sure the database is unloaded from the server by opening the Restart Server view and clicking Restart.
- 5. Lock the server using the Lock Server view (see "Locking and Unlocking the Server" on page 88).
- 6. Locate the database folder on the source server.

The default path is \\server\_name\\WG\_Database\\AvidWG (or AvidAM for an Archive Manager). By default, the administrative share WG\_Database\\rights refers to D:\\Workgroup Databases.

7. Pack the database folder into a zip file or use Robocopy from the Microsoft Windows Resource Kit for path names longer than 256 characters.

To save time and storage, you do not need to copy all the backups in the D:\Workgroup\_Databases\AvidWG\\_Backup folder. One complete backup and the most recent Fast backup are sufficient.

If you are moving a split database, create two zip files, one for D:\Workgroup\_Databases\AvidWG and the other for \\server\_name\\workspace\_name\\AvidWG.



Split databases are no longer recommended. See "Reuniting a Split Database" on page 233.

- 8. Locate the user folder \_InternalData on the source server.

  The default path is D:\Workgroup Databases\ InternalData.
- 9. Copy the zipped file or files and the \_InternalData folder to a network server, removable media, laptop, or directly to the target server.
- 10. Open the Interplay Administrator, log in to the target server, and deactivate the database (AvidWG or AvidAM) using the Manage Databases View.
- 11. On the target server, rename the existing database folder, for example, rename AvidWG to AvidWG old.
- 12. Make sure all databases are unloaded from the server by opening the Restart Server view and clicking Restart.
- 13. Lock the server by using the Lock Server view (see "Locking and Unlocking the Server" on page 88).
- 14. Rename the existing \_InternalData folder to \_InternalData\_old.
- 15. Copy the zipped file to the target server and unzip the file to the Workgroup\_Databases folder. Copy the \_InternalData folder to the Workgroup\_Databases folder. Make sure the path on the target server matches the path on the source server.

- 16. Unlock the server using the Lock Server view.
- 17. Verify that all users are on the system by opening the User Management view and viewing the lists of user groups.
- 18. Activate the database by using the Manage Databases view (see "Activating a Deactivated Database" on page 65).
- 19. On an Interplay Access client, log in to the new server and verify that all data is available. If all data is available, the new database is ready for use.
  - If necessary, remove the old database from Interplay Access by right-clicking the database name and then clicking Remove Databases.
- (Option) On the source server, rename the original database folder to avoid unwanted future access.

# Moving a Database to Another Server (Clustered Systems)

Under special circumstances, you might need to move a database to a different server.

The following procedure refers to Interplay Engine servers that are configured as failover clusters. For non-clustered systems, see "Moving a Database to Another Server (Non-Clustered Systems)" on page 69.



Avid recommends that you have telephone support from Avid during the process in case complications arise.



If you move a database to a server that points to a different CCS, all the old CCS information that was stored, including users, user settings, and local administration settings for the database, will be lost because you will have to migrate the database (see "Migrating a Database" on page 67). If you move a database to another server and also move the CCS, however, this information is preserved. To move both a database and a CCS, see "Moving a Database and Users to Another Server (Clustered Systems)" on page 75.

#### To move a database to another server (clustered systems):

- Install the Interplay Engine on a new server (the target server).
   Make sure the configuration is the same on both systems. For example, if you are moving an AvidWG database, create an AvidWG database on the new server.
- 2. On the source server, lock the database by using the Lock/Unlock Database view (see "Locking and Unlocking Databases" on page 62).

All clients are disconnected from the source server.

- 3. Deactivate the database using the Manage Databases view (see "Deactivating a Database" on page 64).
- 4. Make sure the database is unloaded by using the Cluster Administrator on one of the cluster nodes:
  - a. Select Programs > Administrative Tools > Cluster Administrator.
  - b. Open the Avid Workgroup Server resource group.
  - c. In the list of resources, select Avid Workgroup Engine Monitor and change the state to "Offline."



Make sure that you change the state to offline for the Avid Workgroup Engine Monitor resource only, not the entire Avid Workgroup Server group.

- d. Close the Cluster Administrator.
- 5. Locate the database folder on the active node of the source server.

The default path is \\virtual\_cluster\_name\\WG\_Database\$\AvidWG (or AvidAM for an Archive Manager). By default, the administrative share WG\_Database\$ refers to S:\\Workgroup\_Databases. For more information, see "Identifying the Root Folder of the Interplay Server Database" on page 85.



If the S drive is not available on the machine, either this is the offline node or the entire Avid Workgroup Server group was taken offline instead of only the resource.

6. Pack the database folder into a zip file or use Robocopy from the Microsoft Windows Resource Kit for path names longer than 256 characters.

To save time and storage, you do not need to copy all the backups in the S:\Workgroup\_Databases\AvidWG\\_Backup folder. One complete backup and the most recent Fast backup are sufficient.

If you are moving a split database, create two zip files, one for S:\Workgroup\_Databases\AvidWG and the other for \\server\_name\\workspace\_name\\AvidWG.



Split databases are no longer recommended. See "Reuniting a Split Database" on page 233.

- 7. Copy the zipped file or files to a network server, removable media, a laptop, or directly to the target server.
- 8. Open the Interplay Administrator, log on to the target server, and deactivate the database (AvidWG or AvidAM) using the Manage Databases View.
- 9. On the target server, rename the existing database folder, for example, rename AvidWG to AvidWG\_old.

- 10. Copy the zipped file to the target server and unzip the file to the Workgroup\_Databases folder. Make sure the path on the target server matches the path on the source server.
- 11. Activate the database by using the Manage Databases view (see "Activating a Deactivated Database" on page 65).
- 12. On an Interplay Access client, log in to the new server and verify that all data is available. If all data is available, the new database is ready for use.
  - If necessary, remove the old database from Interplay Access by right-clicking the database name and then clicking Remove Databases.
- 13. (Option) On the source server, rename the original database folder to avoid unwanted future access.

Use the Cluster Administrator to bring the source server back online. Right-click the Avid Workgroup Server group (not the resource) and select Bring Online.

# Moving a Database and Users to Another Server (Clustered Systems)

Under special circumstances, you might need to move a database and users to a different server.

The following procedure refers to Interplay Engine servers that are configured as failover clusters. For non-clustered systems, see "Moving a Database and Users to Another Server (Non-Clustered Systems)" on page 71.



Avid recommends that you have telephone support from Avid during the process in case complications arise.



If you move a database to a server that points to a different CCS, all the old CCS information that was stored, including users, user settings, and local administration settings for the database, will be lost because you will have to migrate the database (see "Migrating a Database" on page 67). If you move a database to another server and also move the CCS, however, this information is preserved. To move both a database and a CCS, use this procedure. For more information about a CCS, see "Understanding the Central Configuration Server" on page 104.

#### To move a database and users to another server (clustered systems):

- Install the Interplay Engine on a new server (the target server).
   Make sure the configuration is the same on both systems. For example, if you are moving an AvidWG database, create an AvidWG database on the new server.
- 2. On the source server, lock the database by using the Lock/Unlock Database view (see "Locking and Unlocking Databases" on page 62).

All clients are disconnected from the source server.

- 3. Deactivate the database using the Manage Databases view (see "Deactivating a Database" on page 64).
- 4. Lock the server using the Lock Server view (see "Locking and Unlocking the Server" on page 88).
- 5. Make sure the database is unloaded by using the Cluster Administrator on one of the cluster nodes:
  - a. Select Programs > Administrative Tools > Cluster Administrator.
  - b. Open the Avid Workgroup Server resource group.
  - c. In the list of resources, select Avid Workgroup Engine Monitor and change the state to "Offline."



Make sure that you change the state to offline for the Avid Workgroup Engine Monitor resource only, not the entire Avid Workgroup Server group.

- d. Close the Cluster Administrator.
- 6. Locate the database folder on the source server.

The default path is \\virtual\_cluster\_name\\WG\_Database\\AvidWG (or AvidAM for an Archive Manager). By default, the administrative share WG\_Database\\$ refers to S:\\Workgroup\_Databases.



If the S drive is not available on the machine, either this is the offline node or the entire Avid Workgroup Server group was taken offline instead of only the resource.

7. Pack the database folder into a zip file or use Robocopy from the Microsoft Windows Resource Kit for path names longer than 256 characters.

To save time and storage, you do not need to copy all the backups in the S:\Workgroup\_Databases\AvidWG\\_Backup folder. One complete backup and the most recent Fast backup are sufficient.

If you are moving a split database, create two zip files, one for S:\Workgroup\_Databases\AvidWG and the other for \\server\_name\\workspace\_name\\AvidWG.



Split databases are no longer recommended. See "Reuniting a Split Database" on page 233.

- 8. Locate the user folder \_InternalData on the source server.
  - The default path is S:\Workgroup\_Databases\\_InternalData.
- 9. Copy the zipped file and the \_InternalData folder to a network server, removable media, laptop, or directly to the target server.

- 10. On the target server, rename the existing database folder, for example, rename AvidWG to AvidWG\_old.
- 11. Open the Interplay Administrator, log on to the target server, and deactivate the database (AvidWG or AvidAM) using the Manage Databases View.
- 12. Lock the server using the Lock Server view (see "Locking and Unlocking the Server" on page 88).
- 13. Rename the existing \_InternalData folder to \_InternalData\_old.
- 14. Copy the zipped file to the target server and unzip the file to the Workgroup\_Databases folder. Copy the \_InternalData folder to the Workgroup\_Databases folder. Make sure the path on the target server matches the path on the source server.
- 15. Unlock the server using the Lock Server view.
- 16. Verify that all users are on the system by opening the User Management view and viewing the lists of user groups.
- 17. Activate the database by using the Manage Databases view (see "Activating a Deactivated Database" on page 65).
- 18. On an Interplay Access client, log in to the new server and verify that all data is available. If all data is available, the new database is ready for use.
  - If necessary, remove the old database from Interplay Access by right-clicking the database name and then clicking Remove Databases.
- 19. (Option) On the source server, rename the original database folder to avoid unwanted future access.
  - Use the Cluster Administrator to bring the source server back online. Right-click the Avid Workgroup Server group (not the resource) and select Bring Online.

## **Moving a Database Under Low Disk Space Conditions**

If disk space on the server is critically low, the Interplay Engine refuses client connections and displays an error message. In this situation, the administrator cannot log in and shut down the server, and move a database by normal means (as described in "Moving a Database to Another Server (Non-Clustered Systems)" on page 69 and "Moving a Database and Users to Another

Server (Non-Clustered Systems)" on page 71). In the Server installation directory (by default, C:\Program Files\Avid\Avid Interplay Engine\Server), there are tools provided to solve such problems:

- NxNServerLock.exe
- NxNServerUnlock.exe
- NxNServerShutdown.exe



Before beginning this procedure, be sure to make a backup of the database. See "Creating and Restoring Database Backups" on page 29 for information on running a backup. Temporarily change the Backup time field to "Once at" and enter or select from the list the time in the future closest to the current time.

#### To move a database under low disk space conditions:

- 1. Lock the server using NxNServerLock.exe.
- 2. Shut down the server using NxNServerShutdown.exe, if necessary.
- 3. Move the database folder (AvidWG or AvidAM) to another drive or free up some disk space.
- 4. Unlock the server by doing one of the following:
  - ▶ Use the Interplay Administrator's Lock Server view (see "Locking and Unlocking the Server" on page 88).
  - Use NxNServerUnlock.exe.
- 5. Deactivate the moved database using the Manage Databases view (see "Deactivating a Database" on page 64).
- 6. Activate the moved database in the correct location using the Manage Databases view (see "Activating a Deactivated Database" on page 65).

## Renaming a Database

Under some circumstances you might need to rename a database For example, if you need to create a new database with the same name, you can rename the original database. You can keep the original database as an archive for searching.



Before beginning this procedure, be sure to make a backup of the database. See "Creating and Restoring Database Backups" on page 29 for information on running a backup. Temporarily change the Backup time field to "Once at" and enter or select from the list the time in the future closest to the current time.

#### To rename a database:

1. In the Database section of the Interplay Administrator window, click the Manage Databases icon.

The Manage Databases view opens.

- 2. Select the database and click the Deactivate Database button to ensure that the database is not in use.
- 3. On the server or at the database location, use the Windows desktop to rename the database folder, .pro file, and .nif directory, and all files within the \_Database folder, that is, replace the old <DatabaseName> with the new name for all files fitting the following mask:

```
<DatabaseName>\<DatabaseName>.pro
<DatabaseName>\cDatabaseName>.nif
<DatabaseName>\_*.pro.jrn
<DatabaseName>\_Database\CDatabaseName>.*
<DatabaseName>\_Database\CDatabaseName>.*
```

Do not forget to rename the .jrn files correctly: make sure there are no typos in the database name, and that they are followed by the underscore and the numeric ID.

4. In the Interplay Administrator, click the Manage Databases icon and activate the database (see "Activating a Deactivated Database" on page 65).

## **Running Database Maintenance Tools**

The Maintenance view in the Database section of the Interplay Administrator provides the following tools that you can use to fix database problems. You can use these tools with Interplay Engine databases v2.4.0.1 or later, except for Validate User Tree, which you can use only with Interplay Engine v2.6. The tools are not displayed when connected to earlier versions of the Interplay Engine.

 Verify Link Consistency: Use this tool to detect and remove broken links and link inconsistencies.

Broken links are objects visible in a database folder that do not refer to an existing asset. They are displayed with a special X icon and are named with a *mob ID* (media object ID). They should be removed because they can cause exceptions during browsing.

Link inconsistencies are not visible. They are obsolete or invalid entries in internal database tables. A high number might cause slowdowns for certain operations.

 Cleanup Invalid Dependencies: Use this tool to detect and remove dependency inconsistencies.

- Dependency inconsistencies are not visible. They are obsolete or invalid entries in internal database tables. A high number might cause slowdowns for certain operations.
- Remove Duplicated Locators: Use this tool to detect and remove duplicated locators.
   Duplicated locators are locators that have the same comment, timestamp, and color as another locator on the same asset. A high number might cause slowdowns for certain operations. They were created because of a bug in certain Avid editing products.
- Recover Lost Master Mobs: Use this tool to detect and recover assets without a visible representation in a folder and display them in the Orphan Clips folder.
  - Lost master mobs are assets (such as sequences, master clips, and subclips) that are stored in the database but have no visible representation in a folder.
- Delete Lost File Mobs: Use this tool to detect and remove media file information objects containing information about a specific media file, like the resolution, site or location, which are not associated to an asset.
  - Lost file mobs are media file information objects that are stored in the database but are not associated to a master clip or rendered effect.
- Validate User Tree (Interplay Engine v2.6 or later): Use this tool to detect and fix inconsistencies in the user structure.
  - The AvidWG or AvidAM database contains a copy of the CCS user database. If the internal structure of this copy contains inconsistencies, then the synchronization of users between the CCS and the database might fail.
- Validate AssignedRoles Table: Use this tool to check or fix (by removing) invalid entries in the AssignedRoles table. This table keeps information about user roles that are assigned to database objects. The tool verifies this table for integrity and fixes entries if needed.
- Validate Property Objects: (Interplay Engine v2.7.6 or later, Interplay Engine v3.0.6 or later.) Use this tool to check for and repair issues with database properties, for example, a "SettingsNotRegisteredException" exception when applying Editing Settings in the Interplay Administrator.
- Clean Up Parentless Objects: (Interplay Engine v2.7.6 or later, Interplay Engine v3.0.6 or later.) Use this tool to check for and repair database objects that do not have a parent anymore. Hints that such objects exist can sometimes be obtained in the NxNServer.log with ERRORs like "root object has no parent." The presence of such objects can cause issues such as incomplete search results. All objects in the database must have a parent. This is true not only for Avid assets that are displayed in the browse tree but also for all other objects, such as users and other system objects.
- Validate Reservations: Use this tool to check all reservations. If the Fix Reservations option is checked, the tool removes expired and obsolete reservations.

When to run these tools: You can run any of these tools as part of a troubleshooting procedure, as recommended by an Avid representative. You can also run them for maintenance during regular maintenance windows. However, they are not designed to be run on a daily basis, because they require Exclusive Access to the database (see below).

One approach to using the tools for maintenance is to run them in the first convenient maintenance window. Note how long it takes to run the tools, and if any problems are reported. If there are no problems after running the tools a second time, you probably do not need to run them during every maintenance window. If as a result of running these tools you find an issue that regularly causes inconsistencies, you must consult with your Avid representative to address the root cause of the issue.

Most tools can take up to an hour to run on large databases, but usually run much quicker, and you can safely cancel the execution at any time. Each tool includes a window that displays logging information and options for saving the information.

There are three tools that you cannot cancel after you have started them:

- Validate AssignedRolesTable and Validate Property Objects: Usually run only a few seconds, regardless of the size of the database.
- Clean Up Parentless Objects: Might run for an hour on a very large database.

**Exclusive Access:** Keep in mind that each tool requires *Exclusive Access*. Exclusive Access locks the database to prevent access by a host system other than the one used to acquire Exclusive Access and the Engine itself. A dialog box asks if you want to acquire Exclusive Access before running the selected tool. You must click Yes to run the tool. Exclusive Access is automatically released at the end of the process. Consider sending out a notice to users before running any of these tools, informing them that the database will be locked. Logged-on clients will be automatically logged off after the database is locked.

Maintenance tools that you run in read-only mode (that is, without checking an option to fix problems) do not require Exclusive Access. The following tools do not require Exclusive Access in read-only mode:

- Verify Link Consistency
- Clean Up Invalid Dependencies
- Remove Duplicated Locators
- Recover Lost Master Mobs
- Delete Lost File Mobs
- Validate User Tree
- Validate AssignedRoles Table

If a tool requires Exclusive Access, a dialog box is displayed that asks if you want to set Exclusive Access.

Exclusive Access can be acquired and released in the Lock Server view, independently of the Maintenance tools (see "Locking and Unlocking the Server" on page 88). In an emergency, such as the Exclusive Access host crashed and there is no Interplay Administrator installed on the Engine, you can run a command-line program to release Exclusive Access. The file name of the tool is NxNServerExclusiveAccessRelease.exe and it is installed by default on the Interplay Engine in the following folder:

C:\Program Files\Avid\Avid Interplay Engine\Server



For more maintenance information, see "Interplay Maintenance Recommendations" in the Interplay Best Practices Guide.

#### To run a database maintenance tool:

- 1. In the Database section of the Interplay Administrator window, click the Maintenance icon. The Maintenance view opens.
- 2. In the left column of the view, select the database on which you want to run the tool.
- 3. Double-click the icon for the tool you want to use.
- 4. Select options for the tool as described in the following table:

Tool	Options	
Verify Link Consistency	<ul> <li>Fix broken links. Select this option to delete any broken links. If you do not select this option, the tool reports broken links and removes link inconsistencies. but does not take action to fix the broken links.</li> </ul>	
	<ul> <li>Verbose Output. Select this option to display the location of the broken links.</li> </ul>	
Cleanup Invalid Dependencies	• Cleanup Invalid Dependencies. Select this option to remove the invalid dependencies. If you do not select this option, the tool reports problems without taking action to fix them.	
Remove Duplicated Locators	<ul> <li>Remove duplicate locators. Select this option to remove the duplicated locators. If you do not select this option, the tool reports problems but does not take action to fix them.</li> </ul>	
	<ul> <li>Verbose Output. Select this option to display the names of the assets with duplicated locators.</li> </ul>	

Tool	Options	
Recover Lost Master Mobs	<ul> <li>Recover into 'Orphan Clips' folder. Select this option to create links for lost master mobs in to the Orphan Clips folder for deletion. If you do not select this option, the tool reports problems but does not take action to fix them.</li> </ul>	
	<ul> <li>Verbose Output. Select this option to display the names of the lost master mobs.</li> </ul>	
Delete Lost File Mobs	<ul> <li>Delete File Mobs. Select this option to delete lost media information objects.</li> </ul>	
	<ul> <li>Delete Media. Select this option to delete media associated with the lost media information objects.</li> </ul>	
	If you do not select these options, the tool reports problems but does not take action to fix them.	
	• Verbose Output. Select this option to display the media path.	
Validate User Tree (Interplay Engine v2.6 or later)	<ul> <li>Fix Invalid Users. Select this option to repair certain inconsistencies in the user structure.</li> </ul>	
	If you do not select this option, the tool reports problems but does not take action to fix them.	
	<ul> <li>Verbose Output. Select this option to display user names.</li> </ul>	
Validate AssignedRoles Table	<ul> <li>Remove Invalid Entries. Select this option to remove invalid entries from the AssignedRoles table.</li> </ul>	
	If you do not select this option, the tool reports problems but does not take action to fix them.	
Validate Property Objects	<ul> <li>Fix Property Objects: Use this option to both check for and fix found issues with property objects. The results dialog displays how many fixing operations the tool will perform or has performed.</li> </ul>	
	When this option is not selected, the tool only checks for and reports broken property objects.	

Options

#### Clean Up Parentless Objects

• Clean up parentless objects and move them to the "Lost&Found" folder. Use this option to both check for and fix parentless objects. The Interplay Engine either deletes the parentless object (in case it is not valid or functional anymore) or restores the object to a new parent folder named "Lost&Found." This folder is created on the database's root folder. The results dialog contains information if objects were recovered ("Restored *n* parentless objects to the "Lost&Found" folder).

If the results dialog reports that it restored objects to Lost&Found, the administrator should run the tool again. It is possible that the tool will find additional parentless objects through the restored objects.

When this option is not selected, the tool only checks for and reports parentless objects.



In rare cases, the read-only run of the tool reports that it found parentless objects that should be deleted, but after a clean-up operation, the results dialog does not report any deleted any objects. Subsequent read-only runs will continue to report these objects to be deleted. (Administrators can find entries in the Engine logs during the clean-up run that report skipped objects.) This is not a problem. These objects are special because they do not cause "root object has no parent" issues but are difficult to delete.

#### Validate Reservations

 Fix Reservations: Use this option to both check all reservations and remove expired and obsolete reservations.

If you do not select this option, the tool reports problems but does not take action to fix them.

#### 5. Click Run.

A dialog box asks if you want to set Exclusive Access to the database.

#### 6. Click Yes.

The tool runs with the options you selected. While the tool is running, information about the progress and found issues is displayed. When the tool is finished the following options are displayed:

- Open Log in editor: Opens the displayed information in Notepad or another default text editor. This version of the runtime information includes specific date and time information.
- Copy Log to Clipboard: Copies the information you see displayed to the clipboard.

- Save Log: Saves a version of the displayed information with additional specific date and time information, like the first option. It uses the following format: tool\_name-dd-mm-yyyy-hh-mm-ss.log
- 7. Click Close.

## Identifying the Root Folder of the Interplay Server Database

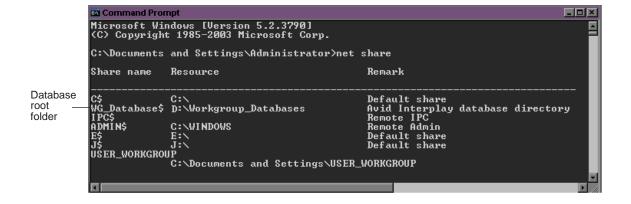
WG\_Database\$ is a hidden administrative share name and not an actual folder. It represents the root folder of the database. For example, the default root folder (which is set during installation) is named D:\Workgroup\_Databases (S:\Workgroup\_Databases on a cluster system).

#### To identify the root folder of the database:

- 1. Log onto the Interplay server (local computer) with an administrative account.
- 2. Open a Command Prompt by clicking All Programs and selecting Accessories > Command Prompt.
- 3. Type the following command at the Windows Command line:

net share

All shares on the system are displayed, along with their paths, as shown in the following illustration:



## 3 Server Settings

The Server settings enable you to configure and change server settings and shutdown and restart the server. The following topics describe how to use these settings:

- Changing the Database and Data Locations
- Viewing Server Information
- Locking and Unlocking the Server
- Restarting the Server
- Managing Licenses
- Configuring Third-Party Storage

## **Changing the Database and Data Locations**

The Server Settings view lets you change the default locations for a new database.



Do not change the location for the metadata database. The metadata database must be stored directly on the local Interplay Engine server because permanent access to these files is required. This is the only supported setup. Previously, you had the option of storing the source files for file assets on an Avid shared-storage workspace. This configuration, known as a split database, is no longer supported. See "Reuniting a Split Database" on page 233.

The root folder for a new database is set during the installation of the Interplay Engine software. By default, the installation program creates a shared folder that functions as the root folder for both the metadata database and the source files for file assets (the file repository). The default location is the D:\Workgroup\_Databases folder, which is represented by the administrative share name WG Database\$. The \$ indicates a hidden share.



To identify the actual folder, open a Command Prompt window and type net share.

If you need to create a new database, changing these settings does not affect any existing databases.

#### To change the root folders for a new database:

1. In the Server section of the Interplay Administrator window, click the Server Settings icon.
The Server Settings view opens.



- 2. For the root folder of the database (metadata), keep the folder that was set during the installation of the server (the default is \\IEServer\\WG\_Database\\\).
- 3. For the root folder of the data (file assets), keep the folder that was set during the installation of the server, unless you need to change the default configuration. The default is the same as the root folder of the database.
- 4. Click Apply Changes to change the setting for new databases.

## **Viewing Server Information**

The Server Information view has two areas:

- The Server Information area displays information about the following:
  - The version of the Interplay Engine software
  - The number of connected clients (through Interplay Access and other client applications)
  - The number of databases on the server
- The Connected User Information area displays information about the following:
  - Which database users are connected to
  - Which user is connected to which database
  - Which machine the user is connected from
  - What time a user has been connected since
  - The license class used

The license class is different from the license type. The *license class* is an internal key that is used by the Interplay Engine. The *license type* is the key displayed in the Licenses view. For example, if a user is logged into Interplay from NewsCutter, Access, and Interplay Administrator at the same time, the license classes listed in the Server

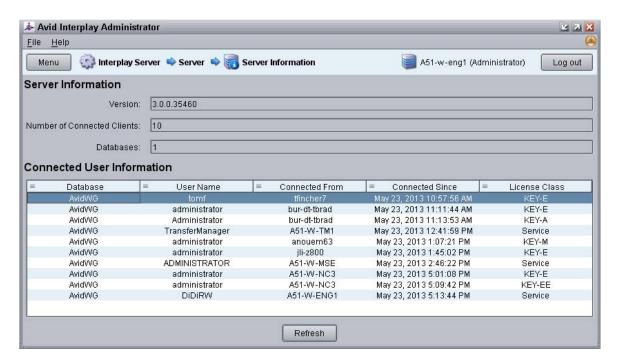
Information view are KEY-EE for the editor, KEY-E for Access, and KEY-A for the Interplay Administrator, However, only one license type, KEY-XE, is listed as used in the Licenses view.

You should use the Licenses view to manage license use. For more information, see "License Types and Usage" on page 97.

#### To view information about the Interplay Engine server:

In the Server section of the Interplay Administrator window, click the Server Information icon.

The Server Information view opens.



## **Locking and Unlocking the Server**

The Lock Server view allows the administrator to lock the Interplay Engine server for a specific period of time. Locking the server is useful when carrying out tasks such as:

- Server maintenance or upgrading the server software.
- Maintaining or rebooting the Avid shared-storage server.



Whenever a database or data location is unavailable, you should lock the database or the server.

The Lock Server view provides two different means of locking the Interplay Engine server: Lock Server and Exclusive Access.

- If Lock Server is activated, the Interplay Engine server is locked and all the clients that are connected to it are disconnected.
- If Exclusive Access is activated, the server process continues to run and the database can be used. Access is limited to the following host systems:
  - The host system used to acquire Exclusive Access, that is, the host system running the Interplay Administrator you used to set Exclusive Access
  - The Interplay Engine host, for example, through an Interplay Administrator or Interplay Access client on the Interplay Engine host system

Exclusive Access is required when running maintenance tools. See "Running Database Maintenance Tools" on page 79.

In addition to the Interplay Administrator client, any Interplay client running on one of these hosts (for example, Interplay Access, a Media Services provider, or an Avid editing system) is allowed to connect to the Interplay Engine and the database. This access allows you to execute a variety of maintenance tasks from this host while ensuring that no other host can access the Engine and database.

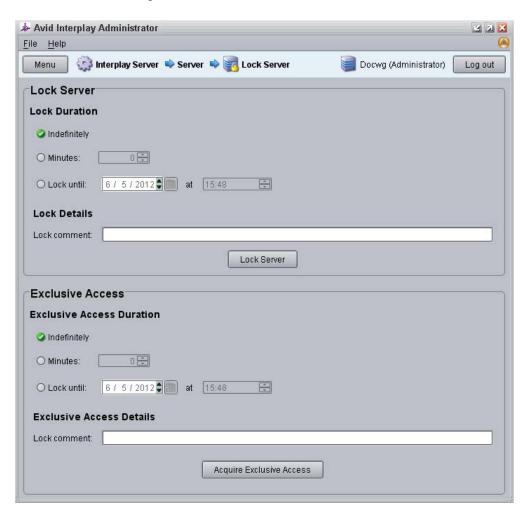
If the database becomes corrupt, the server might be locked automatically.

The following table summarizes the differences between a server lock, a database lock, and Exclusive Access:

Feature	Description		
Server lock (Lock Server view)	Saves and unloads all databases (including _InternalData). Also prevents access by the Interplay Administrator. Should be used for maintenance operations that require access to all database files (in the share WG_Database\$). Usually shutting down the Interplay Engine is a better approach than a server lock.		
Database lock (Lock/Unlock Database view)	Saves and unloads the database and thus allow maintenance operations on the database files themselves. Working with the database is not possible. Good for database file-level maintenance and restoring backups. Still allows access by the Interplay Administrator for settings such as user management and licensing See "Locking and Unlocking Databases" on page 62.		
Exclusive Access (Lock Server view)			

#### To lock the server and prevent any user access:

1. In the Server section of the Interplay Administrator window, click the Lock Server icon. The Lock Server view opens.



- 2. In the Lock Server section, select one of the following for the locking duration:
  - Indefinitely: An indefinite shutdown. This is a good choice when shutting down the server to carry out any vital maintenance, for example replacing hard drives, or making the first backup of a new database. The server needs to be manually unlocked after maintenance work.
  - Minutes: Allows you to stipulate when to restart the server (short time frame). It is useful when you are making routine backups and you know how much time you need. Specify the time period by clicking the Up and Down arrows.

- Lock until: Allows you to stipulate when to restart the server (longer time frame). Specify the time period by clicking the Up and Down arrows.
- 3. In the "Lock comment" text box, type a comment as to why you are locking the server. This comment is displayed when an Interplay Administrator tries to log into the Interplay Engine.
- 4. Click Lock Server.

The Lock Server view changes to display lock information. You cannot return to the Interplay Administrator window by clicking the Menu button. You can log out of the Interplay Administrator tool and then log in again.

#### To manually unlock the server after activating Lock Server, do one of the following:

- ▶ Log in to the Interplay Administrator, click the Lock Server icon, click Unlock Server and log in to the Interplay Administrator.
- In emergency situations, run the command-line program NxNServerUnlock.exe. It is installed by default on the Interplay Engine in the following folder:
  - C:\Program Files\Avid\Avid Interplay Engine\Server

#### To lock the server and allow access to the host that acquires the lock:

- 1. In the Server section of the Interplay Administrator window, click the Lock Server icon.

  The Lock Server view opens.
- 2. In the Exclusive Access section, select one of the following for the locking duration:
  - Indefinitely: An indefinite shutdown. This is a good choice when shutting down the server to carry out any vital maintenance, for example replacing hard drives, or making the first backup of a new database. The server needs to be manually unlocked after maintenance work.
  - Minutes: Allows you to stipulate when to restart the server (short time frame). It is useful when you are making routine backups and you know how much time you need. Specify the time period by clicking the Up and Down arrows.
  - Lock until: Allows you to stipulate when to restart the server (longer time frame). Specify the time period by clicking the Up and Down arrows.
- 3. In the "Lock comment" text box, type a comment as to why you are locking the server. This comment is displayed when an Interplay Administrator tries to log into the Interplay Engine.
- 4. Click Exclusive Access.

Exclusive Access Information is displayed. The "Accessible for" field lists the hostnames of the host that acquired the lock and the Interplay Engine host.



You can return to the Interplay Administrator window by clicking the Menu button, log out of the Interplay Administrator tool and then log in again, and perform other database tasks.

#### To manually unlock the server after activating Exclusive Access, do one of the following:

- Log in to the Interplay Administrator from the host where you acquired Exclusive Access or on the Engine host itself, click the Lock Server icon, then click Release Exclusive Access.
- In emergency situations, run the command-line program

  NxNServerExclusiveAccessRelease.exe. It is installed by default on the Interplay

  Engine in the following folder:

C:\Program Files\Avid\Avid Interplay Engine\Server

## **Restarting the Server**

Restarting the server disconnects any clients and shuts down the database before the server process is restarted. You rarely need to restart the server. Typically, you restart the server if you want to disconnect all clients and want to make sure no one is connected to the server so that you can perform maintenance. For example, you might restart the server and then lock the database as part of the process of moving the database.

Restarting only restarts the server process and not the server machine itself.



Depending on the size of the database, this process can take several minutes. Do not attempt to reboot the server under any circumstances before this process is completed.

#### To restart the server process:

- 1. In the Server section of the Interplay Administrator window, click the Restart Server icon.

  The Restart Server view opens.
- 2. Click Restart.



## **Managing Licenses**

Interplay needs valid licenses in order to function. Licenses are delivered to the customer in a license file, which the administrator imports through the Licenses view.

The following topics provide more information about installing and managing licenses:

- "Installing Permanent Licenses" on page 94
- "Displaying the Licenses View" on page 95
- "License Types and Usage" on page 97
- "Exporting a License" on page 102
- "Troubleshooting Licensing Problems" on page 102
- "Using the License Key Info Tool" on page 103

The following terms are used in these topics:

- License: The legal right to use an application. On the Interplay Engine, licenses are represented by license types.
- License type: A license that applies to a particular application or group of applications. License types are shown in the Licenses view as KEY-G, KEY-J, and so on.
- License file: A file with the extension .nxn that contains the license types that were purchased by the customer.
- Registry key: An organizational unit in the Windows registry. After you import the license file into the Interplay Engine, the information is stored in a registry key. Sometimes this registry key is referred to as a "license key."
- Dongle: A physical device that is attached to a system. Interplay licenses are associated with the dongle that is attached to the Interplay Engine.
- Software license: Licenses issued for Interplay 3.3 and later use a software license instead of a dongle.

#### **Installing Permanent Licenses**

If you are installing the Interplay Engine on a new system, temporary licenses are activated automatically so that you can administer and install the system. There is no time limit for these licenses. If you are performing an upgrade, the currently installed licenses are used.

Starting with Interplay Production v3.3, new licenses for Interplay components are managed through software activation IDs. In previous versions, licenses were managed through hardware application keys (dongles). Dongles continue to be supported for existing licenses, but new licenses require software licensing.

A set of permanent licenses is provided by Avid in one of two ways:

- As a software license
- As a file with the extension .nxn on a USB flash drive or another delivery mechanism.

These permanent licenses must match the Hardware ID of the Interplay Engine. After installation, the license information is stored in a Windows registry key.



Licenses for an Interplay Engine failover cluster are associated with two Hardware IDs.

If a customer purchases additional licenses, the licenses are delivered in an additional license file. After installation, new licenses are added to the existing licenses and are stored in an additional registry key.

#### To install a permanent license through software licensing:

Use the Avid License Control application.

See "Software Licensing for Interplay Production" in the *Interplay | Production Software Installation and Configuration Guide*.

#### To install a permanent license by using a dongle:

- 1. Start and log in to the Interplay Administrator.
- 2. Make a folder for the license file on the root directory (C:\) of the Interplay Engine server or another server. For example:
  - C:\Interplay Licenses
- 3. If the licenses were delivered on a USB flash drive, insert the drive into any USB port.



You can access the license file from the USB flash drive. The advantage of copying the license file to a server is that you have easy access to installer files if you should ever need them in the future.

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 to open it.
- 4. Copy the license file (\*.nxn) into the new folder you created.
- 5. In the Server section of the Interplay Administrator window, click the Licenses icon.
- 6. Click the Import license button.
- 7. Browse for the \*.nxn file.
- 8. Select the file and click Open.

You see information about the permanent license in the License Types area. The license information is stored in a registry key. (See "Troubleshooting Licensing Problems" on page 102.)

### **Displaying the Licenses View**

#### To view information about your licenses:

▶ In the Server section of the Interplay Administrator window, click the Licenses icon.

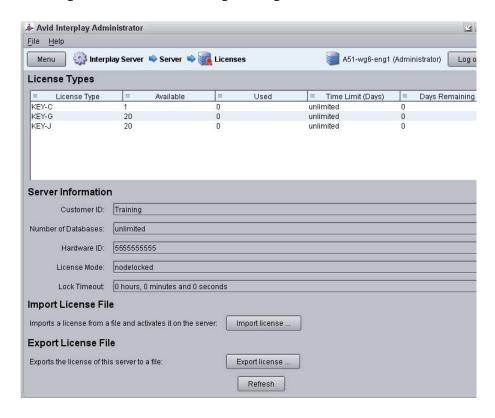
The Licenses view opens. The contents of the Licenses view depend on the type of license: software or hardware (dongle). The following illustration shows the software license view.



- Use the Refresh button to update the information in the view, such as changes made by another instance of the Interplay Administrator.

- Use the Refresh Engine button to update changes to licenses you have made using the Avid License Control tool. Clicking this button gives you the same result as restarting the Interplay Engine.

The following illustration shows the dongle-managed view.



For the dongle-managed view, the Licenses view has four sections:

- The License Types section displays information about the following:
  - Your current license types (see "License Types and Usage" on page 97).
  - Number of license types available.
  - Number of license types used.
  - Time Limit (days): The total days included in the license. Interplay licenses are usually not time limited, so in most cases the value for a license type is "Unlimited." Only one time limit is stored for each license type.
  - Days Remaining: The number of days until expiration of a time-limited license. Interplay licenses are usually not time limited, so in most cases the value for a license type is "0." Only one value for the days remaining is stored for each license type.

- The Server Information section displays information about the following:
  - Customer ID. The customer name or ID number.
  - Hardware ID, which matches the physical application key (dongle). The Hardware ID is required to obtain technical support.



The items Number of Databases, License Mode, and Lock Timeout are not applicable to current licensing.

- Import License File section: For information about importing a license file, see "Installing Permanent Licenses" on page 94.
- Export License File section: For information about exporting a license file, see "Exporting a License" on page 102.

#### **License Types and Usage**

Customers can currently buy three types of client licenses:

- MediaCentral Base license
- MediaCentral Advance license
- Media Composer Cloud license

The names of the first two licenses include MediaCentral, but the licenses themselves are used for all Interplay client applications, except for Media Composer Cloud. For example, a user on one workstation can work with all of the following applications concurrently and use only one MediaCentral Base license:

- Digidesign<sup>™</sup> Pro Tools<sup>®</sup>Integration
- Interplay Access
- Interplay Assist
- MediaCentral (access to iNEWS only or Interplay Production only)
- Media Composer or NewsCutter

Prior to version 2.7, customers purchased licenses for individual applications. These legacy licenses are still supported, as described later in this topic.



Interplay Engine patch release 2.7.0.2 added support for the Central Base license (KEY-J) and Central Advance license (KEY-G) to be used as universal license types. This change allows these licenses to be used for both legacy and MediaCentral client connections.

Customers can also buy the following licenses:

- Interplay Production Engine
- Interplay Archive Engine
- Third-Party AMA Storage

#### **Supported License Types**

The following table describes the license types used for Interplay Production v2.7.0.2 and later, how they are displayed in the Interplay Administrator Licenses view, and which applications they license.

#### **License Types Currently Used for Interplay Production**

License Type	Key	Application or Product
Central Base Client	KEY-J	<ul> <li>Digidesign<sup>™</sup> Pro Tools<sup>®</sup>Integration</li> </ul>
		Interplay Access
		• Interplay Assist
		<ul> <li>MediaCentral, access to iNEWS only or Interplay Production only.</li> </ul>
		Media Composer, NewsCutter
Central Advance Client	KEY-G	Above products plus
		Avid Instinct
		<ul> <li>MediaCentral, with access to Interplay Production and iNEWS in the same browser plus all features</li> </ul>
Media Composer Cloud	KEY-LI	Media Composer Cloud
Client		A Media Composer Cloud client also requires a Media Composer client license. The Media Composer license is included in the client count, but the Media Composer Cloud license is not included (not counted).
Interplay Archive Engine	KEY-AM	Interplay Archive Engine. This key is visible only when the Interplay Administrator is logged onto the Archive Engine.
Interplay Streaming Server	KEY-C	Interplay Streaming Server
Third-party Storage	KEY-CI	Third-party storage for AMA material.

#### **How Licenses Are Shared**

A client workstation, through its IP address, can use a single license to run more than one Avid client application concurrently. For example, a user can run both Media Composer and Interplay Access while using a single MediaCentral license (Base or Advance). The Interplay Engine manages access through the hostname of the workstation.

The license is not released from the client workstation until all applications that require a license are closed.

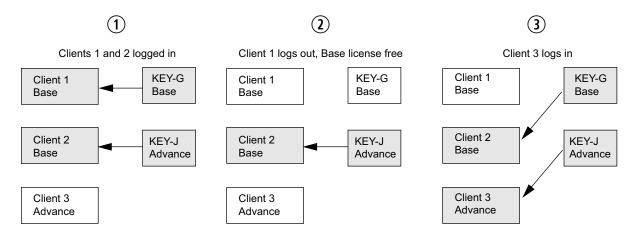


To run MediaCentral and other applications concurrently with a single license, the client workstation must be connected to the same LAN as the MediaCentral server. The client workstation must have a correct DNS entry and the MediaCentral server must be configured to resolve the client workstation's hostname.

The Interplay Engine uses "smart licensing" to manage Base and Advance licenses to allow optimum usage of free licenses. It assigns an Advance license to a Base client if a Base license is not available. It switches the assignment if an Advance client needs a license and a Base license becomes available. For example:

- 1. Client 1 requires a Base license, and is assigned the last free Base license. Client workstation 2 requires a Base license, but only an Advance license is available. Workstation 2 is assigned an Advance license.
- 2. Client workstation 1 logs out from the application, and a Base license is freed.
- 3. Client workstation 3 requires an Advance license, but only a Base license is available. Workstation 2's license is switched to a Base license and workstation 3 is assigned an Advance license.

The following figure illustrates this example.



#### License Types Previously Used for Interplay Production Applications

Prior to Interplay version 2.7, customers purchased licenses for individual products. The following table lists how these legacy licenses relate to current license types, how they are displayed in the Interplay Administrator Licenses view, and which applications they license.

#### License Types Previously Used for Interplay Production Applications

License Type	Key	Application or Product
Base License	KEY-X	Interplay Access
Base License	KEY-XA	Media Composer Cloud
Base License	KEY-XE	Avid Editing Applications
Base License	KEY-XL	Interplay Assist
Base License	KEY-XP	Digidesign <sup>™</sup> Pro Tools $^{\otimes}$ Integration
Advance License	KEY-XI	Avid Instinct

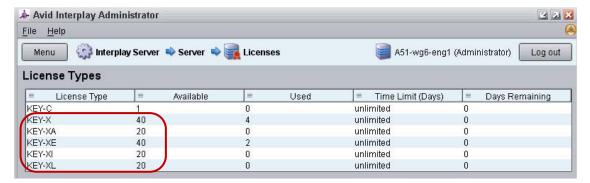
Interplay version 2.7 and later continues to support these licenses.



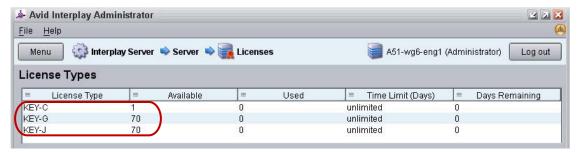
Interplay Engine patch release 2.7.0.2 added support for the Central Base (KEY-J) and Central Advance (KEY-G) to be used as universal license types. This change allows these licenses to be used for both legacy and MediaCentral client connections.

The following illustration compares a set of legacy license types, a set of current license types, and a mix of the two. In all cases the number of client licenses available is 140.

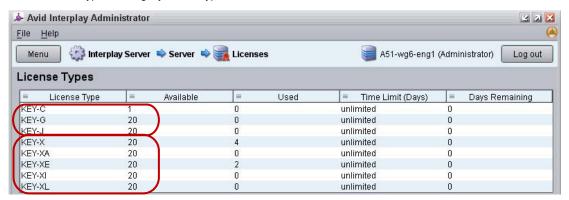
#### Legacy license types



#### Current license types



#### Current license types and legacy license types



If a facility is using a mix of legacy licenses and current licenses, the Interplay Engine first looks for an appropriate legacy license. If none are available, it looks for an appropriate current license. For example:

- 1. An Assist client logs on. The Interplay Engine looks for an Assist license (KEY-XL)
- 2. If it does not find one available, it looks for a Base license (KEY-J).
- 3. If it does not find one available, it looks for an Advance license (KEY-G)

If a facility is using only legacy licenses, Interplay Engine v2.7.0.2 and later manages licenses in the same way that it did before v2.7.0.2. One client license can apply to multiple applications on a client workstation. For example, if you have an editing application running, no additional license is needed to run Access at the same time:

- If you start the Avid editing application first, KEY-XE is assigned. If you then start Interplay Access, KEY-XE covers use of Interplay Access on the same machine.
- If you start Interplay Access first, KEY-X is assigned. If you then start the editing application, KEY-X is released and KEY-XE is used instead.

#### **Exporting a License**

You might need to export your license information for support purposes (dongle-managed licenses only)



Export functionality is intended for Avid support purposes. You might not be able to reimport an exported license.

#### To export your license to a file:

- 1. Click the Export license button in the Licenses view.
- 2. Type or browse to a .nxn file name.
- 3. Select Save.

#### **Troubleshooting Licensing Problems**

If you previously attached one application key (dongle) on an Interplay Engine system and loaded the registration file for that dongle, and then attach a different dongle and try to load a new registration file, the registration file will not load. You need to delete the Windows registry key for the dongle.

#### To delete the registry key for a dongle:

- 1. Click Start, then click Run.
- 2. In the Open text box, type  $\operatorname{regedit}$  and  $\operatorname{click}$  OK.

The Registry Editor view opens.

- 3. Locate the registry key for the original dongle, found here:
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\Avid Technology\Workgroup\Avid Workgroup Server\FeatureKeys\Permanent
- 4. Delete the Permanent folder.
- 5. Close the Registry Editor window.
- 6. Reload the new registration file as described in "Installing Permanent Licenses" on page 94.

#### **Using the License Key Info Tool**

You can use the LicenseKeyInfo tool to display and print out the license information for an Interplay Engine or Interplay Archive Engine. This tool is primarily a support tool. It is useful when you have only a license file available (and not a server), or you want to know the enabled features of a license without installing it.

#### To examine the license key information for an Interplay Engine:

- 1. Navigate to the following folder:
  - C:\Program Files (x86)\Avid\Avid Interplay Engine\Server
- 2. Double-click LicenseKeyInfo.exe
  - The Interplay License Info dialog box opens.
- 3. Click Get License Info.
- 4. Select the License file and click OK.
  - The system displays the license info.
- 5. (Option) Click Save License Info or Print License Info and follow the on-screen instructions.

## **Configuring Third-Party Storage**

This view is used to configure storage manufactured by companies other than Avid. It is used primarily in AMA workflows. For more information, see "Using AMA Material in Interplay" in the *Interplay | Production Best Practices Guide*.

## 4 User Management

An administrator controls access to Interplay through user accounts and user roles. The following topics provide information about how to manage user accounts and access to the database:

- Understanding the Central Configuration Server
- Adding Users to a Central Configuration Server
- Setting User Authentication Providers and Importing Users
- Managing Users, User Groups, and User Rights
- Managing Database Roles
- Guidelines for User Management

For specific examples of how to manage user roles, see "Setting Up a Folder Structure and a User Database" in the *Interplay Best Practices*.

## **Understanding the Central Configuration Server**

The Central Configuration Server (CCS) is an Interplay Engine with a special module that is useful if you are working in an environment that includes more than one Interplay Engine (including an Interplay Archive Engine). The CCS uses this module to store information that is common to all other Interplay Engines. Cross-database management of administrative tasks is possible because all of the Interplay Engines under the CCS inherit its settings by default. A Central Configuration Server is especially useful for user management tasks.

You set a CCS whenever you install an Interplay Engine. At that time, you can set the CCS as the server on which you are installing, or you can specify a previously installed Interplay Engine, including an Interplay Archive Engine. The Interplay Engine acts as the CCS as soon as it is started after the installation. Each Interplay Engine must be associated with a CCS. An Interplay Engine can be its own CCS.

Depending on the number of Interplay Engines that are installed, several CCS configurations are possible:

- One Interplay Engine: Configure this server as the CCS.
- Several Interplay Engines: Usually you configure only one Interplay Engine as the CCS. The
  use of more than one CCS in a company might be useful if there are several independent
  domains, departments, or sites where there is no need to share users or other settings in
  Interplay. In the case where several sites are located in different locations, having one CCS
  for each site could be practical.



Starting with Interplay V3.0, a CCS that is created on an Interplay V3.0 Engine does not support Interplay Engines earlier than v3.0. A CCS on an Interplay Engine earlier than v3.0 supports an Interplay V3.0 Engine.

If necessary, you can use the Central Configuration Server view to change the CCS that you set during the Interplay Engine installation.



Do not reset the CCS unless there is real need to do so, such as a space issue. All the information that was stored on the old CCS, including users and local administration settings, is lost when the CCS is changed to another server unless you first move the \_InternalData folder to the server that will be used as the new CCS. If you do not or cannot move the \_InternalData folder to the new CCS, and you set the new CCS for the database, you must migrate the database through the Manage Databases view. In this case, all previous CCS-related information will be lost.

The following procedures describe how to change the CCS:

- "Moving the CCS to Another Server" on page 105
- "Viewing and Changing the CCS for a Server" on page 107.

Specifying an incorrect CCS can prevent login. See "Troubleshooting Login Problems" on page 225.

#### Moving the CCS to Another Server



Before beginning the following procedure, be sure to make a backup of the database. See "Creating and Restoring Database Backups" on page 29 for information on running a backup. You can use the Start Backup Now feature to start a backup immediately. You can use the Start CCS (InternalData) Backup Now feature to back up the CCS database.

The following procedure is based on these assumptions:

- Server A is the CCS.
- You want to keep the CCS settings and user information that exist on server A, but move them to server B.
- You do not want to keep the original CCS information that exists server B.



Server B should be created by a clean installation and should serve as its own CCS. No other database should point to Server B as a CCS, because any existing user data on Server B will be lost.

#### To move a CCS to another server:

- 1. Back up the database. See "Creating and Restoring Database Backups" on page 29.
- 2. Make sure that the Interplay Engine on both servers is the same version. See "Viewing Server Information" on page 87.
- 3. Start Interplay Administrator and log in to server A (which is the current CCS).
- 4. Lock server A. See "Locking and Unlocking the Server" on page 88.
- 5. In Interplay Administrator, log out of server A.
- 6. Log in to server B.
- 7. Lock server B.
- 8. Log out of server B.
- 9. Use Windows Explorer to delete the \_InternalData folder on server B.
  - The folder is located by default in \\IEServer\WG\_Database\\$ (usually D:\Workgroup\_Databases\). See "Identifying the Root Folder of the Interplay Server Database" on page 85.
- 10. Copy the \_InternalData folder from server A to the default database location of server B.
- 11. In Interplay Administrator, log in to server A, unlock the server, and log out.
- 12. Log in to server B and unlock the server.
- 13. Make sure the CCS for server B is set as server B itself. If necessary, complete "Viewing and Changing the CCS for a Server" on page 107.
- 14. Log out of server B.
- 15. On server A, change the CCS for server A to server B using "Viewing and Changing the CCS for a Server" on page 107.

#### Viewing and Changing the CCS for a Server



Before beginning the following procedure, be sure to make a backup of the database. See "Creating and Restoring Database Backups" on page 29 for information on running a backup. You can use the Start Backup Now feature to start a backup immediately. You can use the Start CCS (\_InternalData) Backup Now feature to back up the CCS database.

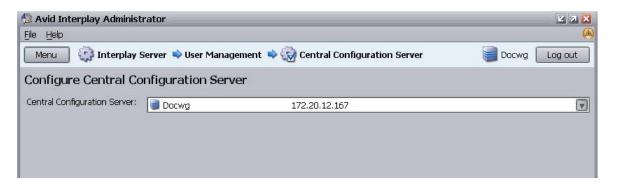
The following procedure is based on these assumptions:

- Server A is the CCS.
- You want server B to be the CCS for server A. You want to use the settings and user information that exists on server B.
- You do not want to keep the CCS information that exists on server A.

#### To change the CCS for a server:

- 1. Back up the database. See "Creating and Restoring Database Backups" on page 29.
- 2. Make sure that server A and server B are the same version, otherwise the CCS does not reset. See "Viewing Server Information" on page 87.
- 3. Start the Interplay Administrator on server A, and log in to Server A.
- 4. In the User Management section of the Interplay Administrator window, click the Central Configuration Server icon.

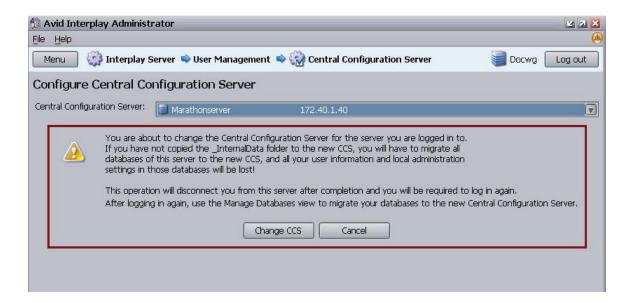
The Central Configuration Server view opens.



5. Use the arrow in the Central Configuration Server list to select server B to use as the CCS.

A warning appears explaining the consequences if you have not followed the procedure "Moving the CCS to Another Server" on page 105 and moved the \_InternalData folder to server B.

Moving the \_InternalData folder is usually recommended. If you do not, all users and local administration settings are lost.



- 6. Do one of the following:
  - ▶ To keep the original CCS, click Cancel.
  - ▶ To change to a new CCS, click Change CCS.
- 7. If you have not moved the original CCS server (see "Moving the CCS to Another Server" on page 105), you need to migrate the database to the new CCS and all of your CCS-related data (such as users and local administration) are lost. Unmigrated databases should not be used; databases should always be migrated to a CCS. Unmigrated databases cannot be administered. For more information, see "Migrating a Database" on page 67.

# Adding Users to a Central Configuration Server

There are several ways to add users to a Central Configuration Server:

- Automatically adding Avid Unity (shared-storage) users. These users are added to the CCS
  the first time they log in. They log in using their Avid Unity username and password. For
  more information, see "Setting Avid ISIS Authentication" on page 112.
- Importing users from a Windows domain or LDAP directory. You need to use the User Authentication Providers view to import these users. They log in using their Windows or LDAP username and password. For more information, see "Setting Windows Domain Authentication and Importing Users" on page 113 and "Setting LDAP Authentication and Importing Users" on page 115.
- Individually creating users. You need to use the User Management view to create individual users. They log in using the username and password that you set. For more information, see "Adding Users Manually" on page 126.

# Setting User Authentication Providers and Importing Users

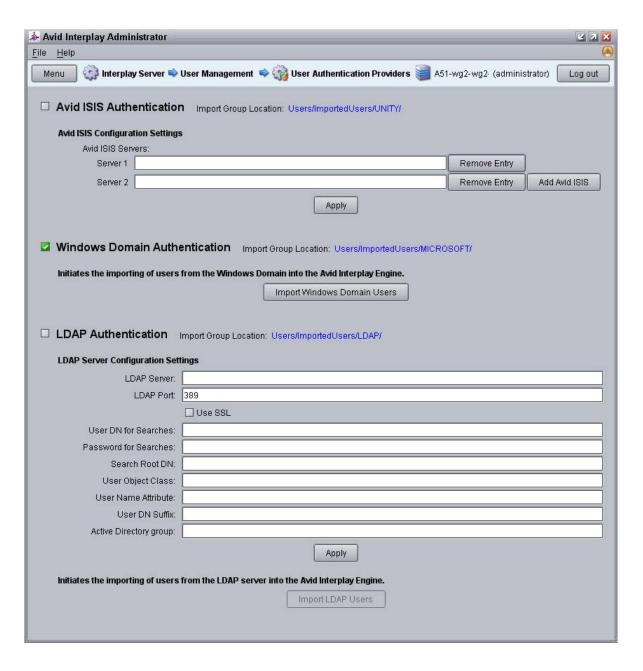
The User Authentication Providers view lets you set the type of authentication users need to provide when logging in to Interplay. You can select one or more of the following authentication providers:

- Avid Unity
- Windows Domain
- LDAP

Selecting these providers lets users log in without requiring them to use an additional username and password for Interplay. You still have the option of creating individual users specifically for Interplay (see "Adding Users Manually" on page 126).

The User Authentication Providers view lets you import users from a Windows domain or LDAP server. You do not need to explicitly import Avid Unity users; they are imported at the time they log in.

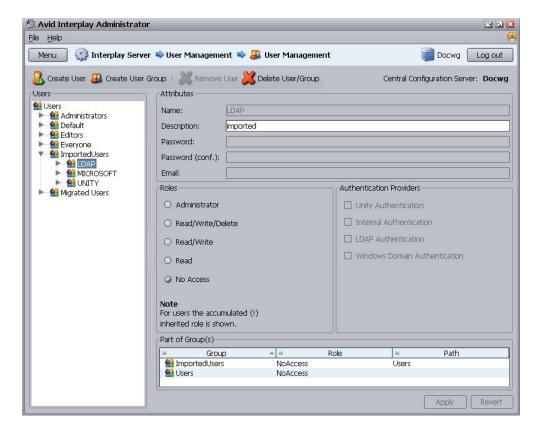
Information from this view is saved in the CCS (see "Understanding the Central Configuration Server" on page 104).



All special characters are allowed in user names except for \ (backslash), / (forward slash), / (vertical bar), and quotes (" and '). When LDAP and Windows Domain users are imported, these characters are replaced with "\_". If two users have different user names that are mapped

to the same converted name (for example, dann/o and dann\o become dann\_o), only one converted user name is imported. These users currently cannot be authorized through LDAP or Windows Domain; they can only be imported.

The users are added to the Imported Users folder in the User Management page, under the respective subfolder for LDAP, Microsoft, or Avid Unity. Users are also added to the Everyone folder. The following illustration shows these subfolders with the LDAP folder selected.



These types of user authentication and how users are imported are described in the following topics:

- "Setting Avid ISIS Authentication" on page 112
- "Setting Windows Domain Authentication and Importing Users" on page 113
- "Setting LDAP Authentication and Importing Users" on page 115

# **Setting Avid ISIS Authentication**

If you select the Avid ISIS Authentication option, a user can log in to the Interplay database using a valid Avid ISIS password. The authentication mechanism always checks this User Authentication Provider first.

This method of authorization is implicit. In other words, there is no active import of users at the time the Avid ISIS Authentication is enabled. Instead, the first time that an Avid ISIS user logs in to Interplay, the user is added to the UNITY user group subfolder. By default, this user group has Read rights.

If your workgroup includes multiple ISIS systems, you need to specify each additional ISIS server name. Users can then use their Avid ISIS credentials to log in to the Interplay database and access any additional ISIS servers to which they have access. For more information, see the *Interplay Software Installation and Configuration Guide*.



If you list ISIS server names for Unity authentication, the servers that you specify determine which workspaces are available in the Media Creation Workspace setting. This occurs whether or not ISIS user authentication is activated. See "Application Database Settings: Editing Settings Tab" on page 197.

#### To enable Avid Unity authentication:

 In the User Management section of the Interplay Administrator window, click the User Authentication Providers icon.

The User Authentication Providers view opens.

- 2. Click Avid ISIS Configuration Settings.
- 3. Type the server name with which the CCS should cross-check for authentication.

Click the Remove Entry button to delete a hostname.

The name that you type depends on the configuration of the ISIS system.

- For a configuration with a single System Director, type the System Director hostname that is set in the ISIS Control Panel in the System Director.
- For a configuration with two System Directors (dual System Director configuration), type the Virtual System Director hostname that is set in the Control Panel for both System Directors. The Virtual System Director Name represents the two virtual IP addresses that you also set in the ISIS Control Panel.

The name you type must match the ISIS name that appears in the ISIS Client Manager that is running on the Interplay Engine. For more information, see the Setup Guide for your ISIS system.

In a multiple ISIS workgroup, type the name of the local System Director.

- 4. In a multiple ISIS workgroup, click the Add Avid ISIS button and type the name of the System Director for the additional Avid ISIS systems.
- 5. Click Apply.

The first time an Avid ISIS user logs into Interplay, the user is added to the CCS as part of the UNITY user group under Imported Users, with Read rights by default.

#### To reassign an Avid ISIS user's Interplay rights:

Move the user to a different user group later if you want to give the user a different role. For more information, see "Managing Database Roles" on page 133.

# **Setting Windows Domain Authentication and Importing Users**

If you activate Windows Domain authentication, a user is able to log in to an Interplay database with a Windows domain user name and password. Any time a user tries to access an Interplay database, the CCS (Central Configuration Server) can use the Windows login information to authenticate the user and in turn to check which databases the user can access.

To use this feature, the Interplay Engine Server Execution User must be a member of the domain from which you import users and against which you want to authenticate users. If the user is logged in to a supported Windows machine, and logged into the same domain as the Interplay Engine, the user can log in using the domain user name and password.

An administrator needs to assign suitable roles to the imported users before they can access the database. By default, imported users do not have access rights to the database, which will cause a login to fail even if a user is properly authenticated by the domain. In this case, the following error message is displayed:



Note also that for Interplay to import users from an Active Directory, these users must be placed in groups. Interplay does not support importing of single users. To facilitate administration, Avid recommends that you align the Interplay group structure with the Active Directory group structure.



Some large organizations might use a hierarchical domain structure called a "forest root domain." For example, an organization with a domain named "company.com" might choose to place its Interplay production system in a sub-domain named "avid.company.com." In Windows, users from different parts of this organization can be managed in groups (for example, a

"Universal Group") and can be authenticated across the entire forest. Interplay domain authentication does not support this structure. If you select a domain for authentication, users from other forest domains will be stripped from the group during the import process.

If necessary, you can combine Windows domain authentication of one domain with LDAP authentication of another domain. See "Authentication from an Active Directory that Includes Multiple Domains" on page 120.



Roaming profiles are not supported in an Interplay environment.

#### To enable Windows domain authentication:

 In the User Management section of the Interplay Administrator window, click the User Authentication Providers icon.

The User Authentication Providers view opens.

2. Select the Windows Domain Authentication option.



3. Click Import Windows Domain Users.

The Import User Groups dialog box opens.

- 4. Do one of the following:
  - ▶ Select the user groups you want to import into the Interplay system.
  - ▶ Click Select All to import all the user groups into the Interplay system.
- 5. Click OK.



Depending on the size and complexity of the import, the import operation might prevent users from logging on, browsing, checking in, or doing on work on the server

Upon import, Interplay creates a new user group and subfolder called MICROSOFT under Imported Users in the User Management view. It imports all the users authenticated on the Windows domain that are not currently in the Interplay user database. These users are imported to the MICROSOFT group and have the default role of No Access. Users can then be moved to different groups to gain a new user role. See "Managing Database Roles" on page 133.

Users that are already in the Interplay user database during a Windows Domain User import are added to the MICROSOFT group again but retain the group placement and role they already had.



New users added to the Windows domain are not continually imported to the CCS. You need to add them manually. See "Adding Users Manually" on page 126.

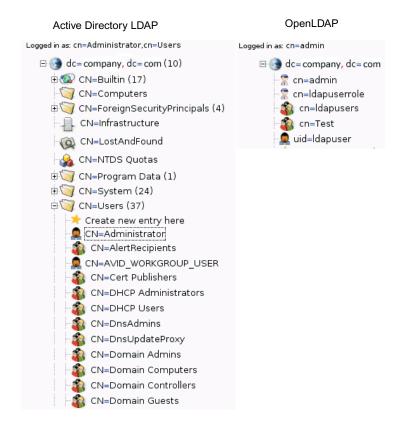
# **Setting LDAP Authentication and Importing Users**

If you select the LDAP Authentication option, a user can log in to Interplay databases with an LDAP user name and password. Interplay supports LDAP Version 2 and LDAP Version 3.

To properly configure LDAP authentication, you must know the schema of the LDAP database. Two common schemas are

- Microsoft Active Directory LDAP implementation
- A freely available LDAP service such as OpenLDAP

The configuration you specify depends on the LDAP schema against which you are authenticating. The following illustration shows some differences between Active Directory and OpenLDAP.





Details on the LDAP schema objects can be found in RFC1274, "The Cosine and Internet X.500 Schema"

If an Active Directory is made up of multiple OUs (organizational units) in multiple domains, you can select a specific OU for user authentication. See "Authentication from an Active Directory that Includes Multiple Domains" on page 120.

#### To import LDAP users and enable LDAP authentication:

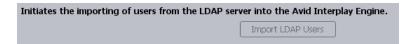
1. In the User Management section of the Interplay Administrator window, click the User Authentication Providers icon.

The User Authentication Providers view opens.

- 2. Select the LDAP Authentication option.
- 3. Type information in the edit fields to specify the LDAP settings you want to use for import and authentication.

The settings are described in "LDAP Server Configuration Settings" on page 117.

- 4. Click Apply.
- 5. Click Import LDAP Users.



A warning message tells you that during an import other users will not be able to work with this server.

#### 6. Click OK.

Interplay creates a new user group and subfolder called LDAP under Imported Users and imports all the users from the LDAP server that match the filter criteria in the LDAP configuration, and are not currently available in the Interplay user database. These users are imported to the LDAP group and have the default role of No Access. Users can then be moved to different groups to gain a new user role. See "Managing Database Roles" on page 133.

Users that are already in the Interplay user database during an LDAP User import are added to the LDAP group again but retain the additional group placement and role they already have.



New users added to the LDAP server are not continually imported to the CCS. You need to add them manually. See "Adding Users Manually" on page 126.

# **LDAP Server Configuration Settings**

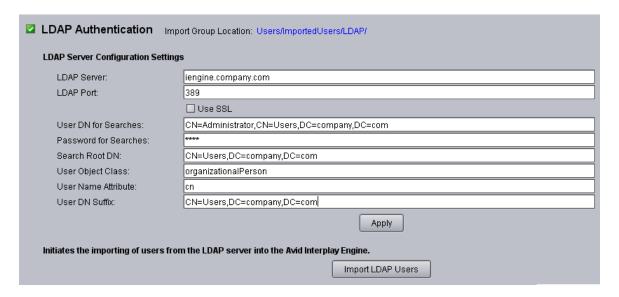
The following table describes the LDAP server settings that are needed for authentication and import.

Setting	Description
LDAP Server	IP address of the LDAP server.
LDAP Port	Port for the LDAP service. For Standard LDAP, accept the default port 389. For Active Directory Global Catalog LDAP, specify port 3268. For LDAP enabled over SSL (LDAPS), specify port 636
Use SSL	Select this option if the LDAP uses Secure Sockets Layer (SSL) technology.
	Secured LDAP requires an X.509 certificate infrastructure. For more information, see the Microsoft article "How to enable LDAP over SSL with a third-party certification authority."
User DN for Searches	User DN for a user who has the right to query the directory. This DN will be used for logging on to the LDAP directory and performing a search for importable objects after you click the Import LDAP Users button.
Password for Searches	Password for a user who has the right to query the directory. This password will be used for logging on to the LDAP directory after you click the Import LDAP Users button.
Search Root DN	DN root for searches in the LDAP database. This DN specifies the search root that will be used after you click the Import LDAP Users button. This DN typically points to the branch of the LDAP tree where the user objects are located. Typical examples are "CN=queryuser,CN=Users,DC=company,DC=com" for Windows Active Directory LDAP, or "CN=queryuser,DC=company,DC=com" for OpenLDAP.
	For an example of importing users from an Active Directory structure with multiple domains, see "Authentication from an Active Directory that Includes Multiple Domains" on page 120.
User Object Class	Object class attribute of a User. This value will be used as a search filter after you click the Import LDAP Users button. Interplay will perform an <i>ldap_search</i> request on the directory, and all returned objects that match <i>User Object Class</i> will be imported. A typical setting for Microsoft AD LDAP would be <i>organizationalPerson</i> . For OpenLDAP, a typical object class would be <i>simpleSecurityObject</i> .

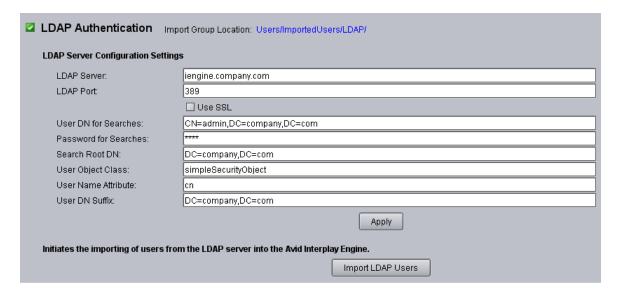
Setting	Description
User Name Attribute	The attribute that becomes the imported user name in Interplay. This name is displayed in the user tree and is used for logging in to Interplay. The standard LDAP attribute is "cn" but an administrator can use other attributes, such as "displayName" or "mailNickname" for a shortened user name. The user import process automatically imports the attribute used in this field as well as the "cn" attribute. When the user logs in, the LDAP authentication process uses the "cn" attribute.
	Note the following:
	<ul> <li>If an Interplay user with the name specified by "User Name Attribute does not exist yet in Interplay, a new user is created. This can happer if an LDAP user was originally imported through a different attribute for example, originally imported through "cn" and now imported through "displayName."</li> </ul>
	• If an Interplay user with the name specified by "User Name Attribute already exists, but was imported by an Interplay Engine earlier than v3.2, the existing Interplay user is updated to enable a correct LDAP authentication (through import of the "cn" attribute).
User DN Suffix	Suffix that must be appended to the user name to form a valid Distinguished User Name (DN). The resulting DN will be used wheneve a user tries to authenticate through LDAP: Interplay will issue a <i>simple ldap_bind</i> request to the directory service, using a DN constructed according to the rule given above, and the clear text password as given by the user.
	For example, if the user name specified during login is "journalist" and the User DN Suffix is "CN=Users,DC=company,DC=com," Interplay will try to bind to the LDAP service using a DN of "CN=journalist,CN=Users,DC=company,DC=com." Access will be granted if the bind request is allowed by the LDAP service. Depending of the LDAP service implementation, there might be other possible ways of constructing a DN valid for binding to the LDAP service. In Active Directory LDAP, for example, a DN suffix of "@company.com," resulting in a DN of "journalist@company.com" might also work.
	For an example of authenticating users from an Active Directory structur with multiple domains, see "Authentication from an Active Directory that Includes Multiple Domains" on page 120.
Active Directory Group	The name of an Active Directory group whose users you want to import The LDAP attribute that contains the group name must be "memberOf," as displayed in the Active Directory LDAP interface. You must be connected to an Interplay Engine v3.2 or later. Only Active Directory

groups are supported.

The following illustration shows an example of settings for an Active Directory LDAP implementation.



The following illustration shows an example of settings for an OpenLDAP implementation.



#### **Authentication from an Active Directory that Includes Multiple Domains**

An organization might have an Active Directory that includes several domains. Depending on the requirements of the organization, you can import and authenticate users in the following ways:

- Authenticate users from a single LDAP domain
- Authenticate users from a single OU (organizational unit)
- Combine LDAP authentication for one domain with Windows domain authentication for a second domain



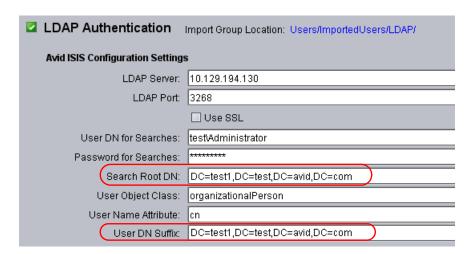
When using LDAP authentication, you can use only one OU for authentication.

#### LDAP Authentication from a Single LDAP Domain

For example, a facility's Active Domain might have three domains, as shown in the following illustration.

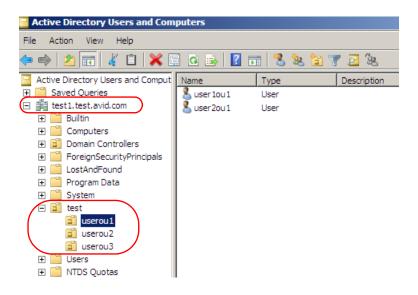


If a domain includes only one user OU, you can specify that domain as the Search Root DN and the User DN Suffix. In the following illustration, import and authentication is specified for test1.test.avid.com

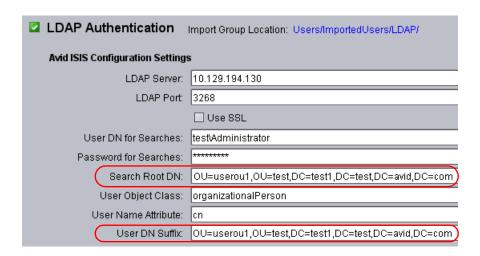


#### LDAP Authentication from a Single OU

A domain might have more than one OU. The following illustration shows three user OUs for test1.test.avid.com.



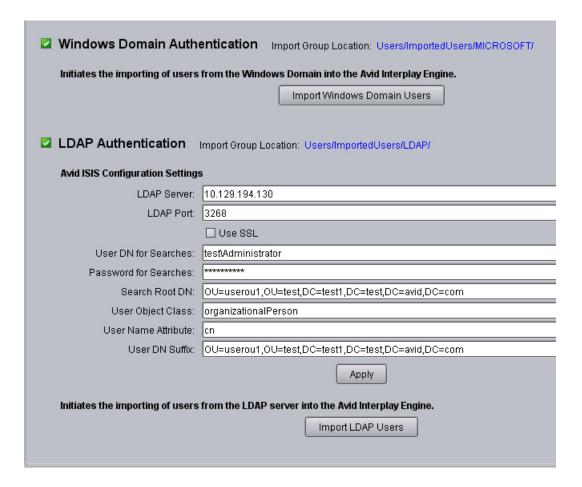
In the LDAP Authentication Settings, you would specify the specific OU as the Search Root DN, and then specify a User DN Suffix to authenticate users in that OU. In this example, the Search Root DN is set for the OU test\userou1 in the domain test1.test.avid.com. The User DN suffix matches this search root.



#### Combined LDAP Authentication and Windows Domain Authentication

If you want to import and authenticate users from two domains, you can combine LDAP authentication as described in the previous sections (either for a single domain or for a single OU) with Windows Domain authentication for a second domain. For information on Windows Domain authentication, see "Setting Windows Domain Authentication and Importing Users" on page 113.

The following illustration shows Windows Domain Authorization selected for one domain (the domain is not shown in the Interplay Administrator view) and LDAP Authorization for an OU in another domain.



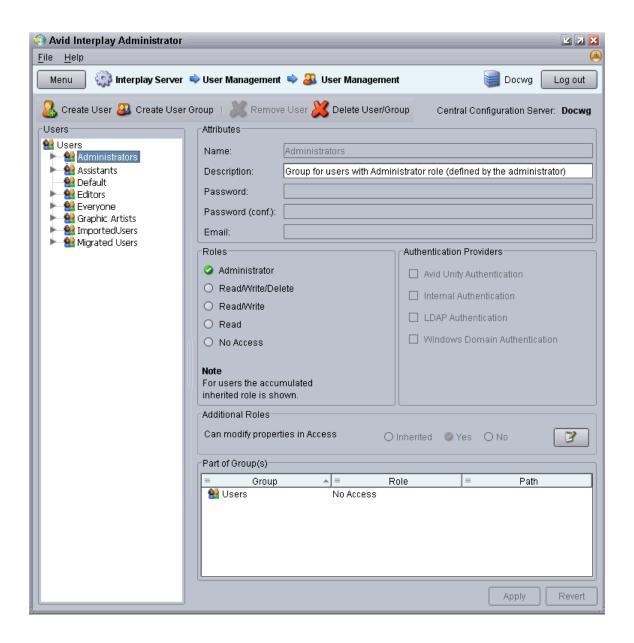
# Managing Users, User Groups, and User Rights

The User Management view lets you create, modify, manage and delete users and user groups. It also lets you define user roles and authentication protocols. If you are working in an environment that includes more than one Interplay Engine, you should manage users through a CCS (see "Understanding the Central Configuration Server" on page 104). Managing users through a CCS lets you manage users across multiple workgroups.

If you work at a relatively small site where all editors and assistants have access to all the current projects, then you can set all user roles by user groups. If you work at a site where you need to limit access to some projects, you can set roles for users on specific folders. See "Managing Database Roles" on page 133.

For more information about managing user roles, with specific examples, see "Setting Up a Folder Structure and a User Database" in the *Interplay Best Practices Guide*.

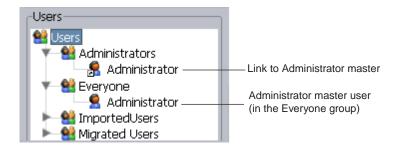
The following illustration shows the User Management view with the Administrators group selected. In this example, there are three custom user groups: Assistants, Editors, and Graphic Artists.



# **Understanding Default User Groups, Users, and Roles**

The User Management view displays all user groups and users. The user groups created during the server installation are as follows:

- Administrators, with the user Administrator: Users with administrator rights. When you first
  log in after the first installation, if you have not yet imported Windows Domain or LDAP
  server users, the only user displayed is the user "Administrator" with administrator rights.
  This user cannot be deleted, nor can the user rights be restricted in any way.
- Everyone: All users. This group contains the master user for every user in all the other
  groups. The master user in the Everyone group is the original user object. Instances of a user
  in other groups are linked to the master user. By default, the group role is set to No Access.
  The following illustration shows the master user for Administrator in the Everyone group
  and a link to the master user in the Administrators group. The icon for the linked user
  includes a link symbol.



- Imported Users: Users imported from Avid Unity, Windows Domain or LDAP (see "Setting User Authentication Providers and Importing Users" on page 109). By default, the group roles are set as follows:
  - LDAP: No Access.
  - MICROSOFT: No Access.
  - UNITY: Read Access.
- Migrated Users: The group for users migrated from an Avid Unity MediaManager environment to an Interplay environment. By default, the group role is set to No Access. For more information on migrating users from an Avid Unity MediaManager environment to an Interplay environment, see your Avid representative.

# **Adding User Groups**

Interplay creates default user groups during the server installation. You can create additional groups so that you can more easily manage access to the database. For example, you might have a group of editors that should always have Read/Write/Delete privileges on all files. You might

also have a group of assistants that should have Read/Write privileges. In this case you can set up two user groups that have different sets of privileges: one named Editors, and one named Assistants.

#### To create a user group:

1. In the User Management section of the Interplay Administrator window, click the User Management icon.

The User Management view opens.

- 2. In the Users pane, select the group into which you want to add a the new user group. To create a group at the top level, select Users.
- 3. Do one of the following:
  - ▶ Press Ctrl+G for a new user group.
  - ▶ Click the Create User Group button.
- 4. Add a name and a description for the new group.

By default, the description is inherited from the group in which you created the group.

All special characters are allowed in user and group names except "\", "/", "|" and quotes (" and '). For more information, see "Viewing and Setting Attributes" on page 127.

5. (Option) Select a role for the new group.

Roles are inherited from the group in which you create the group. For more information, see "Viewing and Changing Roles" on page 129.

6. Click Apply.

# **Adding Users Manually**

You need to add users manually if you do not automatically add them through Unity (shared-storage) authentication. Even if you import Windows Domain or LDAP users, you need to add users manually if they are added to the Windows domain or LDAP server.

#### To add a user manually:

1. In the User Management section of the Interplay Administrator window, click the User Management icon.

The User Management view opens.

- 2. In the Users pane, select the group into which you want to add a user.
- 3. Do one of the following:
  - ▶ Press Ctrl+U for a new user.
  - Click the Create User button.

4. Add attributes for the new user: name, description (inherited from the user group by default), password, password confirmation, and email.

All special characters are allowed in user and group names except "\", "/", "|" and quotes (" and '). For more information, see "Viewing and Setting Attributes" on page 127.

5. (Option) Select a role for the new user.

Roles are inherited from the group in which you create the user. For more information, see "Viewing and Changing Roles" on page 129.

6. Select an authentication provider.

For more information, see "Viewing and Setting Authentication Providers for Individual Users" on page 131.

7. Click Apply.

# **Viewing and Setting Attributes**

#### To view attributes for a user group or a user:

In the Users list of the User Management view, select the user group or user.

Attributes for the selected group or user are displayed in the Attributes pane.

If you select a group, the name and description are displayed. For an existing group, you can add or edit a description.

If you select a user, the name is displayed, plus a description (inherited from the user group by default), password, password confirmation, and email address, if you have entered them.



By default, the password field in the Attributes text box shows asterisks. If you choose to allow the user to log in to the server with Internal Authentication, then you need to set the password in the Attributes text box. For users that log in through other providers, you do not need to specify the password. For more information, see "Viewing and Setting Authentication Providers for Individual Users" on page 131.



The password should only include characters from the ASCII the character set. Multibyte passwords might cause login problems, and the administrator then has to reset the password.

#### To set the internal password:

- 1. In the Users list, select a user.
- 2. Type the password and the confirmation in the text box.
- 3. Click Apply.

The user can change his or her password anytime in the login dialog box.



If you select the Internal Authentication option and do not set a password, anyone can log in with that user name and no password.

# **Understanding Standard Roles and Default Rights**

After you have created the user groups and individual users, you can review and if necessary change their roles. The *role* determines the rights or permissions that the user groups and individual users have. If you assign a role to a user group, all the users in that group inherit the group rights. If you add a user to a user group, the user inherits the group rights.

A user might have different roles, depending on the group in which the user belongs. The overall *accumulated inherited role* for a user is the highest role (the role with the most rights) that the user has in any one user group. This is the role that is displayed in the User Management view. See "Guidelines for User Management" on page 142 for an example of an accumulated inherited role.

The five standard roles and their default rights are as follows:

- Administrator: An Administrator has Read/Write/Delete rights plus the right to carry out
  administrative tasks such as logging on to the Interplay Administrator, adding users,
  managing groups, and so on. Only Administrators can see all items in the Deleted Items
  folder in Interplay Access.
- Read/Write/Delete: Users are allowed to view, import, edit, delete, rename, and move any
  item in the database. They can view items they have deleted themselves in the Deleted Items
  folder in Interplay Access.
- Read/Write: This role allows users to view, import, and edit items in the database.
- Read: These users can copy files to their local disk, but cannot delete, edit or import any item into the database. Read-only users cannot change properties.
- No Access: This role takes away all user rights, but the user is not removed. This is useful if you want to control access on a folder basis, for example, if you do not want a particular set of users to be able to view selected folders in the database. This is the default role for users in the Everyone, Imported Users, and Migrated Users folders.

You can assign rights for specific users on specific folders in the Manage Database Roles view (see "Managing Database Roles" on page 133).

# **Viewing and Changing Roles**

By default, all users in a group inherit the role assigned to the group. You cannot assign rights to specific users in the User Management view. If you want to change a user's rights, you can move the user to a different group.

For more information about setting up roles correctly, see "Managing Database Roles" on page 133.

For information about the right to modify properties in Access (displayed in the Additional Roles pane), see "Setting Access Control for Custom Properties" on page 153.

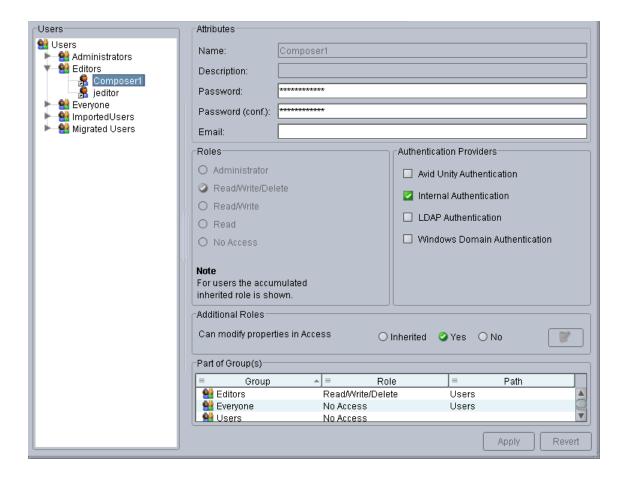
#### To view the role of a group or user:

In the Users list of the User Management view, select the group or user.

The role is displayed in the Roles pane. If a user has more than one role, the User Management view displays the accumulated inherited role, the highest role (the role with the most rights) that the user has in any one user group.

The groups to which a user or group belongs are shown in the Part of Group(s) pane. These entries also display the role inherited from each group.

The following illustration shows information about the user Composer1. This user has Read/Write/Delete access that is inherited from the Editors group.



#### To navigate to the Users tree from the Part of Group(s) pane:

- 1. Select the user group in the Part of Group(s) pane.
- 2. For any user group other than the Users group, right-click and select one of the following:
  - ▶ Select "Go To" to switch the focus of the Users tree to the group you selected.
  - Select "Go to user in this group" to switch the focus of the Users tree to the selected user in the selected user group. The Part of Group(s) dialog box focus does not update.

#### To change the role for a user group:

- 1. In the Users list of the User Management view, select the user group for which you want to change the role.
- 2. In the Roles area, select the appropriate role.
- 3. Click Apply.

#### To change the role for a user, do one of the following:

- Right-click the user and select Cut, select the group, right-click the group and select Paste. This action moves the user from one group to another. You can also drag the user from one group to another.
- ▶ Right-click the user and select Copy, select the group, right-click the group and select Paste. This action removes the user from one group and adds it to another. You can also hold down the Ctrl key and drag the user from one group to another.

# Viewing and Setting Authentication Providers for Individual Users

You set an authentication method in the User Authentication Providers view and these settings carry over to all users by default. See "Setting User Authentication Providers and Importing Users" on page 109 for details.

You can change the methods by which individual users can be authenticated. The method must be enabled in the User Authentication Providers view (a *global authentication method*) before it is available for the individual user. If you set an authentication method for an individual user, and later change the global authentication method, the individual user does not inherit the global settings.

You can select more than one authentication provider. The list of providers is checked on logon and if one provider authenticates the user, the user can log on.

The following table provides information about the authentication providers you can select:

Type of Authentication	Description
Avid ISIS Authentication	The user can log in to the Interplay database using a valid Avid Unity password.
Internal Authentication	The user can log in to the Interplay database using the password you set in the User Management view. By default, the password field in the Attributes pane is empty. The user can change this password anytime in the Interplay login dialog box.
LDAP Authentication	The user can log in to the Interplay database using an LDAP user name and password.
Windows Domain Authentication	The user can log in to the Interplay database using a Windows domain user name and password.



If you do not select an authentication method for a user, the user cannot log in.

#### To change or add an authentication provider:

- 1. In the Users list of the User Management view, select the user.
- 2. In the Authentication Providers pane of the User Management view, select the appropriate options.



3. Click Apply to make the change, or Revert to discard your changes.

# **Deleting Users and User Groups**

You can delete any user except Administrator and you can delete any user group except Administrators, Migrated Users, and Everyone.

Avid recommends that a user check in all files and log off before you delete the user.



Deleting a user or user group deletes it from all groups in the Users list and from the Central Configuration Server.

#### To delete a user group or a user:

- 1. Select the user group or user in the Users pane.
- 2. Click the Delete User/Group button.



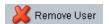
A user remains in all other user groups it is in, if any.

# **Removing Users from User Groups**

You can remove any user except Administrator from any user group except the Everyone group. Removing a user does not delete the user from other groups.

#### To remove a user from a user group:

- 1. Select the user in the group from which you want it removed.
- 2. Do one of the following:
  - Press the Delete key.
  - ▶ Click the Remove User button.



# **Managing Database Roles**

You set and manage global roles for users in the User Management view (see "Managing Users, User Groups, and User Rights" on page 123). You have the option of limiting or granting rights for specific users on specific folders. Use the Manage Database Roles view to manage rights on specific folders.

For example, you might have editors and graphic artists that are working on different projects. To avoid confusion, you might want to prevent editors on one project from having write and delete rights on projects that they are not working on. For information about the five standard roles, see "Understanding Standard Roles and Default Rights" on page 128.

There are two different ways to assign roles to folders:

- General role assignments (see "Viewing General Role Assignments" on page 133 and "Setting or Changing a General Role Assignment" on page 136)
- Special access folders (see "Managing Special Access Folders" on page 139)

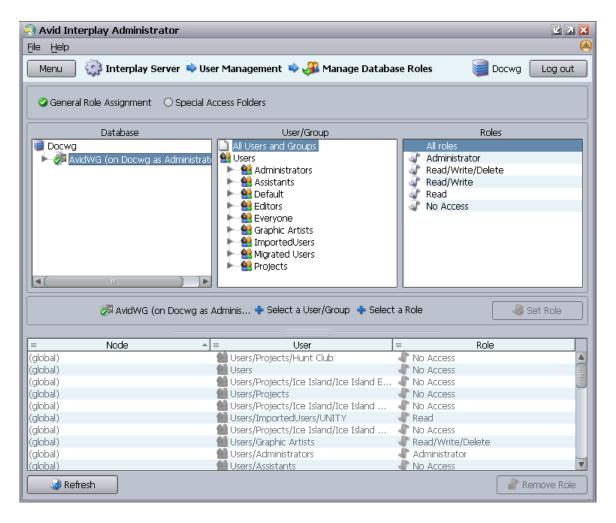
For more examples of setting up rights on folders, see "Setting Up a Folder Structure and a User Database" in the *Interplay Best Practices Guide*.

### **Viewing General Role Assignments**

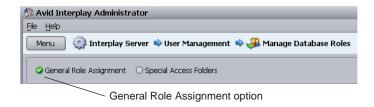
#### To view assigned roles for users of the database or a folder:

1. In the User Management section of the Interplay Administrator window, click the Manage Database Roles icon.

The Manage Database Roles view opens.



2. Select the General Role Assignment option.



3. In the Database pane, select the database or a folder for which you want to view roles.

If the database icon has a red X, you are not connected. Click the database icon to connect. The database icon shows a green check mark when you are connected. The following table describes three different states of the database icon.

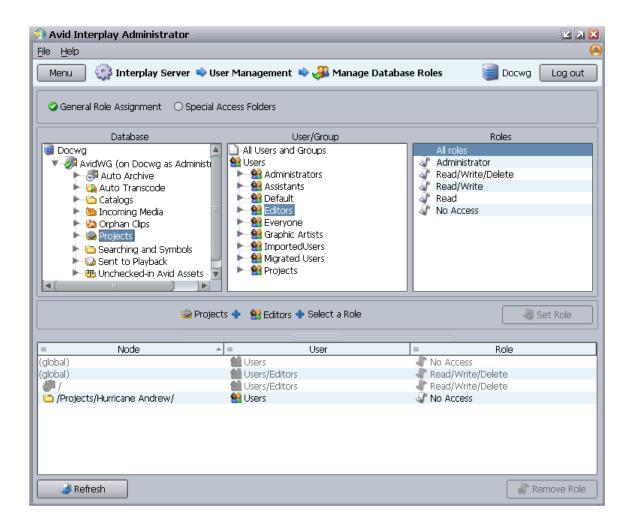
Icon	Meaning
<b>-</b>	(Green circle with check mark) Database you are connected to.
<b>F</b>	(Red box with X) Database you are not connected to.
<b>► 3</b>	(Red box with X and yellow arrow) Database needs migration. See "Migrating a Database" on page 67.

- 4. In the User/Group pane, select the user or group.
  - To view roles for all users of the selected folder, select All Users and Groups.
  - To view roles for a particular user or user group of the selected folder, select that user or user group.
- 5. In the Roles pane, select the role you want to view:
  - ▶ To view all roles for the selected users of the selected folder, select "All roles."
  - To view particular roles for the selected users of the selected folder, select a role.

The path in the middle of the view displays a formula for what is displayed in the lower panel.

The Node (item in the database), User, and corresponding role are displayed in the lower panel. Roles that are inherited from a group are grayed out. Roles that have been assigned directly are black.

The following illustration shows the Projects folder, the Editors group, and All roles selected. All roles are listed in the lower panel.



# **Setting or Changing a General Role Assignment**

Use the Manage Database Roles view to set or change rights to a particular folder. Note the following:

- To delete items, the user must have deletion rights for the folder, even if the user is the owner of the item to be deleted.
- To move items, the user must have write rights on the object, the folder the object is being moved out of, and the target folder.
- All users are automatically assigned the Read role for the folder Unchecked-in Avid Assets (but not the contents), and the Read/Write/Delete role for their private folder within the Unchecked-in Avid Assets folder. All users are automatically assigned the No Access role

for Orphan Clips. Administrators have full access to all folders. For more information about the Unchecked-in Avid Assets folder and the Orphan Clips folder, see the *Interplay Access User's Guide*.

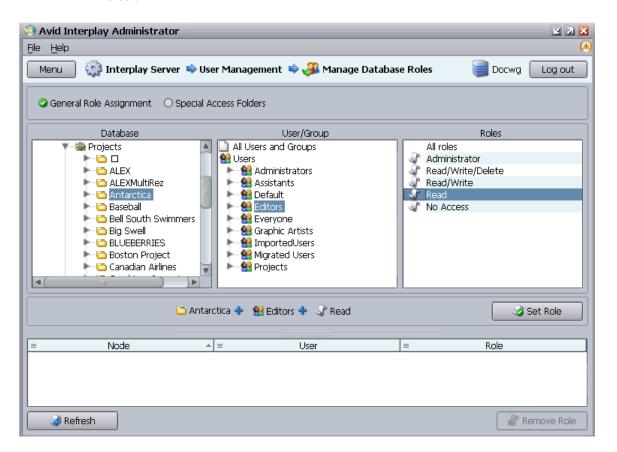
#### To set or change a role for users of the database or a folder:

1. In the User Management section of the Interplay Administrator window, click the Manage Database Roles icon.

The Manage Database Roles view opens.

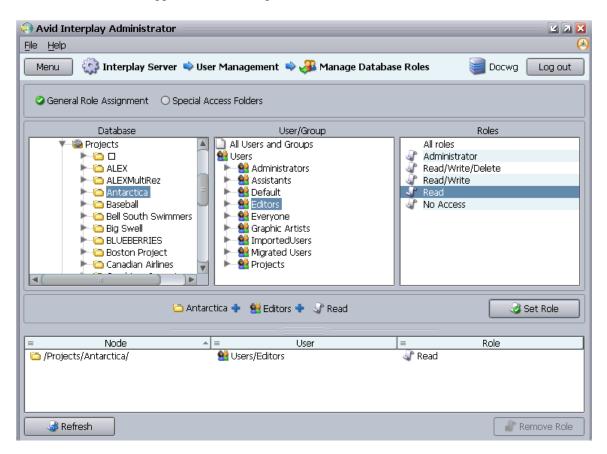
- 2. Select the General Role Assignment option.
- 3. In the Database pane, select the database or a folder for which you want to set a role.
- 4. In the User/Group column, select the user or user group.
- 5. In the Roles column, select the role you want to set.

The formula in the middle of the view shows your selection. For example, in the following illustration, you are going to give Editors the Read role (read-only access) for the Antarctica folder.



6. Click Set Role.

The role appears in the lower panel.



#### To change a role:

• Select the entry in the lower pane, right-click, and select Set Role > role name.

#### To remove a role for users of the database or a folder:

- 1. Select the database or a folder in the Database column.
- 2. Select an entry in the list in the lower pane.
- 3. Do one of the following:
  - ▶ Click the Remove Role button.
  - ▶ Right-click and select Remove Role.

The role for the users on that item is inherited from the parent user group again.

# **Blocking Access by a Group or User**

When you are trying to block access by a whole group, it is not sufficient to change the user rights for the user group to NoAccess; individual users who have rights assigned to them specifically or through memberships in other user groups could still log in.

#### To block members of an entire group:

- 1. In the Manage Database Roles view, in the Database pane, select the project from which you want to block users.
- 2. In the User/Group pane, expand the group.
- 3. Select each user, and in the Roles pane select No Access.
- 4. Click Set Role.

#### To prevent a user from accessing all databases:

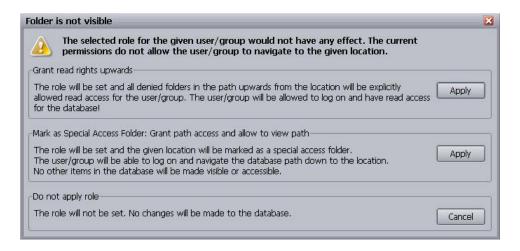
In the User Management view, deselect all authentication providers available to a user.

# **Managing Special Access Folders**

If necessary, you can allow a user to access a specific folder that they otherwise would not have access to. For example, if a new user is assigned the No Access role for the Projects folder, you can allow access to a particular project within the folder.

#### To allow access to a Special Access folder:

- 1. In the Manage Database Roles view, set the No Access role for the specific user on the top-level folder that you want to be hidden (see "Setting or Changing a General Role Assignment" on page 136).
- 2. On the item for which the user needs access, set the role to Read (or higher).
  - The "Folder is not visible" dialog box opens, telling you how applying the role to the selected location will affect the user's rights on other folders.



3. Click the Apply button for the option "Mark as Special Access Folder: Grant path access and allow to view path."

This option allows users to log in to the database and navigate to the specified location. The tree structure above the folder will be visible, but not the contents of the other folders in the structure. The first option makes the contents of the tree structure accessible as well (not recommended).

After you set the special access, when users connect to the database, they see the structure of the database above the special access folder, but not the contents of the individual folders. Only the contents of the folder for which they have Read or higher rights are available.

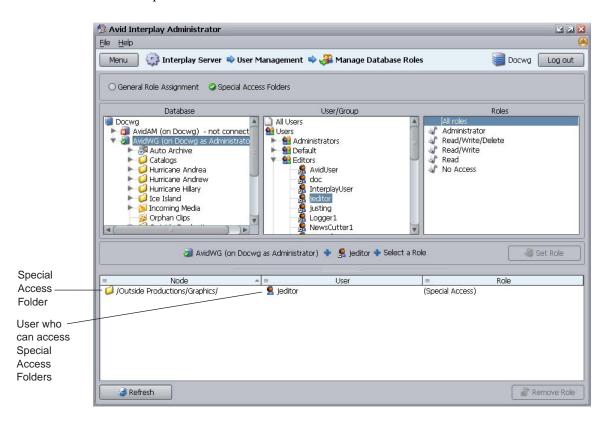
#### To view who has been assigned access to Special Access folders:

1. Select the Special Access Folders option.



- 2. In the Database pane, select the entire database or the folder for which you want to check for Special Access folder rights.
- 3. In the User/Group pane, select All Users to see all users who have special access to the folders you selected, or select a specific user.
- 4. The bottom panel displays the users who have special access according to your selections.

The following illustration shows that the user jeditor has special access to the folder /Outside Productions/Graphics. To view what specific role jeditor has, select the folder in the Database pane.



#### To remove a role assigned for Special Access folders:

- 1. Click the Special Access Folders option.
- 2. Select the appropriate folder.
- 3. Select the user in the list in the lower pane.
- 4. Do one of the following:
  - Click Remove Role.
  - ▶ Right-click the user and select Remove Role.

The role for the user on that item is inherited from the parent user groups again.

# **Guidelines for User Management**

This topic provides information and suggestions that can help you manage users and access. For more information about managing user roles, with specific examples, see "Setting Up a Folder Structure and a User Database" in *Interplay Best Practices*.

- The fundamental rule of user management is that explicit rights override inherited rights, and database rights (set in the Database Management view) override CCS rights (set in the User Management view and stored in the CCS). The exception to this rule is the user who is a global Administrator set through the User Management view. This Administrator always has Administrative rights on all folders, even if rights are set otherwise in the Manage Database Roles view.
- By default, the root group Users is assigned the NoAccess role. That means that all user subgroups (Everyone, Imported Users, Migrated Users and any other groups you add) except for the Administrators and UNITY (under the Imported Users) have the role NoAccess through inheritance. NoAccess means that a user cannot even log in to the server. (The Administrators group is assigned the Administrator role and the UNITY group is assigned the Read role.)

To override the NoAccess role, create another user group with a different role and copy the user into that group.



Changing the role for the Users group or the Everyone group (from No Access to Read, for example) makes it impossible to take away this role from individual users. Avid recommends that you do not change the role of the Users group or the Everyone group.

- You can assign a user to more than one user group (see "Setting or Changing a General Role
   Assignment" on page 136) and each group can have a different role. As a result, the user
   inherits different roles, which can be useful if a user contributes to different projects in
   different ways.
- In the User Management view, you can set only group roles. You can set roles for individual users in the Manage Database Roles view. See "Managing Database Roles" on page 133.

### **How the Interplay Engine Determines Access**

The following steps describe how the Interplay Engine server determines access to an object (usually a folder). This process can help you understand how to assign roles and access:

- 1. The server checks on the object in question to see if explicit rights are set. If a user is assigned a role on the object, the evaluation stops and the server grants the user only the role allowed and the accompanying rights, if any.
- 2. If no explicit permissions were found on the object, the server checks the inherited rights on the object in question.

- 3. If there are no inherited permissions, the server checks the global user rights. In this case, the server determines what role the user has from the CCS settings.
- 4. In case of a conflict where the evaluation sees a user with multiple roles, for example:
  - the user has the read role through one group
  - the user has the read/write role through another group

then the highest ranking role wins. In this case, the user gets the read/write role.

This is an example of an *accumulated inherited* role. The user's overall role for the database is the *highest* role he or she is assigned to in any group, unless otherwise specified in the Manage Database Roles view. For example: If User A is in Group 1 (which is assigned a Read role) and User A is also in Group 2 (which is assigned a No Access role), then User A has the accumulated inherited role Read. When you select User A in the User Management view, this role is displayed in the Roles pane.

# 5 Site Settings

Site settings include configuration options for various Interplay components. The following topics provide information about site settings:

- Defining Property Layouts
- Setting the Resolutions Available for Display
- Creating Custom Properties
- Configuring Remote Workgroups
- Configuring Categories
- Setting Server Hostnames and the Workgroup Name
- Interplay Media Services View
- Interplay Transfer Status View
- Interplay Transfer Settings View
- Workgroup Transfer Presets View
- Specifying Archive Settings
- Setting the Ownership for New Database Folders
- Enabling Interplay Synced Projects
- Setting Options for Deletion
- Viewing and Setting the Metadata Override Status
- Production Engine Bus Connector

# **Defining Property Layouts**

Administrators can use the System Properties tab in the Property Layout view to specify which properties are available for display in the following client applications:

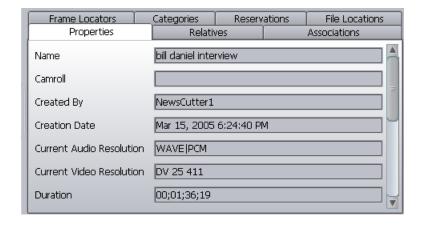
- Interplay Access
- Interplay Assist
- Avid Instinct
- Avid editing systems (Interplay Window)

These properties are sometimes referred to as *system metadata*. However, it is only part of the metadata included in an Interplay database. For a description of available properties, see "System Metadata Properties" on page 278.

For Interplay Access, administrators select which properties are displayed by default in the Content tab and Object Inspector Property tabs. Users can then add other available properties to these tabs. They can also use available properties in an extended search. For the other client applications, the default properties are preset, and users can add other available properties as columns in the Research panel.

By default, a set of properties categorized as Broadcast is selected and displayed. You can customize this set or you can display an alternative set of properties, either Post or Film, and then customize this set.

The following illustration is an example of properties displayed in the Properties tab of the Interplay Access Object Inspector.



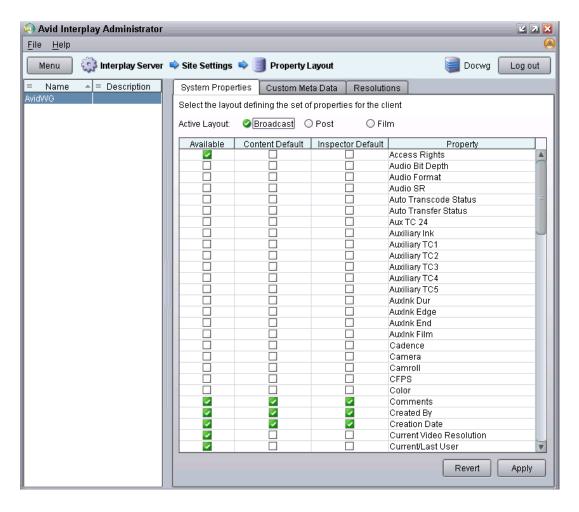
The administrator can also use the Property Layout view to do the following:

- Create custom columns. See "Creating Custom Properties" on page 149.
- Control the resolutions that are available for display. See "Setting the Resolutions Available for Display" on page 147

#### To set the properties displayed in Interplay Access:

1. In the Site Settings section of the Interplay Administrator window, click the Property Layout icon.

The Property Layout view opens.



- 2. Select the database for which you want to set properties.
- 3. Click the System Properties tab.
- 4. From the Active Layout options, select one of the following layouts:
  - Broadcast
  - Post
  - Film

This option determines which set of properties is displayed in the client applications.

- 5. Select and deselect properties as follows:
  - (Option) To make a property available for users to add into displays on their own, and to use in an Extended Search in Interplay Access, select the property in the Available column. To make a property unavailable, deselect it.

- (Option) To include a property in the Interplay Access Content tab, select the property in the Content Default Column. To remove a property from the Content tab, deselect it.
- ▶ (Option) To include a property in the Interplay Access Object Inspector's Properties tab, select properties in the Inspector Default column. To remove a property from the Object Inspector's Properties tab, deselect it.



You must select a property in the Available column if you want to display the property in the Object Inspector or the Content tab.

- 6. (Option) Click Revert to reset properties to the defaults.
- Click Apply to save the changes.
   The changes appear the next time you log in to Interplay Access.

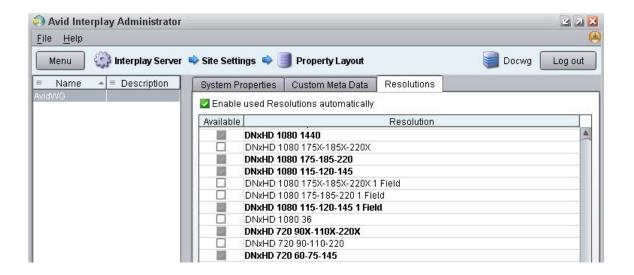
## **Setting the Resolutions Available for Display**

Administrators can use the Resolutions tab in the Property Layout view to specify which resolutions are available for display in the following client applications:

- Interplay Access
- Interplay Assist
- Avid Instinct
- Avid editing systems (Interplay Window)

Lists of available resolutions appear in various places in these clients. For example, Interplay Access includes a Resolutions dialog box that lets you select which resolutions to display as columns in the Content view (available when you click the Presets button). Interplay Assist and Avid Instinct include a dialog box that lets you select the columns you want to display in the Research panel.

The Resolutions tab in the Property Layout view displays a list of all current Avid resolutions. By default, the available resolutions that are currently used in the database are selected and are displayed in bold.



In some circumstances you might want to make additional resolutions available for display. For example, if you are using Interplay Access to view the status of assets on remote workgroups, and the database for the local workgroup does not include resolutions used on the remote workgroup, you can select those resolutions for display in the local version of Interplay Access.

By default, the option "Enable used resolutions automatically" is selected. If you add an asset associated with a previously unused resolution to the Interplay database, this option automatically adds it to the default list. It also prevents you from deselecting currently used resolutions (check boxes are grayed out). If you want to remove a currently used resolution from the list for display, deselect this option.

#### To set the resolutions that are available for display:

1. In the Site Settings section of the Interplay Administrator window, click the Property Layout icon.

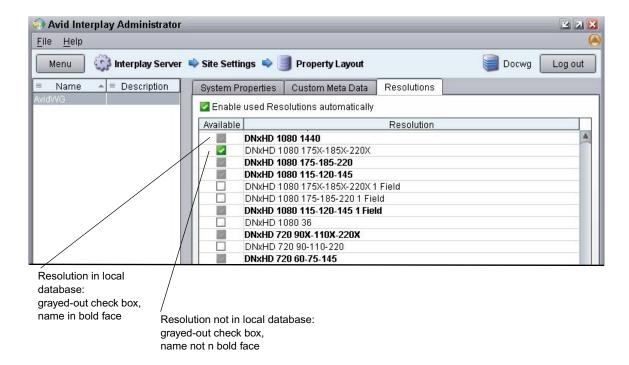
The Property Layout view opens.

- 2. Select the database for which you want to set resolutions.
- 3. Click the Resolutions tab.

Resolutions that are used in the database are selected by default.

4. To add a resolution, select its check box in the Available column.

The check box for the selected resolution is colored green. The name of the resolution is not in hold face.



5. To remove a resolution, deselect its check box in the Available column.

If you want to remove a default resolution, deselect "Enable used resolutions automatically" and then deselect the resolution's checkbox. Keep in mind that any new resolutions added to the database will not be automatically selected as available for display.

6. Click Apply to save your changes.

The changes you made appear the next time you open a list of available resolutions in the client. If a new resolution is available, a user needs to select it for display. If a resolution was displayed as a column, the column might remain until the next time you log into the client.

## **Creating Custom Properties**

Administrators can create custom properties and specify how they are displayed in the following clients:

- Interplay Access
- Interplay Assist
- Avid Instinct
- Avid editing systems (Interplay Window)

By default, the user needs to type the value for a custom property. Administrators can import an XML file that creates a list of values from which the user can select a value.

The following topics describe how to create and use custom properties:

- "Adding a Custom Property" on page 150
- "Setting Access Control for Custom Properties" on page 153
- "Working with Lists for Custom Properties" on page 155

## **Adding a Custom Property**

You can add a custom property (custom metadata) that requires text to be entered as a value. The same set of custom properties are available in all layouts (Broadcast, Post, and Film).

An entry in a custom property field is limited to 29 characters. If you use multi-byte characters, this limit is lowered in a variable way.

Do not use an existing system property name when creating a custom property name, which can cause problems when managing properties. System property names are listed in "System Metadata Properties" on page 278.

You can also add a list of values from which users can choose (see "Working with Lists for Custom Properties" on page 155).

### To add a custom property:

1. In the Site Settings section of the Interplay Administrator window, click the Property Layout icon.

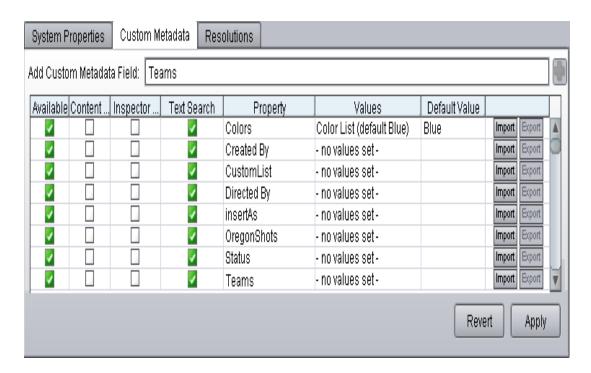
The Property Layout view opens.

- 2. Select the database for which you want to set properties.
- 3. Click the Custom Meta Data tab.

Any previously defined custom properties are displayed.

- 4. In the Add Custom Meta Data Field text box, type a name for the custom property.
- 5. Click the green plus sign (+).

After a few seconds, the custom property appears in the list, with the Available column selected. The following illustration shows a new Custom Property named "Teams."



When the Available column is selected, the custom property is available for users to add into the application displays, and to use in an Extended search. If the user performs an All Custom search, only the available custom properties are used in the search.



Deselect the property in the Available column to turn off custom properties that you do not want displayed in the properties lists. You cannot delete custom properties for this release but you can turn off their display.



For information about the Text Search column, see "Disabling Search for Custom Properties" on page 159

- 6. Select whether to include the property in the Content tab or the Object Inspector's Properties tab, as needed (Access only).
- 7. (Option) If you created an XML file for a list of values:
  - a. Click the Import button for the Custom Property.
     The Import Custom Attribute Values dialog box opens.
  - b. Navigate to the XML file and click Open.
    The Values and Default Value appear in the Custom Meta Data tab. The following illustration shows the custom property "Teams" with a list of values and the default value displayed.



- 8. Click Apply to save the added custom property and new layout.
- (Option) If you want to prevent a user or group from supplying a value for a custom property, change the role in the User Management view (see "Setting Access Control for Custom Properties" on page 153).

The next time a user starts Interplay Access and logs in, the new custom property is displayed. The following illustration shows the custom property "Teams" and its list of values, with the default value highlighted.



To select a value, click an item in the list, then click Apply. In this example, a user associated the value Team A to the folder.



Users can add a custom property as a column in Interplay Assist, Avid Instinct, and the Interplay Window.

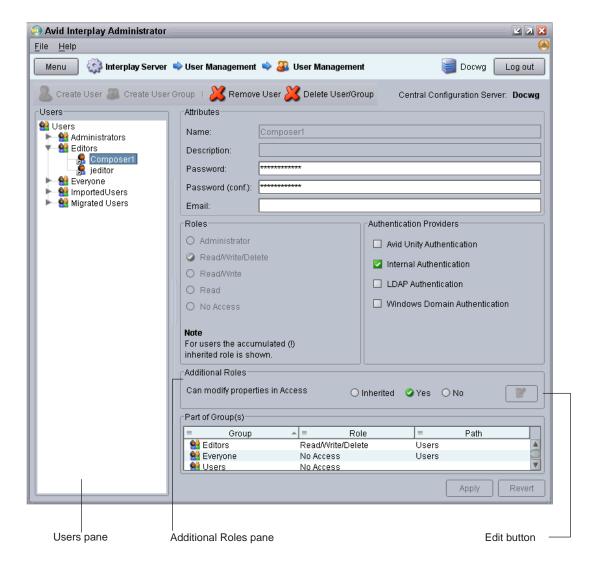
## **Setting Access Control for Custom Properties**

You can control which users can supply a value for a custom property. This setting applies to both typing a value and selecting one from a list. By default, users are allowed to supply a value.

### To set access control for custom properties:

1. In the User Management section of the Interplay Administrator window, click the User Management icon.

The User Management view opens.



- 2. In the Users pane, select a group or user.
- 3. In the Additional Roles pane, select an option for "Can modify properties in Access":
  - Inherited: Allows the selected user or group to inherit the role of the parent group
  - Yes: Allows users to type a value or to select from a menu.
  - No: Prevents users from typing or selecting from a menu. Users can see the property and its text box, but cannot supply a value for it.

If the options are grayed out, click the Edit button.

4. Click Apply.

### **Working with Lists for Custom Properties**

You can create a custom property that includes a list of values from which users can choose (see "Creating Custom Properties" on page 149). These lists are sometimes referred to as *dictionaries* or *taxonomies*. The following topics provide more information about working with lists for custom properties:

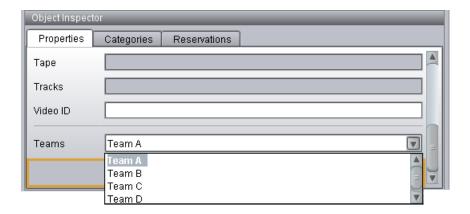
- "Creating and Editing a File for Custom Properties" on page 155
- "Removing a List for a Custom Property" on page 157
- "Using Custom Properties in an Extended Search" on page 158

### **Creating and Editing a File for Custom Properties**

If you want to provide users with a list of values they can choose from, you need to create an XML file and then import it into the Interplay Administrator. You can create a simple list of options, or you can create a hierarchy of options and suboptions. For example, if a user wants to label clips of sports teams, you can create a file so that the user can select a league, and then select a team from that league. You can specify a default selection that is highlighted in the list.

The following example shows an XML file that creates a single level set of choices, with Team A as the default value. Substitute the values you want for the description (which appears in the Values column of the Custom Meta Data tab) and team names. Use the quotation marks as shown.

The choices will appear in Interplay Access as shown in the following illustration:



The following example shows an XML file that creates a two-level hierarchy, with "League 1 Team A" as the default value.

The choices will appear in Interplay Access as shown in the following illustration:





A custom property with a list of values is blank until you select a value. After you select a value, you cannot return the field to a blank state. If appropriate for your custom property, you can include a value in the list called "No Value" or something similar. To clear a value and completely remove a list, see "Removing a List for a Custom Property" on page 157.

### To create an XML file of values for a custom property:

- 1. Use a text editor or XML editor to create a file that matches one of the formats presented above.
- 2. Name and save the file.
- 3. In the Custom Meta Data tab, create a custom property and import the file, as described in "Adding a Custom Property" on page 150.

#### To edit a list of values:

- 1. Do one of the following:
  - Edit the original file.
  - Export the existing file by clicking Export in the Custom Properties tab and then edit it.
- 2. Save the file.
- 3. In the Custom Meta Data tab, select the custom property and import the file.

## Removing a List for a Custom Property

To remove a list of values for a custom property, you need to create and import a valid but empty XML file.

### To remove a list of values for a custom property:

1. Use a text editor or XML editor to create a file that matches the following format. Use quotation marks as shown:

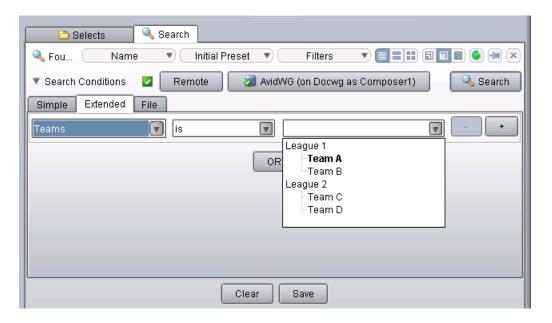
```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE values SYSTEM "custom_attributes.dtd">
<values/>
```

- 2. Save the file.
- 3. In the Custom Meta Data tab, select the custom property and import the file, as described in "Adding a Custom Property" on page 150.

### **Using Custom Properties in an Extended Search**

Users can select a value for a custom property in the Access Extended Search tab. If a user selects a custom property that uses a list of values, and selects "is," "is not," "starts with, "or "does not start with" as an operator, the list of values is displayed.

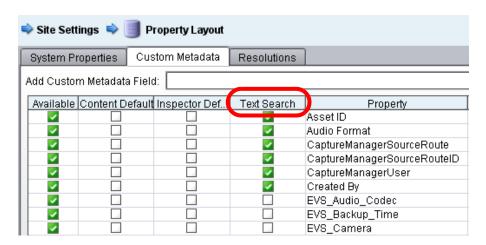
The following illustration shows a list of values for a search that uses the property "Team."



For more information on searching in Access, see the *Interplay Access User's Guide* or the Access Help.

### **Disabling Search for Custom Properties**

In facilities with a large number of custom properties, the search process can be slowed down by searching for text in custom properties. The Interplay Administrator now includes a column named "Text Search" in the Custom Metadata tab of the Property Layout view, which lets you enable or disable individual custom properties for text search.



A green check mark indicates the property is enabled for searching. Clear the check mark to disable the property for searching.

This setting applies to all text searches: text-only (Search box), simple searches, and extended searches.

## **Configuring Remote Workgroups**

A large site can include more than one workgroup. When a workflow requires searching across remote workgroups or performing workgroup-to-workgroup transfers through Interplay Access, you must set up the local workgroup so that a user can access a remote workgroup. You set up this access in the Configure Remote Workgroups view. You can add an Interplay Archive Engine as a remote workgroup.

After access to a workgroup is properly configured, an Interplay Access user can select from a list of remote workgroups when performing a search or a transfer. For example, databases for properly configured remote workgroups are listed in the Interplay Access Send to Workgroup dialog box.



Configuring a remote workgroup in this view is not needed for transfer from Interplay Assist, Avid Instinct, or Avid editing systems.

For complete information on transferring Avid assets, see the *Interplay Transfer Setup and User's Guide* or the Interplay Transfer Help.

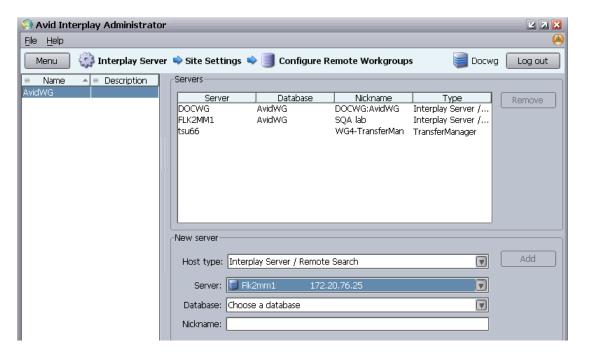


You can configure a maximum of 10 hostnames. For example, you can configure for searching five remote workgroups and five Nearchive servers for a total of 10.

#### To set up access to a remote workgroup:

- 1. For transfers, make sure the Transfer Engines for both workgroups are correctly configured.
- Make sure the list of users for the remote workgroup includes the user name and password of users in the local workgroup who require access to the remote workgroup. For transfers, make sure the user name and password match exactly, and that Administrator passwords also match exactly.
  - In Interplay Access, if the local user's account is not included in the remote user database, a login screen appears. If you log in with an account on the remote workgroup, you can add the remote workgroup to the accessible remote servers list but you cannot transfer to the workgroup.
- 3. In the Site Settings section of the Interplay Administrator window, click the Configure Remote Workgroups icon.

The Configure Remote Workgroups view opens.



4. Select a database from the Available Databases list.

- 5. In the New server pane, add information about the remote workgroup you want to access.
  - a. Select the Host Type:
    - Interplay Server/Remote Search—to add access to a remote Interplay workgroup
    - TransferManager—to add access to a Workgroup 4 TransferManager
    - MediaManager—to add access to a Workgroup 4 workgroup or Nearchive<sup>™</sup> system
    - Interplay Server / 3d Party Search—to add access for a third-party plug-in. The plug-in needs to be properly installed before you can configure it. See "Using Third-Party Search Plug-Ins" in the *Interplay Access User's Guide* or Help.
  - b. Type information for the remote workgroup. The fields vary, depending on the Host Type you selected.
    - For the Server, you can type the remote workgroup's IP address instead of the host name.
    - For Database, select AvidWG for an Interplay Engine or AvidAM for an Interplay Archive Engine.
    - The Nickname is displayed in the Interplay Access Remote Search list and must be less than 255 characters. If you do not supply a Nickname, the Interplay Engine creates one that combines the host name and the database.
  - c. Click Add.

The Server name and other information about the remote workgroup appears in the list of accessible remote servers.

### To remove a remote workgroup from the accessible list:

- 1. Click the name of the remote workgroup in the list.
- 2. Click Remove.

## **Configuring Categories**

Categories provide a grouping mechanism for the data that is stored in the database. Categories are displayed in Interplay Access, Interplay Assist, and Avid Instinct. A user can assign database items to these categories and use these categories in a search. You can double-click a category to view a list of the category's items.



By default, no categories are configured in the Interplay Administrator.



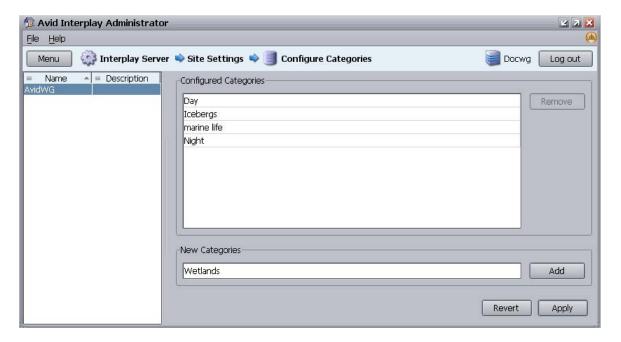
There is no option to rename a category. The database items identify the categories they belong to by the category name, so this name cannot be changed once it is used.

## **Adding Categories**

#### To make categories available in Interplay Access:

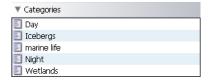
1. In the Site Settings section of the Interplay Administrator window, click the Configure Categories icon.

The Configure Categories view opens.



- 2. Select a database from the Available Databases list.
- 3. In the New Categories text box, type one name for a category, or type a comma-separated list (commas and spaces are automatically removed).
- 4. Click Add, and then click Apply.

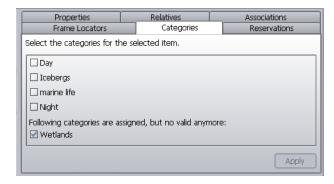
After refreshing Interplay Access, the categories you specified are visible in the Categories pane.



When performing a search, you can use a Category name to locate items that belong to that category.

## **Removing Categories**

Removing a category only removes it from the Configured Categories list in the Interplay Administrator. Objects in the database that have this category keep it, even if it is not listed anymore. If an item was assigned to a category but you removed that category in the Interplay Administrator, users are informed that the category is not valid anymore in the Interplay Access Categories tab.



### To remove a category:

- 1. In the Interplay Administrator, click Configure Categories.
- 2. In the Configure Categories view, from the Configured Categories list, select the category you want to delete from the Configured Categories list.
- 3. Click Remove.
- Click Apply to save the changes, or Revert to discard your changes.
   You must refresh Interplay Access to see that the category is no longer available.

# **Setting Server Hostnames and the Workgroup Name**

The Server Hostname Settings view lets you set the information described in the following table.

Group	Setting	Description
Interplay Media Services Settings	Interplay Media Services Engine	Enter the name of the Interplay Media Services Engine so that you can run the Interplay Media Services view (see "Interplay Media Services View" on page 169) or use any Interplay Media Services. For more information, see the <i>Interplay Media Services Setup and User's Guide</i> .
	Interplay Delivery Receiver Host and Port	Enter the name of the system where the Interplay Delivery Receiver service is installed so that you can receive transfers from the Delivery service. By default the port is 33321. For more information, see the <i>Interplay Media Services Setup and User's Guide</i> .
Workgroup and Media Indexer Settings	Workgroup Name	Enter the name of the workgroup so that Interplay Access can locate the Media Indexer, which is used to monitor shared storage. For more information, see the <i>Avid Service Framework User's Guide</i> .
		The Workgroup Name field is case sensitive and the name must exactly match the workgroup name used by the Avid Service Framework. You can view or change this workgroup name in the Avid Interplay Workgroup Properties, which is an application that is part of the Avid Service Framework.
	Check Media Indexer	Click the Check Media Indexer button to check whether the Media Indexer that monitors shared storage is running.
		If the Media Indexer is running, the system displays the message "Connected to Media Indexer successfully" in the Notifications area at the bottom of the Interplay Administrator window.
		• If there is a problem, an error message is displayed, such as "No lookup service found for workgroup." See "Configuring Avid Interplay Media Indexers" in the <i>Interplay Best Practices Guide</i> .

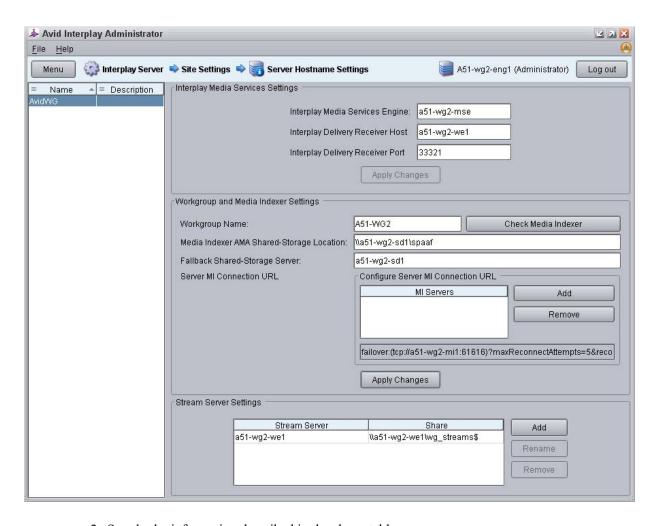
Group	Setting	Description
	Media Indexer AMA Shared-Storage Location	Enter the name of the shared-storage location in which Media Indexer looks for AMA .spaaf files. Enter the name as a full UNC path. This must be the same location that you identified for the .spaaf files in the Media Indexer web interface. For more information, see "Using AMA Material in Interplay" in the Interplay Best Practices Guide.
	Fallback Shared-Storage Server	Enter the computer name of the shared-storage server. This name is automatically entered after the first connection from the Interplay Engine to the local shared-storage system (the shared-storage system configured in the same subnet as the Interplay Engine), so in most cases you do not need to enter this computer name. Usually the Interplay Engine gets the name of the shared-storage server from the Media Indexer. If this is not possible, the Interplay Engine gets the name of the shared-storage server from the Fallback Shared-Storage Server setting. Use this setting in case you need to change the name of the shared-storage server.
		In a multiple ISIS workgroup, use the name of the local shared-storage system.
		For Interplay Sphere, the Remote Upload Service requires that the name of the Fallback Shared Storage Server matches the name of the ISIS System Director server. If the name does not match, the system displays the following error message:
		"check to see if the <isis director="" name="" server="" system="">/news/avidmediafiles/mxf has enough"</isis>

Group	Setting	Description
	Server MI Connection URL	Click the Add button to add one or more Media Indexer servers. The following applications use this setting to locate the Media Indexer servers:
		Avid editing applications
		Media Services Transcode provider
		STP Encode
		Interplay Transfer engine
		Interplay Access
		Avid Instinct
		Interplay Access uses the Workgroup Name option.
		For more information, see "Configuring Media Indexer Changes for Interplay v3.0" in the Interplay Best Practices Guide.
Stream Server Settings		The computer name of the server that is running the Interplay Streaming Server, a Windows service that is used to play clips for WAN browsing. You need to enter this computer name after you install the Interplay Streaming Server software. See "Configuring the Interplay Streaming Server" on page 167.
		To change the name of the shared-storage server:
		<ol> <li>Clear the field by deleting the name of the previously used shared-storage server.</li> </ol>
		2. Click Apply Changes.
		The name is automatically entered after the first connection from the Interplay Engine to the local shared-storage system.

### To set server hostnames and other workgroup information:

1. In the Site Settings section of the Interplay Administrator window, click the Server Hostname Settings icon.

The Server Hostname Settings view opens.



- 2. Supply the information described in the above table.
- 3. Where appropriate, click Apply Changes.

## **Configuring the Interplay Streaming Server**

After you install the Interplay Streaming Server software, you need to enter the name of the computer on which you installed the software.



Beginning with Interplay v3.1, the Interplay Streaming Server installer is no longer included on the Interplay Server Installer. The Streaming Server is still supported on Interplay v3.1 and later. You can obtain the installer from the Interplay v3.0 or v3.0.5 Server Installer.



After installation, exclude the folder C:\Program Files (x86)\Avid\Avid Interplay Streaming Server from scanning by any virus protection software. Scanning for virus protection could cause severe disruptions to the Interplay Stream Server and could cause it to shut down.

You can add one or more additional Interplay Streaming Servers to a workgroup. See *Interplay Software Installation and Configuration*.



In Interplay v2.4, the Interplay Streaming Server was re-engineered to directly play MPEG-4/H.263 and H.264 video media and MPEG1 layer 2 audio media. There is no longer any need to use the Publishing service or Workflow Engine to create QuickTime reference movies for streaming play. Double-click a clip that is associated with supported proxy media, and the clip plays in the Interplay Access Monitor.

For Interplay v2.4, the name of the stream server on the Avid Server Installation USB flash drive is "Avid Interplay Streaming Server" and the name of the installed Windows service is "Avid Interplay Streaming Server Service." For Interplay v2.3 and earlier, the name was "Avid Interplay Stream Server."

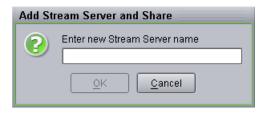
### To add an Interplay Streaming Server to a workgroup:

1. In the Site Settings section of the Interplay Administrator window, click the Server Hostname Settings icon.

The Server Hostname Settings view opens.

2. In the Stream Server Settings area, click the Add button.

The Add Stream Server and Share dialog box opens.



- 3. Type the computer name of the system that is running the Interplay Stream Server. You do not have to type \\ before the name of the server.
- 4. Click OK.

The computer name is displayed in the Server Hostname Settings view.



The share name listed does not apply to the Interplay Streaming Server v2.4 (it was used in the Interplay Stream Server v2.3 and earlier). The installer for the Interplay Streaming Server v2.4 does not create this share. However, you cannot remove this share name.



### To rename an Interplay Streaming Server:

1. In the Stream Server Settings area, click the Rename button.

The Rename Stream Server and Share dialog box opens.

- 2. Type the computer name of the system that is now running the Interplay Streaming Server. You do not have to type \\ before the name of the server.
- 3. Click OK.

The computer name is displayed in the Server Hostname Settings view.

#### To delete an Interplay Streaming Server:

- 1. In the Stream Server Settings area, click the Remove button.
- 2. Click OK.

The Interplay Stream Server is deleted.

## **Interplay Media Services View**

The Interplay Media Services view is a tool for administering the Interplay Media Services Engine and monitoring job status. This view provides settings for the following tasks:

- Filtering jobs to monitor
- Registering providers
- Installing services
- Setting up users
- Setting up profiles



These options are also available from the Admin Tool in the Interplay Media Services application dialog box.

Before you can use the Interplay Media Services view, the Interplay Media Services Engine for the workgroup must be configured in the Server Hostname Settings view. For details, see "Setting Server Hostnames and the Workgroup Name" on page 164. Also, the Interplay Media Services Engine must be running.

If the Interplay Media Services connection to the Interplay Media Services Engine fails, the login panel is displayed to let you manually attempt to login again.

For details on installing and using the Interplay Media Services Engine, see *Interplay Media Services Setup and User's Guide*.

## **Interplay Transfer Status View**

The Interplay Transfer Status view is used for monitoring the progress of transactions being handled by one or more Interplay Transfer Engines in the workgroup. It allows administrators to quickly view all the relevant details for each transaction. You can choose to have the status window open at all times in their control center.



The list of Interplay Transfer Engines available from the Interplay Transfer Status filter is created from the Interplay Transfer Settings. For details, see "Interplay Transfer Settings View" on page 170.

For descriptions of the various filters and configuration settings, see the *Interplay Transfer Setup* and *User's Guide*.

## **Interplay Transfer Settings View**

The Interplay Transfer Settings view lets an administrator configure the names and locations of the Interplay Transfer Engines in the workgroup. The settings determine which cache server monitors which Transfer Engines and Transfer Engine enabled devices. The Interplay Transfer Status view uses these settings to access the Transfer Engines in the workgroup.

For procedures that explain these settings, see the *Interplay Transfer Setup and User's Guide*.

## **Workgroup Transfer Presets View**

When performing workgroup transfers, you can use presets to select a predefined destination for the transferring files. Transfer presets provide the name of the remote workgroup, a destination workspace, and a destination folder for the metadata. You can also choose whether to display the preset in the Send to Workgroup dialog box.



Users with Administration rights can change the configuration to another destination in the Send to Workgroup dialog box in Interplay Access.

For procedures that explain the Workgroup Transfer Presets view, see the *Interplay Transfer Setup and User's Guide*.

## **Specifying Remote Servers for Asset Tracking**

If your facility includes more than one workgroup, you can use Interplay Access to display information for assets that are shared by different workgroups. For example, you can determine if assets stored in one workgroup are correctly archived in an archive workgroup.

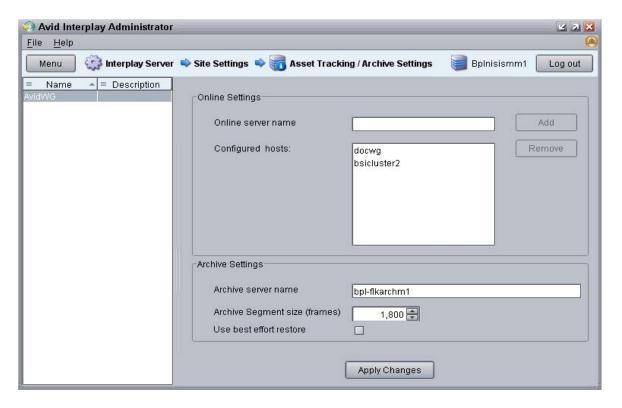
In the Interplay Administrator, you need to specify the name of the Interplay Engine server for the remote workgroup.

For complete information about asset tracking, see the *Interplay Access User's Guide*.

### To specify a remote server for asset tracking:

1. In the Site Settings section of the Interplay Administrator window, click the Asset Tracking/Archive Settings icon.

The Asset Tracking/Archive Settings view opens.



2. If you want to track assets in a non-archive server, in the Online server name text box, type the computer name of the Interplay Engine server and click Add.

The server name is added to the list of configured hosts.

- 3. If you want to track assets on an archive server, in the Archive Server name text box, type the computer name of the Interplay Archive Engine.
- 4. Click Apply Changes.

## **Specifying Archive Settings**

The Asset Tracking/Archive Settings view lets you select options for how the Interplay Engine operates with the Interplay Archive Engine and the Archive Provider. The view displays different settings, depending on where you are logged in.

If you are logged into an Interplay Archive Engine, the settings include:

- Allow duplicate media files )
  - This option lets you choose whether the Archive Provider archives duplicate versions of the media.
- Allow Metadata Archive
  - This option lets you choose whether the AAF metadata for Avid assets is sent to the tape archive along with the media.

If you are logged into an Interplay Engine, the settings include:

- Archive server name
- Archive Segment size
- Use best effort restore

These settings are described in the following topics. For more information about using an Interplay Archive Engine, see *Interplay Best Practices* and the *Interplay Media Services Setup and User's Guide*.

## **Archiving Duplicate Versions of Media**

By default, the Archive Provider does not archive duplicate versions of media, however, you can choose to have it do so.

When you archive a master clip, subclip, or sequence for the first time, the Archive Provider automatically archives all the associated media. If you are archiving another subclip or sequence that refers to the original master clip, the Archive Provider does not automatically archive a duplicate version of the associated media. The Archive Provider archives all of the metadata associated with the new subclip or sequence but it does not archive duplicate versions of the media. Selecting "Allow duplicate media file(s)" tells the Archive Provider to create multiple versions of the media files.

The Interplay Archive Engine avoids duplication by default. If you prefer to have the Archive Engine archive duplicate media files, you can use the Interplay Administrator to change the setting.

This setting appears only when you log in to an Archive Engine database.

#### To change whether archive operations create duplicate media:

- 1. Open the Interplay Administrator and log into the system running the Archive Engine.
- 2. In the Site Settings section of the Interplay Administrator window, click the Asset Tracking/Archive Settings icon.

The Asset Tracking/Archive Settings view opens.

3. Select the Archive database AvidAM from the database list.

The system displays the Asset Tracking/Archive Settings window for the Interplay Archive Engine.



- 4. Select one of the following settings for "Allow duplicated media files" option:
  - No When you archive an Avid asset the first time, the Archive Provider archives all
    associated media. If you archive other assets that reference the same media, the Archive
    Provider archives the metadata but does not archive duplicate versions of the associated
    media (default setting).
  - Yes The Archive Provider archives the associated media each time you archive an asset. If you delete an asset that references the duplicated media, the system asks if you want to delete the associated media files. If you choose the delete the media, the system deletes all copies of the media.
- 5. Click Apply Changes.

## Adding AAF Metadata to an Archive

The Asset Tracking/Archive Settings view on the Interplay Archive Engine includes an option labeled "Allow Metadata Archive." If you select Yes, AAF metadata for Avid assets is sent to the tape archive along with the media. This option requires special implementation by the tape archive vendor. If you select No, only media is sent to tape (the default). This option is supported for the SGL FlashNet™ solution. Consult with your archive solution provider to determine if your installation supports this feature.

This setting appears only when you log in to an Archive Engine database.

## Specifying the Archive Server, Segment Size, and Restore Process

These settings appear when you log in to an Interplay Engine online database (AvidWG). You must set the name of the Archive Engine server. You might need to set the other options, depending on your workflow.

#### To specify Archive settings for an online database:

- 1. Open the Avid Interplay Administrator and log into the system running the Interplay Engine.
- 2. In the Site Settings section of the Interplay Administrator window, click the Asset Tracking/Archive Settings icon.
  - The Asset Tracking/Archive Settings view opens.
- 3. Select the AvidWG database from the database list.

The Archive Settings area displays these options.



- 4. In the Archive Settings area, do the following:
  - In the Archive server name text box, type the name of the computer running the Avid Interplay Archive Engine.
  - In the Archive Segment size (frames) text box, type the segment size used for partial restore operations, in frames. The default value is 1800 frames.



If you later change the Archive Segment size, the new size applies only to new archives. Partial restores of media that is already archived use the original segment size.

▶ Use best effort restore - if you select this option, a restore process restores as many files as it can without returning errors. This option requires special implementation by supported third-party vendors to ignore any missing files that are no longer in the archive storage. If you do not select this option, then the restore process fails when there are any missing files (the default).



The "Use best effort restore" option is not supported by all third-party archive vendors. If you select this option and your archive vendor supports it, then a restore process restores as many files as it can without returning errors.

5. Click Apply Changes at the bottom of the window.

## Setting the Ownership for New Database Folders

The Ownership Behavior view lets you determine how the owner is assigned when a user creates a new Interplay folder in the following applications:

- Interplay Access
- Interplay Assist
- Avid Instinct
- Interplay Window
- Interplay checkin from Avid editing system

By default, the user who creates a folder is set as the owner. As the owner, the user by default has read/write/delete permission on the folder. In Interplay Access, a problem could develop in the following situation:

- 1. Editor 1 owns a folder named Final that contains a sequence named Final\_Sequence and has read/write/delete permission on the folder.
- 2. Editor 2 has read/write permission on the folder, but not delete rights.
- 3. Editor 2 creates a folder named Final\_2 within folder Final, and thus has read/write/delete permission on the new folder.
- 4. Editor 2 duplicates Final\_Sequence, moves it into folder Final\_2 and renames it Final\_Sequence\_2. Referenced assets are selected to be displayed in folder Final\_2 (Tools > Options > Filter Settings), so the master clips that make up the sequence are displayed in the folder.
- 5. Editor 2 deletes Final\_Sequence\_2, its master clips, and its associated media.

As a result, all media for the original Sequence\_Final is also deleted (unless there is a reservation active on the material).

To prevent this situation, you can set an option so that a new folder is owned by the same owner as the parent folder. If this option is set, in the previous example, Editor 2 inherits read/write permissions on the new folder but does not have delete permission and thus cannot delete the sequence or master clips.

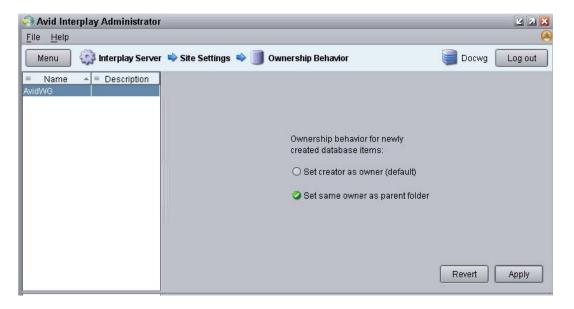


An administrator can change the owner and permissions for a folder after it is created. For more information, see the Interplay Access User's Guide or Help.

#### To specify how ownership is set for new folders:

1. In the Site Settings section of the Interplay Administrator window, click the Ownership Behavior icon.

The Ownership Behavior view opens.



- 2. Select the database for which you want to set the behavior.
- 3. Select the option you want.
  - "Set creator as owner" is the default.
  - "Set same owner as parent folder" sets the owner of a new folder to be the owner of the folder in which the new folder was created.
- 4. Click Apply.

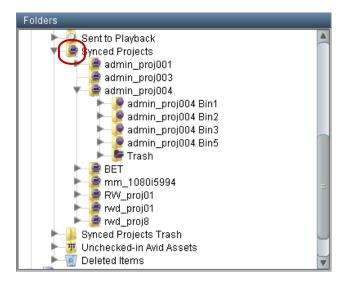
The change takes effect immediately.

5. To undo your change, click Revert, then click Apply.

## **Enabling Interplay Synced Projects**

Interplay Synced Projects provide you with a way to link your bins and projects in Media Composer or NewsCutter with the folder structure for assets stored in your Interplay database. Before you can use synced projects, you need to enable the Synced Projects setting in Interplay.

Folders for Interplay Synced Projects are indicated by a synced project icon. Media assets in these folders update as users modify the projects in Media Composer and NewsCutter.



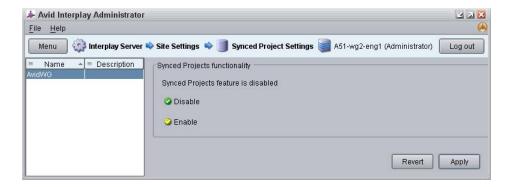
Synced project asset folders in Avid Access, with the synced project icon

For more information about using synced projects, see "Interplay Synced Projects" in the Help for your Avid editing application.

#### To enable synced projects:

1. In the Site Settings section of the Interplay Administrator window, click the Synced Project Settings icon.

The Synced Project Settings view opens.



2. Select Enable, and then click Apply.

The application enables synced projects for the selected workgroup.

## **Setting Options for Deletion**

The Delete Behavior view let you set options for the Delete dialog box, as described in the following topics:

- "Understanding the Deletion Process" on page 179
- "Scheduling the Deletion of Database Assets" on page 186
- "Setting Options for Deleting Only OMF Media, Only MXF Media, or Both" on page 189
- "Setting Options for Deleting Locked Media" on page 189
- "Activating the Option to Delete Referenced Assets" on page 190
- "Using the Delete Kept Media Tool" on page 190

## **Understanding the Deletion Process**

When you check in a master clip or other Avid asset to Interplay, Interplay stores the original asset in the database and creates identically named, visible assets in one or more Interplay folders. These visible assets are *links* to the assets that are stored in the database. Links (also referred to as *representations*) are the visible means of working with assets. You can have more than one link to the same asset.

The assets that are stored in the database are referred to as *database assets*. Database assets themselves are not visible in the user interface, but are represented by links.

This distinction between links and database assets is important in understanding how the deletion process works and the how it is affected by a deletion schedule. The following topics describe the deletion process:

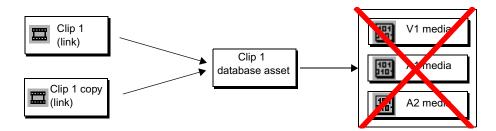
- "Three Parts of the Deletion Process" on page 180
- "Changes in Interplay v2.4 (Asynchronous Deletion)" on page 181
- "Default Deletion Schedule and Custom Deletion Schedules" on page 182
- "Changes to the Orphan Clips Folder" on page 183
- "How Asynchronous Deletion Works with the Orphan Clips Folder" on page 184
- "Logs for Deleted Media and Metadata" on page 184
- "New Properties for Deletion" on page 185

For information about deletion workflows and recommendations, see "Developing an Interplay Delete Strategy" in the *Interplay Best Practices Guide*.

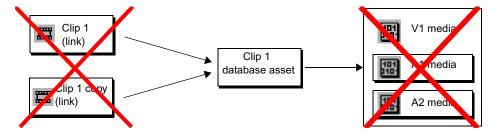
#### **Three Parts of the Deletion Process**

If you select to delete assets and media in the Interplay Access Delete dialog box, the deletion process consists of three major parts:

1. Media files for assets that are not reserved are deleted from shared storage.

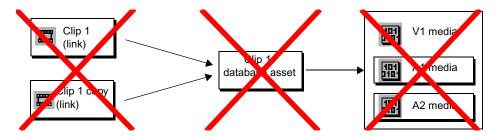


2. Links for assets that are not reserved or referenced by other assets are deleted from the database.



After the last link for an asset is deleted, database assets are deleted unless they reference online media.

The following illustration shows the completed deletion.



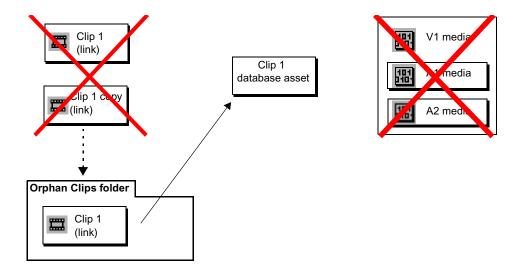
The last part of the process is the part that takes the longest time and places the heaviest load on the Interplay Engine. In addition, this part of the process does not provide immediate feedback, as opposed to media deletion (you can see the files deleted from shared storage) and link deletion (you can see links are deleted from the Access folder structure). The Interplay Access Delete dialog box remains open until the entire deletion process is complete, which results in wasted time for a media manager.



Some files associated with database assets, such as AAF files and headframes, are deleted after the next complete backup.

### Changes in Interplay v2.4 (Asynchronous Deletion)

In Interplay v2.4 and later, the last part of the deletion process (database asset deletion) is disassociated from the first two parts of the deletion process. When the last link to a database asset is deleted, the Interplay Engine moves the last link for the database object to the Orphan Clips folder. This link points to the database asset.



You can think of deletion prior to v2.4 as *synchronous*, because all three parts of the process occur at approximately the same time, during the interactive part of the deletion (that is, while the Delete dialog box is open). Deletion in v2.4 and later is *asynchronous*, because deletion of the database assets takes place after the interactive part of the deletion.



It is important to remember that in Interplay v2.4 and later the deletion process is always asynchronous. Even if you do not select a custom deletion schedule, deletion of database assets is separated from interactive deletion of links and media.

#### **Default Deletion Schedule and Custom Deletion Schedules**

Deletion of links in the Orphan Clips folder and the database assets always take place asynchronously, during a scheduled time span. You can use the default deletion schedule or you can set a custom schedule in the Interplay Administrator.

**Default deletion schedule:** The default deletion schedule is set as a 24-hour time span (00:00 to 24:00). In this case, the database asset deletion takes place at approximately the same time that you run the deletion operation. As a result, links to the database assets might not be visible in the Orphan Clips folder because they are deleted immediately after the interactive part of the deletion. Links with online media are moved to the Kept Media folder and are not deleted (see "Changes to the Orphan Clips Folder" on page 183). This default time span results in the least disruption for established workflows, but it does not lessen the load that the deletion operation places on the Interplay Engine.

For the default deletion schedule, no options in the Scheduled Deletion Options section are selected. This is important to keep in mind if you disable a custom deletion schedule with one or more options selected. The inactive selected options do not indicate the default schedule options but the last custom schedule options selected.

**Custom deletion schedule:** To take advantage of the improved process and lessen the load on the Interplay Engine, you need to set a custom schedule with one or more time spans. Scheduling a deletion time span results in a faster initial deletion operation and less impact on other Interplay Engine operations. You set a custom time span in the Interplay Administrator. Additional options are also available. See "Scheduling the Deletion of Database Assets" on page 186.

Scheduled deletion works similarly on the Interplay Archive Engine. On the Interplay Archive Engine, media is flagged for deletion, but the deletion itself takes place through the third-party archive system.

#### **Changes to the Orphan Clips Folder**



# The function of the Orphan Clips folder and the status of its contents changed in Interplay v2.4.

Previously the Orphan Clips folder contained links for assets deleted or removed from Interplay folders that still referenced media files on shared storage ("classic" orphan clips). Now, in addition to these links, the Orphan Clips folder also contains links for assets whose database assets are scheduled for deletion, whether or not the assets have online media.



If your deletion time span is set for the default 24-hour period, you might not see links for assets scheduled for deletion in the Orphan Clips folder, because the database assets are deleted immediately after the interactive part of the deletion.

You can distinguish links that have online media from links that do not have online media by displaying the Media Status column. A red icon indicates media offline. Double-click the column head to sort by the values of the column.



Starting in Interplay v2.4, the Orphan Clips folder includes the following subfolders:

- Kept Media folder: You can select an option to include deletion of online media in the scheduled deletion ("Permanently delete assets and associated online media from the Orphan Clips folder"). If you do not select this option, the scheduled deletion moves any links with online media to a subfolder in the Orphan Clips folder named "Kept Media." This option to delete is not selected by default, so even if you do not enable custom deletion, the Interplay Engine creates a Kept Media folder when needed. You can manually delete clips and media from this folder at a time that is appropriate for your workflow.
- Failed to Delete folder: If the deletion process is not able to delete a clip or its media (for example, if a clip is corrupted), the Interplay Engine creates a subfolder in the Orphan Clips folder named "Failed to Delete" and moves assets it could not delete to this folder. You can try to manually delete clips and media from this folder as well, but you might need to determine a different method of deleting these clips and media. For example, check the shared-storage system workspace to make sure the Server Execution User has delete rights.

These folders are useful in two ways:

- It is easier to browse and search a large Orphan Clips folder for assets with online media and assets that cannot be deleted.
- The scheduled deletion process ignores both of these folders, resulting in improved performance.

You can manually delete assets from the Orphan Clips folder at any time.

#### How Asynchronous Deletion Works with the Orphan Clips Folder

During the scheduled time spans, the Interplay Engine reviews the objects in the Orphan Clips folder and deletes the links, the database assets, and the media (if the option "Permanently delete assets and associated online media from the Orphan Clips folder" is selected). At the end of a time span, the Interplay Engine keeps a record of where it stopped. If not all eligible assets were deleted, it continues from this position at the start of the next time span. This process also takes place if the scheduled deletion is interrupted, such as for system maintenance.

#### Logs for Deleted Media and Metadata

Deletions are logged in two files:

- AvDeletes.log. This log lists information about media deleted from shared storage.
- AvMetaDataDelete.log This log lists information about assets (metadata) deleted from Orphan Clips or any other folder. Scheduled deletions are noted.

The following are examples of AvMetaDataDelete logs:

• When a user deletes metadata that is moved to the Orphan Clips folder:

```
[Thu Mar 10 12:12:17 2011] User 'Administrator' on host 'MUC-TReichgr' deleting metadata:

[Thu Mar 10 12:12:17 2011] From '/Projects/Test3/'

[Thu Mar 10 12:12:17 2011] 'LHJU MOUNTIES -Vakantiekamp' handle 1921 moved to Orphan Clips

[Thu Mar 10 12:12:17 2011] 'MOUNTIES - vakantiekamp' handle 1924 moved to Orphan Clips
```

• When a scheduled deletion permanently deletes metadata from the Orphan Clips folder:

```
[Tue Mar 08 13:45:00 2011] Scheduled deletion: deleting metadata from Orphan Clips:

[Tue Mar 08 13:45:00 2011] 'Film BKG.mov' handle 1368 user
```

```
'Administrator'

[Tue Mar 08 13:45:00 2011] 'computer BLUE internet NN BG.mov' handle
1361 user 'Administrator'
```

• When an administrator user permanently deletes metadata from the Orphan Clips folder:

```
[Thu Mar 17 20:16:10 2011] User 'Administrator' on host 'MUC-TReichgr' deleting metadata instantly:
```

```
[Thu Mar 17 20:16:10 2011] From '/Orphan Clips/'
[Thu Mar 17 20:16:10 2011] 'Aftiteling' handle 2100
```

The AvMove.log file includes entries for links moved to the Kept Media folder.

#### **New Properties for Deletion**

The Interplay v2.4 database includes three new properties that are set only for assets in the Orphan Clips folder that were interactively deleted (that is, manually through the Delete dialog box):

- Date Deleted: Displays the date and time the last link was deleted.
- Deleted By: Displays the user name of the person who deleted the last link.
- Original Path: Displays the folder path for an asset whose last link was deleted.

To display these properties, an Interplay administrator has to make them available in the Property Layout view. An Interplay Access user has to select the properties for display as entries in the Object Inspector or as columns in the Assets pane.

### **Scheduling the Deletion of Database Assets**

Beginning with Interplay Engine v2.4, you can schedule custom time spans and set other options for deletion of database assets in the Interplay Administrator. This feature lets you schedule a significant part of the load generated on the Interplay Engine by deletion operations to take place during times of low activity.

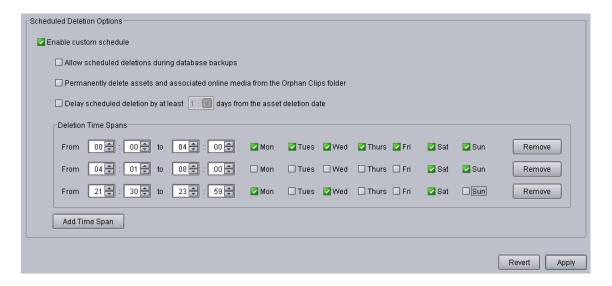


Even if you do not schedule a custom deletion, deletion in v2.4 and later is asynchronous, because deletion of the database assets takes place after the interactive part of the deletion. For more information, see "Understanding the Deletion Process" on page 179.

#### To schedule the deletion of database assets:

 In the Site Settings section of the Interplay Administrator window, click the Delete Behavior icon.

The Scheduled Deletion Options section is at the bottom of the view.



2. In the Scheduled Deletion Options section, select "Enable custom schedule."

If you select "Enable custom schedule," select options, and later deselect "Enable custom schedule," the options you selected are disabled, but remain set in case you want to enable them again. However, the selected options are not in effect. Instead, the default deletion schedule is in effect. See "Default Deletion Schedule and Custom Deletion Schedules" on page 182.

- 3. Select the options that you want:
  - Allow scheduled deletions during database backups

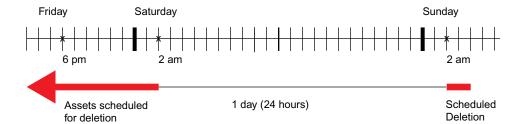
By default, a scheduled deletion stops when an Interplay backup begins, and resumes when the backup ends or at the next scheduled deletion. Select this option to allow both processes to operate at the same time.

- Permanently delete assets and associated online media from the Orphan Clips folder
   Select this option if you want to include assets with media in the scheduled deletion. If this option is not selected, links with media are moved to the Kept Media folder.
- Delay scheduled deletion by at least *x* days from the asset deletion date

  Select this option if you want to delay the scheduled deletion by a specified number of days. You can specify 1 to 30 days. This option gives you the opportunity to review the contents of the Orphan Clips folder before the scheduled deletion. To help determine which links will be deleted, you can check the asset deletion date in the Date Deleted column (see "New Properties for Deletion" on page 185).

For example, imagine that you selected this option with a time period of 1 day (24 hours), and a deletion is scheduled for 2 a.m. to 4 a.m. It's 6 p.m. Friday, March 25, and you delete a group of assets and media. The assets are moved to the Orphan Clips folder and scheduled for deletion at 2 a.m. Sunday morning, March 27 (32 hours later). This scheduled deletion will include any assets deleted at or before 2 a.m. on Saturday, March 26 (24 hours before the start of the scheduled deletion).

The following diagram illustrates this example.



4. Specify a time span for the deletion.

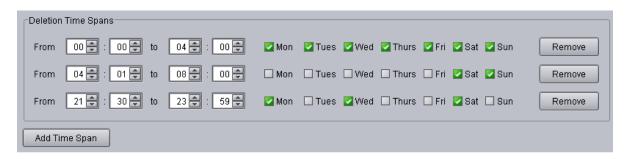
By default, a 24-hour time span is specified (00:00 to 24:00). This setting means deletion of database assets take place at approximately the same time that the links and media are deleted. You should set a more limited time span to cover a time when the Interplay Engine is not being used very much. For example, a facility might set the time span for 2:00 am to 4:00 am.

One time span must always be present. Each time span is limited to one day (24 hours). If you want to schedule a deletion period that extends from one day to another, such as 11:00 pm to 1:00 am, you need to create two time spans:

- One time span from 23:00 to 23:59
- One time span from 00:00 to 01:00

Click Add Time Span to create more than one time span. Click Remove Time Span to remove the associated time span. Overlapping time spans are not allowed.

In addition to a specific time span, you can select one or more days for that time span. The following illustration shows an example of three different time spans.



- The first time span specifies deletions to take place from midnight until 4:00 am every day of the week.
- The second time span specifies deletions from 4:01 am until 8 am every Saturday and Sunday.
- The third time span specifies deletions from 8:30 pm until 11:59 pm every Monday, Wednesday, and Saturday.
- 5. When you are satisfied with your settings, click Apply.

#### Note the following:

- By default, all days are selected.
- You can use 00:00 for the start of a time span and 24:00 for the end of a time span.
- Time spans can "touch." For example, you can schedule one time span from 02:00 to 04:00 and another from 04:00 to 06:00.
- Time spans are not allowed to overlap. For example, you cannot schedule a time span from midnight until 4:00 am every day and also schedule a time span from 2 am to 4 am on Saturday and Sunday. If you schedule an overlap, a message describes the problem and how to correct it.
- Scheduling deletion for specific days requires Interplay Engine v2.5. If you connect to an Interplay Engine running v2.4 or earlier, the days of the week check boxes are displayed but are inactive.

## Setting Options for Deleting Only OMF Media, Only MXF Media, or Both

If a clip is associated with both OMF and MXF media, you might want to delete only the OMF media or only the MXF media. You can enable an option in the Interplay Administrator so that the Delete dialog box gives users the option of which media format to delete.

#### To set an option that allows deleting only OMF media or only MXF media:

- 1. In the Site Settings section of the Interplay Administrator window, click the Delete Behavior icon.
- 2. In the OMF media handling section, select "Allow user choice for deleting OMF/MXF media"
- 3. Click Apply.

The next time a user logs into Interplay Access and opens the Delete dialog box, the following options are displayed:

- MXF and OMF media (default)
- Only OMF media
- Only MXF media

## **Setting Options for Deleting Locked Media**

Editors working in an Avid editing application can use the Lock feature to lock a clip. This can cause a problem if the lock is no longer needed and the administrator wants to delete the asset. The administrator can set an option to control how Interplay Access handles locked clips during a Delete operation. The default setting is for Interplay Access to skip any locked files.

#### To set an option for deleting locked media:

- In the Site Settings section of the Interplay Administrator window, click the Delete Behavior icon.
- 2. In the Locked media handling section, select one of the following options:
  - Allow user choice in Delete dialog: Two options are available in the Delete dialog box: "Skip" and "Force delete."
  - Always skip (default): In the Delete dialog box, the "Skip" option is shown but cannot be changed.
  - Always force-delete: In the Delete dialog box, the "Force delete" option is shown but cannot be changed.

Both "Skip" and "Force Delete" options are always active for Interplay Access users with administrative privileges

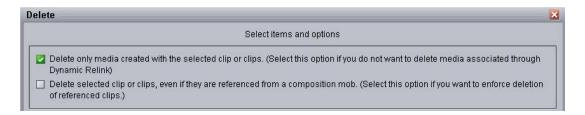
3. Click Apply to save any changes.

The next time a user logs into Interplay Access and opens the Delete dialog box, the options are active or inactive, depending on the current settings in the Delete Behavior view of the Interplay Administrator.

## **Activating the Option to Delete Referenced Assets**

By default, you cannot delete referenced assets (including rendered effects) without deleting the sequence that references them (see "Restricted Deletion of Referenced Assets" in the *Interplay Access User's Guide*). This feature was introduced to prevent deletion of referenced assets that were still in use, and because most customers prefer keeping consistency between a sequence and its referenced assets.

The Delete dialog box in Interplay Access includes an option to override this restriction: "Delete selected clip or clips, even if they are referenced from a composition mob." Select this option to allow the deletion of referenced assets.





By enabling this option, it is possible to delete assets that are still in use by a sequence. If the deleted assets are moved to the Orphan Clips folder, media might be unintentionally deleted, resulting in offline media.

## **Using the Delete Kept Media Tool**

The Delete Kept Media tool is used to automatically delete the assets and media in the Orphan Clips\Kept Media folder. The file name of the tool is delete\_kept\_media.exe and it is installed by default on the Interplay Engine in the following folder:

C:\Program Files\Avid\Avid Interplay Engine\Server

For a cluster engine, you need to execute this tool directly on the online node. You should run this tool during off hours because it deletes as quickly as possible and therefore puts extra load on the Interplay Engine, ISIS shared storage system, and Media Indexer.

The syntax of the tool is described in the following in-line help:

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

delete\_kept\_media - Deletes assets in Kept Media folder.

```
delete_kept_media [user:] [psw:] [proj:] [maxAssets:] [maxTime:]
```

This tool automates the deletion of assets (including media) that were moved to the Kept Media folder by scheduled deletion.

#### Options:

```
user:<user name> Name of the user to logon to AvidWG with
psw:<password> Password of the user to logon to AvidWG with
proj:<database name> (optional) The name of the database (AvidWG or
   AvidAM). If the parameter is omitted "AvidWG" is assumed.
maxAssets:<number>(optional) Maximum number of assets to delete
maxTime:<minutes> (optional) Maximum run time in minutes; tool will stop
   deletion when this period is exceeded
```

The maxAssets: and maxTime: options are useful if this tool is run as a scheduled task, e.g. using Windows Task Scheduler.

\*

The maxTime option is especially useful. It allows a media manager to start the deletion process late in the evening (or generally during low-load or no-load times) and specify a window for the deletion. You can schedule the deletion before a backup starts or before use of the Interplay Engine goes up in the morning.d

#### For example:

C:\Program Files\Avid\Avid Interplay Engine\Server>delete\_kept\_media.exe user:Administrator psw:avid maxTime:300

This command starts a deletion process that will stop after 5 hours (300 minutes). The tool displays its progress so that you can see how many assets were deleted. If you want to direct the output of the tool to a file, append the following to the command:

```
>> output_file.txt
```



This tool is similar to delete\_obsolete\_rendered\_effects.exe, which is described in the Interplay ReadMe.

#### To run the Delete Kept Media tool:

- 1. On the Interplay Engine system (or for a cluster system, on the online node), open a Windows Command Prompt.
- 2. Navigate to the location of the tool. For example, type

```
cd C:\Program Files\Avid\Avid Interplay Engine\Server
```

3. Type the command line for the tool and press Enter, using the following syntax:

```
delete kept media [user:] [psw:] [maxAssets:] [maxTime:]
```

If you want to direct the output of the tool to a file, append the following to the command:

```
>> output_file.txt
```

For example, to run the program for one hour and print the output in a file named results.txt, type the following and press Enter:

```
delete_kept_media user:administrator psw:admin maxTime:60 >>results.txt
```

If you want to schedule the tool to run at a particular time, use a program such as Windows Task Scheduler.

## Viewing and Setting the Metadata Override Status

The Metadata Override Settings view lets you manage how the Archive Provider handles metadata when an asset is archived more than once. This view appears only when the Interplay Administrator is logged on to an Archive Engine.

By default, the Archive Provider overrides the archived metadata for an Avid asset if you archive the asset again. You can use the Metadata Override feature in Interplay Access to disable metadata override on archived folders, or re-enable it if it is disabled. There is currently no visual indication in Interplay Access whether metadata override is enabled or disabled on a folder.

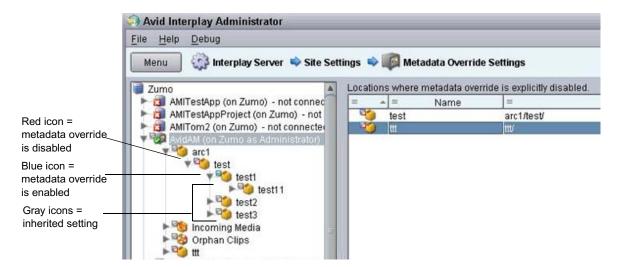
You can view the metadata override status in the Metadata Override Settings view in the Interplay Administrator. You can also use this view to enable or disable metadata override for a folder.

#### To view whether metadata override is enabled:

1. In the Site Settings section of the Interplay Administrator window, click the Metadata Override Settings icon.

A folder tree displays the archive database.

- Folders that have metadata override enabled are marked with a blue check mark icon.
- Folders with metadata override disabled are marked with a red x icon.
- Folders marked with a gray icon indicate the inherited setting.



Folders with metadata override disabled are listed in the Locations window.

2. (Option) Select a folder in the folder tree to limit the folders displayed in the Locations window to subfolders.

#### To enable metadata override:

▶ Select a folder in the folder tree or one or more folders in the Locations window and click Enable Override.

#### To disable metadata override:

Select a folder in the folder tree or one or more folders in the Locations window and click Disable Override.

# **Production Engine Bus Connector**

This view is used to configure a service that runs on the Interplay Engine and communicates with the Avid MediaCentral Platform bus. This communication enables the Interplay Production database to be part of a multi-zone Media | Index. For more information, see the *Avid MediaCentral Platform Services Installation and Configuration Guide*.

# 6 Application Settings

In the Application settings, you can configure application-specific permissions and options, as described in the following topics:

- Application Database Settings View
- Media Composer | Cloud Settings
- Setting Instinct/Assist User Options
- Pro Tools Plug-Ins Settings

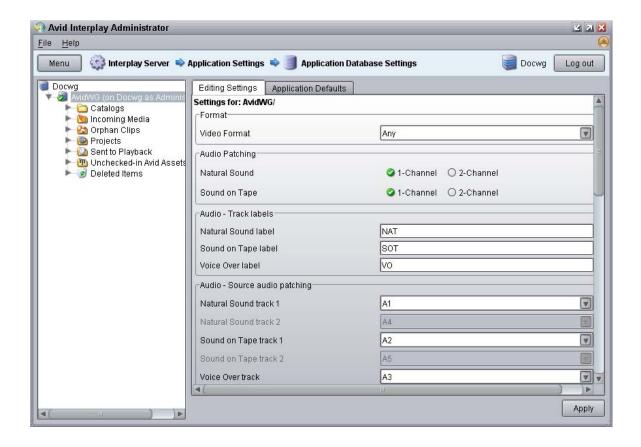
## **Application Database Settings View**

The Application Database Settings view lets you specify on a database or folder level the settings that are relevant when using an Interplay application.

All files and subfolders of the folder inherit its settings, but you can override the inherited settings for specific files and subfolders. Inherited settings are grayed out. These settings are used as the default for all new folders in the database, and are valid for all users unless they are changed explicitly for a user or user group in the Instinct/Assist User Settings view (see "Setting Instinct/Assist User Options" on page 215).

The Application Database Settings view has two tabs.

- Editor Settings tab. For a description of options in this tab, see the following topics:
  - "Setting Options in the Editing Settings Tab" on page 195
  - "Application Database Settings: Editing Settings Tab" on page 197
- Application Defaults. For a description of options in this tab, see the following topics:
  - "Setting Audio Mixing Defaults for Access, Assist, and MediaCentral | UX" on page 207
  - "Setting the Shotlist Start Timecode for Interplay Access and Interplay Assist" on page 210
  - "Setting an Automatic Timeout for Interplay Assist and Avid Instinct" on page 211
  - "Configuring the Frame Locators Display" on page 212



## **Setting Options in the Editing Settings Tab**

The Editing Settings tab in the Application Database Settings view includes settings that apply to several different applications. Some settings apply to Interplay Instinct and Interplay Assist, some apply to Interplay Instinct only, and one setting ("Check in bins when closing") applies only to Avid editing systems such as Media Composer®.

For information about these settings, see "Application Database Settings: Editing Settings Tab" on page 197.

#### To change the editor database settings in the Editing Settings tab:

- 1. In the Editing Settings section of the Interplay Administrator window, click the Application Database Settings icon.
- 2. Click the Editing Settings tab.
- 3. Select a folder in the database.

If the database icon has a red X, you are not connected. Click the database icon to connect. The database icon shows a green check mark when you are connected. For more information, see "Viewing General Role Assignments" on page 133.

- 4. Do one of the following:
  - Select an option from a drop-down list or by clicking an option button.
  - ▶ Type a setting in the text box.

If a setting is graved out, click the Edit button to enable editing.



#### 5. Click Apply.

A notification box tells you whether or not the changes have been successfully applied. Users who are currently logged in need to log out and log in again to see the changes.

6. Click Dismiss to close the notification box.

If you do not click Dismiss or the close box, after a few seconds the notification box minimizes to a green bar at the bottom of the dialog box. To view the notification again, click the green bar. The green bar is available for approximately 45 seconds.

#### To undo a setting:

1. Click the red X button.

This button appears only if you have explicitly set the value of the setting. Clicking the red X button clears the setting, but does not revert the setting to the previous value.

2. Click Apply.

### Audio Settings for Two NAT or SOT Tracks in Avid Instinct

Avid Instinct version 2.5 and later supports two channels of input for both NAT (natural sound) and SOT (sound-on-tape). The following settings in the Editing Settings tab in the Application Database Settings view apply to this support:

- Audio Patching
- Audio Source audio patching
- Audio Storyline audio patching
- Send to Playback Audio Mixdown Mode
- Audio Effects Center-Panned Sound on Tape and Voice Over

These settings are described in "Application Database Settings: Editing Settings Tab" on page 197. For more information about using these settings, see the *Avid Instinct User's Guide*.

### **Application Database Settings: Editing Settings Tab**

You can set options for the Editing Settings tab in the Application Database Settings view as described in the following table. The Applications column lists which applications are affected by each option.

Application Databa	Application Database Settings: Editing Settings Tab			
Option	Setting	Description	Applications	
Format	Video Format	For Avid Instinct, sets the default video format for your sequences. If you select Any, Avid Instinct allows you to select a video format for your sequence when you create a new story.	Avid Instinct MediaCentral	
		For HDV projects, select the HD1080i_60 video format.		
		• For MediaCentral UX, determines the video format only if the first edit is creating a voice-over. Otherwise, video format is determined by the first clip added to the sequence. If you select Any, the default format for voice-over is NTSC 29.97.		
Audio Patching	Natural Sound	Lets you specify whether NAT clips should be patched to a single channel or to two channels when added to the storyline.	Avid Instinct MediaCentral	
	Sound on Tape	Lets you specify whether SOT clips should be patched to a single channel or to a two channels when added to the storyline.	Avid Instinct MediaCentral	
Audio – Track labels	Natural Sound label	Allows you to specify a name for the NAT track in source clips. The default is NAT.	Avid Instinct MediaCentral	

<b>Application</b>	<b>Database</b>	Settings:	<b>Editina</b>	<b>Settings</b>	Tab (	(Continued)

Option	Setting	Description	Applications
	Sound on Tape label	Allows you to specify a name for the SOT track in source clips. The default is SOT.	Avid Instinct MediaCentral
	Voice Over label	Allows you to specify a name for the voice-over track in source clips. The default is VOICE.	Avid Instinct MediaCentral
Audio – Source audio patching	Natural Sound track 1	Specifies which track of the source clip is mapped to NAT track 1. The default is A1.	
	Natural Sound track 2	If two channels are selected for NAT, specifies which track of the source clip is mapped to NAT track 2. The default is A4.	Avid Instinct MediaCentral
	Sound on Tape track 1	Specifies which track of the source clip is mapped to SOT track 1. The default is A2.	
	Sound on Tape track 2	If two channels are selected for SOT, specifies which track of the source clip is mapped to SOT track 2. The default is A5.	Avid Instinct MediaCentral
	Voice Over track	Specifies which track of the source clip is mapped to voice-over sound. The default is A3.	Avid Instinct MediaCentral
Audio – Storyline audio patching	Natural Sound track 1	Specifies which track of the output sequence is mapped to NAT track 1. The default is A1.	Avid Instinct MediaCentral
	Natural Sound track 2	If two channels are selected for NAT, specifies which track of the output sequence is mapped to NAT track 2. The default is A4.	Avid Instinct MediaCentral
	Sound on Tape track 1	Specifies which track of the output sequence is mapped to SOT track 1. The default is A2.	Avid Instinct MediaCentral

Application Database Settings: Editing Settings Tab (Continued)			
Option	Setting	Description	Applications
	Sound on Tape track 2	If two channels are selected for SOT, specifies which track of the output sequence is mapped to SOT track 2. The default is A5.	Avid Instinct MediaCentral
	Voice Over track	Specifies which track of the output sequence is mapped to voice-over sound. The default is A3.	Avid Instinct MediaCentral
Audio – general settings	Media Creation workspace	Sets the workspace location used for media clips created by users, such as voice-over recordings and clips created during send-to-playback operations.	Avid Instinct Interplay Assist MediaCentral
		To view a list of available workspaces, the user logged into the Interplay Administrator must have a matching username and password on the Avid shared-storage system. The list shows all workspaces to which the logged-in user has read/write access.	
		If you list shared-storage servers for Avid ISIS Authentication, the servers that you specify determine which workspaces are displayed. Make sure these server names are correctly entered. See "Setting Avid ISIS Authentication" on page 112. If these are not correctly entered, the Media Creation workspace setting might be grayed out.	
	Audio sample rate	Sets the audio sample rate for audio clips created in the application. The sample rate is used in send-to-playback operations, and it must match the setting on your playback device (for example, an Avid AirSpeed®). The default sample rate for DV resolutions is 48 kHz. This setting is not changeable.	Avid Instinct Interplay Assist MediaCentral

Application D	atabase Settings: Editin	g Settings Tab (Continued)	
Option	Setting	Description	Applications
	Sample bit depth	Sets the sample bit depth for audio clips created in the application, such as voice-over recordings and audio mixdowns. The more bits used to sample the audio, the more accurately the amplitude is represented by the clip. The sample rate is used in send-to-playback operations, and it must match the setting on your playback device (for example, an Avid AirSpeed). The default is 16 bits.	Avid Instinct Interplay Assist MediaCentral
	Ducking [-dB]	Allows you to specify the amount of audio ducking (automatic lowering of audio gain in background audio). The default is 12 dB.	Avid Instinct MediaCentral
	Audio file format	Sets the audio file format to PCM. Not changeable.	Avid Instinct Interplay Assist MediaCentral

Application Database Settings: Editing Settings Tab (Continued)			
Option	Setting	Description	Applications
Dynamic Relink		Enables or disables the Dynamic Relink feature (for MultiRez editing If Dynamic Relink is "true," all relisettings in the Send to Playback optuare enabled; if Dynamic Relink is "false," these settings are disabled, with the exception Audio Mixdown Mode. The default for Dynamic Relis "not set."	nk ion
		You can enable and disable Dynamic Relink only at the t level of your database. You cannot enable or disable Dynamic Relink at the folder level.	
		If Dynamic Relink is "true," all relisettings in the Instinct/Assist User Settings are enabled as well. For information about user settings, see "Setting Instinct/Assist User Option on page 215.	
		This setting does not apply to MediaCentral. Dynamic reliiis configured on the MediaCentral Playback Serv	nk
Send to playback	Target resolution, primary	Sets a resolution for output to a playback device.	Avid Instinct Interplay Assist
		If dynamic relink is enabled, field is enabled and you mus select an option. The resoluti that are available depend on resolutions available in the Resolutions tab in the Propel Layout view.	t ons the
		For MediaCentral, the target resolution is set in a profile created by the MediaCentral Administrator.	

Application D	Application Database Settings: Editing Settings Tab (Continued)			
Option	Setting	Description	Applications	
	Target resolution, secondary	Sets a resolution to use for a second playback device.	Avid Instinct	
	Secondary target field	Leave the field blank to send a sequence to playback on the primary device. Enter a value to send the sequence to the secondary playback device.	Avid Instinct	
		Story fields are set in Avid Instinct.		

Option	Setting	Description	Applications
	Audio Mixdown Mode	Sets the mixdown mode used for send-to-playback operations:	Avid Instinct Interplay Assis
		<ul> <li>Mono — Maps to a center pan, which creates a mono mixdown of all audio tracks and outputs the resulting track to two channels when sent to playback. This results in two identical channels of audio, each containing the original audio tracks.</li> </ul>	
		• Stereo — Maps to a left/right alternating pan (odd tracks on one channel, even tracks on the other channel), creates a stereo mixdown of all audio tracks, and outputs the resulting two tracks to two channels when sent to playback. This results in two channels of audio. For Avid Instinct, the default mapping is NAT/VOICE tracks (A1/A3) on one channel and the SOT track (A2) on the other channel. You specify how tracks are mapped in the Audio - Storyline Audio Patching settings.	
		Direct Out — Does not combine audio in any way; all audio tracks remain as they are in the source media, which creates separate output channels for each audio track in the source media when it is sent to playback. Select this option to retain the greatest flexibility to do further audio manipulation after the source media is sent to the playback device.	

Application Databas	Application Database Settings: Editing Settings Tab (Continued)			
Option	Setting	Description	Applications	
	Audio Target Resolution	Sets an audio resolution for output to a playback device. Currently, the only option is PCM.	Avid Instinct Interplay Assist	
		Sample Rate and Bit Depth: sets the resolution of the source audio for audio mixdowns.		
		If dynamic relink is enabled, you must set the audio target resolution to PCM and select a Sample Rate and Bit Depth.		
		If the working resolution differs from the target resolution, audio clips relink to the target resolution when they are sent to playback. However, if the settings on the playback device differ from the target resolution, the clips convert to the playback resolution after relinking.		
	Prepare Editor Sequences for Review	For future use.		
Audio Effects	Dissolve Duration (frames)	Sets the length of an audio dissolve in frames. For example, to create a default dissolve of 2 frames (the default), type 2.	Avid Instinct MediaCentral	
	Center-Panned Sound on Tape and Voice Over	If enabled, maps SOT and VOICE sounds as center-panned (played on both channels). This effect applies to both Mono and Stereo Mixdown modes.	Avid Instinct MediaCentral (Voice Over only)	

Application Databas	Application Database Settings: Editing Settings Tab (Continued)			
Option	Setting	Description	Applications	
Auto Reservation	Duration [h]	Allows you to set a default duration (in hours) for auto reservations. If you do not want auto reservation on a folder, set the duration to zero. The default duration is 24 hours.	Avid Instinct Interplay Assist MediaCentral UX	
		There are two situations that trigger an automatic reservation:		
		Capturing a master clip to the Interplay Window		
		• Checking in a new or modified asset from a bin		
		Checking in a new or modified sequence from MediaCentral		
MediaCentral Playback Service	Hostname	The computer name of the MediaCentral Playback Service (MCPS) server. For more information, see the Media Composer Cloud documentation.	Media Composer Cloud	
	Username	The username for the ICPS server administrator. This must match the user name in the MediaCentral UX System Settings, in the ICPS > Player tab, and the user credential must be unique.	Media Composer Cloud	
	Password	The password for the ICPS server administrator. This must match the user name in the MediaCentral UX System Settings, in the ICPS > Player tab, and the user credential must be unique.	Media Composer Cloud	
MCS Settings	Messaging URL	Type the URL for the server that hosts your MediaCentral Messaging Pane, using the following syntax: https://MediaCentral server hostname	MediaCentral UX	
Restore from Archive	Optimized Partial Restore	Reserved for future use. Disabled by default.		

Application Databas	Application Database Settings: Editing Settings Tab (Continued)			
Option	Setting	Description	Applications	
Checkin and Checkout	Use background checkin from editors	(Disabled by default). Enabling this feature lets a Media Composer user check in clips and sequences to Interplay Production by using a background process. This allows you to continue working on your project while the application checks in your work to Interplay.	Avid editing systems	
	Check in bins when closing	Allows you to set the default behavior for checking in media objects from open bins to the Interplay database when closing your Avid editing application. The default is "Ask user."	Avid editing systems	
		This setting does not apply to Avid Instinct or Avid Assist.		
	Update restrictions on checkout	Reserved for future use.	Avid editing systems	
	Update master clip during subclip checkout	(Enabled by default). A subclip's AAF file includes metadata (user properties, frame locators, and restrictions) for the master clip that the subclip is referencing. By default, when a subclip is checked out, updated information in the referenced master clip is merged into the metadata of the master clip in the subclip's AAF.	Avid editing systems	

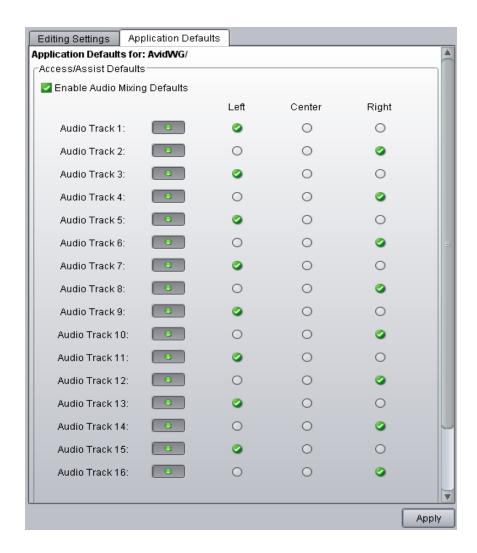
## Setting Audio Mixing Defaults for Access, Assist, and MediaCentral | UX

The Audio Mixing Defaults in the Application Defaults tab apply to Interplay Access, Interplay Assist, and Avid MediaCentral UX v2.1 and later.

- For Interplay Access, the settings apply to the Audio Mixer controls, which let you enable and mute tracks and adjust volume. Adjustments that you make with these controls apply only when you play Avid assets and file assets in Interplay Access. For more information, see the *Interplay Access User's Guide*.
- For Interplay Assist, the settings apply to the Local Audio Mixing controls, which let you edit audio settings for clips or subclips that you load in the Monitor. Adjustments that you make with these controls apply only when you play clips, subclips, or shotlists in Interplay Assist. For more information, see the *Interplay Assist User's Guide*.
- For MediaCentral UX, the settings apply to Audio pane controls for basic sequences, clips, and subclips. Adjustments that you make with these controls apply only when you play these assets in MediaCentral UX. For more information, see the Avid MediaCentral / UX User's Guide.

These settings apply to the entire database only. You cannot set them for individual folders.

The following illustration shows audio tracks 1 through 16 enabled, with left/right alternating pan (the initial default setting). Buttons for enabled tracks display a green icon.



# To set audio mixing defaults for Interplay Access, Interplay Assist, and MediaCentral (basic sequences):

- 1. In the Application Settings section of the Interplay Administrator window, click the Application Database Settings icon.
- 2. Click the Application Defaults tab.
- 3. Select the Enable Audio Mixing Defaults option so that a green check mark is displayed.
- 4. For each track that you want to enable, click the corresponding button, so that the button has a green icon.
- 5. For each track, select Left, Mono, or Right to assign the track to an output channel (pan setting).

#### 6. Click Apply.

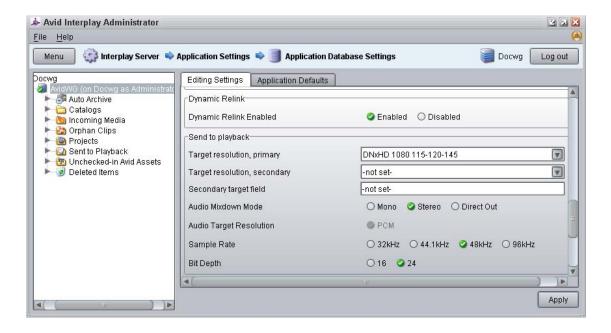
## Sending a Source to Playback in Interplay Assist

The target settings for Send to Playback depend on the folder in which a loaded shotlist exists. The following sections describe how Interplay Assist uses target settings when sending a source to playback.

#### **Settings in the Interplay Administrator**

You set the target audio and video resolution for a folder in the Interplay Administrator. If you have Dynamic Relink enabled in a workgroup, settings for audio and video target resolutions are enabled and required in the Interplay Administrator. You should set target resolutions for the root folder. Subfolders inherit this setting. You can set different target resolutions for subfolders that override the settings inherited from the root folder.

The following illustration shows DNxHD 1080 115-120-145 and PCM set as target resolutions on the database root folder.



#### Sending a Source to Playback

If you send a source to playback (a clip, subclip, or sequence) and a shotlist is open, the send to playback operation uses the target resolution of the folder that holds the shotlist.

If a shotlist is not open, the send to playback operation uses the target resolution that is set at the database root. If this resolution is not what you want to use for the source, you need to create or open a shotlist in a folder that has the desired settings.

To make it easier to select target resolution settings to use when sending a Source to playback, you can create a set of template shotlists and folders, each in a folder that has been set with the target resolutions. You can then do one or both of the following:

- Create shortcuts to the folders
- Create the template shotlists with names that are easily searched, for example, TRES\_DNxHD1080, TRES\_MPEG50, and so on.

Then, before you send a source to playback, use a shortcut or search to load the appropriate shotlist

# Setting the Shotlist Start Timecode for Interplay Access and Interplay Assist

An administrator can set the default starting timecode for shotlists that are created in Interplay Access or Interplay Assist. The default starting timecode for shotlists is 01;00;00;00 (drop frame) or 01:00:00:00 (non-drop frame). For example, you can use this setting to change the starting timecode hour from 01 to 00.

This setting applies to the entire database only. You cannot set it for individual folders.

Interplay Access and Interplay Assist determine the format of the timecode differently:

- For Interplay Access, the timecode format is determined by the first clip in the shotlist. You cannot mix drop-frame and non-drop-frame clips in the same shotlist.
- For Interplay Assist, you set the default starting timecode as Drop Frame or Non-Drop Frame in the Interplay Administrator. If you select Drop Frame, and if the frame rate of the first clip in the shotlist supports drop-frame timecode (for example, 29.97 fps), the timecode will be drop-frame. If you select Non-Drop Frame, or the first clip in the shotlist does not support drop-frame timecode, the default timecode will be non-drop-frame. You can mix drop-frame and non-drop-frame clips in the same shotlist.



Interplay Assist users can change the starting timecode for an individual shotlist by using the command Edit > Edit Shotlist Start Timecode.

#### To set the shotlist start timecode:

- 1. Start Interplay Administrator and log on to the database for which you want to set the shotlist start timecode.
- 2. In the Application Settings section of the Interplay Administrator window, click the Application Database Settings icon.

- 3. Click the Application Defaults tab.
- 4. Select the database (AvidWG).
- 5. For the Shotlist Start Timecode option, enter the timecode in the format HH:MM:SS. You cannot enter a default starting frame.
- 6. For Interplay Assist, specify the Default NTSC Shotlist Format as Drop Frame or Non-Drop Frame.
- 7. Click Apply.

## **Setting an Automatic Timeout for Interplay Assist and Avid Instinct**

An Interplay administrator has the option of letting Interplay Assist and Avid Instinct automatically time out after a specified period of inactivity. This feature helps in license management, because it enables an unused license to be freed up without the administrator manually finding and closing inactive applications on user desktops.

If a timeout period is set, and the application does not detect any activity during that period, the application displays a message that asks if you want to quit. Click Yes to quit, or click No to keep the application open. If you do not click Yes or No, the application quits in twenty seconds.

The default setting is one hour. This setting applies to the entire database.

#### To set the timeout period:

- 1. Start Interplay Administrator and log on to the database for which you want to set the automatic timeout.
- 2. In the Application Settings section of the Interplay Administrator, click the Application Database Settings icon.
- 3. Click the Application Defaults tab.
- 4. Select the database (AvidWG).
- 5. In the Assist/Instinct Defaults section, enter a value in hours for the Automatic Timeout option. Decimal values are allowed. For example, for a timeout period of one and a half hours, enter:
  - 1.5

If you do not want a timeout period, enter 0 (zero).

6. Click Apply.

The timeout period begins the next time you launch the application.

## **Configuring the Frame Locators Display**

The Frame Locators tab in the Object Inspector displays information about locators associated with an Avid asset. Administrators and users can configure which attributes (as columns) are displayed in the Frame Locators tab. Administrators can select a default set of columns in the Interplay Administrator, and users can change the default settings in Interplay Access.

You can display the following columns:

Frame Locators Column	Default Setting in Interplay Administrator
Timecode	Always selected
Comment	Always selected
Track	Selected by default
User	Selected by default
Color	Selected by default
UID (Unique Identifier)	Selected by default

The ability to configure which columns you display can be useful if you use locator information in another application. You can export locator information in various formats or you can copy rows of information and paste them into another application by using your desktop copy and paste commands.

#### To configure the default display in the Interplay Administrator:

- 1. Open the Interplay Administrator and log in to the database for which you want to set the default display.
- 2. In the Application Settings section, click Application Database Settings.
- 3. Click the Application Defaults tab.
- 4. In the Access Frame Locators View section, select the columns that you want to display in the Frame Locators tab.
  - The Timecode and Comment columns are always displayed.
- 5. Click Apply.

#### To override the default display in Interplay Access:

- 1. Open Interplay Access and log in to a database.
- 2. Select Preferences > Options

- 3. Click the View Settings tab.
- 4. In the Frame Locators View section, select "Use local column configuration."
- 5. Select the columns you want to display, or deselect the columns you do not want to display, then click OK.
- 6. Refresh Interplay Access (select View > Refresh or perform an action).

## **Configuring the Restrictions Display**

The Restrictions tab in the Object Inspector displays information about restrictions associated with an Avid asset. For more information, see the *Interplay Access User's Guide*.

Columns in the Restrictions tab always display Start Time, End Time, and Comment. Administrators and users can configure which attributes (as columns) are displayed in the Restrictions tab. Administrators can select a default set of columns in the Interplay Administrator, and users can change the default settings in Interplay Access.

You can display the following columns:

Restrictions Tab Column	Default Setting in Interplay Administrator		
Start Time	Always selected		
End Time	Always selected		
Comment	Always selected		
Username	Selected by default		
Color	Selected by default		
Start Frame	Not selected by default		
Duration	Not selected by default		
Deleted	Selected by default  If the Deleted option is selected, deleted restrictions are shown in addition to current restrictions. Deleted restrictions are listed as True in the Deleted column, and current restrictions are listed as False.		
Modified Date	Selected by default		
UID (Unique Identifier)	Selected by default		



A user can view restrictions in Interplay Access, Interplay Assist, Media Composer, and MediaCentral UX, but can create, delete, or modify restrictions only in Interplay Assist and MediaCentral UX. An administrator sets permission to create and modify restrictions. See "Instinct/Assist User Settings" on page 218.

#### To configure the default display in the Interplay Administrator:

- 1. Open the Interplay Administrator and log in to the database for which you want to set the default display.
- 2. In the Application Settings section, click Application Database Settings.
- 3. Click the Application Defaults tab.
- 4. In the Access Restrictions View section, select the columns that you want to display in the Restrictions tab.



The Start Time, End Time, and Comment columns are always displayed.

5. Click Apply.

#### To override the default display in Interplay Access:

- 1. Open Interplay Access and log in to a database.
- 2. Select Preferences > Options (Windows) or Interplay Access > Preferences (Macintosh).
- 3. Click the View Settings tab.
- 4. In the Restrictions View section, select "Use local column configuration."



- 5. Select the columns you want to display, or deselect the columns you do not want to display, then click OK.
- 6. Refresh Interplay Access (select View > Refresh or perform an action).

# Media Composer | Cloud Settings

This view is used to configure upload settings for Media Composer Cloud users. For more information, see the *Media Composer | Cloud Installation and Configuration Guide*.

You can set options for the Media Composer Cloud Settings view as described in the following table. These settings affect how remote upload functions when you use Media Composer Cloud.

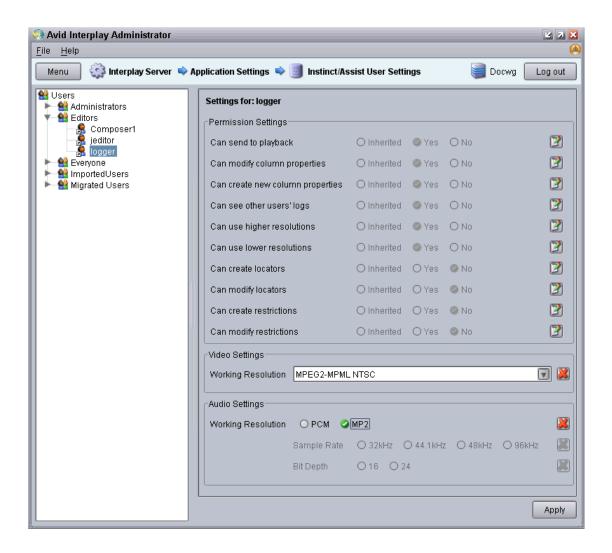
Media Composer Cloud Settings			
Option	Setting	Description	
Upload workspaces	Add	Select a workspace from the menu to use for your remote upload operations. The added workspace appears in the Active list.	
Upload workspaces	Active	Lists all active Interplay workspaces used for remote upload.	
Upload Proxy	800Kbps 2Mbps	When connected to an Interplay v2.7 or later workgroup, you can choose one of two bit rates for H.264 proxy media: 2 Mbps or 800 Kbps.	
		When connected to an Interplay v2.5 or v2.6 workgroup, 800 Kbps is automatically selected.	

# **Setting Instinct/Assist User Options**

In the Instinct/Assist User Settings view, you can set permissions for various editing functions on the group or user level (working resolutions for video and audio are not available for groups). These settings apply to all folders in the database, so in some cases the settings apply to users on Avid editing systems (NewsCutter, Media Composer) who are checking Avid assets into the Interplay database.

For information about these settings, see "Instinct/Assist User Settings" on page 218.

The settings in the following illustration are for an Instinct or Assist user who has permission to use only low-resolution MPEG2 media. In this example, most settings are grayed out, which indicate that they are inherited from the user group. For this user, the working video resolution is MPEG2-MPML NTSC and the "Can use higher resolutions" setting is No. The working audio resolution is MP2.



#### To change the Instinct/Assist User settings:

- 1. In the Application Settings section of the Interplay Administrator window, click the Instinct/Assist User Settings icon.
- In the Users tree on the left, select a group of users or an individual user.The settings for the selected user or user group area are displayed in the pane on the right.
- 3. Do one of the following:
  - ▶ Select an option from the drop-down list or by clicking an option button.
  - Type a setting in the text box.

If a setting is grayed out (inherited), click the Edit button to enable editing



4. Select among the following options for each setting:

Option	Description
Inherited	The user inherits this setting from the group it is a part of.
Yes	Grants the user this setting.
No	Denies the user this setting.

If you select Inherited, and then click Apply, the option changes to the inherited setting and the options are grayed out.

5. Click Apply.

A notification box tells you whether or not the changes have been successfully applied. Users who are currently logged on need to log out and log in again to see the changes.

6. Click Dismiss to close the notification box.

If you do not click Dismiss or the close box, after a few seconds the notification box minimizes to a green bar at the bottom of the dialog box. To view the notification again, click the green bar. The green bar is available for approximately 45 seconds.

#### To undo a setting:

1. Click the red X button.

This button appears only if you have explicitly set the value of the setting. Clicking the red X button clears the setting, but does not revert the setting to the previous value.

2. Click Apply.

### **Instinct/Assist User Settings**

The following table describes options for the Instinct/Assist User Settings. The table includes columns that specify which applications the setting applies to.

Setting	Instinct	Assist	Access	Media Composer	MediaCentral	Description
Can send to playback	х	X				If yes, allows the selected user or group to send material to a playback device.
Can modify column properties	X	x		x		If yes, allows the selected user or group to modify the properties of an asset (such as the name or a comment). If an editing application user regularly checks assets into Interplay, select "yes."
						Administrators and folder owners have this right set by default. Other users who have this right must also have a read/write or read/write/delete role for at least one folder that contains the asset.
Can create new column properties	X	x		X		If yes, allows the selected user or group to add new properties to an asset. If an editing application user regularly checks assets into Interplay, select "yes."
						Administrators and folder owners have this right set by default. Other users who have this right must also have a read/write or read/write/delete role for at least one folder that contains the asset.
Can see other users' logs	X	x				If yes, allows the selected user or group to see locators and restrictions set by other users.

Setting	Instinct	Assist	Access	Media Composer	MediaCentral	Description
Can use higher resolutions	X	x				If yes, allows the selected user or group to work with a higher quality than the working resolution for video and audio clips if the working resolution is not available. If this option is set to No and the only available resolution is higher than the working resolution, the user sees Media Offline in the Video monitor.
						If you want a user to work with any available media, select "yes" for this option and "Can use lower resolutions."
Can use lower resolutions	x	x				If yes, allows the selected user or group to work with a lower quality for video and audio clips than the working resolution if the working resolution is not available. If this option is set to No and the only available resolution is lower than the working resolution, the user sees Media Offline in the Video monitor.
						If you want a user to work with any available media, select "yes" for this option and "Can use higher resolutions."

Setting	Instinct	Assist	Access	Media Composer	MediaCentral	Description
Can create locators		x	x	x	x	If yes, allows the selected user or group to create locators. If no, a user of an Avid editing application can still create locators for an asset, but can check in only the asset, not the locator metadata (an error message is displayed).
						In most cases, if you want a user to create locators, select "yes" for both "Can create locators" and "Can modify locators." Both settings are needed because adding text is one aspect of modifying a locator.
						Administrators and owners have the ability to create locators by default. Other users must have "Can create locators" set to "yes" and must also have a read/write or read/write/delete role for at least one folder that contains the asset.
Can modify locators		X	x	x	x	If yes, allows the selected user or group to modify or delete locators. If no, a user of an Avid editing application can still modify locators on an asset, but can check in only the asset, not the locator metadata (an error message is displayed).
						Administrators and owners have the ability to modify locators by default. Other users must have "Can modify locators" set to "yes" and must also have a read/write or read/write/delete role for at least one folder that contains the asset.

Setting	Instinct	Assist	Access	Media Composer	MediaCentral	Description
Can create restrictions		x			x	If yes, allows the selected user or group to mark a section of a clip with a restriction locator. In most cases, if you want a user to create restrictions, select "yes" for both "Can create restrictions" and "Can modify restrictions."  Adding text is considered modifying a restriction.
						Administrators and owners have this right set by default. Other users who have this right must also have a read/write or read/write/delete role for at least one folder that contains the asset.
Can modify restrictions		x			x	If yes, allows the selected user or group to modify or delete a restriction.
						Administrators and owners have this right set by default. Other users who have this right must also have a read/write or read/write/delete role for at least one folder that contains the asset.
Video Settings: Working Resolution	X	X				If Dynamic Relink is enabled, specifies the default working video resolution for the selected user. You cannot apply this setting to a group.
Audio Settings: Working Resolution	x	X				If Dynamic Relink is enabled, specifies the default working audio resolution for the selected user. If the working resolution is set to PCM, you can select a sample rate and a bit depth for audio clips. You cannot apply this setting to a group.
						This setting is also used for voice-over recording in Avid Instinct.

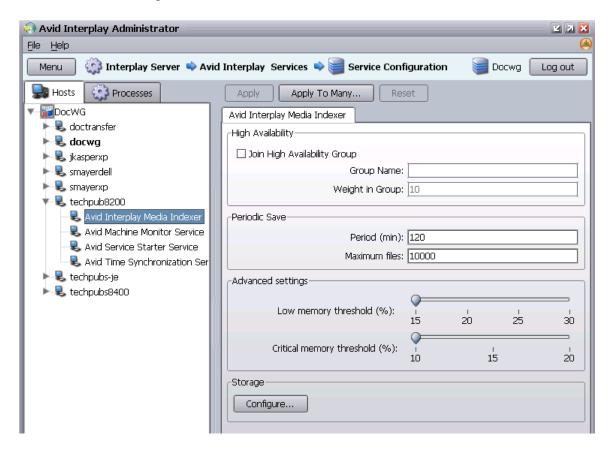
# **Pro Tools Plug-Ins Settings**

You can use Interplay Pro Tools Plug-ins to pass audio files back and forth between Avid video editing systems and Pro Tools audio editing and mixing systems.

As of Interplay v3.0, Pro Tools Interplay Integration Plug-Ins for Interplay are no longer available on the Interplay Client Installer. For more information about using Pro Tools with Interplay, go to the Knowledge Base page titled "Avid Interplay Requirements With Pro Tools."

# 7 Interplay Services

The Interplay Services settings include the Workgroup Properties and Service Configuration views, which are identical to parts of the Avid Service Framework. For example, the following illustration shows the Service Configuration view examining the Interplay Media Indexer settings for a computer in the Interplay workgroup. You can use the Service Configuration view to configure services such as the Interplay Media Indexers for all the clients in your workgroup from one computer.



For more information about the Interplay Services, see the *Avid Service Framework User's Guide* or *Interplay Best Practices*.



Avid Workgroup Properties and Avid Service Configuration are also available from the Interplay Access View menu.

# 8 Troubleshooting

The following topics provide information for troubleshooting problems with the Interplay Engine server:

- Troubleshooting Login Problems
- Troubleshooting Client Connection Problems
- Optimizing Interplay Performance
- Troubleshooting Firewalls and Interplay
- Troubleshooting the Server Execution User Account
- Shutting Down or Locking the Server Process

Also see "Creating a Metadata-Only Backup for Customer Support" on page 56.

# **Troubleshooting Login Problems**

If you are not able to log in to the Interplay Administrator even when you are sure you provided a correct user name and password, verify if the Central Configuration Server for the server is set correctly. For information about the Central Configuration Server, see "Understanding the Central Configuration Server" on page 104.

#### To verify if the Central Configuration Server is set correctly:

- 1. Click Start, then click Run.
- 2. Type regedit in the text box.

The Registry Editor opens.

3. Navigate to the following folder:

HKEY\_LOCAL\_MACHINE\Software\Avid Technology\ Workgroup\Avid Workgroup\DatabaseServer

The string value CMS should specify the computer name of the Central Configuration Server.

- 4. If this value is not correct, shut down the Interplay Engine by locking the server (see "Locking and Unlocking the Server" on page 88).
- 5. In the Registry Editor, double-click CMS, type a valid entry, and click OK.

6. Unlock the server.

# **Troubleshooting Client Connection Problems**

This topic provides suggestions for settings to check if a client system is not connecting properly.

#### **Network Configuration**

 Check the TCP/IP connection by typing ping <servername> in the Command Prompt on the client.

#### **Server Settings**

- Check if there is a user account for the user. See "Managing Users, User Groups, and User Rights" on page 123.
- Check if the password is expired. See "Viewing and Setting Attributes" on page 127.
- Check that the user has access to the database (a role other than No Access).
- Make sure the user authorization provider includes the user account. See "Setting User Authentication Providers and Importing Users" on page 109.

#### **Client Settings**

• Reinstall Interplay Access. This client application hosts Interplay Access, Interplay Administrator, and the connection package for any connection to Interplay.

# **Optimizing Interplay Performance**

This topic provides some basic items to check if you are running into unexplained slowness (either server or client side) with Interplay:

- Make sure that the server meets the current specifications. See the *Interplay ReadMe*.
- Make sure that the client is running on a system that meets specifications.
- Run the client from the server machine.
  - If Interplay Access runs well on the server machine, it might indicate that the other clients are communicating slowly with the server because of a network problem. Start the client on the server machine and see if you have the same problems.
- Check for other processes running on the server machine.
  - Most installations should run the Interplay Engine on a dedicated machine. If you are relying on the server machine to perform other duties as well, you might have performance issues. For example, some virus scanners can lock files on a server, and the Interplay Engine waits until the file is unlocked before it can be moved, renamed, deleted, and so on.

- Check the speed of the LAN between the Interplay Engine and the shared storage server.
   Make sure that the Interplay Engine and the Avid shared-storage server are connected appropriately; for example, the Interplay Engine needs to read the files to create thumbnails. If the connection is slow, performance can drop.
- Check the speed of file operations of the Interplay Engine on the shared storage server. Make sure that the Interplay Engine can move data quickly on the Avid shared-storage system. Log in to the Interplay Engine server and use Windows Explorer to transfer files from an Avid shared-storage workspace to the Interplay Engine server. The speed performance of these operations should be independent of file size and instantaneous. Make sure the connectivity and credentials are correct.

# **Troubleshooting Firewalls and Interplay**

Firewalls on client machines interfere with Interplay's TCP/IP communications.

#### **Symptoms**

- The list of servers does not appear, for example, when you are connecting to a new database.
- Connection establishment to the server fails.

#### Cause

These problems can be caused by personal firewalls installed on the client machine. A typical example for such a firewall is ZoneAlarm<sup>®</sup> from ZoneLabs<sup>™</sup> or the Windows XP firewall.

These applications intercept all outgoing and incoming network traffic and decide whether to let the traffic go through or block it. The effect is that applications like Interplay fail to connect to their servers.

Typically when the client looks for available Interplay Engines in the network, no servers can be retrieved. When the client is looking for servers, a UDP broadcast is sent out on port 8321.

#### Solution

Usually these personal firewalls can be configured to allow all network traffic for specific applications. This should be done for Interplay locally or for Internet access depending on which servers Interplay should connect to.

For information about ports used by Interplay, see "Required TCP/IP Ports" on page 253 and "Interplay Port Usage" in the *Interplay Software Installation and Configuration Guide*.

# Troubleshooting the Server Execution User Account

The Server Execution User is a Windows operating system user account that is used only to run the Interplay Engine processes. You specify the user name and password for the Server Execution User when you install the Interplay Engine on the server. The following topics provide more information about the Server Execution User account and information about how to recreate the account.



The Server Execution User account is different from the Interplay Administrator account. The Server Execution User account is used to run the Interplay Engine processes. The Interplay Administrator account is used to manage users and the database.

The following topics provide more information about the Server Execution User account:

- Creating the Server Execution User Account
- Determining the Server Execution User Name
- Re-creating the Server Execution User

#### **Creating the Server Execution User Account**

When you install the Interplay Engine software you must specify the user name and password of the Server Execution User account. The Server Execution User is a Windows operating system user account that is used only to run the Interplay Engine processes.



When you install the Interplay Engine or the Interplay Archive Engine, do not select the default Server Execution User. Create a custom user instead. The default user account is AVID\_WORKGROUP\_USER. Do not use this account.

You have the following options for creating the Server Execution User:

• If your Interplay system is joined to a Windows domain, you can create a domain user (for example, "IPEngine"). The Interplay Engine installer will associate the appropriate permissions with the account. If you want to run the Interplay Engine within your domain and also want to automatically make use of domain user management, such as Windows Domain or LDAP, you must specify a domain user as the Server Execution User.

For Interplay Engine failover cluster systems, you must specify a Windows domain user.

- You have the option of allowing the Interplay Engine installer to create the account. Select a
  name before the installation and specify the name and a password during the installation.
  The installer will create a local user in the Administrators group with the appropriate
  permissions.
- You can also create a local Administrator account manually and specify that account during
  the installation. The account must have local administration rights on the operating system
  for the Interplay Engine server (both nodes on a cluster system). The account must have the
  following local security policy settings set to enabled:
  - Act as part of the operating system
  - Back up files and directories
  - Restore files and directories
  - Adjust memory quotas for a process
  - Log on as a service
  - Increase scheduling priorities
  - Manage auditing and security log
  - Impersonate a client after authentication
  - Debug programs

An account with an identical user name and password must have read/write access to the Avid shared storage workspaces that contain media. Use the Avid ISIS Administration tool to create this account.

Ideally the Server Execution user should be an account that users do not use to log onto the system. This prevents accidental changes to the Server User Account during normal administration duties. For example, if someone changes the password by mistake, users might not be able to access the Interplay database.

For security reasons, do not use the Interplay Engine server operating system Administrator account. Create a unique account that you use only as the Server Execution User. For example, you can create an administrative account called "IPEngine." Avoiding the word Administrator can help indicate that this account is not used for normal administrative tasks.



The Server Execution User account is different from the Interplay Administrator account. The Server Execution User account is used to run the Interplay Engine processes. The Interplay Administrator account is used to manage users and the database.

#### **Determining the Server Execution User Name**

If necessary, you can check the user name of the Server Execution User account.

#### To determine the Server Execution User name:

- 1. Right-click My Computer and select Manage.
- 2. Expand the Services and Applications branch, then click Services.
- 3. Right-click Avid Workgroup TCP COM Bridge and select Properties.
- 4. Click the Log On tab.

The Log On tab contains the name of the Server Execution User.

On a cluster system, the Server Execution User name and password must match the Windows user account that is running the Avid Workgroup Engine Monitor. On a cluster system, perform the next steps.

5. (Cluster only) Right-click Avid Workgroup Engine Monitor, select Properties, and click the Log On tab.

The Log On tab displays the Windows user account that is running the Avid Workgroup Engine Monitor.

6. (Cluster only) Check the following registry key value on each node:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Avid Technology\Workgroup\
Avid Workgroup Server

Check the ExecutionUser value. The Interplay Engine installer uses this value as the default value for the Server Execution User.

If the account names are different, it means that the Server Execution User has been changed at some point since the original Interplay Engine installation. Use the Custom install option when you upgrade the Interplay Engine software and decide if the displayed user is the name you want to use, or supply a different name and password. Use a regular domain name, such as "MYDOMAIN\ServerUser" and not the fully qualified domain name, such as "MYDOMAIN.com\ServerUser."

If you don't know the correct password for the Server Execution User account, use NXNServerUser.exe to change the user and password before you perform the upgrade. See "Re-creating the Server Execution User" on page 230.

#### Re-creating the Server Execution User

If you need to re-create the Server Execution User, use the NXNServerUser.exe tool.

#### To re-create the Server Execution User account:

1. Run the tool NxNServerUser.exe on the Interplay Engine server.

The tool is located in the following directory on the Interplay Server:

 $In stallers \\ AssetMgr \\ Tools \\ NxNServerUser$ 

2. Select Custom User.

3. Type the name, such as MYDOMAIN\IPEngine, and the password of the account.

Make sure that this name exactly matches the user name and password of an account in the Avid shared-storage Administration tool that has read/write access to the appropriate workspaces (see "Creating the Server Execution User Account" on page 228).



Make sure that you use the correct password for the specified user because the tool cannot verify the password.

The tool changes the execution user settings for the following servers and services:

- Avid Interplay Engine Server: The Avid Interplay Engine Server runs under the specified account. The NxNServerUser tool changes the corresponding DCOM settings. You can verify that the new user has been set using the dcomcnfg tool as described in "Avid Interplay Engine Server" on page 254.
- Avid Interplay TCP/COM Bridge: The Avid Interplay TCP/COM Bridge Service runs under the specified account. You can verify that the new user has been set in the service control panel tool as described in "Required TCP/IP Ports" on page 253.
- Impersonation of Apache® Modules: The Apache modules that need to access files on
  the file server are impersonated to the specified user account (see "Avid Workgroup
  HTTP Server" on page 255 and "Avid Workgroup Preview Server Service" on
  page 256). You can verify that the new user and the encrypted password has been set in
  the following registry keys:
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\Avid Technology\Workgroup\Avid Workgroup Server\ExecutionUser
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\Avid Technology\Workgroup\Avid Workgroup Server\ExecutionSettings
- (Cluster Only) Avid Interplay Engine Monitor: The Avid Interplay Engine Monitor
   Service runs under the specified account. You can verify that the new user has been set
   in the service control panel.
- 4. Restart the server.

The Avid Interplay Engine processes have all necessary access rights.

## **Shutting Down or Locking the Server Process**

You might need to shut down or lock the Avid Interplay Engine Server process in certain circumstances, such as low disk space conditions (see "Moving a Database Under Low Disk Space Conditions" on page 77). For more information about the process, see "Avid Interplay Engine Server" on page 254.

#### To shut down or lock the Avid Interplay Engine Server process, do one of the following:

- Lock the server using NxNServerLock.exe in the Avid Interplay Engine installation directory.
- ▶ Lock the server using the Lock Server view in the Interplay Administrator. See "Locking and Unlocking the Server" on page 88.
- ▶ Shut down the server using NxNServerShutdown.exe in the Avid Interplay Engine installation directory.

# 9 Reuniting a Split Database

A split database refers to a configuration in which only the metadata database is stored on the Interplay Engine. All other database files and folders are stored on an Avid shared-storage workspace. Previous versions of this guide described how to create and manage a split database to allow for a large number of file assets. This configuration is no longer recommended. Storing many small files on ISIS workspaces is an inefficient use of ISIS storage and can lead to performance problems. Customers with existing split databases can continue to use them but Avid does not recommend creating new split databases.

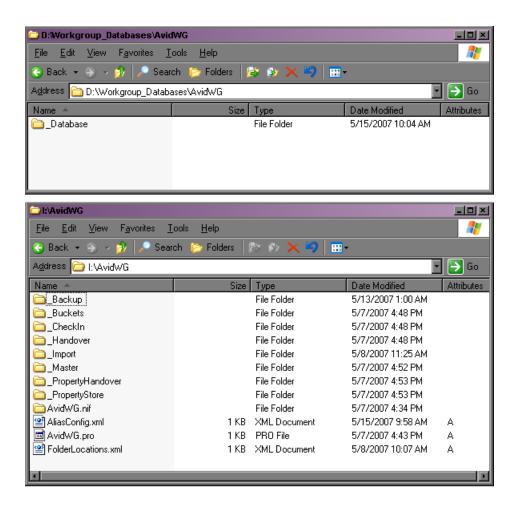
The following topics describe the optional procedure of reuniting a split database:

- Preparing to Reunite a Split Database
- Reuniting a Split Database (AvidWG Only)
- Reuniting a Split Database (AvidWG and \_InternalData)
- Configuring the workgroup.xml File

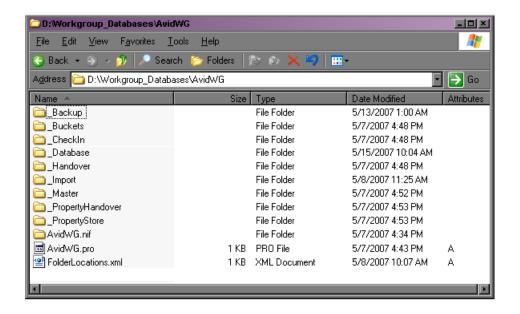
## Preparing to Reunite a Split Database

The following illustrations show a correctly split database:

- The \_Database folder is located in the AvidWG folder on the Interplay Engine server
- The remaining folders and files are located in the AvidWG folder on a shared storage workspace



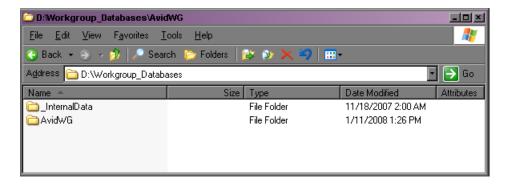
The following illustration shows all database files located in the same AvidWG folder on the Interplay Engine server.





In a correctly split database, the AvidWG folder on the Interplay Engine should contain only the \_Database folder. If the AvidWG folder on shared storage includes a \_Database folder, do not copy this folder to the Interplay Engine. Rename this folder \_Database\_UNUSED or something similar before copying the other content to the Interplay Engine.

In some configurations, the \_InternalData folder (which holds user metadata) might also be located on the shared storage workspace, or might be split between the Interplay Engine and the shared storage workspace. This folder should be located in \\IEServer\WG\_Database\$, for example, D:\Workgroup\_Databases, as shown in the following illustration.



Follow one of these procedures to reunite a split database:

- If the \_InternalData folder is already located on the Interplay Engine, see "Reuniting a Split Database (AvidWG Only)" on page 236.
- If the \_InternalData folder is located on a shared storage workspace, or split between the Interplay Engine and shared storage, see "Reuniting a Split Database (AvidWG and \_InternalData)" on page 239.

These procedures refer to two different types of backups:

- Interplay database backup: A backup copy of the Interplay database created by the automated backup system built into the Interplay Engine. For more information, see "Creating and Restoring Database Backups" on page 29.
- Archive database backup: A copy of the Interplay database manually created by using a
  third-party tool that can handle long path names (longer than 256 characters). Two examples
  are Robocopy (contained in rktools.exe, available on Microsoft.com) and 7-Zip. For more
  information, see "Using an Archiving Tool for Backup" on page 39 and documentation for
  the third-party tool.

If you create an archive backup, keep in mind that creating a complete archive backup can take several hours. You must lock and deactivate the database before creating the archive. You can save time by removing old backups from the \_Backup folder, located by default in \\IEServer\WG\_Database\AvidWG\\_Backup.

# Reuniting a Split Database (AvidWG Only)

#### To reunite a split database (AvidWG only):

- 1. If you are working on a cluster system, make sure that cluster services that provide the local S drive are running.
- 2. Lock the database to make sure that no user can access it:
  - In the Database section of the Interplay Administrator window, click Lock/Unlock Database.
  - b. Select the database in the Unlocked Databases list.
  - c. Click Lock Database.

The database name appears in the Locked Databases list.

- 3. Deactivate the database:
  - a. In the Database section of the Interplay Administrator window, click Manage Databases.
  - b. Select the database name in the Databases list.
  - c. Click Deactivate.

The database name no longer appears in the Databases list.

- 4. If you do not have a complete Interplay database backup available, manually create an archive backup of the database from both database locations:
  - \\SharedStorageServer\WorkspaceName\AvidWG
  - \\IEServer\WG Database\\AvidWG

By default, this folder is

D:\Workgroup\_Databases\AvidWG (non-cluster system)

S:\Workgroup\_Databases\AvidWG (cluster system)

5. Copy the necessary files and folders from

\\SharedStorageServer\WorkspaceName\AvidWG

to

\\IEServer\WG Database\\AvidWG

Windows Explorer cannot copy paths longer than 256 characters or Unicode names that are not in the default operating system language. If the database includes either or both of these items, use a tool such as Robocopy or 7-Zip.

The following table lists the files and folders that you need to copy. These files and folders are illustrated in "Reuniting a Split Database" on page 233.

# Copy from \\SharedStorageServer\WorkspaceName\AvidWG to \\IEServer\WG\_Database\$\AvidWG \_Backup folder \_Buckets folder \_CheckIn folder \_Handover folder \_Import folder \_Master folder \_PropertyHandover folder \_PropertyStore folder \_AvidWG.nif Aliasconfig.xml

Copy from \\SharedStorageServer\WorkspaceName\AvidWG to \\IEServer\WG Database\$\AvidWG

AvidWG.pro

FolderLocations.xml



In a correctly split database, the AvidWG folder on the Interplay Engine should contain only the \_Database folder. If the AvidWG folder on shared storage includes a \_Database folder, do not copy this folder to the Interplay Engine. Rename this folder \_Database\_UNUSED or something similar before copying the other content to the Interplay Engine.

- 6. Delete or rename \\IEServer\WG\_Database\AvidWG\FolderLocations.xml.
- 7. Edit the workgroup.xml file to include only the following path:

\\IEServer\WG\_Database\$

See "Configuring the workgroup.xml File" on page 243.

- 8. Activate the database:
  - a. In the Interplay Administrator, click Manage Databases.
  - b. In the "Database (.pro) file to activate" text box, type the full UNC path to the .pro file, which now resides on the Interplay Engine server. For example: \\IEServer\WG\_Database\AvidWG\AvidWG.pro.
  - c. Make sure "Load Database on Activation" is selected, and click Activate.

If the database is activated, its name is displayed in the Databases list. The database is automatically unlocked.

- 9. Check the backup location in the Schedule Backups view of the Interplay Administrator.
  - If the \_Backup folder was located on shared storage, it is now located on the Interplay Engine. If necessary, change the location to the Interplay Engine or to another external file server.
- 10. In the Server Settings view of the Interplay Administrator, make sure the path for the "Root folder for data" matches the path for the "Root folder for database."

This location is used if you create a new database.

- 11. Test the setup by doing the following:
  - a. Open one Interplay Access client.
  - b. Connect to the database and import a new file asset.

- c. Lock and unlock the database.
- d. After reconnecting to the database with Interplay Access, check if the file is still in the database.
- 12. If the test is successful, delete or rename the folder \\SharedStorageServer\WorkspaceName\AvidWG.

# Reuniting a Split Database (AvidWG and \_InternalData)

#### To reunite a split database (AvidWG and \_InternalData):

- 1. If you are working on a cluster system, make sure that cluster services that provide the local S drive are running.
- 2. Lock the database to make sure that no user can access it:
  - In the Database section of the Interplay Administrator window, click Lock/Unlock Database.
  - b. Select the database in the Unlocked Databases list.
  - c. Click Lock Database.

The database name appears in the Locked Databases list.

- 3. Deactivate the database:
  - In the Database section of the Interplay Administrator window, click Manage Databases.
  - b. Select the database name in the Databases list.
  - c. Click Deactivate.

The database name no longer appears in the Databases list.

4. In the Server Settings view of the Interplay Administrator, edith the path for the "Root folder for data" to match the path for the "Root folder for database."

This location is used if you create a new database.

- 5. Shut down the Interplay Engine services:
  - On a cluster system, bring the Avid Workgroup Engine Monitor resource (not the resource group) offline.
  - On a non-cluster system, stop the services Avid Workgroup TCP COM Bridge and the service Avid Workgroup Server Browser and run C:\Program Files\Avid\Avid Interplay Engine\Server\NxNServerShutdown.exe.

For more information on Interplay Engine services, see "Avid Interplay Engine Servers and Services" on page 253.

- 6. If you do not have a complete Interplay database backup available, manually create an archive backup from both database locations:
  - \SharedStorageServer\WorkspaceName\AvidWG
  - \\IEServer\WG\_Database\\AvidWG

By default, this folder is

D:\Workgroup\_Databases\AvidWG (non-cluster system)

S:\Workgroup\_Databases\AvidWG (cluster system)

7. Copy the necessary files and folders from

\\SharedStorageServer\WorkspaceName\AvidWG

to

\\IEServer\WG Database\\AvidWG

Windows Explorer cannot copy paths longer than 256 characters or Unicode names that are not in the default operating system language. If the database includes either or both of these items, use a tool such as Robocopy or 7-Zip.

The following table lists the files and folders that you need to copy. These files and folders are illustrated in "Reuniting a Split Database" on page 233.

# Copy from \\SharedStorageServer\WorkspaceName\AvidWG to \\VEServer\WG Database\$\AvidWG

\\ <i>IEServer</i> \WG_Database\$\AvidWG				
_Backup folder				
_Buckets folder				
_CheckIn folder				
_Handover folder				
_Import folder				
_Master folder				
_PropertyHandover folder				
_PropertyStore folder				
AvidWG.nif				

Copy from \\SharedStorageServer\WorkspaceName\AvidWG to \\IEServer\WG_Database\$\AvidWG
Aliasconfig.xml
AvidWG.pro
FolderLocations.xml



In a correctly split database, the AvidWG folder on the Interplay Engine should contain only the \_Database folder. If the AvidWG folder on shared storage includes a \_Database folder, do not copy this folder to the Interplay Engine. Rename this folder \_Database\_UNUSED or something similar before copying the other content to the Interplay Engine.

8. Use Windows or a tool that can copy long path names to copy the \_InternalData folder from \\SharedStorageServer\WorkspaceName

to

\\IEServer\WG\_Database\$

If the contents of the folder are split between the Interplay Engine and the shared storage workspace, copy the files and folders listed in the following table.

# Copy from \\SharedStorageServer\WorkspaceName\\_InternalData to \\IEServer\WG\_Database\$\\_InternalData \_Backup folder \_Buckets folder \_CheckIn folder \_Handover folder \_Import folder \_Master folder \_PropertyHandover folder \_PropertyStore folder \_AvidWG.nif

Copy from
\\SharedStorageServer\WorkspaceName\\_InternalData
to
\\IEServer\WG\_Database\$\\_InternalData

Aliasconfig.xml
AvidWG.pro
FolderLocations.xml



If the \_InternalData folder on shared storage includes a \_Database folder, do not copy this folder to the Interplay Engine. Rename this folder \_Database\_UNUSED or something similar before copying the other content to the Interplay Engine.

- 9. Delete or rename \\IEServer\WG\_Database\\AvidWG\\FolderLocations.xml.
- 10. Delete or rename \\IEServer\WG\_Database\\\_InternalData\FolderLocations.xml.
- 11. Edit the workgroup.xml file to include only the following path:

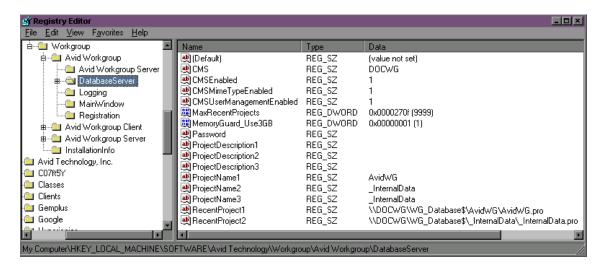
\\IEServer\WG\_Database\$

See "Configuring the workgroup.xml File" on page 243.

12. Open a Command Prompt window, type regedit, and navigate to the following:

 $HKEY\_LOCAL\_MACHINE \\ SOFTWARE \\ Avid Technology \\ Workgroup \\ Avid Workgroup \\ Database Server$ 

Check the UNC paths for RecentProject1 and RecentProject2. Both paths should show the Interplay Engine server, as shown in the following illustration.



- 13. Start the Interplay Engine services:
  - On a cluster system, bring the Avid Workgroup Engine Monitor resource (not the resource group) online.
  - On a non-cluster system, start the services Avid Workgroup TCP COM Bridge and the service Avid Workgroup Server Browser.

#### 14. Activate the database:

- a. In the Interplay Administrator, click Manage Databases.
- b. In the "Database (.pro) file to activate" text box, type the full UNC path to the .pro file, which now resides on the Interplay Engine server. For example: \\IEServer\WG\_Database\AvidWG\AvidWG.pro.
- c. Make sure "Load Database on Activation" is selected, and click Activate.

If the database is activated, its name is displayed in the Databases list. The database is automatically unlocked.

15. Check the backup location in the Schedule Backups view of the Interplay Administrator.

If the \_Backup folder was located on shared storage, it is now located on the Interplay Engine. If necessary, change the location to the Interplay Engine or to another external file server.

- 16. Test the setup by doing the following:
  - a. Open one Interplay Access client.
  - b. Connect to the database and import a new file asset.
  - c. Lock and unlock the database.
  - d. After reconnecting to the database with Interplay Access, check if the file is still in the database.
- 17. If the test is successful, delete or rename the folder \\SharedStorageServer\WorkspaceName\AvidWG.

# Configuring the workgroup.xml File

When you reuniting a split database, you must edit the workgroup.xml file to remove the path for the file repository share.

This file is located in the Interplay Engine installation directory, for example,

- C:\Program Files\Avid\Avid Interplay Engine\Data\Apache\conf\workgroup.xml (non-cluster systems)
- S:\WorkgroupData\Apache\conf\workgroup.xml (cluster systems).



On a cluster system, the following file might be installed on both nodes: C:\Program Files\Avid\Avid Interplay Engine\Data\Apache\conf\workgroup.xml. These files are not currently used and do not need to be edited.

The default database location that you specified during the Interplay Engine installation is published through this file as a default. The following example shows the section of workgroup.xml that includes the database location:

```
<filetransfer>
<path read="true" write="true">
\\IEServer\WG_Database$
</path>
</filetransfer>
```

For *IEServer*, substitute the network name for the Interplay Engine server.

If the file repository was moved to a different location, such as a shared-storage workspace, this location was published in this file as well. For example:

```
<filetransfer>
<path read="true" write="true">
\IEServer\WG_Database$
</path>
<path read="true" write="true">
\\SharedStorageServer\WorkspaceName
</path>
</filetransfer>
```

When reuniting a split database, delete the path for *SharedStorageServer*\WorkspaceName. For example, \\AAC-ISIS\File\_Assets.

```
<path read="true" write="true">
\\AAC-ISIS\File_Assets
</path>
```

# A Installed Components and Services

The following topics provide information about components and services that are installed as part of the Interplay Administrator:

- Avid Interplay Engine Directory: Folders and Files
- Required TCP/IP Ports
- Avid Interplay Engine Servers and Services

## **Avid Interplay Engine Directory: Folders and Files**

The following components are installed in the Avid Interplay Engine directory. By default, this directory is created during installation as C:\Program Files\Avid\Avid Interplay Engine.

- Apache: This folder includes an Apache server to provide access to Preview images and to provide client access. See "Apache Folder" on page 246.
- Data: This folder contains all server-relevant configuration and data files. See "Data Folder" on page 248.
- Logs: This folder contains the log files written by the Interplay Engine. See "Logs" on page 248.
- NxN: This directory contains services and modules for the Apache server.
- PreviewServer: This directory contains a tool for cleaning the Preview Server cache. See "Preview Server Folder" on page 252.
- Server: This directory contains all data to execute an Interplay Engine on this machine. See "Server Folder" on page 253.

#### **Apache Folder**

The Apache web server handles every incoming request and forwards them to the database server. The Apache folder includes important logs from the Apache process.

File Path (C:\Program Files\Avid\Avid Interplay Engine)	Description
Apache\logs\error.log	The central Apache web server log file that contains important messages from the Apache process, especially warnings and errors.
Apache\logs\access.log	The central Apache web server access log file. Only created if you enable this in Apache's configuration (httpd.conf).
$Apache \\ bin \\ Machines \\ [MACHINENAM \\ E] \\ Apache.log$	Contains preview server and generator errors.



New log entries are appended to the log files, which makes them grow over time. The log files are not deleted automatically. This must be done manually, if required.

#### error.log

This log file contains error messages and notices. An entry is received, for example, if a connection to the TCP/COM bridge failed. An entry is also created when a client logged in or logged off. The entries in this case look similar to the following:

```
[Thu Mar 14 18:24:07 2002] [notice] logon request received, session 'bad5781de4bd712b8bf49c7376de3cd4:1016126647' created

[Thu Mar 14 18:43:45 2002] [notice] logoff request for session 'bad5781de4bd712b8bf49c7376de3cd4:1016126647' received
```

A logon entry is always created when a client logs on, while a logoff entry is only created if the client performs a clean logout. No logoff entry is created if, for example, the network connection is interrupted.

#### access.log

The access.log file contains a log of every incoming request similar to the following:

```
192.168.1.199 - - [22/Jan/2002:21:11:49 +0100] "POST /nxn/workgroup/http HTTP/1.1" 200 172
```

The items in such a log entry are:

- The IP address of the machine where the request was coming from;
- The date and time when the request was received;
- The request method (GET or POST), the request URI and any request parameters;
- The HTTP status codes returned to the client.

The returned status codes are the standard HTTP codes as described in RFC 2616 available under http://www.ietf.org/rfc/rfc2616.txt. Some of the important values are:

- 200 OK: The request has succeeded.
- 403 Forbidden: The server refuses to perform the request.
- 404 Not found: The server has not found anything matching the requested URI.
- 500 Internal server error.



The creation of the access.log file is by default deactivated for performance and space reasons.

#### **Activating Creation of the access.log File**

#### To activate creation of the access.log file:

1. Open the httpd.conf file.

This is the Apache server configuration file located in the Interplay Engine installation directory, for example, C:\Program Files\Avid\Avid Interplay Engine\Data\Apache\conf

2. Remove the # from one of the two lines in the file that appear as follows:

```
#CustomLog logs/access.log common
```

or

#CustomLog logs/access.log combined

See the file itself for further information.

#### **Data Folder**

The Data folder contains server-relevant configuration and data files, including the following Apache modules and configuration files used by the Avid Interplay Preview Server and Avid Interplay HTTP Server.

File Path (C:\Program Files\Avid\Avid Interplay Engine)	Description
Data\Apache\conf\httpd.conf	The configuration file for the Apache web server.
Data lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:	This file contains settings for the Avid Interplay Apache modules.
	The settings in this file are used, for example, by the filetransfer and the preview server modules. The file transfer section contains items such as a list of UNC paths to which the Interplay HTTP server can browse. The preview section defines variables such as when the preview cache expires.
Data\TCPCOMBridge\ServerXML.xml	Contains settings for client access.

#### Logs

The Logs folder contains the following logs:

File Path (C:\Program Files\Avid\Avid Interplay Engine)	Description
Logs\Machines\[COMPUTER NAME]\AvDeletes.log	Records information about media delete operations. See "AvDeletes.log" on page 249.
Logs\Machines\[COMPUTER NAME]\AvMetaDataDelete.log	Records information about metadata delete operations. See "AvMetaDataDelete.log" on page 250
Logs\Machines\[COMPUTER NAME]\AvMoveEx.log	Records information about move operations. See "AvMoveEx.log" on page 251.

File Path (C:\Program Files\Avid\Avid Interplay Engine)	Description
Logs\Machines\[COMPUTER NAME]\NxNServer.log	The central Avid Interplay Engine Server log file containing information messages, warning and error messages generated by the Avid Interplay Engine Server.
Logs\Machines\[COMPUTERNAME]\ NxNTCPCOMBridge.log	The log file for the Avid Interplay TCP/COM Bridge. Is not created until the first message occurs.
Logs\Machines\[COMPUTERNAME]\NxNBackup.log	Contains the backup log.

In Interplay version 1.6 and later, the Interplay Engine compresses and archives log files older than 7 days. The log compression process runs during project backup. For more information see "Restoring Archived Log Files" on page 52.

#### **AvDeletes.log**

The AvDeletes.log file includes the following information about media delete operations:

- Date and time of the delete operation
- Login of the user who performed the delete operation
- Computer name of the machine on which the delete operation was performed
- Name and path of the master clip deleted
- Name and path of the media files deleted, with deletion time in milliseconds (ms)

The following example shows these items.

#### AvDeletes.log

- [Mon May 25 14:02:29 2009] User 'airspeed' on host 'muc-ifsputnik' deleting media for: [Mon May 25 14:02:29 2009] /Projects/ETPB-0 1/INCOMING1/VIEWCUT 7151 MEDEA 020809 JT [Mon May 25 14:02:29 2009] Media locations: [Mon May 25 14:02:29 2009] Successfully deleted file //caetavdisis/feeds a/avid mediafiles/mxf/tm caetavdetpb-1/etpb 1v01d015d6.mxf 57 ms [Mon May 25 14:02:29 2009] Successfully deleted file //caetavdisis/feeds a/avid mediafiles/mxf/tm caetavdetpb-1/etpb 1a01d015d6.mxf 25 ms [Mon May 25 14:02:29 2009] Successfully deleted file //caetavdisis/feeds a/avid mediafiles/mxf/tm caetavdetpb-1/etpb 1a02d015d6.mxf 25 ms [Mon May 25 14:02:29 2009] Successfully deleted file //caetavdisis/lowres/Avid MediaFiles/MXF/CAETAVDTC02.1/VIEWCUT 7151 MEDEA 498FCF9C.mxf 25 ms [Mon May 25 14:02:29 2009] User 'airspeed' on host 'muc-ifsputnik' deleting media /Projects/ETPB-1/INCOMING1/ccut street song recut [Mon May 25 14:02:29 2009] 012809 [Mon May 25 14:02:29 2009] Media locations: [Mon May 25 14:02:29 2009] Successfully deleted file //caetavdisis/Feeds A/Avid MediaFiles/MXF/TM caetavdetpb-1/ETPB 1V01249C352.mxf 25 ms 4 [Mon May 25 14:02:29 2009] Unable to delete file //caetavdisis/Feeds A/Avid MediaFiles/MXF/TM caetavdetpb-1/ETPB 1A01249C352.mxf (net path not found 0x35) 0 Successfully deleted file //caetavdisis/Feeds A/Avid [Mon May 25 14:02:29 2009] MediaFiles/MXF/TM caetavdetpb-1/ETPB 1A02249C352.mxf 25 ms
- Date, time, user login, and host system for the delete operation
- Name and path of master clip deleted
- Names and paths of four media files successfully deleted, with deletion time in milliseconds (ms)
- Failure to delete one object with Windows error "net path not found 0x35"

#### AvMetaDataDelete.log

The AvMetaDataDelete.log includes the following information about metadata delete operations:

- Date and time of the delete operation
- Login of the user who performed the delete operation
- Computer name of the machine from on the delete operation was performed
- Display name, object handle, and path for every deleted object, grouped by path
- If an object could not be deleted, the error code (for example, a reservation)

The following example shows these items.

```
[Mon May 25 14:02:30 2009] User 'airspeed' on host 'muc-ifsputnik' deleting meta-
data:
[Mon May 25 14:02:39 2009] From '/Projects/ETPB-1/INCOMING1/'
[Mon May 25 14:02:39 2009] 'ET_VCT_7143_US_MICHELLE_5A_CY' handle 163841
[Mon May 25 14:02:39 2009] 'IN_VIEWCUT_7151_MEDEA_020809_JT.tr' handle 758621
[Mon May 25 14:02:39 2009] 'IN_VIEWCUT_STREETSONG_FINAL 012' handle 1260969

[Mon May 25 14:19:18 2009] User 'Administrator' on host 'muc-ifsputnik' deleting metadata:
[Mon May 25 14:21:22 2009] From '/Orphan Clips/'
[Mon May 25 14:21:22 2009] From '/Orphan Clips/'
[Mon May 25 14:21:39 2009] User 'Administrator' on host 'muc-ifsputnik' deleting metadata:
[Mon May 25 14:21:39 2009] User 'Administrator' on host 'muc-ifsputnik' deleting metadata:
[Mon May 25 14:21:40 2009] From '/Orphan Clips/'
[Mon May 25 14:21:40 2009] From '/Orphan Clips/'
[Mon May 25 14:21:40 2009] 'Channel 4 News @ 5' handle 1231
```

- Date, time, user login, and host system for the delete operation
- 2 Name of the folder that holds the deleted objects
- 3 Names and object handles of three objects successfully deleted
- Name and object handle of an object that could not be deleted with error 0x899901a6 (Object is still referencing media and cannot be deleted).
- Same object successfully deleted

#### AvMoveEx.log

The AvMoveEx.log includes the following information:

- Date and time of the move operation
- Login of the user who performed the move operation
- Computer name of the machine on which the move operation was performed
- Mime type (master clip, sequence, and so on), display name, object handle, and source and target path of the moved objects
- If the objects are sequences or subclips, the deleted and created proxies and references

The following example shows these items.

#### AvMoveEx.log

```
Fri May 29 11:02:45 2009] User 'airspeed' on host 'muc-ifsputnik' moving master-
     clip 'Flash 1.mov' handle 1962859:
     [Fri May 29 11:02:45 2009] From '/Projects/DAILY PROJECTS/ETS PROJECTS/ETS DAILY
     PROJECTS/DONT DELETE/LIGHT LEAKS ETC/'
     [Fri May 29 11:02:45 2009] To '/Projects/AOT/Test/'
     [Fri May 29 11:03:08 2009] User 'airspeed' on host 'muc-ifsputnik' moving sequence
4
     'President' handle 538510:
     [Fri May 29 11:03:08 2009] From '/Projects/AOT/Test/'
     [Fri May 29 11:03:08 2009] To '/Projects/DAILY PROJECTS/ETS PROJECTS/ETS DAILY
     PROJECTS/DONT DELETE/LIGHT LEAKS ETC/'
     [Fri May 29 11:03:09 2009] Proxies & References deleted at '/Projects/AOT/Test/'
     during move:
     [Fri May 29 11:03:09 2009] 'President' handle 538510
[Fri May 29 11:03:09 2009] 'President.Voice Over.1' handle 1108345
    [Fri May 29 11:03:09 2009] Proxies & References created at '/Projects/DAILY
     PROJECTS/ETS PROJECTS/ETS DAILY PROJECTS/DONT DELETE/LIGHT LEAKS ETC/' during
     move:
     [Fri May 29 11:03:09 2009]
                                     'President' handle 2799799
     [Fri May 29 11:03:09 2009]
                                   'Channel 4 News @ 5' handle 69537
    _[Fri May 29 11:03:09 2009] 'President.Voice Over.1' handle 376256
```

- Date, time, user login, host system, and name and object handle of the master clip being moved
- 2 Path the clip is being moved from
- 3 Path the clip is being moved to
- 4 Date, time, user login, and name of sequence being moved
- 5 Proxy files and reference clips deleted and recreated for the sequence

#### Preview Server Folder

The Preview Server folder contains a script to clear the Preview Cache.

### Server Folder

The Server folder contains the Avid Interplay Engine Server installation.

File Path (C:\Program Files\Avid\Avid Interplay Engine)	Description
Server\Machines\[COMPUTER NAME]\MachineConfig.ini	This file is generated by the Avid Interplay Engine Server. It contains information about the versions of the dll's loaded by the server.
Server\Config\Config.xml	This file contains the current configuration settings for the Avid Interplay Engine events, such as whenever the server runs out of disk space, emails can be sent to the administrator.

## **Required TCP/IP Ports**

When a client connects to the server through a local area network, the client uses HTTP.

On the server, port 8321 is used by the Avid Workgroup Server Browser service. The Avid Workgroup Server Browser service listens and broadcasts on this port.

Port 80 on the server is used for client communication.

## **Avid Interplay Engine Servers and Services**

This topic describes the different servers and services that Interplay needs to run properly. It also provides information about the necessary access rights of these components to the file server.

Interplay has a typical client/server structure. The Interplay Engine (the server) is configured to run on a central machine that is accessible to all users through a local area network (LAN) or the Internet (WAN). The Interplay client applications are used to access and browse the central database. An Interplay database consists of assets (files and folders) and metadata. See "Interplay Databases, Folders, and Files" on page 27.

Two servers are installed on the Interplay Engine:

- The Avid Interplay Engine Server is the central process where all assets and asset meta-information are managed. See "Avid Interplay Engine Server" on page 254.
- The Avid Workgroup HTTP Server is a module for the Apache server that allows clients to connect to the Avid Interplay Engine Server using a HTTP protocol. See "Avid Workgroup HTTP Server" on page 255

Four services are installed on the Interplay Engine. You can view these services through the Control Panel (Click Start and select Control Panel > Administrative Tools > Services):

- Avid Workgroup Server Browser service: This service makes the Avid Interplay Engine
  visible to the network. It answers requests on the 8313 port, which are called from the
  clients. See "Avid Workgroup Server Browser Service" on page 256.
- Avid Workgroup Preview Server service: This service is an Apache web server. It provides the thumbnail images for the Preview facility and the client connection interface. See "Avid Workgroup Preview Server Service" on page 256.
- Avid Workgroup TCP COM Bridge service: This service provides a bridge from TCP calls to the Avid Workgroup COM interface. See "Avid Workgroup TCP/COM Bridge Service" on page 259.
- Avid Workgroup VSS service: This service provides backup functionality to the Avid Interplay Engine (Interplay version 2.1 and later only). See "Avid Workgroup VSS Service" on page 260.

One service is installed only on the Interplay Failover Cluster:

 Avid Workgroup Engine Monitor: This service starts the Engine Server process and monitors the health of the Engine Server, Apache HTTP Server, and TCP/COM Bridge components (Interplay version 2.3 and later only) See "Avid Workgroup Engine Monitor Service" on page 261.

## **Avid Interplay Engine Server**

The Avid Interplay Engine Server is the central process where all assets and asset metadata are managed. The main task of the server is to manage all the information that is in the database and implement the server-side logic of database operations. The database itself is changed whenever content in the database has been changed; therefore the Interplay Engine process needs fast access to the location where the database is installed.

#### **Backups**

The database files, as well as the assets, can be backed up while the Interplay Engine is running. For details, see "Creating and Restoring Database Backups" on page 29.

#### **Processes**

The process running is usually listed as NxNServer.exe or NXNSer~3.exe.

This process is automatically launched at startup (machine boot) from the Avid Workgroup Server Browser Service. If, however, it is not running at any time and clients try to access it, it is automatically launched.

The Interplay Engine always runs under the user specified in the DCOMConfig Settings. DCOMCNFG is a Windows utility that allows you to configure various DCOM-specific settings in the registry. To access it, type dccomcnfg at the Command Prompt.



Do not change the settings using the DCOM configuration tool. Instead, use NxNServerUser.exe to change the user under which the Avid Interplay Engine Server and other servers and services run. See "Troubleshooting the Server Execution User Account" on page 228.

#### Windows Services

There is no Windows service associated with this server process.

#### Requirements

- The Avid Interplay Engine Server must run on a Windows Server 2003 or Windows Server 2008. For additional hardware requirements, see the *Avid Interplay Software Installation and Configuration Guide*.
- The user under which the Avid Interplay Engine Server runs (the Server Execution User)
  needs to have full read/write access to the database directory and to the Avid shared-storage
  workspaces.

## Avid Workgroup HTTP Server

The Avid Workgroup HTTP Server is a module for the Apache server which allows clients to connect to the Avid Interplay Engine Server using a HTTP protocol.

These modules are run by the same instance of Apache as the Avid Workgroup Preview Server modules.

### Connectivity

See "Avid Workgroup Preview Server Service" on page 256.

#### **Processes**

See "Avid Workgroup Preview Server Service" on page 256.



The Avid Interplay HTTP Server uses the Apache modules NxNworkgroupFileTransferService.nsm and NxNworkgroupInternetBridge.nsm.

#### Windows Services

See "Avid Workgroup Preview Server Service" on page 256.

#### Requirements

See "Avid Workgroup Preview Server Service" on page 256.

## **Avid Workgroup Server Browser Service**

The Avid Workgroup Server Browser service is responsible for providing information about the Interplay Engine server to Avid Interplay clients and searching for the available servers and databases. The Avid Workgroup Server Browser listens to port 8313.

#### **Processes**

The process running is usually listed as NxNworkgroupServerBrowser.exe or NxNworkgroupSe. This process launches the Avid Interplay Engine Server during startup.

#### Windows Services

The Avid Workgroup Server Browser is started automatically at system startup. This service always runs under the local system account. The main task of this service is to start the main Avid Interplay Engine process (NXNServer.exe). In order to access files on the file server, the main Interplay Engine process needs to run under a user account that has access to the file server.

#### Requirements

- The Avid Workgroup Server Browser must run on the same machine as the Avid Interplay Engine Server.
- Port 8313 needs to be open.

## **Avid Workgroup Preview Server Service**

The Avid Workgroup Preview Server service generates upon demand thumbnails and preview images of items already in the database.

For items only on the local machine (not imported yet), the previews are generated directly on the client machine.

On both the Preview Server and on the local machine, cache directories keep the generated previews.

- On the Preview Server: in the directory you specified during installation, by default \\IEServer\\WG Database\\PreviewServer\Cache.
- On the local machine: C:\Documents and Settings\\User\Local Settings\Application Data\Avid\Workgroup\Cache\Preview.

The server is implemented as a module for Apache.

#### Connectivity

The Preview Server is accessed only from clients via HTTP. It uses the default port 80.



Make sure that no other application allocates port 80. For example, IIS might be installed as the default HTTP server. In this case, deactivate the corresponding application.

#### **Processes**

There are two processes of Apache.exe running. One of them is a watchdog whose only task is to make sure that the main Apache process is running. The main Apache process serves the preview requests of port 80.



The Avid Interplay Preview Server uses the Apache module NxNworkgroupPreviewService.nsm.

#### **Windows Services**

The Avid\_Workgroup\_Preview\_Server is started automatically at system startup. This service always runs under the local system account.

#### Requirements

- The Avid Workgroup Preview Server must run on the same machine as the Avid Interplay Engine Server.
- Since the Avid Workgroup Preview Server needs to access the files on the file server during thumbnail rendering, a user with appropriate access rights must be impersonated for each preview action. To ensure that the impersonated user can access the files, we strongly advise setting it to the same user under which the Avid Interplay Engine Server runs.

The user name and encrypted password for the impersonation is stored in the following registry keys:

- HKEY\_LOCAL\_MACHINE\SOFTWARE\Avid Technology\Workgroup\Avid Workgroup Server\ExecutionUser
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Avid Technology\Workgroup\Avid Workgroup Server\ExecutionSettings



Change the impersonation settings for the Avid Interplay Preview Server with the NXNServerUser.exe tool only. See "Troubleshooting the Server Execution User Account" on page 228.

#### **Configuring the Preview Service**

The Preview Service is responsible for the generation of thumbnails and preview images on the server, as well as delivering them to the Interplay application.

All settings can be edited in the workgroup.xml file in the review><settings ... /> section.
This file is located in the Interplay Engine installation directory, for example,

- C:\Program Files\Avid\Avid Interplay Engine\Data\Apache\conf\workgroup.xml (non-cluster systems)
- S:\WorkgroupData\Apache\conf\workgroup.xml (cluster systems).

The settings should look similar to the following. Default settings are shown; the actual file references the locations you specified during installation:

```
<settings
CacheRoot="C:\WG_Database$\PreviewServer/Cache"
IconRoot="C:\Program Files\Avid\Avid Interplay Engine\Data\Apache/icons"
ServerEnableDiskGuard="yes"
ServerCacheMinFreeDiskSpace="250mb"
ThumbnailImageFormat="png"
ThumbnailsUseAlpha="yes"
PreviewsUseAlpha="yes"
/>
```

The Preview Server reads the settings from this file when the service is started. This means settings become active only after you restart the Preview Server. You can do this without restarting the whole machine by restarting the service Avid\_Workgroup\_Preview\_Server. Select Control Panel > Administrative Tools > Services, double-click the service, and click Start.

#### Description of Preview Generation Settings in workgroup.xml

CacheRoot: Path where previews and thumbnails generated by the preview server are stored.
 This location is used by the preview server to create a cache of converted images. The preview server can reuse those images for subsequent requests from any client. To ensure

- best performance, this path should reside on a disk that has enough free space available to hold a reasonable working set of cached images. While the default is inside of the database directory of the Avid Interplay Engine, it is a good idea to place it on a different disk.
- IconRoot: Path to a directory where a set of icons is stored, usually pointing into the Avid
  Interplay Engine installation directory. The icons stored here are used by the Preview Server
  if, for example, a thumbnail generation failed or if an asset has an unknown format or is not
  an image/video file.
- ServerEnableDiskGuard: If "yes", the free space on disk is constantly checked and cache
  files are purged if necessary. If "no", cache files are never deleted. "1" and "0" are other
  possible notations.
- ServerCacheMinFreeDiskSpace: If the disk guard is enabled it tries to ensure that the disk cache leaves at least this amount of space free on the disk. The disk guard cannot always ensure this limit because it works in parallel to the normal preview server operation and other applications might store data on the same disk. Use a value that is high enough to overcome spike usage on your disk. The disk guard removes the oldest cached files first.
  - Values are by default (no suffix) in megabytes, but can be specified in gigabytes ('gb'), or terabytes ('tb'), respectively ('1gb' == '1024').
- ThumbnailImageFormat: This is the format used by client application to request thumbnails. This should always match the requests made by the client application. It is advisable to set this to "png." Note: The client does not change the request format if this setting is changed.
- ThumbnailsUseAlpha: If "yes," generated thumbnails use the alpha channel to let a white background shine through the normal image. Use "no" to ignore alpha channel information.



Generated thumbnails never contain any alpha information. This setting only renders the alpha channel into the normal image data.

• PreviewsUseAlpha: If "yes," generated preview images are delivered to the client with the alpha channel included (if it is actually displayed is a client option). Use "no" to generate previews without any alpha channel information.

## Avid Workgroup TCP/COM Bridge Service

The Avid Workgroup TCP/COM Bridge service acts as bridge to the Avid Interplay Engine Server.

The Avid Workgroup HTTP Server needs the Avid Interplay TCP/COM Bridge to connect to the Avid Interplay Engine Server.

#### Connectivity

The Avid Workgroup TCP/COM Bridge listens to port 8318.

#### **Processes**

The process running is usually NXNTCP~1.exe from NXNTCPCOMBridge.exe.

#### **Windows Services**

The service "Avid Workgroup TCP COM Bridge" is automatically started at system startup and should be running all the time.

#### Requirements

- The Avid Workgroup Server Browser must run on the same machine as the Avid Interplay Engine Server.
- The Avid Workgroup TCP/COM bridge needs to run under the same user account as the Avid Interplay Engine Server. To check under which user the bridge runs, use the Windows Services Control Panel.

To check the user account, click Start, click Run, and type services.msc. Right-click Avid Workgroup TCP COM Bridge and select Properties. In the Log On tab, the This Account option should display the Server Execution User.



Use the tool NXNServerUser.exe to change the Server Execution User. Do not change the settings in the Control Panel. See "Troubleshooting the Server Execution User Account" on page 228.

## **Avid Workgroup VSS Service**

The Avid Workgroup VSS service provides backup functionality to the Avid Interplay Engine (Interplay version 2.1 and later only). By working with the Windows Volume Shadow Copy service, it significantly reduces the impact of the backup process on other engine operations.

The Avid Interplay Engine needs the Avid Workgroup VSS Service to create scheduled backups of its databases.

#### Connectivity

The VSS Service communicates with the Avid Interplay Engine using standard Operating System pipes.

#### **Processes**

The process running is usually IEVSSS~1.EXE or IEVSSService.exe.

#### Windows Services

The Avid Workgroup VSS service is automatically started at system startup and should be running all the time. This service always runs under the local system account. The Avid Workgroup VSS service requires that the Windows Volume Shadow Copy service is also running. The Windows Volume Shadow Copy service is installed by default and started automatically.

#### Requirements

- The Avid Workgroup VSS service must run on the same machine as the Avid Interplay Engine Server.
- The Avid Workgroup VSS service requires that the Windows Volume Shadow Copy service is also running.

## **Avid Workgroup Engine Monitor Service**

The Avid Workgroup Engine Monitor is responsible for creating the Engine Server process and for monitoring the health of the Engine Server process, the Apache HTTP server, and the TCP/COM Bridge. On Failover Cluster installations this service is controlled by a cluster resource of the same name.

The Avid Workgroup Engine Monitor regularly tries to connect to the Engine Server process, the Apache HTTP server, and the TCP/COM Bridge. If those components are too slow to respond or do not respond at all, the Engine Monitor will trigger restarts of those components through the corresponding cluster resources.

The Avid Workgroup Engine Monitor logs actions and health issues to the Application Event log.

#### **Example 1: Startup:**

Avid Workgroup Engine Monitor Event ID 22: Service has been started successfully

Avid Workgroup Engine Monitor Event ID 28: Workgroup Engine process started

Avid Workgroup Engine Monitor Event ID 30: Monitoring thread started: thorough ping 90 sec, heart beat max idle 90 sec, monitoring interval 15 sec

#### **Example 2: COM Failure**

Avid Workgroup Engine Monitor Event ID 42: Failed to connect Workgroup Engine with DCOM 'Error 800706bb happened 8 times within the last 14981 msec'

Avid Workgroup Engine Monitor Event ID 31: Thorough check failed: Result code: 0x800706be

Avid Workgroup Engine Monitor Event ID 33: Monitoring thread terminated

#### **Processes**

The process running is usually listed as IEMonitorService.exe or IEMONI~1.EXE.

#### **Windows Services**

The service Avid Workgroup Engine Monitor is started by the cluster resource "Avid Workgroup Engine Monitor."

#### Requirements

- The Avid Workgroup Engine Monitor must run on the same machine as the Avid Interplay Engine Server. (This is ensured by the "Avid Workgroup Server" cluster resource group.)
- The Avid Workgroup Engine Monitor needs to run under the same user account as the Avid Interplay Engine Server. To check under which user the Engine Monitor runs, use the Windows Services Control Panel.

To check the user account, click Start, click Run, and type services.msc. Right-click Avid Workgroup Engine Monitor and select Properties. In the Log On tab, the This Account option should display the Server Execution User.

# **B** Interplay Engine Configuration Files

The following topics provide information for configuration that you might need to do only under certain circumstances, such as troubleshooting:

- Configuring the Server Event Manager
- Configuring Client Access
- Setting the Filetransfer Server

## **Configuring the Server Event Manager**

The Server Event Manager is a service that automatically informs administrators whenever an important event occurs on the server, for example, when the hard drive is almost full. Basic settings are configured in the Config.xml and LogWatch.xml files.

### Consider the following:

- When the Interplay Engine server sends e-mails, it uses the login of the Server Execution
  User. Make sure the mail server is aware of the username and password of this account
  (usually a domain account). If the mail server is not aware of this account, it might reject the
  e-mail request.
- E-mail service might be unreliable if there are too many event notices in a short time frame. Some events might be dropped. Because a large number of event notices indicates a problem, the administrator needs to investigate and correct the problem.

## Config.xml File

The Interplay Engine reads its event manager settings from a file called Config.xml. By default, e-mail notification is disabled in the installation program. If you select e-mail notification during installation, basic settings are created in this file. If you want to add e-mail notification after installation, you can edit the Config.xml file.

The Config.xml file is located in the Interplay Engine installation directory, for example, C:\Program Files\Avid\Avid Interplay Engine\Data\Server\Config.

The configuration file is an XML file that has the following format:

```
<XML>
<Events>
<Event Name="Name of Event">
<Action Name="Name of Action">
<Parameter Name="Name of Parameter">
Value of Parameter
</Parameter>
. . .
</Action>
<Parameter Name="Name of Parameter">
Value of Parameter
</Parameter>
. . .
</Event>
<Parameter Name="Name of Parameter">
Value of Parameter
</Parameter>
</Events>
</XML>
```

The <Events> block specifies to which events the Interplay Engine should react. The <Events> block contains <Event> blocks that specify the names of the events that you want configured here.

Inside each <Event> block is the <Action> block that specifies the actions to be performed whenever an event occurs. The attribute "Name" describes which action is to be performed.

The <Parameter> blocks are used to specify the behavior of an action. It is also possible to identify a parameter by its "Name" attribute. Parameters are identified by their "Name" attributes.

Whenever the server performs an action, it searches the parameters from the inside out, which means it searches the parameter block inside the <Action> block first and then inside the <Events> block. This allows you to specify a parameter for all events. Alternatively, you can specify a parameter for all actions of an event.

#### Note the following:

- When the Interplay Engine server sends e-mails, it uses the login of the Server Execution
  User. Make sure the mail server is aware of the username and password of this account
  (usually a domain account). If the mail server is not aware of this account, it might reject the
  e-mail request.
- E-mail service might be unreliable if there are too many event notices in a short time frame. Some events might be dropped. Because a large number of event notices indicates a problem, the administrator needs to investigate and correct the problem.

## **Supported Actions in Config.xml**

The following section describes the action that is currently supported in Interplay and that is configured in Config.xml to be performed when an event occurs.

#### SendMail

The SendMail action is configured with the following XML block:

```
<Action Name="SendMail">
<Parameter Name="SenderMachine">
SERVERMACHINE
</Parameter>
<Parameter Name="RCPTList">
administrator@mydomain.com, info@mydomain.com
</Parameter>
<Parameter Name = "SenderAddress">
ServerExecutionUser@mydomain.com
</Parameter>
<Parameter Name="SMTPServer">
123.123.123.123
</Parameter>
</Action>
```

The "SenderMachine" parameter specifies the name of the machine on which the server resides.

The "RCPTList" parameter contains a comma separated list of valid e-mail addresses. These addresses should receive an e-mail whenever the server performs an action.

The "SenderAddress" parameter contains the e-mail address of the sender (the Server Execution User). The sender should act as the originator of the sent e-mail.

Make sure the mail server is aware of the username and password of this account (usually a domain account). If the mail server is not aware of this account, it might reject the e-mail request.

The "SMTPServer" parameter contains a valid IP address of the mail server to which the mail is to be sent.

## Supported Events in Config.xml

The following sections describe the events that are currently supported in Interplay and that can be configured in Config.xml as events to which the Interplay Engine should react.

#### **DiskLimit Event**

The "DiskLimit" event is configured with the following XML block:

```
<Event Name="DiskLimit">
<Parameter Name="FreeSpace">
30 100 500
</Parameter>
</Event>
```

The "FreeSpace" parameter contains a list of numbers that specify the free space on the disk in megabytes. Whenever the free space falls below one of the specified numbers, it triggers the server to perform one of the configured actions.

#### **BackupFailed Event**

The "BackupFailed" event is triggered whenever the automatic backup of a database fails, that is, when the \_Database folder cannot be copied to the backup location.

The "BackupFailed" event is configured with the following XML block:

```
<Event Name="BackupFailed">
</Event>
```

To send an e-mail when a "BackupFailed" event is triggered, use the "SendMail" action described in "Supported Actions in Config.xml" on page 265.

### **LogEvent Event**

The "LogEvent" event is triggered according to the settings in the LogWatch.xml, in which an administrator can specify what actions should happen if a severe problem inside of the Interplay Engine occurs (for example, send an e-mail or shut down the server). The file allows a rough definition by severity of the problem or a very detailed configuration via the message ID of the problem.

The LogEvent is configured in the Config.xml with the following XML block:

```
<Event Name="LogEvent">
</Event>
```

To send an e-mail when a "LogEvent" event is triggered, use the "SendMail" action.

See also "LogWatch.xml" on page 270.

#### ClusterResourceFailure Event

The "ClusterResourceFailure" event is triggered only in a failover cluster setup. It is sent whenever a problem inside the cluster is detected.

The "ClusterResourceFailure" event is configured with the following XML block:

```
<Event Name="ClusterResourceFailure">
</Event>
```

To send an e-mail when a "ClusterResourceFailure" event is triggered, use the "SendMail" action.

## **Server Event Configuration Example**

The following is an example of the configuration of a server to send e-mails whenever the backup fails, or the free space on a server disk reaches one of the limits set, in this case 30, 100, or 500 MB:

```
<XML>
<Events>
<Event Name="DiskLimit">
<Action Name="SendMail">
</Action>
<Parameter Name="FreeSpace">
30 100 500
</Parameter>
</Event>
<Event Name="BackupFailure">
<Action Name="SendMail">
</Action>
</Event>
<Parameter Name="SenderMachine">
SERVERMACHINE
</Parameter>
<Parameter Name="RCPTList">
administrator@mydomain.com, info@mydomain.com
</Parameter>
<Parameter Name="SenderAddress">
ServerExecutionUser@mydomain.com
</Parameter>
<Parameter Name="SMTPServer">
```

123.123.123.123

</Parameter>

</Events>

</XML>

Here is an example of an e-mail sent by the Event Manager:

11/23/1999 12:09:14 [WGServer]

INFO:

This is a message sent by the Event Manager.

## LogWatch.xml

Log event notifications are configured in LogWatch.xml, located in the Avid Interplay Engine installation directory:

C:\Program Files\Avid\Avid Interplay Engine\Data\Server\Config.

Edit this file to assign actions for different log events. Actions can be assigned to all message events of a given severity or to specific events by message IDs.

Action	Value
None	0
Send mail	1
Shutdown server	2
Shutdown and lock server	3

ID	Severity
-500	Dump (debug dumps)
-400	Info (internal info)
-300	Message (external info, for users)
-200	Notes (status messages like "database opened successfully")

ID	Severity
-100	[WARN] (warnings like "loading took more than 3 sec")
0	[ERROR] (normal errors, like "file couldn't be imported because it exists already")
100	[FATAL] (Recoverable critical Errors, like "couldn't save database - disk full")
200	Critical (non-recoverable errors, such as crashes)

## Sending E-mail Notifications from LogWatch.xml

#### To send e-mail notification on any error with a specific severity level:

Add a mapping entry to LogWatch.xml within the <SeverityMappings> scope.

#### For example:

```
<SeverityMappings>
<Mapping Severity = "<severity level>" Action = "<action id>"/>
</SeverityMappings>
```

For example, following entry sends an e-mail on every [FATAL]:

```
<SeverityMappings>
<Mapping Severity = "100" Action = "1"/>
</SeverityMappings>
```

To configure how and where the event notification should be sent, see "Supported Actions in Config.xml" on page 265.

#### To send e-mail notification on a specific message event:

Add a mapping entry within MessageMapping scope (the message ID is decimal number)

```
<MessageMappings>
<Mapping MessageID = "<msg id>" Action = "<action id>"/>
</MessageMappings>
```

The message ID is the last number in brackets before the actual message string in the log file. The message ID of the entry below is 0x00004678. Note that the log file displays hexadecimal ids. You need to convert the numbers to decimal format before adding to the message mapping.

```
[Thu Sep 16 17:27:43 2004] [FATAL] [.\NxNDbServer.cpp ] [ 4627] [0000034c] [00004678] Could not connect to Central Configuration Service 'XXX' for database 'YYY'
```

The message mapping for the error [4678] hex (which is 18040 in decimal) triggering "Send email" action looks like the following:

```
<MessageMappings>
<Mapping MessageID = "18040" Action = "1"/>
</MessageMappings>
```

## **Configuring Client Access**

The configuration file ServerXML.xml allows you to specify the client access when accessing the server using HTTP from the client. In this configuration file, you specify servers that should be visible to clients, which databases are available, and which users are allowed to access these databases.

The Configuration file is located in a folder in the Avid Interplay Engine installation directory, by default, C:\Program Files\Avid\Avid Interplay Engine\Data\TCPCOMBridge. You configure access for the client in this file.The ServerXML.dll resides at NxN/Workgroup.



Settings you configure in the User Management view through the Interplay Administrator also apply to the databases (see "Managing Database Roles" on page 133). These settings are an additional security layer on top of the Interplay User Management.

### **Configuring Access**

The <server> token specifies the name of the server on your network that should be visible to clients connecting to a single server machine. Make sure that all of the database directories to be accessed are shared and visible on the single server machine.

Through project> tokens, you specify which databases should be visible to clients connecting to the single server. The token can have two attributes: "name" and "access."

The "name" attribute specifies the name of the database. This name must be the same as the name of the database configured in the Active Database List through the Interplay Administrator. If a database is not in the Active Database List, it cannot be made visible by specifying its name in cproject> token either. You can also use the "\*" as a wildcard character representing all databases in the Active Database List.

The "access" attribute specifies the type of access for the database. If it is set to "allow," clients can see the database in the database browser and are allowed to access it. If the attribute is set to "deny," the database is not accessible and is not even visible to the clients. By default, everything is set to "deny."

Database and user settings are inherited from the parent node in the token tree if the settings are not specified on the current level. This allows you to specify access permissions for all databases on a server, or even for all servers.

The additional attribute "emptypassword" is supported for the cproject> and <server> tokens. This attribute can be set to the value "allow" or "deny." If set to "deny," then all connection attempts by a user with no password specified are refused by the server or the database, respectively. By default, whenever you create a user in an Interplay database, the password is set to empty. Avid highly recommends setting this value to "deny" for security reasons.

Following are some examples illustrating the configuration of database and user access.

#### Example 1:

```
<XML>
<server name="WGSERVER">
</server>
</XML>
```

The server WGSERVER is visible to the outside, although no databases are accessible.

#### Example 2:

All databases on server WGSERVER are visible and any user can connect to the database. For all databases, connection requests with empty passwords are refused.

#### Example 3:

All users except Administrator and John are allowed to access the databases on server WGSERVER. For all databases on the server, connection requests with empty passwords are refused.

#### Example 4:

All users except Administrator and John are allowed to access the databases "Project1" and "Project2." Access to "Project2" for the user "Nina" is refused.

#### Example 5:

All databases on the specified servers are accessible only to Administrators.

## **Setting the Filetransfer Server**

Additional configuration might be required when the Interplay Server is running inside of a network configured using NAT. In this case, the IP returned by the Interplay Engine is the internal address and not the external address needed by the client. The following change in the workgroup.xml configuration file tells the client to connect to the file transfer server via its name instead of address. This allows clients to connect to the file transfer server in most standard NAT configurations.

```
<XML>
...
<http>
<filetransferservername>
myserver.mydomain.com
</filetransferservername>
</http>
...
</XML>
```

This file is located in the Interplay Engine installation directory, for example,

- C:\Program Files\Avid\Avid Interplay Engine\Data\Apache\conf\workgroup.xml (non-cluster systems)
- $\bullet \quad S: \label{lem:conf-workgroup.xml} \ (cluster\ systems).$

## C Valid and Invalid Characters in Interplay

The following table lists the valid and invalid characters (also known as special characters) for Interplay.

	Allowed	Not Allowed
Avid asset names		Characters: /\
File asset names and		Characters: * ? : / \ " < >
Interplay database folder names	for files in Windows	Names ending with a dot
loider names		Names used as DOS devices (LPT1, com1,,, for example)
Property names (metadata field names)		Characters: /\
Video ID metadata field		Spaces, or characters / \ : * ? " $<>$
Users and user groups		Characters: /\ "'

Although the following characters are valid for users and user groups in Interplay, they are not supported when naming projects, bins, and users on Avid editing systems:

Do not use these characters in Interplay user names or group names.

For information on International Character Support (ICS), see the Interplay Help.



When you name a Mac OS X computer, use single-byte ASCII characters without spaces.

# D

## **System Metadata Properties**

Metadata is textual data you can use to identify and describe the creation, contents, and disposition of the clip or shotlist you are logging. Interplay comes with an extensive list of system metadata.

The administrator determines some of the metadata properties that can be viewed in Interplay Access as headings in the Content View and Object Inspector, and also used in Interplay searches. Some metadata properties are always available and cannot be disabled.

By default, the Interplay Engine includes default sets of properties for Broadcast, Post and Film layouts, as described in the following table.

Broadcast		Post		Film	
Content Default	Inspector Default	Content Default	Inspector Default	Content Default	Inspector Default
Comments	Comments	Comments	Comments	Camroll	Camroll
Created By	Duration	Created By	Created By	Comments	Comments
Creation Date	Media File	Creation Date	Creation Date	Duration	Duration
DRM	Format	DRM	Duration	End	End
Duration	Name	Duration	Media File	KN Dur	KN Dur
Format	Tape ID	Format	Format	KN End	KN End
Media Status	Tracks	Media Status	Name	KN Start	KN Start
Modified Date		Modified Date	Tape	Name	Name
Name		Name	Tracks	Pullin	Pullin
Tape ID		Tape		Pullout	Pullout
Tracks		Tracks		Start	Start

The following table lists all system metadata properties.



Properties can be added to the Interplay Production database if they were created in Media Composer and assets with those properties were checked in to Interplay Production.

Heading	Description	Search Values and Hints on Searching in Interplay
All Custom	All custom properties defined in the Property Layout of the Interplay Administrator.	Searches for all the custom properties that are set.
Access Rights	The access level or user role assigned to a particular folder or asset. The column displays an icon that represents the type of access.	
AFD	Value for Active Format Description (AFD) in an ancillary data track. Media Composer v6.1 and later allows the creation of AFD values, which are supported in Interplay v2.7 and later.	
AMA Media Status	Indicates if an asset is linked to AMA media. Values are:  • has AMA media linked  • has only AMA media linked  • no AMA media linked	Values are: <ul><li>has AMA media linked</li><li>has only AMA media linked</li><li>has native media linked</li></ul>
AudioBitDepth	Audio bit depth used when you work with audio files: 16 bit or 24 bit.	Type a value or use the arrows to select a value.
AudioFormat	Audio format of master clips (AIFF-C, SDII, or WAVE).	
AudioSR	Audio resolution (sample rate).	
Auto Transcode Status	Shows if an auto-transcode job is complete or not.	
Auto Transfer Status	Shows if an auto-transfer job is complete or not.	
AuxTC24	Original HDTV sources (1080p/24) or audio DATs created for PAL feature film productions that use in-camera timecode.	Type numbers only in the four colon-separated entry fields displayed.

Heading	Description	Search Values and Hints on Searching in Interplay
Auxiliary Ink	Auxiliary ink format settings allow you to display an additional type of ink number. This lets you track additional types of film information for different film gauges. Used for 24p projects, 25p projects, and matchback projects only. Auxiliary Ink is the starting frame for the clip.	
AuxiliaryTC1 through TC5	You can type an auxiliary timecode or another timecode for editing film or audio timecode for film.	Type numbers only in the four colon-separated entry fields displayed.
AuxInkDur	Length of the clip, expressed in the auxiliary ink number.	Type numbers only in the four colon-separated entry fields displayed.
AuxInkEdge	Type of edgecode used in the auxiliary ink number.	
AuxInkEnd	Ending auxiliary ink number for the clip.	Type numbers only in the four colon-separated entry fields displayed.
AuxInkFilm	Film gauge for the auxiliary ink number.	
Cadence	Type of pulldown present on the source NTSC tapes when in a 23.976 or 24p project.	
Camera	Camera used to film this clip. This feature is used in multicamera shoots.	
Camroll	Camera roll containing this clip. Used for 24p projects, 25p projects, and matchback projects only.	
Category	Assigned category. Categories are defined by the administrator in the Configure Categories view of the Interplay Administrator.	Set to Ignore by default, change to a category name to search only for items assigned to that category.
CFPS	Captured frames per second.	Type a value or use the arrows to select a value.
Closed Captions Modification Time	The time an asset that has closed captions created or edited in MediaCentral UX was modified.	

Heading	Description	Search Values and Hints on Searching in Interplay
Color	The text display color for metadata of the selected item in all Interplay Access displays.	Returns items of selected color found. The search does not find items colored only by inheritance (only the parent is returned).
Comments	Displays any comments added as metadata to the media file when it was originally ingested or captured. You can edit this field in Interplay Access.	Type text.
Created by	Displays the name of the user who created the shotlist.	
Creation Date	When the asset was created. The format of the date and time depends on the local language and regional options of the operating system and the Java software.	Select a time range and a particular date (for example, 12/4/04 or 12/4/2004) or a time period from the pop-up menu. Click the calendar to get clickable calendar.
Current Video Resolution	Last resolution checked in with the asset.	
Current/Last User	Last user that checked the asset in or out.	
Data Format	Data format AAF or OMF.	Select Is and then either AAF or OMF.
Database	The Interplay database that contains the asset.	
Database Modification Time	The last time the asset was modified in the Interplay database	The Modified Date property refers to the last time the asset was modified in the Media Composer bin.
Date Deleted	(Orphan Clips folder only) Displays the date and time the last links was deleted.	
Deleted By	(Orphan Clips folder only) displays the user name of the person who deleted the last link.	
Directly Playable in Access	(Interplay Streaming Server v2.4 and later) A green triangle in this column indicates that a clip can be played in the Interplay Access Monitor. Also applies to subclips or shotlists created from playable clips.	

Heading	Description	Search Values and Hints on Searching in Interplay
Disk Label	Displays the XDCAM disk label created when you import XDCAM media. (This value is not currently displayed in Interplay Access.)	
DPX	Frame-counting field for Digital Picture Exchange, a SMPTE standard describing frames scanned from film. The format is the following: a descriptor of up to 32 alphanumeric characters, followed by a hyphen (-), followed by a six-digit frame count, for example, DPXChildDocu-023657.	
DRM	Digital Rights Management property. Has the special operators Has DRM and Does not have DRM.	Depending on the search flags, this search can retrieve links to the assets, assets or links and assets which have at least one DRM protected media somewhere in the structure. Searches for DRM should return all of the sequences, subclips, rendered effects, and so on that use a restricted master clip. DRM is referred to as "restrictions" in Interplay Assist, Avid Instinct, and Avid editing systems.
Duration	The length of the asset in hours, minutes, seconds, and frames.	Type numbers only in the four colon-separated entry fields displayed.
End	Timecode of the clip's tail frame.	Type numbers only in the four colon-separated entry fields displayed.
FilmTC	Timecode used on film. Used for 24p and 25p projects only.	Type numbers only in the four colon-separated entry fields displayed.
Format	The format of a clip or sequence as determined by the project type, such as 30i NTSC or 1080i/59.94. This is especially useful if you have both SD and HD clips in the same bin.	
FPS	Play rate: the number of frames to be displayed each second. The default is 29.97 for NTSC and 25 for PAL for video. The play rate can also be 24 or 23.98.	Type a value or use the arrows to select a value.

Heading	Description	Search Values and Hints on Searching in Interplay
Frame Chase Expected Duration	Expected length of a clip captured by the Frame Chase Editing method.	Type numbers only in the four colon-separated entry fields displayed.
Frame Chase Known Duration	Current length of a clip being captured by the Frame Chase Editing method.	Type numbers only in the four colon-separated entry fields displayed.
Has Closed Captions	An asset that has closed captions created or edited in MediaCentral UX.	Criterion is Closed Captions, values are "has Closed Captions" or "does not have Closed Captions."
In Use	(Search only) If Is in use, asset is referenced by a sequence also in the database.	Select Is in use or Is not in use.
IN-OUT	The length of the marked segment of a clip, if any.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
Initial Checkin Date	Date that the asset was first checked in.	Select a time range and a particular date (for example, 12/4/04 or 12/4/2004) or a time period from the pop-up menu. Click the calendar to get clickable calendar.
InkDur	Length of the clip, expressed in ink number. Used for 24p projects, 25p projects, and matchback projects only. You cannot modify this number.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
InkEdge	Type of edgecode used in the ink number.	
InkEnd	Ending ink number for the clip. You cannot modify this number.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
InkFilm	Film gauge for the ink number.	
InkNumber	Ink number for the clip. Used for 24p projects, 25p projects, and matchback projects only.	
KN Dur	Length of the clip, expressed in feet and frames. Used for 24p projects, 25p projects, and matchback projects only.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
KNE nd	Ending key number for the clip. Used for 24p projects, 25p projects, and matchback projects only.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.

Heading	Description	Search Values and Hints on Searching in Interplay
KN Film	Key number film gauge.	
KN IN-OUT	Mark IN and Mark OUT key number for the clip. Used for 24p projects, 25p projects, and matchback projects only.	
KN Mark IN	Key number for the IN point, if you set one for the clip. Used for 24p projects, 25p projects, and matchback projects only.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
KN Mark OUT	Key number for the OUT point, if you set one for the clip. Used for 24p projects, 25p projects, and matchback projects only.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
KN Start	Starting key number for the clip. Used for 24p projects, 25p projects, and matchback projects only.	
Labroll	Labroll containing the clip.	
Last Checkin Date	Date when the asset was last checked in.	Select a time range and a particular date (for example, 12/4/04 or 12/4/2004) or a time period from the pop-up menu. Click the calendar to get clickable calendar.
LUT	File name of the color look-up table used for the series of clips or frames.	
Mark IN	Timecode for the IN point, if you set one for the clip.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
Mark OUT	Timecode for the OUT point, if you set one for the clip.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
Master Dur	Length of the final master sequence, expressed in feet and frames. You cannot modify this number.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
Master Edge	Type of edgecode used in the final master sequence.	

Heading	Description	Search Values and Hints on Searching in Interplay
Master End	Ending key number for the final master sequence. You cannot modify this number.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
Master Film	Gauge of the final master sequence.	
Master Start	Starting key number of the final master sequence. Used for 24p projects, 25p projects, and matchback projects only.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
Media File Format	Clip media format.	MXF or OMF.
Media Size	Media file size.	Specify KB, MB, GB and type a number. Note that this specification cannot be saved in a Saved Search.
Media Status	Online, offline, or partially offline status, or exists on another workgroup.	Select is/is not, and then online, offline, partial, or nearonline.
Mob ID	Media Object ID	
Modified Date	When the asset was last modified (from the bin).	Select a time range and a particular date (for example, 12/4/04 or 12/4/2004) or a time period from the pop-up menu. Click the calendar to get clickable calendar.
Name	The name of the asset.	Type text (not case sensitive; spaces permitted).
Original Bin	Name of the bin where the media for this asset was originally captured.	
Original Machine Name	Name of the computer where the media for this asset was originally captured.	
Original Path	(Orphan Clips folder only) Displays the folder path for an asset whose last link was deleted.	
Original Project	Name of the project under which the media for this asset was originally captured.	Project name (dropdown list).

Heading	Description	Search Values and Hints on Searching in Interplay
Path	Path to assets in the Interplay database.	Meant to be used in conjuction with other search conditions to narrow the area where the results are coming from: for example, combine a search for all masterclips that have been updated in the last 10 minutes and that are in path "/Projects/MyName/MyBin2."
		Select is or is not, then click the Select button and choose a path from the tree. Alternately, select contains or does not contain and type text.
Perf	Film edge perforations format used for 3-perf projects. Used for projects brought forward from earlier releases only; now superseded by the film size and perf options available in Ink Film, AuxInk Film, KN Film, and Master Film.	
Playable in Access	(Interplay Stream Server v2.3 and earlier) A green triangle in this column indicates that a clip is can be played in the Interplay Access Monitor. Also applies to subclips or shotlists created from playable clips.	
Pullin	Telecine pulldown of the first frame of the clip (pulldown phase). Pullin can have the values A, B, X (matchback only), C, or D. Used for NTSC 24p projects and matchback projects only.	
Pullout	Telecine pulldown of the last frame of the clip. Pullout can have the values A, B, X (matchback only), C, or D. Used for 24p projects and matchback projects only. (NTSC only)	
Record Complete	Indicates whether the capture operation is finished for this asset.	
Reel #	Source reel number. Used for 24p and 25p projects only.	
Reservation	Indicates whether there is a reservation applied to this asset.	

Heading	Description	Search Values and Hints on Searching in Interplay
Reserved	(Search only) Indicated item is reserved for specified timeframe by specified user.	Select a user and then select a time frame.
S3D Alignment	Displays whether or not the media has already been aligned by a third-party application. Presently, this is just an indicator for the editor. There are no software functions associated with this field.	Criterion for Extended Search in Access
	• None (Default)	
	<ul> <li>Full: Indicates that media has been pre-aligned by an external application.</li> </ul>	
S3D Channel	Displays which channel this master clip will deliver into the stereoscopic clip. (Left eye, right eye and monoscopic are full frame channels, while Side by Side and Over/Under are frame compatible channels.)	Criterion for Extended Search in Access
	Left Eye: Indicates that the contents of this clip are to be used as the Left eye.	
	Right Eye: Indicates that the contents of this clip are to be used as the Right eye.	
	Over/Under: Indicates that this is frame compatible media in an over/under format.	
	Side by side: Indicates that this is frame compatible media in a side by side format.	
	Monoscopic: Indicates that this is a standard 2D clip (not stereoscopic).	
S3D Clip Name	Displays the name that was used to name the stereoscopic clip when it is created. The name only needs to be set for one of the contributing master clips. If no name is entered for any of the contributing clips, then the S3D Group name will be used instead.	Criterion for Extended Search in Access

Heading	Description	Search Values and Hints on Searching in Interplay
S3D Contributors (master clip only)	Lists the S3D Channels (master clips) that feed into the stereoscopic clip.	Criterion for Extended Search in Access
S3D Eye Ordering	Only available if the media is in a frame compatible format with the S3D Channel set to either Over/Under or Side by Side.	Criterion for Extended Search in Access
	Specifies which half of the image the eye is displayed.	
	Left-Right:	
	<ul> <li>For Side by Side format, the Left eye is on the left, the Right eye is on the right.</li> </ul>	
	• For Over/Under format, the Left eye is in the top half of the image, Right eye is in the bottom.	
	Right-Left:	
	• For Side by Side format, the Right eye is on the left, Left eye is on the right.	
	• For Over/Under format, the Right eye is in the top half of the image, Left eye is in the bottom.	

Heading	Description	Search Values and Hints on Searching in Interplay
S3D Group name	A common name used to identify all master clips originating from the same stereoscopic footage. The group name is used by the application to create a single stereoscopic clip that references these master clips. Therefore, this name must be exactly the same for all clips that need to be grouped into a stereoscopic clip.	Criterion for Extended Search in Access
	When material is captured from tape, this field is automatically populated for all the left and right eye master clips.	
	When material is imported/linked from file, this data may not be present. If so, you can select the clips in the bin and request for auto-population of the group name.	
	If an S3D Clip name is not specified, then the group name is used to name the stereoscopic clip when it is created.	
S3D Inversion	Displays if and how the contents of this clip should be inverted before being used.	Criterion for Extended Search in Access
	This is useful when beam-splitter rigs are used during filming, and a mirror is used to create the image for one of the eyes. In this case, one of the eyes will be inverted so it needs to be corrected	
	None: Leaves the image as is.	
	Horizontal: Inverts the image horizontally.	
	Vertical: Inverts the image vertically.	
	Horizontal/Vertical: Inverts the image horizontally and vertically.	

Heading	Description	Search Values and Hints on Searching in Interplay
S3D InversionR	Only available if the media is in a frame compatible format with the S3D Channel set to either Over/Under or Side by Side.	Criterion for Extended Search in Access
	Displays how the part of the image that provides the right eye should be inverted before being used.	
	None: Leaves the image as is.	
	Horizontal: Inverts the right eye image horizontally.	
	Vertical: Inverts the right eye image vertically.	
	Horizontal/Vertical: Inverts the right eye image horizontally and vertically.	
S3D Leading Eye (master clip only)	Displays which eye image should be used when editing with the leading eye.	Criterion for Extended Search in Access
	This is useful in scenarios where a beam-splitter rig was used during filming. In such a case, the leading eye is typically the non-reflected image.	
	Left: (Default) Indicates that the left eye image is the leading eye.	
	Right: Indicates that the right eye image is the leading eye.	
Scene	Scene number of the clip.	Type text.
ShootDate	Date the footage was shot.	
Slip	Number and direction of perfs for subclips (audio clips only).	
SoundTC	Timecode for audio.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
Soundroll	Sound roll this clip came from. Used for 24p projects, 25p projects, and matchback projects only.	
Source File	The source file name (from Media Composer)	

Heading	Description	Search Values and Hints on Searching in Interplay
Start	Timecode of the clip's head frame.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
Streamable Masterclips	(Search only) Finds master clips that were published for streaming (Interplay V2.3 and earlier). Can also be used to search for clips with directly playable proxy media.	are published, are not published. For Interplay v2.4 and later, add criteria "Media Status is online"
Synced Project GUID	A unique identifier for a synced project	
Synced Project Type	One of the following:	
	• Project: contains folders and bins	
	Folder: contains folders and bins	
	Bin: contains assets	
Take	Take number of the scene.	Type a number.
Tape	Source tape name (from the bin).	Type text (not case sensitive; spaces permitted).
TC24	24-fps timecode.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
TC25	25-fps timecode, no pulldown. Used for 24p and 25p projects only.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
TC25P	25-fps timecode with PAL pulldown. Used for 24p and 25p projects only.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
TC30	30-fps timecode with 2:3 pulldown. Used for 24p and 25p projects only.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
TC30NP	30-fps timecode with no pulldown (frames 00 through 29).	Select an operator and then type numbers only in the four colon-separated entry fields displayed.
TC60	60-fps timecode. Used for HD projects.	Select an operator and then type numbers only in the four colon-separated entry fields displayed.

		Search Values and Hints on
Heading	Description	Searching in Interplay
Text	Search only	Combination of Name, Tape, User Attributes, Comments, and Annotations attributes. Allows you to search for text in all attributes at once. Type text (not case sensitive; spaces permitted).
Track Formats	Multichannel audio tracks for master clips and audio clips.	
Tracking	Displays colored icons that indicate the status of shared assets across workgroups. For more information, see "Viewing the Status Assets Across Workgroups (Asset Tracking)."	
Tracks	All tracks used by the asset (from the bin)	Select Video, Audio, or Both.
Transfer	Frame-counting field for sources that have been prepped for transfer. The format is the following: a descriptor of up to 32 alphanumeric characters, followed by a hyphen (-), followed by a six-digit frame count, for example, TransferChildDocu-023657.	
Туре	Type of asset.	Select an operator and then an asset type from the dropdown list.
UNC Path	Universal Naming Convention that specifies the location of resources on a server. The location you type becomes a hyperlink to that location. Ctrl+click the cell, and then type the location.	
Version Comment	For file assets, the version comment for the last version checked in, or a check out comment if the asset is checked out.	
VFX	Frame-counting field for visual effects. The format is the following: a descriptor of up to 32 alphanumeric characters, followed by a hyphen (-), followed by a six-digit frame count, for example, FXChildDocu-023657.	
VFX Reel	Source reel identification for the FX shot.	

Heading	Description	Search Values and Hints or Searching in Interplay
Video ID	Lists the identification number created to track a clip in a broadcast environment. This ID is equivalent to the Tape ID in Avid editors. You can edit this field in Interplay Access.	
VITC	Vertical interval timecode.	
Workspace	Name of an Avid shared-storage workspace	Type the name of the workspace.

# **E** Server Error Codes

The following table lists the error codes and the textual expressions that the Interplay Engine can return.

0x52e	Logon failure: unknown user name or bad password.
0x525	The specified user does not exist.
0x8000ffff	Failed to open the database (catastrophic failure). Contact your administrator. May require Avid support.
8007000e	out of memory
80070005	Failed to open project: Access denied. The project is deactivated.
80004001	not implemented
80004005	general failure
89990010	out of range
89990011	nesting too deep
89990012	the operation was only partially successful
89990013	operation was canceled
89990020	database not initialized
89990021	database already initialized
89990022	database not available
89990023	database not found
89990024	database not open
89990025	database already exists
89990026	cannot load database initialization file
89990027	unable to write to database. Please contact your system administrator.
89990028	the database is not active
89990030	invalid path

89990031	invalid name
89990032	invalid handle
89990033	invalid destination
89990034	invalid property
89990035	invalid parameter
89990036	invalid filename
89990037	invalid object
89990038	invalid hostname
89990039	invalid macro string or tool installation file
89990040	object not found
89990041	parent not found
89990042	the template for the object could not be found
89990043	iterator is invalid for this iteration-capable command
89990050	property not found
89990051	property not set
89990052	cannot set property
89990053	cannot modify the property
89990054	the property is read-only
89990055	the object's style sheet was not found
89990057	the streamed property name is too long
89990060	folder not empty
89990061	object is not a folder
89990062	an item with that name already exists
89990068	dependency usage too long
89990069	The operation failed because non-versionable objects cannot live in versionable folders
89990070	cannot delete the root object
89990071	tree is not mounted into file system

89990072	root object has no parent
89990073	invalid operation for root object
89990080	cannot open file
89990081	cannot write to file
89990082	cannot read from file
89990083	the file does not exist
89990084	file system operation failed
89990085	access to file denied
89990086	sharing violation
89990087	corrupt file
89990090	cannot set mount point
89990091	object not mounted into file system
89990092	cannot create directory
89990093	cannot move directory or file
89990094	cannot copy file
89990095	cannot delete directory or file
89990096	cannot create a link to a link
89990097	folder does not exist
8999009Ь	cannot move the item to another branch. Due to the branch settings, the source and destination locations are in different branches.
8999009c	cannot create a share to a file in another branch. Due to the branch settings, the share and share target locations are in different branches.
8999009d	The original parent is currently in the recycle bin
8999009e	The original parent does not exist anymore
89990100	database not found
89990101	database with that name already exists
89990102	default database location not set
89990110	workspace not initialized

89990111	workspace already initialized
89990120	already connected to a server
89990121	not connected to a server
89990122	cannot connect to server
89990123	cannot disconnect from server
89990124	The database share on the server is not accessible. Please contact your administrator.
89990130	client connection was refused
89990131	invalid user name or password
89990132	client is not logged on
89990140	cannot lock folders, only files
89990141	cannot lock system items
89990142	the object could not be checked out
89990143	not authorized for this operation
89990144	the item is already checked out
89990145	the item is not checked out
89990146	the item is checked out by someone else
89990147	the object could not be checked in
89990148	the working path for the item is not set
89990149	error during reversal of transaction, file still pending, you must recover manually
8999014a	the item is already checked out to you
8999014b	the item is checked out exclusively by someone else
8999014c	multiple check out is not possible for this item
8999014d	Another check-in operation was performed before yours. Try the merge again against the correct version.
8999014e	The item or one of its children is checked out
89990160	the server evaluation period expired
89990161	limited server license

89990162	the dongle is not available on the server
89990163	the registration key is invalid
89990164	the server and client versions are not compatible
89990165	the server could not be instantiated (is the server installed on this machine?)
89990166	the server is locked by the Administrator
89990167	the server is low on virtual memory
89990168	the server is low on disk space
89990169	the server is out of disk space
89990170	the specified search expression is invalid
89990171	the database is locked by the Administrator
89990172	a temporary key cannot be installed if a permanent key is already active
89990173	the server with the CCS is locked by the Administrator
89990174	The server is temporarily locked because of a shutdown
89990175	cannot init indexed search
89990177	The hardware id is invalid
89990178	The license key contained one or more expired licenses. These licenses are ignored.
89990179	A backup is already in progress.
89990183	The last partial or full backup time is not available. This message is displayed when an incremental or differential backup was attempted, but could not run because there is no previously created full backup or incremental/differential backup (in case of an incremental backup).
89990192	The object or one of its sub-objects is locked. It is not possible to make changes to this object.
89990195	the database was created with a newer version and cannot be opened with this server
89990196	The transaction commit failed because a merge is needed
8999019c	a file or folder has a pending change
8999019f	setting a property failed because the condition for setting did not match

899901a1	Object is reserved and cannot be deleted.
899901a4	An item in a folder was removed while the folder was being enumerated
899901a6	object cannot be deleted because it is referencing online media
89990200	object not initialized
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89990221	file already exists
89990222	file does not exist
89990224	cookie file does not exist
89990225	can not create cookie file
89990226	can not read cookie file
89990227	cookie file is corrupt
89990228	found cookie does not match wanted cookie
89990230	object must support INxNPersistDatabase
89990231	object must support INxNPersistDatabaseObj
89990232	object must support INxNVersionControlProperty
89990233	object must support INxNHandleStore
89990234	object must support INxNHandleStoreObj
89990235	unknown command passed to RunCommand
89990236	requested version was not found
89990237	versions are identical
89990238	not enough free disk space for new version
89990239	can not rollback to latest version
89990240	user is not correctly logged on
89990244	The specified object was already touched in the current transaction
89990250	incorrect cookie

89990251	incorrect user name
89990252	incorrect password
89990253	version control database not found
89990260	lookup for vital creation properties failed
89990261	version control is disabled for this object
89990262	Connect to version control server failed
89990280	Copying file from server location to local destination failed
89990290	archive is corrupted
89990291	file is not of correct type
89990292	Disabling version creation for abstract assets is not supported
89990300	the user 'UserManagement' is not allowed
89990301	user rights do not allow this operation
89990302	user/user group exists already
89990303	command exists already
89990304	user does not exist
89990305	user is invalid
89990306	user rights do not allow this operation in system folder
89990307	user rights do not allow this operation in level
89990308	user rights do not allow this operation (no ownership)
89990309	the login was disabled for this database
89990310	database is not a CCS
89990311	The given object is not an action
89990312	The given object is not a role
89990313	The given object is not an action category
89990314	The given action category name already used by another action category
89990315	The given action name already used by another action
89990316	The given action id is already used by another action

89990317	Unable to complete the operation because the action exists with another type
89990318	The given role name already used by another role
89990319	The given role id is already used by another role
89990320	Unable to complete the operation because the role exists with another type
89990321	The operation cannot be performed on a system defined role
89990322	The operation cannot be performed on a system defined action
89990323	The action is not assigned to the role
89990324	The system id's for roles or actions are out - impossible to create new system actions or roles
89990326	The operation is not permitted on the user administrator
89990327	The initialization of the authorization subsystem failed - read message for more information
89990340	The initialization of the user management subsystem failed - read message for more information
89990341	A generic command was called which is not supported for user or group objects
89990342	Internal requirements for user or groups objects are not fulfilled (for example, link broken)
89990351	The given user name is already used
89990352	The given user could not be created
89990353	The user can neither be moved nor removed (that is, users cannot be moved from the Everyone group and the Administrator cannot be moved from the Administrators group)
89990354	The given user shall be destroyed but was not deleted before
89990355	Not a user
89990356	Your user account has been deleted
89990361	The given group name is already used
89990362	The given group could not be created
89990363	The given group can neither be removed nor moved
89990364	the member creation for the given group failed

89990365	the group cannot be destroyed because it contains children
89990366	not a serigraph
8999036	the group must not contain other groups
89990368	the database is from a different CCS and needs a migration
89990369	could not connect to the LDAP server
8999036a	The operation failed because the object is protected by a reservation
8999036b	CCS Connection failed
8999036c	CCS is corrupt (for example, GUID missing)
8999036d	The authorization config file is missing
8999036e	The CCS does not have the same version as the server of the database
89990370	An LDAP search enum failed
89990371	Structural changes are not allowed on that object
89990372	No Children can be added to this folder or moved out of this folder
89990401	no handler was found
89990450	There is no open session for this client. If you are using an older version of the client, JXDK or MDK please upgrade to a newer version
89990500	cannot convert variant to given type
89990600	HTTP request error
89990601	continue
89990602	switching protocols
89990603	OK
89990604	created
89990605	accepted
89990606	non-authoritative information
89990607	no content
89990608	reset content
89990609	partial content
89990610	multiple choices

89990611	permanently moved
89990612	moved temporarily
89990613	see other
89990614	not modified
89990615	use proxy
89990620	bad request
89990621	unauthorized
89990622	payment required
89990623	forbidden
89990624	not found
89990625	method not allowed
89990626	not acceptable
89990627	proxy authentication required
89990628	request timeout
89990629	conflict
8999062a	gone
8999062b	length required
8999062c	precondition failed
8999062d	request entity too large
8999062e	request URI too long
8999062f	unsupported media type
89990630	internal server error
89990631	not implemented
89990632	bad gateway
89990633	service unavailable
89990634	gateway timeout
89990635	HTTP version not supported

89990700	database journal error
89990701	database journal initialization failed
89990702	database journal recovery failed
89990703	invalid entry in database journal found
89990704	failed to apply database journal transaction
89990705	failed to apply database journal operation
89990706	error opening database journal
89990707	error reading from database journal
89990708	error writing to database journal
89990709	database journal file error
89990800	SQL error
89990801	SQL error, more info available
89990802	invalid SQL configuration
89990900	the sender of the message does not exist
89990901	the recipient of the message does not exist
89990902	The sender must be a user. It cannot be a user group
89990903	The attachment of the message is invalid
89990904	A block size was 0 or negative
89990905	A message handle was invalid
89990906	the viewing counter of a mailbox is inconsistent with the viewing status of the messages
89990907	the outbox of a user could not be created
89990908	the inbox of a user could not be created
89990a00	Could not open an image because the file could not be found or the caller is not allowed to open the file.
89990a01	Could not read an image. The file could be opened but not be read.
89990a02	Could not create an image file. Maybe the destination folder does not exist or the caller is not allowed to write to that location.

89990a03	Could not write an image file. The file was created but writing to the file failed. This could for example happen if disk has insufficient disk space.
89990a04	The image could not be read because it does not have a known format.
89990a05	The image could not be read because the bitmap in it is invalid.
89990a06	An unknown error occurred in the image lib.
89990a07	An image could not be loaded or saved because the license for the LZW algorithm is not available.
89990a08	The image could not be read or stored because the file or image has an invalid format.
89990b00	The LDAP server detected an internal error, LDAP error: LDAP_OPERATIONS_ERROR(0x1)
89990b01	The LDAP server received an invalid request from the server, LDAP error: LDAP_PROTOCOL_ERROR(0x2)
89990b02	A specified time limit was exceeded in a request to the LDAP server, LDAP error: LDAP_TIMELIMIT_EXCEEDED(0x3)
89990b03	A specified size limit was exceeded in a request to the LDAP server, LDAP error: LDAP_SIZELIMIT_EXCEEDED(0x4)
89990ь04	The LDAP server does not support the authentication method specified by the server, LDAP error: LDAP_AUTH_METHOD_NOT_SUPPORTED(0x7)
89990b05	The request sent to the LDAP server required strong authentication and therefore failed, LDAP error: LDAP_STRONG_AUTH_REQUIRED(0x8)
89990b06	A limit set by the LDAP administrator was exceeded in a request to the LDAP server, LDAP error: LDAP_ADMINLIMIT_EXCEEDED(0xB)
89990b07	The LDAP server was unable to satisfy a request because one or more critical extensions were not available, LDAP error: LDAP_UNAVAILABLE_CRITICAL_EXTENSION(0xC)
89990b08	The request sent to the LDAP server required confidentiality by the transport protocol and therefore failed, LDAP error: LDAP_CONFIDENTIALITY_REQUIRED(0xD)
89990b09	A search request sent to the LDAP server is not compatible with the attribute syntax specified by the LDAP database, LDAP error: LDAP_INAPPROPRIATE_MATCHING(0x12)
89990b0a	An LDAP object specified in a request could be found by the LDAP server, LDAP error: LDAP_NO_SUCH_OBJECT(0x20)

89990b0b	The LDAP server detected an error when trying to dereference an alias, LDAP error: LDAP_ALIAS_PROBLEM(0x21)
89990b0c	The syntax of a DN sent to the LDAP server is incorrect, LDAP v: LDAP_INVALID_DN_SYNTAX(0x22)
89990b0d	The LDAP server cannot perform the operation on a leaf entry, LDAP error: LDAP_IS_LEAF(0x23)
89990b0e	A search request sent to the LDAP server could not dereference an alias because of missing access rights, LDAP error: LDAP_ALIAS_DEREF_PROBLEM(0x24)
89990b0f	An incorrect authentication method was used when sending a request to the LDAP server, LDAP v: LDAP_INAPPROPRIATE_AUTH( $0x30$ )
89990b10	The credentials sent to the LDAP server are invalid, LDAP error: LDAP_INVALID_CREDENTIALS(0x31)
89990b11	The request sent to the LDAP server was not completed because of missing access rights, LDAP error: LDAP_INSUFFICIENT_ACCESS(0x32)
89990b12	The LDAP server is too busy at the moment to fulfill the request, LDAP v: $LDAP\_BUSY(0x33)$
89990b13	The LDAP server is currently unavailable, LDAP v: LDAP_UNAVAILABLE(0x34)
89990b14	The LDAP server cannot process the request due to server-defined restrictions, LDAP error: LDAP_UNWILLING_TO_PERFORM(0x35)
89990b15	A loop was detected in an LDAP alias or referral, LDAP error: LDAP_LOOP_DETECT(0x36)
89990b18	The LDAP server could not complete the request because it violates the naming convention, LDAP error: LDAP_NAMING_VIOLATION(0x40)
89990b19	The LDAP server could not complete the request because it violates the rules set for the object class, LDAP error: LDAP_OBJECT_CLASS_VIOLATION(0x41)
89990b1a	The LDAP server cannot perform the operation on a non-leaf entry, LDAP error: LDAP_NOT_ALLOWED_ON_NONLEAF(0x42)
89990b1b	The LDAP server cannot perform the operation because it attempts to change attributes that are necessary for the relative DN of the entry, LDAP error: LDAP_NOT_ALLOWED_ON_RDN(0x43)
89990b1c	The LDAP server cannot perform the operation because the entry already exists, LDAP error: LDAP_ALREADY_EXISTS(0x44)

89990b1d	The LDAP server cannot perform the operation because it would change the structure rules of the object class, LDAP error: LDAP_NO_OBJECT_CLASS_MODS(0x45)
89990b1e	The results of a request to the LDAP server are too large to return them, LDAP error: LDAP_RESULTS_TOO_LARGE(0x46)
89990b1f	The LDAP operation needs to be performed by multiple LDAP servers, where this operation is not permitted, LDAP error: LDAP_AFFECTS_MULTIPLE_DSAS(0x47)
89990b20	The LDAP server cannot perform the operation because of a virtual list view error, LDAP error: LDAP_VIRTUAL_LIST_VIEW_ERROR(0x4C)
89990b21	The LDAP server encountered an unknown error, LDAP error: LDAP_OTHER(0x50)
89990b22	The LDAP server could not be contacted, LDAP error: LDAP_SERVER_DOWN(0x51)
89990b23	The LDAP client detected an error, LDAP error: LDAP_LOCAL_ERROR(0x52)
89990b24	The LDAP protocol detected an encoding error, LDAP error: LDAP_ENCODING_ERROR(0x53)
89990b25	The LDAP protocol detected an decoding error, LDAP error: LDAP_DECODING_ERROR(0x54)
89990b26	An LDAP search was aborted because of a timeout, LDAP error: LDAP_TIMEOUT(0x55)
89990b27	The LDAP server encountered an unknown authentication error, LDAP error: LDAP_AUTH_UNKNOWN(0x56)
89990b28	An LDAP search filter has an invalid format, LDAP error: LDAP_FILTER_ERROR(0x57)
89990b29	An LDAP operation was cancelled by the user, LDAP error: LDAP_USER_CANCELLED(0x58)
89990b2a	An LDAP operation failed because an invalid parameter was specified, LDAP error: LDAP_PARAM_ERROR(0x59)
89990b2b	n LDAP operation failed because the system is out of memory, LDAP error: LDAP_NO_MEMORY(0x5a)
89990b2c	The LDAP connection could not be created, LDAP error: LDAP_CONNECT_ERROR(0x5b)

89990b2d	An LDAP operation failed because it is not supported by the LDAP server, LDAP error: LDAP_NOT_SUPPORTED(0x5c)
89990b2e	The LDAP server refused to return results, LDAP error: LDAP_NO_RESULTS_RETURNED(0x5e)
89990b2f	An LDAP operation failed because a required control was not found, LDAP error: LDAP_CONTROL_NOT_FOUND(0x5d)
89990b31	A loop was detected in an LDAP alias or referral, LDAP error: LDAP_CLIENT_LOOP(0x60)
89990b32	An LDAP operation failed because a referral required too many referral hops, LDAP error: LDAP_REFERRAL_LIMIT_EXCEEDED(0x61)
89990b50	The operation failed because the user authentication provider is not enabled
89990b51	The authentication failed because empty passwords are not allowed
89990b52	The CCS was unable to retrieve the users from a user authentication provider
89990b53	The specified user authentication provider was not found
89990b54	The required setting for the LDAP server is not set
89990b55	The required setting for the LDAP user object class is not set
89990b56	The required setting for the LDAP user name attribute is not set
89990b57	The specified search root DN was not found
89990b70	The Unity API could not be found

# F Consistency Check Codes

The following tables explain the codes reported when you run a Consistency Check:

- Consistency Check Critical Errors
- Consistency Check Errors
- Consistency Check Warnings



The Consistency Check is for support purposes. You should perform this check only if requested by Avid Technical Support.

### **Consistency Check Critical Errors**



If any of the following critical errors are reported, do not use your database; contact Avid immediately using the protocol outlined in the "If You Need Help" topic in the front of this manual.

Code	Meaning
7050	object refers to the wrong parent
7051	object is not exist in name directory
7052	object has an invalid BIH
7053	object has an invalid BDH
7088	pending change table inconsistency
7089	pending change table inconsistency
7099	object doesn't have a parent
7100	internal error in database structure
7101	internal error in database structure
7110	streamed properties structure invalid
7141	repository data corruption

Code	Meaning
7142	repository data corruption
7143	repository data corruption
7144	repository data corruption
11064	user management failed to initialize

### **Consistency Check Errors**



If any of the following errors are reported, some problems were found related to the particular object. It is still possible to use your database, but you should contact Avid using the protocol outlined in the "If You Need Help" topic in the front of this manual to resolve the problem.

Code	Meaning
7061	Not possible to determine the server master path for the file
7063	file doesn't exist
7064	internal object state is invalid
7065	internal object state is invalid
7066	internal object state is invalid
7067	internal object state is invalid
7068	internal object state is invalid
7069	internal object state is invalid
7070	object history is not accurate
7071	object history is not accurate
7077	internal object state is invalid
7078	internal object state is invalid
7081	internal object state is invalid
7082	internal object state is invalid
7083	internal object state is invalid
7085	internal object state is invalid

Code	Meaning
7111	unknown property handle
7112	streamed property flag is not set
7113	unknown streamed property name
7114	invalid streamed property
7153	internal object state is invalid
7171	link is invalid
7172	link is invalid
7173	link is invalid
7174	link is invalid
7175	link is invalid
7176	link is invalid
11058	master user is not valid
11059	master user is not valid
11060	master user does not exist
11061	master user is not valid
11062	master user is not valid
23020	authorization assignment is incorrect
23021	authorization assignment is incorrect
23023	authorization assignment is incorrect

## **Consistency Check Warnings**

If any of the following warnings are reported, some problems were found, but no action is urgently needed.

Code	Meaning
7062	file size mismatch
7072	invalid dependency source
7073	invalid dependency source
7074	invalid dependency target
7075	invalid dependency target
7076	incorrect dependency type
7091	pending change problem fixed
23022	invalid entry in the authorization role table. This can happen when there is an entry in the permission table that does not refer back to an object. For example, an object was deleted or the creation of a folder was cancelled.

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