Oracle® DIVAdirector

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Glossary

Preface

This document gives a basic understanding of system functionality and detailed instructions for configuring Oracle DIVAdirector release 5.2.

Audience

This document guides administrators through initial Oracle DIVAdirector system configuration, daily operations, and routine maintenance.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

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Related Documents

For more information refer to the Oracle DIVAdirector User's Guide.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements that perform an action.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

Oracle DIVAdirector is a graphical user interface (GUI) for Oracle DIVArchive systems. Your users locate and work with videos remotely, from any computer on your network, through the web browser-based interface. Administrators monitor and maintain the system and user accounts with minimal effort from anywhere you have access to your network.

You access DIVAdirector through a web browser using the HTTPS protocol. You do not have to install a browser-based GUI. You can access a browser-based GUI from anywhere on the network. You do not have to configure a client application. You do not have to perform client updates with a browser-based GUI.

You can search for video clips by file name, date, category and format. You can define metadata fields and values that support search. You can use Boolean operators and greater than - less than criteria. For example you can search for video clips of farm animals in the United States, but not in Nebraska or Kansas. Once you locate a clip, you can review it using the built-in media player. You can extract selected frames, add them to a list of related clips, forward them to editing applications, or arrange them for distribution.

Preparing for Installation

Before the Oracle Delivery and Installation Team arrives at your site you must complete installation and configuration of your system hardware. You must assign IP addresses and storage locations, open ports in the firewall, complete network cabling, and so on. When the team arrives they will review the configuration specifications before starting the installation to ensure all necessary components are in place and accessible.

Installed hardware must meet or exceed the list of recommended minimum hardware specifications provided to you. The server host hardware must have Microsoft Server 2008 R2 or Windows 2012 R2 installed.

You configure the server host computer for operation within your network and restrict access to the server with a unique, secure password. Install Microsoft Internet Information Server (IIS) 7 on the server host computer and confirm operation and network connectivity.

Any third party applications must be licensed and installed (for example Telestream). Have all DIVArchive configuration parameters set up including IP addresses and port configurations for storage devices, video servers, Avid Interplay (if in use), Oracle SAMMAsolo (if in use), Microsoft Cluster Manager (if in use), and so on. The team needs this information for reference during DIVAdirector installation.

You must have at least one fully operational client computer available for testing during and after installation. Client computers must have Microsoft Windows 7 Professional or Ultimate (either 32-bit or 64-bit) with Service Pack 1, or Mac OS 10.6 (Snow Leopard) or later operating system installed and one of the following supported web browsers:

- Internet Explorer 7 or later (Must be run in native mode, not compatibility mode)
- Chrome 18.0
- Firefox 12.0
- Safari 5.1.5 (Drag and drop from the main right window to the left navigation pane is not supported. Drag and drop from and to the left navigation pane is supported).

Initial DIVAdirector Configuration

You must continue to configure Oracle DIVAdirector after the Oracle Delivery and Installation Team has completed the initial installation. You typically complete the initial configuration tasks in this chapter one time unless there are major system or network changes (for example if IP addressing changes, port numbers change, and so on).

- Change the Administrative Password
- Configure DIVAdirector Server Connectivity
- Configure Oracle DIVArchive Manager Connectivity
- Configure DIVAdirector User Interface (UI)
- Configure DIVAdirector Web Server
- Storage Location Configuration
- Logging Configuration
- **Account Configuration**
- Search Configuration
- Quality Control (QC) Report Configuration
- **Automated Backup Configuration**

Change the Administrative Password

The Oracle Installation Technician installs DIVAdirector using a default administrative login and password, both of which are admin (all lowercase).

Note: You must *immediately* change the DIVAdirector administrative password to fully secure the DIVA director Server host computer.

Unauthorized users can gain full access to the DIVA director software and server host computer if you leave the default administrator password unchanged and do not secure the Windows operating system.

- Log in to the DIVAdirector GUI.
- Navigate to **Admin**, and then **Personal Settings** in the navigation tree on the left.
- Enter the existing default password (admin) in the *Password* field.
- Enter the new password in the *New Password* field (passwords are case-sensitive). You must use a secure password.

- **5.** Enter the new password in the *Confirm Password* field.
- Click **Save** on the top right of the screen to save the new password.

Log out of the system and then log back in to confirm that the new password was accepted by the system.

Configure DIVAdirector Server Connectivity

DIVAdirector connectivity to DIVArchive requires setting proper values for the communication parameters. The Installation Team set the initial connection parameters during installation. Confirm that the values are correct before proceeding.

Accessing the Configuration Screens

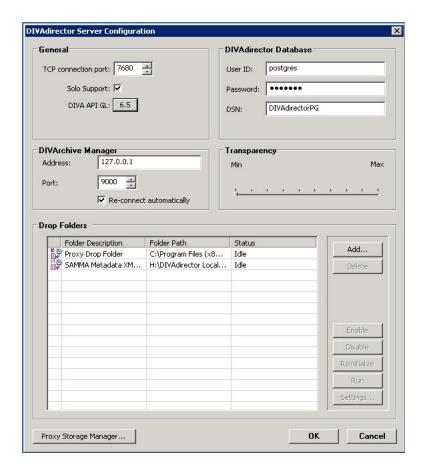
You use both the DIVAdirector GUI and the DIVAdirector Configuration Mode to confirm and (if necessary) reset the communication parameters. The proper interface for each parameter is identified in the following steps:

Use the following procedure to confirm (or reset) the preset system connection parameters in the DIVAdirector GUI:

- Open your web browser.
- Enter the server host's IP address in the *URL Address* field.
- Press **Enter** to open the DIVAdirector GUI.
- Log in to DIVAdirector. Use your DIVAdirector Administrator login and password.
- 5. Navigate to **Admin**, and then **System** in the navigation tree on the left of the

Use the following procedure to confirm (or reset) the preset connection parameters restart the DIVAdirector server in *Configuration Mode*:

- From the Windows Start menu select All Programs, FPDI DIVAdirector 5, and then **Stop DIVAdirector Server**.
- From the Windows Start menu select All Programs, FPDI DIVAdirector 5, and then DIVAdirector Server Configuration.
- Click the DIVAdirector tray icon to open the Status screen.
- Right-click the Status screen.
- From the Status screen select **Configure Settings** on the displayed context menu the full configuration screen will be displayed.



Confirm DIVAdirector Server Network Connections

Select the DIVAdirector Server network connection values in the DIVAdirector GUI on the Server Settings screen.

- Navigate to Admin, System, and then DIVAdirector Server Settings in the navigation tree on the left of the screen.
- 2. Confirm the *DIVAdirector Server IP* Address. If the IP address does not match the server host's address enter the correct address.
 - The IP address identifies the DIVA director Server host computer and is typically the same computer where the web server resides. You can use localhost as the IP address when all DIVAdirector software is on the same host computer.
- 3. Confirm the DIVAdirector Server Port Number. If the port number does not match the server host's port number enter the correct value.
- **4.** In the top right corner of the screen, click **Save** to save your changes.
- **5.** Stop the server, and then restart it in *Configuration Mode*. Next you are confirming the DIVAdirector Database connectivity.

Confirm DIVAdirector Database Connectivity

WARNING: Do not change any database parameters unless instructed to do so by Oracle Support.

The DIVAdirector database synchronizes periodically with the DIVArchive database according to a predetermined schedule. If DIVAdirector Server cannot communicate with the database, users will have no content to work with in the GUI.

- 1. On the top right of the DIVAdirector Server Configuration screen confirm that the *DIVAdirector Database* parameter values are correct.
- Confirm that the *User ID* value is either SYSTEM or postgres.
- **3.** The *Password* was set by the Oracle Installation Team and only displays asterisks in the field.
- **4.** Confirm that the *DSN* value is either DIVAdirector or DIVAdirectorPG.
- 5. If any value is incorrect, or DIVA director cannot connect to the database, notify the Installation Technician (if they are still on site), or contact Oracle Support.

Next you are confirming the TCP Connection Port, Oracle SAMMAsolo Support, and the DIVArchive API release level.

Confirm TCP Connection Port

The DIVAdirector Server listens on TCP port number 7680 for user interface commands. Do not modify the default port number unless it conflicts with other software installed on the system (for example if another web server uses this port number).

- 1. On the top left of the DIVAdirector Server Configuration screen confirm that the TCP connection port parameter value is 7680.
- 2. If the port number is incorrect change the value to port 7680 (unless this port number will cause a conflict).
- 3. A warning dialog box appears reminding you to restart the server for the change to take effect.
- **4.** Click **OK** in the dialog box.
- **5.** Restart the server in Configuration Mode.

Next you are confirming the SAMMAsolo Support.

Confirm SAMMAsolo Support

DIVAdirector has support for communicating with SAMMAsolo. Check with your manager if you are uncertain whether your organization uses SAMMAsolo.

- 1. Locate the *Solo Support* check box immediately below the *TCP connection port* parameter on the Configuration Mode settings screen.
 - Selecting the check box adds SoloSupport=1 setting to the [Settings] parameter group in the cmgserver.ini file. Any setting changes will not take effect until the server is restarted.
- 2. If SAMMAsolo is not in use, deselecting the check box to disable the feature.
- **3.** If you made any changes restart the server in Configuration Mode.

Confirm DIVArchive Application Programming Interface (API) Release

DIVArchive uses an API for interaction with external third party and custom applications. You must tell DIVAdirector which DIVArchive API release to use between DIVAdirector and any third party or custom applications in use within your organization. Check with your manager if you are uncertain whether any third party or custom applications are in use.

Use the steps below only if the selected API release is not correct for your DIVArchive system's existing configuration; otherwise skip this procedure and continue to the following section. The selected API release level should be the same release the third party and custom applications are using.

- 1. Locate the *DIVA API GL* list immediately below the *Solo Support* check box on the Configuration Mode settings screen.
- Click the button showing the currently configured API release number.
- A dialog box appears with a warning that any API changes will not take effect until DIVAdirector is restarted.
- **4.** Select the required API release number from the *Stored setting* list.
- Click **OK** to save the changes.
- If you made any changes restart the server.

Next you are going to confirm the DIVArchive Manager communications.

Configure Oracle DIVArchive Manager Connectivity

The Oracle DIVArchive Manager is the main operator for the DIVArchive system. All operation requests go through the Manager. The Manager queues requests according to the request priority set by the user when the request was initiated. The Manager forwards the requests (highest priority first) to the Oracle DIVArchive Actor. The Actor carries out the requests and reports the results back to the Manager. The Manager displays the results in the DIVArchive GUI, and forwards the results to DIVAdirector for users to review the outcome.

Confirm correct values for the Manager's IP address and listening port number to insure communication between DIVAdirector and the DIVArchive Manager.

- 1. Locate the DIVArchive Manager area immediately below the General area on the left of the Configuration Mode settings screen.
- 2. Confirm that the manager's IP address is correct. If incorrect, enter the correct IP address in the Address field.
- 3. Confirm that the listening port number is correct typically port number 9500. If incorrect, enter the correct port number in the *Port* field.
- **4.** Normally you would select the *Re-connect automatically* check box to have DIVAdirector automatically attempt to reconnect to the DIVArchive Manager if the link goes offline.
- **5.** If the network or the DIVArchive Manager is down, deselect the *Re-connect automatically* check box until connectivity is restored.

You will have to reconnect to the manager manually using the **Connect to** DIVArchive Manager context menu item when this option is disabled. Right-click the DIVAdirector Server Configuration Settings screen to open the context menu.

Next you will configure the DIVAdirector User Interface (UI).

Configure DIVAdirector User Interface (UI)

Now that all of the network and system connectivity has been configured you must configure the internal system parameters that affect how users interact with

DIVAdirector and DIVArchive. To configure the DIVAdirector user interface navigate to the **Admin**, and then **System** in the navigation tree on the left of the GUI screen.

First configure the system settings.

System Settings

The Defaults screen has two sections where you configure different options such as resolution, search result limits, date and time display, and so on. These options are located in the Default Settings area at the top of the screen. You configure options for deleting data and files related to local restore and local partial file restore, DIVArchive status, audit trails, and scheduled backups in the Number of Days to Delete area on the bottom of the screen.

- 1. Navigate to Admin, System, and then Defaults in the navigation tree on the left of the screen.
- **2.** Enter the appropriate values for each option that are optimal for your organization and users.

As the System Administrator you can identify most of these values according to existing organizational policies and your physical location, such as calendar display format, time display format, number of days to retain system backups, number of days to retain audit trails, and so on. You may need to consult with your users (or their managers) to identify options such as proxy resolution width and height, SAMMA thumbnail count, capture frame offset, and so on.

The following fields are configurable in the Default Settings area of the screen:

Search Results Limit

Identifies the number of search results to be displayed simultaneously.

Default Results Sort Order

Defines a metadata column that is used as the primary source for sorting.

Capture Frame Offset

Defines the count of frames which must be skipped from the beginning of a proxy while extracting key frames from the dropped proxy file.

SAMMA Thumbnail Count

Defines the number of thumbnails to use within a SAMMA thumbnail control.

Key Frame Count

Defines the number of key frames that will be extracted from a dropped proxy file.

Proxy Resolution Width

Defines the resolution width in pixels.

Proxy Resolution Height

Defines the resolution height in pixels. This parameter maintains an aspect ratio with the *Proxy Resolution Width* if 0 is entered for the value.

Date Display Format

Defines the format used for all date-type fields in DIVAdirector.

The list includes three format options.

- American mm/dd/yyyy
- European dd/mm/yyyy

Custom - This option does not support any codes except dd, mm, yy, and yyyy. The order of the codes is arbitrary and can be whatever the administrator defines. This can be defined in a relatively free-style format, for example yyyy.dd.mm.

The allowed separator symbols are a space, period, comma, underscore, hyphen, colon, slash (/), and backward slash (\setminus) .

Time Display Format

Defines whether the time is displayed in 12-hour or 24-hour format.

Calendar Display Format

Defines the first day of the week in the calendar.

Max Metadata Label Length in Tooltip

Defines the maximum number of characters to display in the Tooltips label. If the metadata field title exceeds this setting it will be truncated with three dots at the end.

Max Metadata Value Length in Tooltip

Defines the maximum number of characters to display in Tooltips content. If the metadata field value exceeds this setting it will be truncated with three dots at the end.

The following fields are configurable in the Number of Days to Delete area of the screen:

Local Restore and Local Partial Restore Files

Defines the number of days to keep the files that have been restored to the DIVAdirector Server host computer through a local restore or local partial restore operation.

DIVArchive Status

Defines the number of days to keep the DIVArchive status information on the Assets/Operation Status screen.

Audit Trail

Defines the number of days to keep audit trail information.

Scheduled Backups

Defines the number of days to keep backup files created by scheduled backups.

Next you will configure the System Policies.

System Policies

The system policy parameters define the system level update interactions between DIVAdirector and DIVArchive such as discovery of new data (assets), user request status updates, whether to delete a file entry from the database, and so on.

- Navigate to **Admin**, **System**, and then **Policies** in the navigation tree on the left of the GUI.
- 2. Enter the appropriate values for each option that are optimal for your organization and users. You should consult with your manager and your user's manager to determine the most effective and safest (for your data) configuration.

The following fields are configurable on the Policies screen:

Asset Discovery

Defines the automatic synchronization schedule. The first list defines the frequency and the second list defines the start time.

Update Request Status

Defines how often the DIVAdirector Server requests the DIVArchive operational status from DIVArchive.

Delete from DB

Responsible for deleting objects that were not found during database synchronization from the DIVA director database. When the check box is selected the objects that were not found will be deleted. When the check box is deselected the objects will not be removed.

Delete Proxy

Responsible for deleting the proxy files and the corresponding registration in the DIVAdirector database for the proxy files not located during database synchronization. When the check box is selected the files that were not found will be deleted. When the check box is deselected the files will not be removed.

Log License Operations

Responsible for logging of the license operations to a file.

Next you will configure the Database Synchronization Filtering.

Database Synchronization Filtering

The DIVAdirector system is populated automatically from a scheduled synchronization process performed periodically according to the Asset Discovery value on the Policies screen (refer to the previous section). You configure the database synchronization filters on the Discover screen.

Synchronization filters define which objects are processed during synchronization. Each synchronization filter represents a combination of an object's parameters such as object name, object category and media name, and has its own time of last synchronization. Parameters can be defined as masks with a wildcard (an asterisk). By default the asterisk will be set for fields that are empty. Filters with an asterisk in all three fields are invalid and cannot be added to the filter list.

If you add a new filter after all objects corresponding to existing filters were synchronized and then click Discover New, the object corresponding to the new filter will also be synchronized.

The next discovery cycle can be initiated immediately using one of two buttons:

- The **Discover All** button initiates the synchronization of all objects in the DIVArchive database based on the entire DIVArchive history. This option can take a long time if there are a lot of objects to be discovered. All objects currently known to DIVA director are marked as foreign. After synchronization is complete, all objects unknown to DIVArchive retain their foreign mark and are removed because they remained foreign.
- The **Discover New** button initiates the synchronization of all objects added or removed since the last database synchronization was performed.

Use the following procedure to add a new synchronization filter:

- 1. Navigate to **Admin**, **System**, and then **Discover** in the navigation tree on the left of the GUI.
- **2.** Click **Add** on the top right of the screen to add a new filter.
- 3. Enter the *Object Name*, *Object Category* and (if known and desired) *Media Name* fields. At least one of these fields must be entered to be added to the filters list.

- Select the *Enable* check box to enable the filter.
- Click the **Check Mark** to save the filter to the list or the **X** to cancel the operation.

Test the configuration by dropping a new file into one of the storage locations on DIVArchive and click **Discover New**. The file should be found and registered in the DIVAdirector database. You can validate the database registration by running a search for the file from DIVAdirector using the Quick Search field on the top right of the screen.

Next you will configure the Keyboard Shortcuts.

Configure Keyboard Shortcuts

Keyboard shortcuts save you, and your users, time performing common, routine procedures during your daily work tasks. DIVAdirector has hot key combinations that are predefined and configured automatically during installation.

The Proxy Player can be run in two different modes; Shotlist Mode and Proxy Player Mode. There are two corresponding subsections in the **System**, **Shortcuts** navigation tree - one for each mode. Each subsection defines the keyboard bindings for the player in that specific mode. You should assign keyboard shortcuts for the Proxy Player in each mode.

The following hot key combinations are predefined in the DIVA director system:

Ctrl + E

Edit

Shift + 1

Rewind x4

Shift + 2

Rewind x8

Shift + 3

Fast Forward x4

Shift + 4

Fast Forward x8

Shift + A

Add

Shift + B

Frame Back

Shift + D

Decrease Volume

Shift + F

Forward

Shift + I

Mark In

Shift + L

Loop

Shift + M

Mute

Shift + N

Frame Forward

Shift + O

Mark Out

Shift + P

Play / Pause

Shift + R

Rewind

Shift + S

Stop

Shift + T

Switch Time Format

Shift + U

Increase Volume

Shift + X

Mark Out and Add

WARNING: It is necessary to be careful during configuration of keyboard shortcuts because they may coincide with hot keys of internet browsers or other software, causing users to get unexpected results.

Use the following procedure to change the shortcut key combinations for either sub-section:

- 1. Navigate to Admin, System, Shortcuts, Shotlist Shortcuts, or to System, **Shortcuts**, **Player Shortcuts** in the navigation tree as applicable.
- 2. Click the **Pencil** icon to edit the desired hot key combination.
- Select the required combination of Control+Shift+[key].
- Click the **Check Mark** to save the changes.
- Test all of the configured hot keys, one at a time, to ensure there are no conflicts with other applications installed on the system.

Shotlist Shortcuts

You configure hot keys used to perform routine functions with the Proxy Player in Shotlist Mode on the Shotlist Shortcuts screen in the Shortcuts navigation tree on the left of the screen. Click the **Pencil** icon to edit existing shortcut combinations.

Proxy Player Shortcuts

The Proxy Player is the default player mode. You configure hot keys used to perform functions with the Proxy Player in the default Play mode on the Player Shortcuts screen in the **Shortcuts** menu tree on the left of the screen. Click the **Pencil** icon to edit existing shortcut combinations.

Next you will add your organization's logo.

Style

If required (or desired), you can quickly customize the interface style with an organizational logo that appears on all GUI screens in the top right corner of the screen. Use the following procedure to add a logo:

- Navigate to **Admin**, **System**, **Style** in the navigation tree on the left of the GUI.
- Click **Browse** and navigate to the desired image file in the browse dialog box that appears.
- **3.** Select the desired file and click **OK**.
- Click **Save** on the top right of the screen to apply the changes.
- Refresh the browser screen to view the changes.

Next you will configure the DIVAdirector Web Server.

Configure DIVAdirector Web Server

DIVAdirector uses Microsoft Internet Information Server (IIS) 7 as the web server engine, and it should be operational before the Installation Team arrives.

The DIVA director Web Server is fully configured by the installation application. Unless specific web server parameters require modification, there is no need to adjust the configuration. The default *Listening Port* is port 80 and will bind to the first network adapter in the system device list. Contact Oracle Support for assistance to bind the server to a different network adapter.

First configure the *Listening Port*.

Listening Port Configuration

WARNING: Under normal conditions the web server port number does not need to be changed. However, on a DIVA director 4 to DIVAdirector 5 upgrade where you want to maintain operations with DIVAdirector 4, the port must be changed to avoid conflicts with the Apache Web Server used in DIVAdirector 4.

The default Listening Port value is 80. This is the standard internet HTTP port for web servers. This value may be any port number not being used in the system and should be changed if port 80 is unavailable. DIVA director Server must be restarted to apply a change to a new port number.

Note: After changing the server port number, DIVAdirector users may be required to explicitly specify the port number in the web address similar to:

http://dd5server:8080

If changes are made to the Listening Port, you should test the web server configuration by opening your web browser and entering the DIVAdirector IP address (and port number if required) in the URL Address field.

Next you will configure the IIS Service Account.

IIS Service Account Configuration

The installation process creates an account named dd5-user. This account is a vital part of the web server application's security. The account should never be deleted and the account's permissions should never be altered.

First you will configure Storage Locations.

Storage Location Configuration

In DIVArchive and DIVAdirector, a single storage location can be used as both a source of data and a destination for data. The difference is in the actions being performed. For example, Tape Storage-A can be defined as a source for file restore, or partial file restore operations. However, Tape Storage-A can also be designated as a destination for archive and copy operations. You configure the storage locations and identify them as a source, a destination, or both in DIVArchive. DIVAdirector will use the storage locations as they are identified in DIVArchive.

Next you will configure Drop Folders.

Drop Folder Configuration

Drop Folders are directories on a storage location where users place (drop) files and actions are performed on the files. Drop Folders make your (and your users) work tasks much easier because you simply drop objects in the folder and the folder executes the action specifically configured for that folder.

DIVAdirector monitors the Drop Folders for new additions and other file changes and updates the database information accordingly. Each Drop Folder has its own configuration file, and can execute a single action (proxy, metadata, analysis, archive, restore, copy, or purge). Explanations of these actions and the associated parameters are in the following sections.

There are two main categories of Drop Folders: *Proxy File Folders* and *Import File* Folders. The system monitors Proxy Drop Folders for immediate file-drop processing. All Proxy Drop Folders are automatically processed by a timer with a one minute interval. The system monitors Import Drop Folders either for immediate file-drop processing or for processing according to a schedule of events.

For more detailed information about Drop Folders see to the Oracle DIVArchive DFM User's Guide.

Import Drop Folders

An Import Drop Folder can be monitored either for immediate file-drop processing or for processing based on scheduled events. The full folder scan is performed on any type of event (immediate or scheduled), and each discovered file (except files with special names) is processed according to the folder's configuration. You must understand the configuration options set for the Drop Folders to configure them effectively.

Files with Special Names

There are two types of files considered to have special names.

The Drop Folder's XML configuration file has a file name that includes the folder name plus a .xml extension. This file is never processed by the system and

specifies the configuration for the folder. You can open this file in any Unicode text editor to view or edit the configuration as necessary.

Temporary files, or files you want to keep in the folder, have file names that begin with two leading tilde (~~) symbols. These files are never processed by the system.

Files dropped into Import Drop Folders will trigger ACTION data. The parameters mentioned here are discussed in "Drop Folder Configuration.". The dropped files are processed as follows:

- According to the folder *FORMAT* configured value, the file is either processed as a flat file (similar to the Comma Separated Values (CSV) format) or as an XML file.
- According to the HEADER_ROW configured value, the first non-empty line is either skipped or processed.
- Each following line is then parsed for fields and the set of fields is used for a single import action.
- When the end of the file is reached, the original file is either deleted or left in the folder depending upon the DELETE_AFTER_PROCESS configured value.
- Each import action is logged in a way that corresponds to the folder settings.

Annotation Import

Annotation import is a case requiring specific folders and specific file formatting to be successful. Pay particular attention to the following instructions if you are going to be importing annotation files.

The Drop Folder configuration file is located at C:\Program Files (x86)\DIVAdirector 5\Tools\DDServices\DIVADirectorServices.exe.config. Use the following procedure to confirm proper configuration for importing annotation files:

- Navigate to C:\Program Files (x86)\DIVAdirector 5\Tools\DDServices.
- Open the DIVADirectorServices.exe.config file with a plain text editor.
- Locate the line in the file with the following text:

```
<annotationImport fileFilters="*.csv" watchPath="C:\Program Files</pre>
(x86)\DIVAdirector 5\Tools\DDServices\watch" errorPath="C:\Program Files
(x86)\DIVAdirector 5\Tools\DDServices\error" backupPath="C:\Program Files
(x86)\DIVAdirector 5\Tools\DDServices\backup" />
```

The following three folders (identified on the line in the configuration file) must exist on the system:

- C:\Program Files (x86)\DIVAdirector 5\Tools\DDServices\watch
- C:\Program Files (x86)\DIVAdirector 5\Tools\DDServices\error
- C:\Program Files (x86)\DIVAdirector 5\Tools\DDServices\backup
- Check the local system to confirm that the folders listed do exist. If they do not exist you must create them.

Any files placed into the Drop Folder must be formatted *exactly* as follows:

```
"objectname", "category", "", "time_in", "time_out", "comment"
```

The import will not work if the Header or the blank space between "category" and "time" do not exist.

Proxy Drop Folders

Proxy Drop Folders are special-purpose Drop Folders used to import DIVAdirector proxy files (media files using Windows Media 9.0 audio and video format). The import is executed by monitoring the Windows File Change notifications, if the folder's INTERVAL parameter is configured for IMMEDIATELY. The system also re-scans every Proxy Drop Folder at a one minute interval to automatically process the files that have not yet been handled.

The Transcoding Engine typically writes the proxy file directly into the Proxy Drop Folder. The Proxy Drop Folder is then processed on each file system notification event and when the file write operation finishes, the file is processed according to the DIVAdirector system default setting as follows:

The file name is parsed for object name, category and language.

You configure the file name format in the folder's .xml file using the *NAME*_ FORMAT parameter. The NAME_FORMAT can either be **OBJECT NAME ONLY** or OBJECT NAME + OBJECT CATEGORY. In the latter case, the last underscore character separates the object category from the object name.

You configure the language format in the folder's .xml file using the *LANGUAGE* parameter, which can either be FROM NAME or FROM WM9 METADATA. In the former case, the last underscore symbol separates the language name from the object name (+Category), and the category is defined by the previous rule.

In the latter case, the language name value is retrieved from within the media file and the internal Windows Media 9 format language tag is used.

Note: The language name has literal language meaning only in cases of the embedded language. In other cases, it may have any informative value denoting, for example, director's commentary, sound effects channels, and so on. This allows the ability to distinguish between several alternative audio tracks related to the same video material.

- The DIVArchive object is searched by parsed name and category values.
- If the object is present in the DIVAdirector database, the proxy is registered to this object.
- If the object is not present in the DIVAdirector database but appears to be known to DIVArchive, the new object is inserted into the DIVAdirector database and the proxy is registered.

This situation may occur when the proxy is dropped before the DIVAdirector database's next synchronization cycle. If the object is not present in the DIVAdirector database and there is no active connection to DIVArchive, the proxy file remains intact in the Drop Folder (the file gets frozen). It will then be processed the next time another proxy arrives in the folder.

- A proxy that was not frozen in a Drop Folder is moved to one of the storage locations (destination).
- The registered proxy is moved into a random subfolder of a proxy folder. The subfolders are named 0 to 500.
- The unregistered proxy is moved to a predefined Orphan folder. You must check Orphan folders at least on a daily basis and decide what to do with orphaned objects.

Metadata Drop Folders

The Metadata Drop Folder provides a list-based metadata processing feature to import metadata into DIVAdirector from any input file. The metadata processing feature allows an XML file to define field mapping between the metadata fields in the input file and the metadata fields in the DIVAdirector database.

The main mechanism used by the Metadata Drop Folder is the metadata Column-To-Field mapping. Therefore, a flat file record's fields, depending on their order number, are mapped to the corresponding field definitions.

The Drop Folder field collection may not contain all the metadata column's definitions. The field collection must have a mandatory mapping to the object name and an unambiguous object category; resolving either by explicit column mapping or by the general OBJECT_CATEGORY Drop Folder parameter.

The flat file records are split by the characters identified as the folder's separator value and each field is interpreted according to the mapped metadata column type. For example, a column of INTEGER type cannot accept non-numeric data and produces a run time error.

The DATE/TIME column type has additional configuration regarding textual date and time value interpreting. The DTMASK parameter defines the field's format pattern and only the following format patterns are allowed:

- MM = month
- DD = day of the month
- YYYY = year
- hh = hours
- mm = minutes
- ss = seconds
- ff = fractions of a second

Field values can be processed based on the character case and removal of white-space characters before putting these values into the DIVAdirector database.

Not found objects are controlled by the MATCHING_OBJECT_NOT_FOUND Drop Folder parameter. For the CREATE_VIRTUAL_OBJECT value, if the object is not present in the DIVAdirector database the new virtual object is inserted into the DIVAdirector database.

Annotation Drop Folders

Annotation Drop folders allow CSV files to be placed into the folder for importing locator metadata for the objects specified in the file.

The following conditions apply to the CSV file:

- The file must be in Unicode, UTF-8 encoding.
- The file must contain a header row.
- The file must contain six columns as follows:

Object Name

This column is limited to two hundred characters and should match the object name in DIVArchive.

Category Name

This column is limited to two hundred characters and should match the object category name in DIVArchive.

Object Identifier

A show name or other object-specific identifier.

Start Time Code

Start time of the locator in the format hh:mm:ss:ff.

End Time code

End time of the locator in the format hh:mm:ss:ff. This field is not mandatory and if empty, the locator is considered a marker (description of a single frame).

This column is limited to two thousand characters and is a text description of the locator (marker).

Next you will add a new Import Drop Folder.

Adding New Import Drop Folders

You must create and configure Drop Folders for use in DIVAdirector, they are not added during installation. The Drop Folder area is located at the bottom of the DIVAdirector Configuration Mode Settings screen. To perform operations on any listed Drop Folder, select the folder from the list and click the button associated with the desired action. The buttons are located within the Drop Folders area on the right of the screen and include the following actions:

Adds a new Drop Folder to the list of available Drop Folders.

Delete

Deletes the Drop Folder selected in the Drop Folders List.

Enable

Existing Drop Folders are either *enabled* or *disabled*. Once enabled, a disabled Drop Folder becomes ready to process future Drop Folder events. Enabling a Drop Folder does not trigger its immediate processing, even if the currently enabled folder is not empty. The folder will only be processed during the next event it is configured to run (unless you click **Run**).

Disable

A disabled Drop Folder does not provide any file processing, but remains in the configured Drop Folders list and retains its previously set configuration.

Reinitialize

This will reinitialize a Drop Folder after manual configuration changes have been made directly in the configuration file (rather than through the XML Wizard).

Run

This will cause the selected Drop Folder to process all configured actions immediately.

Settings

Users can reconfigure any Drop Folder at run-time if the preset configuration does not suite their current needs. This operation *does not* require the DIVAdirector Server to be restarted. To change the Drop Folder configuration using the XML Wizard, select the folder in the list and click **Settings**.

You use the following procedure to add a new Drop Folder to the system. Once the folder is added you will need to configure it either using the XML Wizard or editing the folder's XML configuration file directly with any Unicode-compatible editor.

Use the following procedure to add a new folder to the Drop Folder list:

- Click **Add** on the top right of the Drop Folder section.
- Locate and select (single mouse click to highlight the folder) the folder intended for use as a DIVAdirector Drop Folder in the Browse for Folders dialog box that appears.
- **3.** Click **OK** on the bottom of the dialog box.
- 4. If the folder does not already contain an XML configuration file, a prompt to configure the folder using the XML Wizard will be displayed.
- 5. Proceed through the XML Wizard (if applicable) and click **Run** when finished to trigger immediate Drop Folder processing.
 - If you prefer editing the configuration file directly, you can do so using any Unicode-compatible text editor (like Notepad). Do not use programs like Microsoft Word to edit the configuration file because it adds extra characters to the file and will corrupt the configuration.
- **6.** If you edited the configuration file directly, save the file as Unicode (plain text) and reinitialize the Drop Folder using the Reinitialize button on the right of the Drop Folder area.
- 7. Test the new folder's operation by dropping a file in the folder as a non-administrative user, and confirm that the configured action was executed correctly. For example, if you dropped a file into an ARCHIVE action Drop Folder, and the folder is configured to archive files to Storage-A, check Storage-A for the presence of the file you dropped into the folder.

Next you will add a new Proxy Drop Folder.

Adding New Proxy Drop Folders

All proxies registered in the DIVAdirector system are kept on Proxy Storage Disks. The DIVAdirector Server allows configuration and management of multiple proxy storage locations. You use the Proxy Storage Manager to manage and configure proxy storage locations. Access the Proxy Storage Manager by clicking Proxy Storage Manager on the bottom left of the DIVAdirector Configuration Mode Settings screen.

The Proxy Storage Location is defined by the path to the folder on the file system (either a local location or network share). By default, one proxy location is added during DIVAdirector installation. The default location will be the C:\Program Files\DIVAdirector\proxies folder for a default installation. During a custom installation the location will be a folder selected by you and the installer.

Each location has limited usable space on the storage device - the limit can either be relative or fixed. A relative limit is set as a percentage relative to the capacity of the storage device while a fixed limit is set in megabytes.

The Proxy Storage Manager allows users to view the following information about each proxy location on the Proxy Locations tab:

Status Icon

An icon in the first column of the display that reflects the current state of the proxy location.

Path

The path to the proxy location folder.

The total amount of space on the storage device where the proxy is located.

Used

The space used in the proxy location, that is, the occupied space by all files in the folder at the moment.

Used %

The percentage of used space relative to the limit.

Available

The space available in the proxy location.

Available %

The percentage of available space relative to the limit.

Files

The number of files in the proxy location. It is not necessary for the proxies themselves to be registered in DIVAdirector - they are still residing on the storage location and using space.

Limit

The amount of space which can be used on the storage device.

The percentage of limit space relative to the capacity of the storage device.

Use the following procedures to add a new Proxy Storage Location. First map the storage location to Windows and set the folder permissions.

Map the Storage Location to Windows and Set Folder Permissions

- Map the storage location so that it is visible in Windows. A Universal Naming Convention (UNC) location must be mapped to a drive letter and folder before proceeding.
- 2. If the folder is a network drive, make sure it is set to auto-connect on Windows startup.
- **3.** In the Windows explorer, right-click the folder and select **Properties** from the menu.
- **4.** In the middle of the **Security** tab screen click **Edit**.
- **5.** Click **Add** in the middle of the screen to add a new user to the folder's permissions.
- **6.** When the Select Users or Groups dialog box appears, enter the IIS Web Server account (the default is dd5-user) used during DIVAdirector installation in the Object Name text area (on the bottom of the screen) and click Check Names (to the right of the text area) to verify that the entered name is valid.
- **7.** When the user is verified click **OK** to add the user.
- Repeat steps 5, 6, and 7 for Authenticated Users. Both users should now be added to the folder permissions and set correctly for the DIVAdirector Web Server.

Next you will add the Proxy Folder to the DIVAdirector Web Server.

Add the Proxy Folder to the DIVAdirector Web Server in IIS

- Clicking the Windows **Start** button.
- Enter inetmgr in the search box the search will begin automatically.
- When the inetmgr program is displayed in the search results, double-click the program name to start the application.
- On the left of the IIS Manager screen click the host computer's computer name and then locate **DIVAdirector 5** under the **Sites** menu.
- Right-click **DIVAdirector 5** and select **Add Virtual Directory** from the resulting context menu.
- Enter the *Alias* and *Physical path* of the new proxy storage location.
- Click **OK** to complete the process.

Next you will add the Proxy Location to the DIVAdirector Server.

Add the Proxy Location to DIVAdirector Server

For users to access the proxy location created in the previous steps, the location must be added to the DIVAdirector Server configuration.

- Start DIVAdirector in Configuration Mode and open the settings screen.
- Click **Proxy Storage Manager** on the bottom of the DIVAdirector Configuration Mode settings screen.
- On the Proxy Storage Manager's **Proxy Locations** tab (opened by default) click **New** (two-thirds of the way down on the right of the screen).
- **4.** Locate and select (single mouse click to highlight the folder) the folder where registered proxies will be stored in the Browse for Folders dialog box that appears.

Note: The *Proxy Location Path* cannot be changed after it has been added.

- Click **OK** to add the selected folder to the list of proxy locations.
- On the Proxy Storage Manager screen navigate to the Proxy URL Search List tab and click **Add** on the right of the screen.
- Enter the Virtual Directory Name (this is the Alias Name entered into IIS) in the field located in the middle of the screen and click Set.

Next you will configure the storage size for the location you just added.

Configure the Proxy Location's Storage Size

- In the Proxy Storage Manager, navigate to the **Proxy Locations** tab and select the proxy location you just added from the *Proxy Storage Manager* list. The options for the location become active at the bottom of the screen.
- Select the type of limit (percentage or megabytes) desired using the *Limit* list.
- Enter the limit size or percentage in the *Limit* field.
- Click **Apply Limit** to apply the new limit and recalculate the used and available space of the selected proxy location.

Next you will configure the location filling strategy.

Configure the Proxy Location Filling Strategy

The filling strategy defines how the proxy storages are filled with files. You can select one of two strategies. The strategy chosen will depend upon the amount of storage available, number of storage locations available, internal organizational policies, and so on. The two available strategies are as follows:

Waterfall

The proxy file always goes to the first storage location on the chain that has enough free space. The order of locations can be changed using **Up** or **Down**.

Share Alike

The proxy file always goes to the less occupied storage location. This strategy spreads proxy files equally among storage locations.

If all registered storage locations have a status other than *Open*, the proxy file remains in the Proxy Drop Folder until another location is open and has enough free space to accept the file.

- Select the appropriate *Filling Strategy* on the lower left of the **Proxy Locations** tab
- Use the **Up** or **Down** buttons to change the priority of the location.
- On the bottom right of the screen click **Close**.

The addition and configuration of the new location is now complete. Test the new location by dropping a proxy file into the folder as a non-administrative user and then open the file with the Proxy Player.

The next section describes the operational state of proxy locations.

Proxy Location Operational States

Proxy locations can be in one of five possible operational states. Each state has its own Status Icon to graphically represent the current state of the location. Proxy locations can be in one of the following five states:

Open

The **Open** state Status Icon is a green filled-in cylinder with no additional markings. This indicates that the limit value has not been reached for this proxy location. Open locations can accept new files, can be explicitly transitioned to the **Closed** state only, and can participate in migration tasks.

Closed

The **Closed** state Status Icon is a yellow cylinder with a red X on top of it. This indicates that this proxy location does not accept new files. A closed location can be explicitly transitioned to the **Open** state *only* and can participate in migration tasks as the source but not as the destination.

Overflown

The **Overflown** state Status Icon is a red cylinder with an exclamation mark on top of it. This indicates that the limit value has been reached for this proxy location. Overflown locations do not accept new files and cannot be transitioned to another state; however they can participate in migration tasks as the source but not as the destination. The filling strategy of the Proxy Storage Manager does not allow the overflowing of a location. Only external manipulations of the environment can result in this state of the storage location.

Migration

The **Migration** state Status Icon is a pink cylinder with a double-headed arrow underneath it. This indicates that the proxy location is in the process of migration. The migration location does not accept new files and cannot be transitioned to another state until the migration process has completed.

Unreachable

The **Unreachable** state Status Icon is a greyed out cylinder with a question mark on top of it. This indicates that the proxy location is not currently detected in the environment (the path is not found). An unreachable location cannot be transitioned to another state, migrated, or removed.

Now that you have added both Import and Proxy Drop Folders, configure the folders to perform the desired actions when a user drops a file into the folder.

Drop Folder Configuration

There are parameters that are common to all Drop Folders. The common parameters are interpreted identically for all Drop Folders, but they are configured separately for each Drop Folder. The following subsections describe the common parameters.

DESCRIPTION Parameter

You include a logical description for the function of a particular Drop Folder using the DESCRIPTION parameter. The description appears in the DIVAdirector Server configuration screen's Drop Folder section for easy reference and identification. You should make the Drop Folder description vivid enough for you and your users to know exactly what action is executed when a file is dropped into the folder.

ACTION Parameters

You identify the action to be performed on the files located within the Drop Folder using one of the ACTION parameters. Each Drop Folder can have only one action configured in the folder's XML configuration file. Each ACTION value has a distinct status icon associated with it. The ACTION setting can have the following possible values:

METADATA (default)

The METADATA action icon consists of two files with an **M** in the top left corner of the icon. This action results in adding, updating, or deleting file metadata. This action does not affect the DIVArchive system content.

PURGE

The PURGE action icon consists of a file with a trash can below it and a P in the top left corner. This action results in the deletion of a file or one of its instances in the DIVArchive system.

RESTORE

The RESTORE action icon consists of a file on the top right with a drive at the bottom, and a red **R** on the top left. This action results in restoring a DIVArchive file on one of its destinations.

COPY

The COPY action icon consists of two drives and a green C in the top left corner. This action results in copying a DIVArchive file instance, or instances, from one media to another.

ARCHIVE

The ARCHIVE action icon consists of a file on the top right with a drive at the bottom, and a red A on the top left. This action results in archiving a set of files in the DIVArchive system and creation of a DIVArchive object (file container).

PROXY

The PROXY action icon consists of two files and a red X on the top left. This action results in registering a DIVArchive proxy file in the DIVAdirector system. This action does not affect the DIVArchive system content.

ANALYSIS

The ANALYSIS action icon consists of a file on the top right with a red container at the bottom and a green **Q** on the top left. This action results in adding, updating, or deleting summary metadata and analysis results. This action does not affect the DIVArchive system content.

SAMMA METADATA

The SAMMA METADATA action icon consists of a file on the top right with a red container at the bottom and a green **Q** on the top left. This action results in moving SAMMAsolo generated metadata into the DIVAdirector's SAMMA metadata location.

PROXY Action

The PROXY action has specific values that can be applied for this action only. Users typically cannot access proxy storage directly because of security settings. The only way to play proxies is by logging into the DIVA director system as a user authorized to play proxies. The following list identifies each PROXY action-specific parameter, what it does, and how you should configure it.

PATH

The PATH folder setting defines the root proxies folder used as proxy storage. Every proxy file is placed into randomly selected subfolders named 0 to 500. The path may be a fully qualified folder path; either network-shared or local to the DIVA director host. A network path must be specified in UNC format and mapped drive paths are not supported.

URL

The *URL* folder setting defines the URL path relative to a DIVAdirector Web Server root path. This setting is used in DIVAdirector internally although it is already obsolete in reference to its actual definition. Therefore, it is safe to always set it to /proxies for any Proxy Drop Folder.

ORPHAN

The *ORPHAN* folder setting is applied to the PROXY action and defines the full path where the unrecognized proxy files are placed. If a proxy is dropped and the file name is not lost, it is moved to the Orphan folder. This requires the administrator to periodically check the folder and decide what to do with any files located in the folder.

OBJECT_CATEGORY

The OBJECT_CATEGORY setting defines which category should be associated with the dropped proxy. This setting is disabled if OBJECT NAME + OBJECT CATEGORY is selected in the NAME FORMAT setting.

The *OBJECT_CATEGORY* setting can have one of the following values:

Blank

This is the default setting. A file dropped in a Drop Folder with filename.wmv as the file name will be matched with the first file found in the database with a matching *object name* regardless of its category.

Single Object Category

This setting defines which category the matching file should be in for the association.

Asterisk (*)

This setting causes a file dropped into a Drop Folder with filename.wmv to be matched with all files found in the database with a matching *object_name* regardless of its category.

If the *SoloSupport* option is enabled, the system uses following process (in order) to determine how items are found:

- The matching files will be found as is (case sensitive mode).
- If no file was found, files will be found with a matching upper case *object_name* (the *object_category* remains as is).
- If no file was found in Step 2, then files will be found with a matching upper case *object_name* and an upper case *object_category*.

NAME FORMAT

The NAME_FORMAT setting defines the proxy file name format to be used. The proxy file must be dropped into the Proxy Drop Folder to be correctly registered in DIVAdirector.

The *NAME_FORMAT* setting can have one of the following values:

OBJECT NAME + OBJECT CATEGORY

DIVAdirector obtains the object name and object category from the file name. The object name and category must be separated by an underscore character - that is objectname_objectcategory.wmv.

OBJECT NAME ONLY

DIVAdirector only gets the object name from the file name - that is filename.wmv

LANGUAGE

The LANGUAGE setting is responsible for how DIVAdirector defines the language in the audio proxy files. The *LANGUAGE* setting can have one of the following values:

From Name

DIVAdirector gets the language from the .wma file name. The name must be formatted as follows to be successfully registered in the DIVAdirector database:

OBJECT NAME + OBJECT CATEGORY

```
objectname_objectcategory.wmv
objectname_objectcategory_language.wma
```

OBJECT NAME ONLY

```
objectname.wmv
objectname language.wma
```

From WM9 Metadata

DIVAdirector gets the language from the .wma file settings.

OBJECT NAME + OBJECT CATEGORY

```
objectname_objectcategory.wmv
objectname objectcategory.wma
```

OBJECT NAME ONLY

```
objectname.wmv
objectname.wma
```

METADATA Action

Metadata is used for searching and locating objects in DIVAdirector. The METADATA action maps object names, categories, dates, times, and so on from the dropped object's metadata fields to the DIVAdirector database fields. The METADATA action has specific values only applicable to this action. The following list identifies each METADATA action-specific parameter, what it does, and how you should configure it.

FIELD (Metadata Mapping)

The FIELD setting identifies how the metadata columns are interpreted and details the mapping between the fields in the input file and the required fields in the DIVAdirector system. For example, the mapping setting defines which field in the input file contains the OBJECT_NAME for the requested Drop Folder action. This particular mapping is mandatory for all supported actions and others may or may not be required depending upon the action.

If a field mapping is defined to a metadata field that does not exist within the DIVAdirector system (not defined or has been misspelled), the system will skip only the non-existent field mapping and continue processing the remainder of the record. An error is logged indicating that an incorrect mapping has been identified.

The metadata column name defined in DIVAdirector (on the Admin/Metadata screen) is the reference used when defining the Metadata Mapping in the XML configuration file and is defined once for a specific flat file format. You should verify proper mapping of the input fields to the correct metadata fields to reduce the potential for contamination of data within DIVAdirector.

The following example shows mapping definitions, including advanced data scrubbing and formatting settings configurable on a field by field basis.

```
<FIELD>
<ORDINAL>7</ORDINAL>
<MAPS_TO>embargo_date</MAPS_TO>
<DTMASK>DD.MM.YYYY</DTMASK>
</FIELD>
<FIELD>
<ORDINAL>18</ORDINAL>
<MAPS_TO>start_time</MAPS_TO>
<DTMASK>hh:mm:ss.ff
</FIELD>
```

Mapped columns ignore the <DTMASK> line *except* for the date and time fields.

The ORDINAL setting indicates which field number in the input file is being referred to. The first field in the input file record is ORDINAL="1", the second field in the input file record is ORDINAL="2", and so on. In the previous example the input file field numbers are 7 and 18 respectively.

Note: It is important to understand that the field definition's order may not follow the ORDINAL numbering and the order may be arbitrary.

The MAPS_TO setting indicates which field in DIVAdirector the particular metadata contained in the ORDINAL field should be mapped to. The MAPS_TO setting must exactly match the metadata fields configured in the metadata section of DIVAdirector. Additional metadata scrubbing and formatting settings include the following:

DTMASK

The date and time mask.

Converts the case of the text to force uppercase, lowercase, or leading case.

SPACE REMOVAL

Trims the leading or trailing spaces from a field.

Fields that are not included in the XML configuration file mapping are simply ignored by the DIVAdirector system.

OBJECT_CATEGORY

The OBJECT_CATEGORY setting specifies the default object category value. This value combined with the OBJECT_NAME value in each record of the input file locates data in the database who's metadata will be updated.

The input file's OBJECT_CATEGORY value is used for searching within objects (data containers) - unless the field mapping in the XML configuration file for the Drop Folder includes a mapping for *OBJECT_CATEGORY*. The *OBJECT_CATEGORY* setting *must* contain a value, or a valid mapping for the *OBJECT_CATEGORY must* exist.

If an asterisk was entered in the OBJECT_CATEGORY field the metadata will be updated for all objects found in the database with a matching OBJECT_NAME regardless of its category.

If the *SoloSupport* option is turned on, the following process is used (in order) to determine how objects are found:

- The matching objects will be found as is using case sensitive mode.
- If no object was found, objects will be found with a matching OBJECT_NAME in upper case (OBJECT_CATEGORY remains as is).
- **3.** If no object was found in Step 2, the objects will be searched by matching an OBJECT_NAME and OBJECT_CATEGORY in upper case.

METADATA ACTION

This setting specifies how the DIVAdirector Server should process metadata contained in the input file. This setting is only applicable when the ACTION is defined as **METADATA**. The metadata can either be present or missing, and the *METADATA*_ ACTION setting specifies the action for the Drop Folder in either scenario.

The METADATA_ACTION setting can have one of the following values:

OVERWRITE

This is the default setting and forces overwriting for all configured, mapped fields. For a given column, the value in the dropped file is replaced with the value from the DIVArchive database.

BLANK ONLY

This setting updates metadata only for blank fields in DIVAdirector. If the same value is saved, it is written only if no information for the given column is specified.

METADATA_PROCESS

The METADATA PROCESS setting specifies how the DIVAdirector Server should treat null fields in the input file. This setting is only applicable when the action is defined as METADATA.

The METADATA_PROCESS setting can contain one of the following values:

NORMAL

This (default) setting skips processing of the null input fields.

DELETE NULL

This setting nullifies the associated field in DIVAdirector for each null field and the value is then resolved from the database.

MATCHING OBJECT NOT FOUND

The MATCHING_OBJECT_NOT_FOUND setting specifies what DIVAdirector Server should do with objects not found in the database. This setting is only applicable when the action is defined as METADATA.

The MATCHING OBJECT NOT FOUND setting can contain one of the following values:

SKIP

This (default) setting returns an error in the resultant file.

CREATE VIRTUAL OBJECT

This setting creates a virtual object.

ANALYSIS Action

The ANALYSIS action has specific values only applicable to this action. The ANALYSIS action checks dropped objects for proper formatting, encapsulation values and unrecognized (in the database) objects. If a dropped object is not formatted properly, has different encapsulation than configured for the folder, or does not exist in the database, the system identifies it as unrecognized and moves the object to a special Orphan folder. You must set a daily routine to check for orphaned objects and decide what to do with them - this is discussed in "Check for Orphaned Files.". The following list identifies each METADATA action-specific parameter, what it does, and how you should configure it.

ORPHAN

The ORPHAN folder setting is applied to the ANALYSIS action and defines the full path where unrecognized input files are placed. If the input file is placed into a Drop Folder and its format is incorrect, or the object is not found in the DIVAdirector system, it is moved to the Orphan Folder.

ENCAPSULATION

The default value for the *ENCAPSULATION* setting is a double quotation mark.

RESULTANT FILE

The default value for the *RESULTANT_FILE* setting is **DISABLED**.

ARCHIVE Action

The ARCHIVE action has specific values applicable to this action. Objects dropped into an ARCHIVE action folder are sent to storage locations designated in the folder's configuration as archiving storage. You should create an ARCHIVE Action Drop Folder for each designated archive storage location. The following list identifies each ARCHIVE action-specific parameter, what it does, and how you should configure it.

COMMENTS

The COMMENTS setting specifies the default COMMENTS value for the ARCHIVE action.

DELETE ON SOURCE

This setting instructs DIVArchive to delete the original set of files on the source after tape migration is complete.

The DELETE_ON_SOURCE setting can have the values YES or NO. NO is the default value.

FIELD (Record Field Mapping)

The meaning of this *FIELD* mapping differs from the metadata mapping previously described in "FIELD (Metadata Mapping).". This FIELD mapping introduces a set of variables embedded into the FILE_NAME_LIST and FILE_PATH_ROOT settings. The example below shows the configuration, but the variables must be expanded (replaced with the actual record field values) at the action's run-time.

```
<FTELD>
<ORDINAL>1</ORDINAL>
<MAPS_TO>[variableName1]</MAPS_TO>
</FIELD>
<FTELD>
<ORDINAL>7</ORDINAL>
<MAPS_TO>[variableName7]</MAPS_TO>
</FIELD>
```

FILE NAME LIST

The FILE_NAME_LIST setting specifies the default file name list for the ARCHIVE action. DIVAdirector has the functionality for users to compose complex lists with expandable substitutions from the FIELD and MAPS_TO Drop Folder settings. The FILE_NAME_LIST value contains possible variable fields (symbolic names enclosed by dollar signs) which are substituted with values from the corresponding input fields. Each variable is expected to be mapped to the field name (MAPS_TO). Otherwise, the variable is left in the FILE_PATH_ROOT as is.

Only the OBJECT_NAME and OBJECT_CATEGORY are predefined mappings - any other mappings can be arbitrary names.

FILE PATH ROOT

The FILE_PATH_ROOT specifies the default file path root folder for the ARCHIVE and RESTORE actions. To gain a full understanding of the FILE_PATH_ROOT, the user must know the file structure on the Source/Destination.

Specifically for the ARCHIVE action this setting can contain variables (symbolic names enclosed by dollar signs). The variables whose names are found in a FIELD mapping are expanded with the actual field value at run-time; otherwise the variables are left in the FILE_PATH_ROOT as they are.

MEDIA_NAME

The MEDIA NAME setting specifies the default media name for the RESTORE, ARCHIVE, and COPY actions used to properly form the necessary DIVArchive API Archive command. The MEDIA NAME must match the name in DIVArchive.

Similar to the OBJECT CATEGORY setting, the MEDIA NAME value is necessary to form the API commands unless the field mapping in the XML configuration file for the Drop Folder includes a mapping for res media name. The value included in each record of the input file supersedes the value (if any) in the MEDIA_NAME setting.

SOURCE DESTINATION

The SOURCE_DESTINATION setting specifies the configured DIVArchive sources and destinations used for the ARCHIVE and RESTORE actions. It is important that the values configured must match the setting in DIVArchive exactly as they will be used to transparently complete the necessary Archive and Restore API commands.

The SOURCE_DESTINATION configuration settings are mandatory for the ARCHIVE and RESTORE actions, and are ignored for the METADATA and PURGE actions. The ARCHIVE action configuration should list only one source, but the RESTORE action list can have up to ten maximum destinations.

The Source/Destinations are identified by symbolic names but could represent video servers, FTP server locations, editing systems, and so on.

It is not necessary for the source and destination values to be configured in DIVAdirector for Drop Folder processing to successfully execute the archive or restore operations.

RESTORE Action

The RESTORE action has specific values applicable to this action. Objects dropped into a RESTORE action folder are sent to the storage location designated in the folder's configuration as restore storage. You create a RESTORE Action Drop Folder for each designated restore storage location. The following list identifies each RESTORE action-specific parameter, what it does, and how you should configure it.

FILE PATH ROOT

The FILE_PATH_ROOT specifies the default file path root for the ARCHIVE and RESTORE actions. The user must know the file structure on the source or destination to gain a full understanding of the FILE_PATH_ROOT.

For the RESTORE action this setting can contain variables (symbolic names enclosed by dollar signs). The variables whose names are found in a FIELD mapping are expanded with the actual field value at run-time; otherwise the variables are left in the FILE_PATH_ROOT as they are.

MEDIA_NAME

The MEDIA_NAME setting specifies the default media name used to properly form the necessary DIVArchive API command for the RESTORE, ARCHIVE, and COPY actions. The MEDIA_NAME must match the name that is in DIVArchive.

Similar to the OBJECT_CATEGORY setting, the MEDIA_NAME value is necessary to form the API commands unless the field mapping in the XML configuration file for the particular Drop Folder includes a mapping for res_media_name. The value included in each record of the input file supersedes the value in the MEDIA_NAME setting.

INSTANCE

Because multiple instances of a single object can be present within the DIVArchive system, the *INSTANCE* setting specifies which instances of the file to perform the

RESTORE, COPY, and PURGE actions on. This parameter is optional for all of these actions, but you can specifically instruct the DIVArchive system to use a particular instance of the object to complete a request. The value for this setting can be any integer.

SOURCE DESTINATION

The SOURCE DESTINATION setting identifies the configured DIVArchive sources and destinations used for the ARCHIVE and RESTORE actions. It is important to note that the values configured must match the setting in DIVArchive exactly as they will be used to transparently complete the necessary Archive and Restore API commands.

The SOURCE_DESTINATION configuration settings are mandatory for the ARCHIVE and RESTORE actions, and are ignored for the METADATA and PURGE actions. The ARCHIVE action configuration should list only one source, but the RESTORE action list can have up to ten maximum destinations.

The Source/Destinations are identified by symbolic names but could represent video servers, FTP server locations, editing systems, and so on.

It is not necessary for the source and destination values to be configured in DIVAdirector for Drop Folder processing to successfully execute the Archive or Restore operations.

COPY Action

The COPY action has specific values applicable to this action. Objects dropped into a COPY action folder are copied to storage location designated in the folder's configuration as a storage destination. You create a COPY Action Drop Folder for each designated storage destination location. The following list identifies each COPY action-specific parameter, what it does, and how you should configure it.

INSTANCE

Because multiple instances of a single object can be present within the DIVArchive system, the *INSTANCE* setting specifies which instances of the file to perform the RESTORE, COPY, and PURGE operations on. This parameter is optional for all of these actions, but you can specifically instruct the DIVArchive system to use a particular instance of the object to complete a request. The value for this setting can be any integer.

PURGE Action

The PURGE action has specific values applicable to this action. Objects dropped into a PURGE action folder are deleted from a storage location designated in the folder's configuration. You create a PURGE Action Drop Folder for each designated storage location where objects may need deletion. The following list identifies each PURGE action-specific parameter, what it does, and how you should configure it.

INSTANCE

Because multiple instances of a single object can be present within the DIVArchive system, the *INSTANCE* setting specifies which instances of the file to perform the RESTORE, COPY, and PURGE operations on. This parameter is optional for all of these actions, but you can specifically instruct the DIVArchive system to use a particular instance of the object to complete a request. The value for this setting can be any integer.

Next you will go through the XML Wizard used for configuring Drop Folders.

Using the XML Wizard

The Import Drop Folder Configuration dialog box (also known as the XML Wizard) is a Windows wizard-style tool for you to create and edit Drop Folder configuration XML files. You may configure and edited directly the XML files as discussed in the following section, but the wizard makes these tasks easier and quicker. It visualizes the process of creating the Drop Folder configuration file, and assists in configuration validation and consistency.

To invoke the wizard, add a new Drop Folder or select an existing one in the DIVAdirector Server Configuration dialog box and click **Settings**.

ACTION Screen

The Action screen is the first screen in the wizard. You select the Drop Folder *ACTION* and add a Drop Folder **DESCRIPTION** string on this screen.

- Select the Drop Folder's action from the *ACTION* list.
- Enter a description in the *DESCRIPTION* field. Descriptions should be vivid enough for you and your users to determine exactly what the folder does when a file is dropped into it.
- Click **Next** to advance to the next screen.

Settings Screen (Next or Final)

The Settings screen is the first screen where all Drop Folder parameter values (except field mappings) are specified.

For Import Drop Folders you will click Next to continue to the Field Mappings screen before completing the wizard.

Since there are no field mapping values needed for a Proxy Drop Folder, this screen is the final screen. After entering the necessary values, click Finish to complete the wizard.

The following points are significant during the configuration process:

- After selecting an INTERVAL item from the list, make sure you replace all XX or XXX placeholders with the actual values required.
- The RECORDS_TO_PROCESS value does not affect Metadata Drop Folders.
- The FILE_CODE_PAGE values that are currently supported include 1252 (Windows Latin-I, Western European) and 1255 (Windows Hebrew). If the dropped files contain any characters that do not correspond to an available code page, Unicode (little-endian) must be used with files for importing.
- To make a SOURCE_DESTINATION list of several items, use the Plus or Minus button to correspondingly add or remove currently displayed items.
- PRIORITY values cannot be entered other than the ones present in the list. Edit the configuration file manually to enter a numeric value between 0 and 100.
- FILE_PATH_LIST and FILE_PATH_ROOT values can be set regardless of whether the corresponding mappings were added on the wizard's next Field Mappings screen. The variable names are not verified in any way for matching with field mappings intended for use.
- Use the lists to select each parameter's value.
- Enter the values into the fields as necessary.
- Click either **Finish** (for Proxy Drop Folders) or **Next** (for Import Drop Folders).

The Settings screen has the following parameters specifically for the PROXY action:

ORPHAN

The *ORPHAN* folder setting is applied to the PROXY action and defines the full path where the unrecognized proxy files are placed. If a proxy is dropped and the file name is not lost, it is moved to the Orphan Folder. This requires you to periodically check the folder and decide what to do with any files located in the folder.

OBJECT_CATEGORY

The OBJECT_CATEGORY setting defines which category should be associated with the dropped proxy. This setting is disabled if **OBJECT NAME + OBJECT CATEGORY** is selected in the *NAME_FORMAT* setting.

NAME FORMAT

The NAME_FORMAT setting defines the proxy file name format to be used. The proxy file must be dropped into the Proxy Drop Folder to be correctly registered in DIVAdirector.

LANGUAGE

The LANGUAGE setting is responsible for how DIVA director defines the language in the audio proxy files. Use the *LANGUAGE* list to select the appropriate format.

Field Mapping Screen (Final)

The XML Wizard starts this page with a blank list. You must add and configure all field mappings required to have them available during import operations.

The following points are significant during the field mapping process:

- After adding a new mapping template, its ORDINAL value is set to zero. A zero ORDINAL value is not allowed in the field mappings and therefore it must be modified.
- In the case of the ARCHIVE action (specifically), the MAPS_TO setting may be filled with the variable name to be used in the FILE_PATH_LIST and the FILE_ PATH_ROOT settings. Make sure the value is entered correctly, independent of the variable definition or usage.
- 1. Click **Add** on the bottom left of the screen to add a new field mapping.
- Select the necessary field mapping parameter and click **OK**. You will be returned to the Field Mapping screen.
- **3.** Enter the value for the new parameter.
- Repeat these steps for each field mapping required.
- Click **Finish** to save the changes.

If one or more invalid values were entered during the configuration process you will receive one of two error messages. Each message contains either the name of the parameter where the error was detected or a Drop Folder logic violation description.

The first type of error message includes the error found and the parameter causing the error. The second type of error message includes only the logic error description, but the parameter value causing the error is included in the description.

If either one (or both) of these messages is received, return back to the corresponding wizard page and fix the value causing the error - then click Finish to complete the wizard.

The following section discusses editing XML configuration files directly.

Direct Editing of XML Configuration Files

The XML configuration file defines the configuration parameters for the Drop Folder. Several generic rules apply to the XML tags including:

- If the XML tag's setting is omitted the default value is applied.
- Meaningless settings in the current action context are ignored even if present in the XML configuration file.
- All settings values are not case sensitive.

When you are editing an XML configuration file directly (rather than using the XML Wizard), only edit the file using a plain-text Unicode editor. Use of word processing programs (such as Microsoft Word) adds extra hidden formatting codes into the files when they are saved. These codes will corrupt the Drop Folder's XML file. You should only use an editor like Notepad or Notepad ++ and save the file as Unicode.

The Drop Folder XML configuration file can include the following configuration parameters:

ACTION

The action to be performed on the files located within the Drop Folder; such as ARCHIVE, COPY, RESTORE, and PURGE.

CLEAN UP INTERVAL

Specifies how long an import file may stay in a Drop Folder.

COMMENTS

Specifies the default *COMMENTS* value for the ARCHIVE action.

DATABASE_CHECK

Specifies whether the DIVAdirector system should verify the existence of the particular object name in each record of the input file for RESTORE, ARCHIVE, and PURGE actions before issuing the appropriate DIVArchive command.

DD REQUEST SET SIZE

Specifies the size of a set of requests sent to DIVArchive that cannot be interrupted by getting the DIVArchive Request Queue Size.

DD SLEEP INTERVAL

The interval that must elapse between sending sets of requests to DIVArchive.

DELETE_AFTER_PROCESS

Specifies whether DIVAdirector should delete the input file once processing has completed or leave the input file as is for subsequent processing. This is useful for situations with a large input file metadata for many objects which, over time, will be ingested and archived to DIVArchive. The file remains in the Drop Folder until processing is successful.

DELETE ON SOURCE

Instructs DIVArchive to delete the original set of files on the source after Tape Migration completion.

DESCRIPTION

You should include a logical description for the function of each Drop Folder so it is easily identifiable to you and your users. This description will appear in the DIVAdirector Server GUI for easy reference.

DIVA_MAX_QUEUE_SIZE

Specifies the maximum allowable DIVArchive request queue size.

ENCAPSULATION

Specifies the encapsulating character used to enclose each value contained within the input file, such as a single quotation mark, double quotation mark, or no encapsulation.

FILE CODE PAGE

Defines the rule on how a non-Unicode import file must be interpreted.

FILE NAME LIST

Specifies the default file name list for the Archive operation. DIVAdirector functionality gives users the ability to compose complex lists with expandable substitutions retrieved from the FIELD and MAPS_TO Drop Folder settings.

FILE PATH ROOT

Specifies the default *File Path Root* for archive and restore operations.

FORMAT

Defines the expected format of the input files. Currently, the system supports only the Flat File format. Depending upon the option selected for this setting, only files in the specified format should be placed into the Drop Folder.

HEADER_ROW

The section header that implies an XML tag and contains the possible configuration setting values.

INSTANCE

Used to specify which instances of the file to perform the RESTORE, COPY, and PURGE actions on.

INTERVAL

Defines how often and when to process files in the Drop Folder.

LANGUAGE

Specifies from where DIVA director should extract the language of an audio proxy file.

MATCHING_OBJECT_NOT_FOUND

Specifies what DIVA director should do with objects not found in the database. This will either be to return an error or to create a virtual object.

MEDIA NAME

Specifies the default media name for the RESTORE, ARCHIVE, and COPY actions used to properly form the necessary DIVArchive API Archive command.

METADATA_ACTION

Specifies how DIVA director should process metadata contained in the input file.

METADATA MAPPING

This setting specifies how the metadata columns are interpreted. It details the field mapping between the fields in the input file and the necessary fields in the DIVAdirector and DIVArchive systems.

METADATA PROCESS

Specifies how DIVAdirector should treat null fields in the input file.

NAME FORMAT

Specifies how DIVAdirector should extract the name and category from the proxy file name.

OBJECT_CATEGORY

Specifies the default object category for specific actions such as PURGE, ARCHIVE, RESTORE, and COPY. The object category value is used in combination with the object name found in each record of the input file to properly form the necessary DIVArchive API commands.

OPTIONS

Specifies the default options for the ARCHIVE and RESTORE actions and contains the login and password parameters for the available sources and destinations.

ORPHAN

Applied to the PROXY action and defines the full path where the unrecognized proxy files are placed. If the proxy connection is dropped and the file name is not lost, then it is moved to the Orphan Folder. This requires you to periodically check the Orphan Folder and decide what to do with the files.

PATH

Defines the Root Proxies Folder used as proxy storage. Every individual proxy file is placed into a randomly selected subfolder named 0 to 500. Users typically cannot access proxy storage directly because of the security settings. The only way for users to play proxies is by logging into the DIVAdirector system as a user authorized to play proxies

PRIORITY

Specifies the default priority level for the ARCHIVE, RESTORE, COPY, and PURGE actions.

QUALITY_OF_SERVICE

Specifies the default Quality of Service for the ARCHIVE and RESTORE operations.

RECORDS TO PROCESS

Specifies the maximum number of records to process in the particular input file. This allows some level of control over the number of requests which could potentially flood the DIVArchive system.

RESULTANT_FILE

This setting defines whether the DIVAdirector system creates a single or multiple resultant files following the processing of an input file.

RESULTANT_FILE_PATH

Specifies the path where DIVA director should place the processed files with the results of the processing operation.

SEPARATOR

Specifies how the values within each line of the input file must be separated for the Drop Folder.

SOURCE DESTINATION

Specifies the path where DIVA director should place the processed files with the results of the processing operation.

SPACE_REMOVAL

Specifies whether DIVAdirector should trim leading spaces, trailing spaces, or both for data contained in each of the input field values.

URL

Defines the URL Path relative to a DIVAdirector web server Root Path. It is always safe to set it to /proxies for any Proxy Drop Folder.

Next you will configure parameters specific to DIVArchive operations.

Import Drop Folder DIVArchive Specific Configuration

The RESTORE, ARCHIVE, COPY, and PURGE DIVArchive operations for the Import Drop Folders have specific parameters that can be applied only for these types of actions. The following common parameters are available for all four types of actions:

DATABASE CHECK

The DATABASE_CHECK setting specifies whether the DIVAdirector system should verify the existence of the particular *OBJECT_NAME* in each record of the input file for the RESTORE, ARCHIVE, COPY, and PURGE actions before issuing the appropriate DIVArchive command.

Whether a file is present in the DIVA director database, the file is always selected within DIVArchive. Files can also have double registration (that is, instances in both DIVAdirector and DIVArchive).

The DATABASE_CHECK setting can contain the following values:

YES

This is the default setting and checks the database for the existence of the object.

No database check is performed.

DD SLEEP INTERVAL

The DD_SLEEP_INTERVAL setting is an interval that must elapse between sending sets of requests to DIVArchive. The default value for this setting is 60 seconds.

DD_REQUEST_SET_SIZE

The DD_REQUEST_SIZE setting specifies the size of a set of requests sent to DIVArchive that cannot be interrupted by getting the DIVArchive Request Queue Size. The default value for this setting is 10.

DIVA_MAX_QUEUE)_SIZE

The DIVA_MAX_QUEUE_SIZE setting specifies the maximum DIVArchive request queue size allowed. The default value for this setting is 150.

This setting limits the load on the DIVArchive system because DIVArchive Drop Folders can easily flood the system with automatically generated requests.

Before issuing the next set of requests, DIVAdirector Server receives the current queue size. If it is greater than the corresponding Drop Folder setting value, the server ceases requesting for the *DD_SLEEP_INTERVAL* time.

PRIORITY

The *PRIORITY* setting specifies the default priority level for the ARCHIVE, RESTORE, COPY, and PURGE actions. You can use any integer number between 0 and 99 to specifically identify a priority value for processing files in that Drop Folder.

The *PRIORITY* setting can have one of the following values:

NORMAL

50 (default)

MIN

0

LOW

25

HIGH

75

MAX

99

RECORDS_TO_PROCESS

The RECORDS_TO_PROCESS setting specifies the maximum number of records to process in a particular input file. This allows some level of control over the number of requests which could potentially flood the DIVArchive system. The DIVAdirector system processes the first set of records in the input file as defined by this setting. It is assumed that the number of all records is less than one hundred.

The *RECORDS_TO_PROCESS* setting can have the following values:

100

This is the default setting and processes a maximum of 100 records.

This setting processes all records in the input file and is the most commonly used.

NNN

This can be an integer (NNN) number of records to process in the input file. The value is specified by the administrator.

QUALITY_OF_SERVICE

The QUALITY_OF_SERVICE setting specifies the default Quality of Service for ARCHIVE and RESTORE actions.

The QUALITY_OF_SERVICE setting can have one of the following values:

The default setting is configured by the DIVArchive System Administrator.

Cache Only

This setting uses only objects that have been cached.

Direct Only

This setting uses only objects that are directly accessed.

Cache and Direct

This setting uses both cached and direct objects and the cached objects have precedence.

Direct and Cache

This setting uses both direct and cached objects and the direct objects have precedence.

ARCHIVE Action Parameters

The ARCHIVE Drop Folder operation provides a list-based content archive feature allowing objects to be automatically moved into DIVArchive based on the contents of a file. The ARCHIVE Drop Folder operation is based on the following configuration parameters:

- The XML configuration file defines which fields in the flat file contain the OBJECT_NAME and OBJECT_CATEGORY to be processed, and which DIVArchive source is used for the Archive API command.
- Only a single DIVArchive storage location can be identified in the XML file.
- DIVAdirector processes the flat file, record by record, and issues the DIVArchive Archive command for each *OBJECT_NAME* found in the flat file for the storage location configured in the XML configuration file.
- All records in the objects are processed because the files may or may not exist in DIVArchive at the time of processing. Therefore, the *DATABASE_CHECK* setting is not applicable to this action type.

COPY Action Parameters

The COPY Drop Folder operation provides a list-based copy feature for DIVAdirector to create new instances of objects within the DIVArchive system for operations, for example content pre-staging to a managed disk. The COPY Drop Folder operation is based on the following configuration parameters:

- The XML configuration file defines which fields in the input file contain the OBJECT_NAME and OBJECT_CATEGORY whereby a new instance will be created, and which DIVArchive media names are the targets of the copy operation.
- The defined media names must exist in DIVArchive.
- Because of the nature of the copy operations, multiple media names can be defined in each Drop Folder's XML configuration file. DIVAdirector issues a separate copy request for the object found in each input file record for each of the media names in the XML configuration file.
- Objects that are located in the input file but not found in DIVAdirector are either skipped and logged to the Results File, or processed blindly based on the XML configuration file's DATABASE_CHECK value.
- The priority for the COPY action is defined in the XML configuration file for the particular folder.
- Each record in the input file can also contain the OBJECT_CATEGORY corresponding to the particular OBJECT_NAME, or the OBJECT_CATEGORY can be globally defined in the XML configuration file for all input files placed in the Drop Folder.
- The OBJECT CATEGORY in each input file record supersedes any globally configured in the XML configuration file only if the OBJECT_CATEGORY parameter is configured as one of the mapped fields in that Drop Folder.

RESTORE Action Parameters

The RESTORE Drop Folder operation provides a list-based restore feature for DIVAdirector to copy objects and files to a set of identified storage locations. The RESTORE Drop Folder operation is based on the following configuration parameters:

- The XML configuration file defines which fields in the input file contain the OBJECT_NAME and OBJECT_CATEGORY to be processed, and which DIVArchive storage locations are the targets of the restore operation.
- The defined storage locations must exist in DIVArchive, but may or may not be configured in DIVAdirector.
- Because of the nature of the restore operation, multiple destinations may be defined in each Drop Folder's XML configuration file. DIVAdirector will issue a separate restore request for the OBJECT_NAME found in each input file record for each of the storage locations in the XML configuration file.
- Objects that are located in the input file but not found in DIVAdirector are either skipped and logged to the Results File, or processed blindly based on the XML configuration file's DATABASE_CHECK value.
- The priority for the RESTORE action is defined in the XML configuration file for the particular folder.
- Each record in the input file can also contain the OBJECT_CATEGORY corresponding to the particular OBJECT_NAME, or the OBJECT_CATEGORY can be globally defined in the XML configuration file for all input files placed in the Drop Folder.
- The OBJECT CATEGORY in each input file record supersedes any globally configured OBJECT_CATEGORY setting in the XML configuration file only if the OBJECT_CATEGORY is configured as one of the mapped fields in the Drop Folder.

PURGE Action Parameters

The PURGE Drop Folder operation provides a list-based content purging feature for DIVAdirector to remove objects and files from DIVArchive based on the contents of a

WARNING: You should be very careful when defining a Drop Folder to perform the PURGE action as files will be processed blindly and any matching objects will be removed from the DIVArchive system. There is currently no function available to undo the purge operation once an object has been deleted.

The PURGE Drop Folder operation is based on the following configuration parameters:

- The XML configuration file defines which fields in the flat file contain the OBJECT_NAME and OBJECT_CATEGORY to be processed.
- DIVAdirector processes the flat file record by record and issues DIVArchive delete commands for each OBJECT_NAME found in the file.
- Objects that are located in the input file but not found in DIVAdirector are either skipped and logged to the Results File, or processed blindly based on the XML configuration file's DATABASE_CHECK value.
- The priority for the PURGE action is defined in the XML configuration file for that particular folder in addition to any other necessary parameters.
- Each record in the input file may also contain the OBJECT_CATEGORY corresponding to the particular OBJECT_NAME, or the OBJECT_CATEGORY can be globally defined in the XML configuration file for all input files placed in the Drop Folder.

The OBJECT_CATEGORY in each input file record supersedes any globally configured in the XML configuration file only if OBJECT_CATEGORY is configured as one of the mapped fields in the Drop Folder.

Next you will configure the logging system for the DIVAdirector system and Drop Folders.

Logging Configuration

Now that the storage is configured for the system, you must configure the log files. There are two sets of log files used in DIVAdirector.

DIVAdirector Server Log Files

DIVAdirector Server has a generic logging system that produces log files related to all server tasks *except* Drop Folder processing.

Drop Folder Log Files

Drop Folder Logs contain common information regarding the general Drop Folder operation mechanisms and possible general error state processing in the DIVA director Server.

DIVAdirector Server Logging Configuration

The DIVAdirector Server logs contain common information regarding the various server operations and possible operation processing error information.

The logging system is intended for server troubleshooting activities and is completely disabled by default. Custom log levels (described in the following section) are configurable to obtain various amounts of information. If a custom log level setting is not defined, level 0 is applied by default.

The log settings are applied during DIVAdirector Server startup. The settings can be changed during server operation, but a server restart is required for the system to recognize and apply the new setting.

Log Levels

The server logging function has several different custom levels. Each level identifies a specific amount of information to be logged during server operation.

Edit the [Startup] section of the DIVAdirector_HOME\cmg-server\cmgserver.ini to set a custom log level.

```
[Startup]
LogLevel=[custom log level]
```

The available custom log levels are as follows:

Logging disabled.

Server errors - this level will only log server-based errors.

Warning messages - this level will log both server errors and warning messages. This is the recommended log level setting.

3

Informational messages - this level will log server errors, warning messages, and informational messages. Setting the log level to Level 3 can cause large log files to be created and is not recommended unless instructed to do so by Oracle Support.

Debug level - Avoid setting this value because of the amount of log records generated. When requesting Oracle Support assistance, you may asked to set the logging level to 4 for troubleshooting purposes.

Log File Name

The server log file name may be specified in a fully qualified or relative form. If this parameter is omitted, the default log file name _cmgserver.log is applied. Since the default name is a relative path, the log file is created in the folder from where the DIVAdirector Server is started.

Edit the [Startup] section of the DIVAdirector HOME\cmg-server\cmgserver.ini file to set a custom log file name

```
LogFileName=[custom log file name]
```

Log File Size and Cycling

WARNING: Currently, there is no automated log file cleanup mechanism in the DIVAdirector Server. Be careful of outdated log files that are accumulated during server operation.

You should create a batch file to remove out of date log files periodically and use the Windows Task Scheduler to create a task to run the batch file daily during non-production hours.

The server log grows during normal DIVA director Server operation. To prevent uncontrolled file growth, the log file is verified for a size limit during each log operation. If the file size exceeds the limit, it is closed and renamed according to the following template:

```
original-log-file-name_timestamp.original-file-extension
```

Where *timestamp* is the time the file was renamed. The timestamp string format is YYYYMMDD-hhmmss and designated as follows:

```
YYYY = year
MM = month
DD = day of month
hh = hours (0 - 23)
mm = minutes (0 - 59)
ss = seconds (0 - 59)
```

If the Server Log File Size Limit is not specified, the default 4 MB value is applied. To set a custom Server Log File Size Limit, edit the [Startup] section of the DIVAdirector HOME\cmg-server\cmgserver.ini file.

```
[Startup]
LogFileSize=[custom file size limit in bytes]
```

Drop Folder Logging Configuration

The Drop Folder logging system is designed to always be enabled. You cannot disable the Drop Folder Log but you can reduce the bulk of log records by setting a lower Log Level.

Log Levels

Drop Folder Log Level settings are intended to provide flexible event logging depending upon your current needs. The setting is applied when DIVA director Server is started. The level can be changed during server operation, but a server restart is required for the system to recognize and apply the new setting. If this setting is omitted log level 0 is applied by default.

The available log levels are:

0

Messages of the highest priority, including the general logging system events (for example, initialization and shutdown) and operational results.

Drop Folder initialization errors only.

Drop Folder configuration file parsing errors and initialization errors.

Generic Drop Folder action errors, file parsing errors, and initialization errors.

Other types of Drop Folder errors.

Greater than 4

The levels above level 4 are intended for Drop Folder troubleshooting purposes only. It is highly recommended to generally avoid setting these higher values unless instructed to do so by Oracle Support because of the amount of log records generated.

Edit the [Startup] section of the DIVAdirector_HOME\cmg-server\cmgserver.ini file to set a custom Drop Folder log level.

```
[Startup]
DropFoldersLogLevel=[custom log level]
```

Log File Name

The Drop Folder log file name can be specified using a fully qualified path and file name, or a relative form (file name only). If this setting is omitted, the default log file name DropFolders.log is applied. Since this default name is a relative path, the log file is created in the folder from where DIVAdirector Server starts.

Edit the [Startup] section of the DIVAdirector_HOME\cmg-server\cmgserver.ini file to set a custom Drop Folder log file name.

```
[Startup]
DropFoldersLogFilename=[custom log file name]
```

Log File Size and Cycling

WARNING: Currently there is no automated log file clean-up mechanism in DIVAdirector Server. You must manually take care of the outdated log files that are accumulated during server operation.

It is recommended that System Administrators create a batch file to remove out of date log files periodically and use the Windows Task Scheduler to create a task to run the batch file daily during non-production hours.

The Drop Folder log grows during normal DIVAdirector Server operation. To prevent uncontrolled file growth, the log file is verified for a size limit during each log operation. If the file exceeds the limit, it is closed and renamed according to the following template:

```
OriginalLogFilename_Timestamp.OriginalFileExtension
```

Where *Timestamp* is the time the file was renamed. The timestamp string format is YYYYMMDD-hhmmss and designated as follows:

```
YYYY = year
MM = month
DD = day of the month
hh = hours (0 - 24)
mm = minutes (0 - 59)
ss = seconds (0 - 59)
```

If the log file size limit is not specified, the default 4 MB value is applied. Edit the [Startup] section of the DIVAdirector_HOME\cmg-server\cmgserver.ini file to set a custom Drop Folder Log File Size Limit.

```
[Startup]
DropFoldersLogFileSize=[custom file size limit in bytes]
```

Next you will add new organizations, groups and users.

Account Configuration

DIVAdirector is a permission-based system that allows a limited number (approximately forty to fifty depending on system resources) of simultaneously logged in users. Any user accessing the system must be validated through the login procedure. To be authorized to access the system, the user must enter a valid login email address and password specific to the user account. You can log in with the user name admin for the email address and your administrative password.

There are three categories (or levels) of user accounts (other than the Administrator) in DIVAdirector structured as follows:

- Organizations this is the top level account for different internal departments. Organizations are comprised of Groups.
- Groups this is the second level account for different groups within an organization. Groups are comprised of Users.
- Users this is the third level account for individual system users. Users are members of Groups.

First you will configure a new organization.

Adding a New Organization

Organizations are comprised of a set of groups. Organizations allow restricting access to information from users outside of the organization or group who do not require access to the data. For example, a company may not want to make its data viewable to other companies, or a department within a company may not want its data to be viewable by other departments within the same company. In these two scenarios the entire company, or the specific department, desiring restricted access can be represented by an Organization in DIVAdirector.

Use the following procedure to create an organization:

- Navigate to **Admin**, **Users**, and then **Organizations** in the navigation tree on the left of the screen.
- Click the + next to the **Users** tree item to expand the tree.
- Select **New Organization** in the *Organization* list.
- Enter the Organization Name in the *Organization Name* field.
- Enter the *LDAP Setting* if an LDAP login is required.
- In the Permissions area enter any *Objects*, *Categories* and *Sites* multiple entries are separated by a semicolon. Use an asterisk to denote wildcards (for example ABC*, AB*D, and so on). The Site permissions are extremely important because they allow the organization to access objects on specific sites that match the filter.
- 7. Identify the *Metadata Access* fields that will be accessible by the organization by selecting the check box to the right of the metadata name. If the check box is deselected the organization will not have access to that metadata field. Groups within an organization may refine their authorized selections further.
- Click **Save** on the top right of the screen to save the information.

Next you will add a new group.

Adding a New Group

Groups are collections of users and part of an organization. Each group is assigned a set of permissions to grant users of the group access to specific system features and functions. Groups are customizable and configurable to fit organizational security requirements. By default, the system is installed with two user groups - SuperAdmin and admins.

The SuperAdmin group is the most powerful group in the system because it contains the admin (root) user. Users who are members of the SuperAdmin group are the only users who have complete access to all permissions, configuration parameters, queries, work bins, and shotlists for every other user in the system.

When creating a new group you give the new group a unique name. Group names should be descriptive and unambiguous to make further system administration and maintenance simple and clear. Group names must not exceed 32 characters.

Use the following procedure to create a group and set the group's permissions:

- Navigate to **Admin**, **Users**, and then **Groups** in the navigation tree. The screen will initially display with the Profile tab selected.
- Select the **New Group** option from the *Group* list.

- **3.** Enter the new group name in the *Group Name* field.
- **4.** Select the group's organization from the *Organization* list.
- **5.** Click **Save** on the top right of the screen to create the new group.

Group Roles

Now that the group has been created and associated with the correct organization, you must identify the roles for the group.

All users, regardless of their group's roles, always have access to the **Operation Status**, Change Password and Logout functions. Only the SuperAdmin has access to the DIVAdirector Server screen, Shortcuts screens, and Public Resources and Synchronization Filters on the Discover screen.

The set of roles a user currently has is passed to the application only once during user log in. Any changes you make to user permissions will take effect on the user's next session login.

Only logging out of the system ends a session. A user session timeout (one hour) does not result in a terminated session and renewing the session retains the user's permissions from before any changes were made.

View Queries and Save Advanced Searches

Allows users to perform advanced searches and persists history of queries performed. If a user does not have this permission, then the Query Results and Create/Display Query panels will not appear on the Search screen.

Create and View Work Bins

Allows users to create personal and public work bins and perform actions within them.

Modify Asset Metadata

Allows users to modify the object metadata within the Search and Shot List screens. If this permission is disabled the metadata is displayed to the user in a read-only format.

Create Shot Lists

Allows users to access the Shot List screen, add objects and segments of proxies, and perform file management and editing operations. If the user does not have this permission, Edit (and the icons) will not be displayed on the Query Results and Work Bin panels, and the **Shot List** menu item will not be displayed.

Publish Shot Lists

Allows users to create their own public Shot Lists. If this permission is disabled, Make *Public* will not be displayed on the Shot List panel.

View Asset Proxies

Allows users to view the proxy and also enables **Play**.

Download Proxies

Allows users to download proxy videos to their local system.

Modify Annotations

Allows users to have the ability to add, edit, and delete annotation metadata.

Archive from Source

Allows users to archive new data to DIVArchive long-term storage.

Delete

Allows users to delete object instances from DIVArchive long-term storage.

Allows users to restore objects from DIVArchive long-term storage, making them available for immediate access on the specified destination (for example, an ftp destination or a video server).

Partial Restore

Allows users to perform partial file restore operations on the selected file in the Shot List.

Local Archive

Allows users to perform archive operations on files stored on the client computer.

Local Restore

Allows users to restore files to the DIVAdirector Server and to be able to download the restored files.

Local Partial Restore

Allows users to partially restore files to the DIVA director Server and to be able to download the restored files.

Create Virtual Assets

Allows users to create virtual objects.

Local Proxies

Allows users to drop proxy files in the Proxy Drop Folder after uploading them from the client computer.

Local Metadata

Allows users to drop metadata in the Metadata Drop Folder after uploading it from the client computer.

Discover Objects and Manage Requests

Grants users access to administrative functionality for discovering objects within DIVArchive and managing system requests. You access the discovery functionality by navigating to the Admin/System/Discover screen and allows users to perform ad hoc discoveries. Request management is performed on the Operation Status screen and allows users with this permission to manage the request priority or cancel requests in the system.

User Management

Allows users to access the Admin/Users/User screen and manage Groups, Users, and *Permissions.* If the user does not have this permission, the **User** menu under the **Admin** navigation tree is not displayed.

Modify Metadata Schema

Allows users to access the Admin/Metadata screen to manage Asset Metadata fields by viewing, editing, adding, and deleting metadata columns.

Modify Interface Style

Allows users to access the Admin/Systems/Style screen and to upload a new banner logo image. The banner logo image is used for customizing the look and feel of DIVAdirector by adding an organization's logo on the top right corner of all pages.

Modify Policies and Settings

Allows users to edit system policies (located on the System/Policies screen) and edit the default settings (located on the System/Defaults screen).

Administer Database Backups

Allows users to access the Perform Database Backup Operations area located on the Admin/Backup screen. Backup operations include viewing the last operation, scheduling an automatic backup, and performing a manual backup or restore.

Display Site Information

Allows the site information to be viewable.

Allow Audit Trail

Enables or disables the audit trail. The audit trail is located on the System/Audit Trail screen.

Session Management

Enables or disables session management. The session management is located on the System/Session Management screen.

Use the following procedure to set the group member's roles:

- 1. Navigate to **Admin**, **Users**, and then **Groups** in the navigation tree.
- **2.** Click the **Permissions** tab.
- **3.** Configure the appropriate roles for the group using the check boxes in the *Privileges* area. A selected check box indicates that the group has been granted permission to that function. A deselected check box indicates that the group has been denied permission to the function.
- **4.** Click **Save** on the top right of the screen to save the new group and associated permissions.

Next you will setup the content filters.

Content Filters

Group-based filters are configured on the Permissions screen. Any changes made and saved in the filters are applied immediately for all currently logged in users associated with the group. The *Content Filter* allows users to see only data complying with a set of *Include* and *Exclude* filters for *Object Name*, *Object Category*, and *Sites*.

The *Content Filter* is a table with six fields at the bottom of the Permissions screen. All of the fields in the table are initially blank. A blank *Exclude* field means exclude nothing, and blank *Include* field means include everything. The content filters are applied to both queries and work bins, but do not affect Shot Lists and the Status screen.

The three *Include* fields define what objects, categories and sites can be discovered by the user, and the three *Exclude* fields define what objects, categories and sites cannot be discovered by the user.

Each field can have multiple filters separated by semicolons. Use an asterisk as a wildcard symbol if desired. The filter can also be blank or have white space indicating that no filtering is required; white spaces between filters are ignored.

Next you will configure DIVArchive Operational Parameters.

DIVArchive Operations

The parameter values for the following DIVArchive operations are configured on the **DIVArchive Settings** tab on the Admin/Users/Groups screen. Not all parameters are applicable to all operations. Valid operational parameters are as follows:

Archive

Valid parameters are Source, Media, Storage Plan, QoS, Priority, and Category.

Local Archive

Valid parameters are Source, Media, Storage Plan, QoS, Priority, and Category.

Restore

Valid parameters are *Destination*, *QoS*, and *Priority*.

Local Restore

Valid parameters are *QoS*, and *Priority*.

Partial File Restore (PFR)

Valid parameters are *Destination*, *QoS*, *Priority*, *File Format*, and *PFR Name Format*.

Delete

Valid parameter is *Priority*.

The valid parameters for each operation are applied according to the following descriptions:

Source

The *Source* parameter defines a list of DIVArchive source storage locations for DIVArchive operations. Users only see the selected sources in the list. Whichever DIVArchive source is chosen to be the default will appear as the default item in the user's list.

Destination

The **Destination** parameter defines a list of DIVArchive destination storage locations for DIVArchive operations. Users only see the selected destinations in the list. Whichever DIVArchive destination is chosen to be default will appear as the default item in the user's list.

Media

The *Media* parameter defines a list of DIVArchive media for DIVArchive operations. Users only see the selected media in the list. Whichever DIVArchive media is chosen to be the default will appear as the default item in the user's list.

Storage Plan

The *Storage Plan* parameter defines a list of DIVArchive storage plans for DIVArchive operations. Users only see the selected storage plans in the list. Whichever DIVArchive storage plan is chosen to be the default will appear as the default item in the user's list.

Quality of Service (QoS)

The *QoS* parameter defines the Quality of Service for DIVArchive operations. The available choices are Default, Cache, Direct, Cache and Direct and Direct and Cache. If the Force Default Value check box is selected, the chosen option cannot be changed by the user before executing an operation.

Priority

The *Priority* parameter defines the execution priority of DIVArchive operations. This parameter has a minimum value of 0 and maximum value of 100 - where 100 is the

highest priority. If the Force Default Value check box is selected, the chosen option cannot be changed by the user before executing an operation.

Category

The *Category* parameter defines a list of object categories for DIVArchive operations. Only the selected categories will be included in the user's list. The list will be initially empty; clicking + allows new categories to be added.

File Format

The *File Format* parameter defines the format of the high-resolution files stored in DIVArchive for partial file restore operations.

PFR Name Format

The *PFR Name Format* parameter defines the file name format for files displayed in the partial file restore operation results. The first list contains the types of separators used in the name format (underline, dash, or period). The second list contains additional name construction types as follows:

- **none:** the object name is used as the file name; additional construction is not used.
- 1: one digit of the segment number in the Shot List is added to the file name with the separator (for example, objectname_1.gxf).
- 2: two digits of the segment number in the Shot List are added to the file name with the separator (for example, objectname_01.gxf).
- 3: three digits of the segment number in the Shot List are added to the file name with the separator (for example, objectname_001.gxf).
- 4: four digits of the segment number in the Shot List are added to the file name with the separator (for example, objectname_0001.gxf).
- **SOM-EOM:** time codes are used in the file name (for example: [objectname_ start-timecode-of-segment]-[end-timecode-of-segment]).

The *Use Relative TC* check box determines whether relative or absolute timecodes are used in the PFR file name construction and the partial file restore operation.

Next you will configure Virtual Asset Categories.

Virtual Asset Categories

You configure a list of categories for creating virtual objects on the Virtual Asset **Settings** tab. Users only see the selected categories in the list. The list will initially be empty and you must populate it.

Use the following procedure to add a virtual object category:

- 1. Click + and enter the Category Name in the *Category Name* field.
- Select the check box to the right of the category name to set it as the default. Whichever category is chosen to be the default appears as the default item in the user's list.
- **3.** Repeat Step 1 for each category required.
- Click **Save** on the top right of the screen to save the entries.

Next you will configure Data Export Roles.

Data Export

You choose the data export settings for the group from three lists on the **Export Settings** tab. The lists are as follows:

Default Shot List Export Video Format

This list determines the video format in an EDL export file. Select either NTSC or PAL from the list.

Default Shot List Export Format

This list determines the Shot List export format. Select from either Final Cut Pro or Avid ALE.

Default Metadata Export Format

This list determines the metadata export format. Select from either **CSV** or **XML**.

Next you will configure Account Visibility parameters.

Account Visibility

You configure organization and group visibility to allow an organization access to view the groups of other organizations, or one group can be given access to all other groups within the same organization.

These roles are configured on the Admin/User/Groups screen on the **Visibility** tab.

Use the following procedure to configure the visibility permissions for the group:

- **1.** Select the group from the *Group* list at the top of the screen.
- Select or deselect the check boxes next to each option to configure the group's visibility parameters. You can use different combinations of these parameters to customize the allowance or denial of visibility. For example, deselecting *Can see* organizations, selecting Can see groups, and deselecting Can see other users will give the group permission to only see other groups within their own organization, but not other organizations nor any users in any group.

Can see organizations

Selecting this check box will allow the group to see organizations that are identified in the list just below the option. The group will only have permission to see organizations that have the *Access* check box to the right of the organization's name selected. Organizations whose check box is deselected will not be visible to the group.

Can see groups

Selecting this check box will allow the group to see other groups within their organization and groups in organizations that they have been granted permission to see. Deselecting this option will also deselect the check box for *Can see* organizations.

Can see other users

Selecting this check box will allow users of the group to see other users within their group, organization and other organizations they have permission to view. Deselecting this option will deselect the previous two options.

3. Click **Save** on the top right of the screen to save the configured visibility permissions.

Next you will add a new user.

Adding a New User

All users are members of a group and inherit the roles and accesses assigned to the group. You add new users to the system using the following procedure:

1. Navigate to **Admin**, **Users**, and then **User** in the navigation tree.

- **2.** From the *User* list select **new user**.
- The following information is mandatory and entered in the *Account Information* area. All other fields are optional and may be left blank if desired.

Select the organizational group to which the user will belong from the *Group* list.

Email

Enter the email address to be used for logging into the system. This is *not* case

User Name

Enter the user's real name.

Password

Enter an initial password to be used for logging into the system for the first time. Passwords are case sensitive and it is highly recommended that users change their password immediately after their first login to the system. You should also encourage users to change their passwords every sixty to ninety days for security.

Confirm Password

Re-enter the user's password to confirm it is correct. This must match the *Password* field exactly.

Note: The *Password* and *Confirm Password* fields display only asterisks for security purposes rather than clear text.

4. Click **Save** on the top right of the screen to create the new user.

Next you will configure Lightweight Access Directory Protocol (LDAP) login capability. If your company does not support LDAP, you can skip this section and continue with "Search Configuration."

Lightweight Access Directory Protocol (LDAP) Logins

If your organization uses Lightweight Directory Access Protocol (LDAP), you can configure DIVAdirector users so they log in to the system using LDAP. Your administrative account should never be configured to use LDAP login because if the LDAP server address is incorrect, or the LDAP servers become unavailable, nobody (including you) will be able to log in. You are only able to log in using DIVAdirector's email and password login mechanism, and can reset the LDAP settings if the servers become unavailable, the settings have changed, or the settings had been incorrectly specified.

Use the following process to switch from the email and password login method to LDAP login:

- 1. Navigate to **Admin**, **Users**, and then **Organizations** in the navigation tree.
- **2.** Select the *Enable LDAP Login* check box.
- **3.** Enter the IP address of the LDAP server in the *Primary LDAP IP Address* field. A port number may be specified by suffixing the IP address with the :port option. The port is the port number for DIVAdirector to listen for LDAP connections. If no port is specified, the default LDAP Port (port 389) is used.
- An optional secondary LDAP server address (and port number if required) may be specified for authentication in the event the primary server fails or is unreachable.

Enter the secondary LDAP server information in the Secondary LDAP IP Address

Click **Save** on the top right of the screen to apply the changes.

Next you will configure search parameters for groups and users.

Search Configuration

The following sections include detailed information for managing metadata. Metadata is used in systemwide searches on the DIVAdirector and DIVArchive systems to locate a specific file, category of files, objects, or video clips. These roles are set for the group and apply to all members of the group.

Object Metadata

Object metadata is a set of search terms that belong to an object. Each object has its own predefined set of metadata.

- Metadata imported from DIVArchive (OBJECT_NAME, OBJECT_CATEGORY, ARCHIVE_DATE, and so on).
- Proxy metadata imported from dropped proxies.

The Object Metadata screen is accessible from the Admin/Users/Metadata screen. The following functions are available from the Object Metadata screen.

- Add new metadata for objects in DIVAdirector by clicking **Add** on the top right of the screen.
- Delete an existing metadata type by selecting the type to be deleted in the list and then click **Delete** on the top right of the screen.
- Edit a metadata type by clicking on the **Pencil** icon at the beginning of the row for the metadata to be edited.

Data Types

DIVAdirector supports various data types for metadata field definitions and associated presentation controls. When a specific data type is selected, additional parameters are presented to the user.

The following are the valid metadata types:

CHAR

Any character string; restricted to 1 - 2000 characters in length. The CHAR data type can be represented using an *EditBox*, *TextBox*, or *SelectBox* control (refer to "DIVAdirector Presentation Controls").

INT

Any integer numeric value. The INTEGER data type can be represented using an *EditBox, TextBox,* or *SelectBox* control.

FLOAT

Any numeric value - including decimals. The FLOAT data type can be represented using an *EditBox*, *TextBox*, or *SelectBox* control.

The DATE field can be represented using an *EditBox*, *SelectBox*, or *Calendar* control.

TIME

The TIME field can be represented using an *EditBox* or a *SelectBox* control.

A fixed representation file of arbitrary internal format which is represented using a *FileSelect* control.

SAMMA_GRAPH

A graphical representation of metadata that originated from Oracle SAMMAsolo. The graph can represent the entire object or just a portion of the object.

SAMMA THUMBNAIL

A representation of thumbnails of frames that match the portion of the object represented by the SAMMA_GRAPH.

QC_REPORT

Used for Quality Control reporting options including:

- Report Type
- Selected (selected or deselected)
- Data file extension
- Report file extension

DIVAdirector Presentation Controls

Most metadata field data types have multiple ways of displaying data and some are restricted to using particular controls. The following are descriptions of the controls used to display the metadata fields:

EditBox

A single line text entry control that allows users to edit its value.

TextBox

A general multi-line text editing control.

Allows users to select (or deselect) a value from the supplied list of unique values.

CheckBox

Allows users to select an option by selecting the appropriate check box.

Calendar

Allows users to browse through a graphical calendar and select the appropriate date; this format is used only for the DATE data type.

FileSelect

A special composite control comprised of an **Upload** button and a link to an existing binary file; this format is used only for the BINARY data type.

SammaGraph

This control is only used for the SAMMA_GRAPH data type and shows a graphical representation of SAMMAsolo-generated metadata.

SammaThumbnail

This is only used for the SAMMA_THUMBNAIL data type to provide thumbnail representations of frames that match the portion of the objects represented by a SammaGraph control.

Predefined Metadata Display Columns

The metadata display screen is arranged in a tabular format. The columns in the table are predefined and described as follows:

DIVAdirector-defined unique identifier for the object.

Name

DIVArchive system-defined object name that is used as a unique identifier with the category.

Category

DIVArchive system-defined object category that is used with the name.

The date when the object was archived to the DIVArchive system.

Comments

A text field that contains comments added during the object's creation.

Source

The original source of the file from which the object was created.

The current object status that determines whether the object exists.

Virtual

The flag defining whether the object is virtual (**YES** or **NO**).

SOM (P)

Start timecode of the object's proxy extracted from the proxy placed in a Proxy Drop Folder.

Duration (P)

Duration of the object's proxy extracted from the proxy placed in a Proxy Drop Folder.

End timecode of the object's proxy extracted from the proxy placed in a Proxy Drop Folder.

First you will add new metadata entries.

Adding a New Metadata Entry

WARNING: In some cases the DIVAdirector system requires rebuilding of the text search index (for example when you delete the local CHAR type metadata from a non-empty USER_META database table). This process may take a long time depending on the size of the database. Some operations, such as deleting or adding an entry from the USER_META table or changing metadata values cannot be executed until the rebuilding of the index has completed. You can see the text message within the column information panel while the index rebuilding is in progress.

Use the following procedure to add a new metadata entry to the Metadata Manager:

- **1.** Click **Add** on the top right of the screen.
- Enter the information in the resulting dialog box.
- Click the **Check Mark** icon on the lower left of the screen to add the new entry or click the **X** icon on the lower left of the screen to cancel the addition.
- Repeat these steps for each metadata entry to be added to the system.

When a metadata type is selected from the list, additional parameter fields will be displayed that are specific to the type selected. Each metadata entry has the following parameters:

Title

The Title field is the Metadata Column name displayed in the user interface. The title can be any unicode text with maximum length of thirty-two characters.

The *Type* field determines the entry's data type and is defined automatically when selected from the *Type* list. For example, if the type of the Metadata Column is DATETIME in the database, then one of the two types can be selected from the list: DATE or TIME.

Format

The type of the presentation control used.

File Mask

If the BINARY type is selected the edit field will be displayed instead of the column length. Only files with this mask can be selected to be uploaded using the Object Metadata area of the **Shot List** screen. Multiple masks can be set, separated by a semicolon, for example:

*.txt; *.log (Spaces will be removed when saved in this case)

Date Mask

If the DATE type is selected for summary columns the edit field will be displayed instead of the column length. Only data corresponding to this mask can be saved in the database through the *Analysis Drop Folder*. The mask can be set using traditional date characters (dd, mm, yy or yyyy) and separators.

Time Mask

If the **TIME** type is selected for summary columns the edit field will be displayed instead of the column length. Only data corresponding to this mask can be saved in the database through the Analysis Drop Folder. The mask can be set using the traditional time characters (HH:MM:SS) and a colon separator.

Description

The description of the column displayed in the Tooltip when the user hovers over the column title in the Query Results, the Work Bin tables on the Search screen, and the Asset Metadata area on the Shot List screen. The description can be any unicode text and has a maximum length of 240 characters.

Display Options (Flags)

One or more of the following as previously described:

- Hidden
- Read Only
- Display in Search Results

Display in Tooltips

In addition to the above, a SAMMA_GRAPH metadata column type requires the following parameters:

Y Axis Label

This specifies the name of the Y Axis for the SAMMA Graph.

Graph Tags

Specifies the type of information to be displayed on the SAMMA Graph. Click + on the Field Tag button to add each tag and specify a color. Pre-defined tags are available in the *Choose Type* list or by clicking on the default type displayed under the *Field Tag*. For example, using the *Choose Type* list and selecting the type as **Video** results in three field tags being created automatically:

- Luminance Average
- Chroma U Average
- Chroma V Average

Next you will configure Quality Control Report Metadata.

Add New Quality Control Metadata

You add Quality Control Report Metadata to the system's search functions using the following procedure:

- Open the **Metadata Column Manager** on the Admin/Metadata screen.
- Click **Add** on the top right of the screen.
- Enter a name for the metadata in the *Title* field.
- Select **qc** report from the *Type* list.
- Select **QC Report** from the *Format* list.
- Select which reports should be visible using the check boxes next to each type of report.
- **7.** Enter the data file extension (usually .xml) for each visible report in the *Data* Extension field.
- **8.** Enter the report file extension (.xml or .pdf) in the *Report File Extension* field. If an XML file for data and PDF file for viewing are both available, set the *Report* File Extension to PDF. In most cases, it can remain set to the default value: xml.
- **9.** Enter a description in the *Description* field.
- **10.** Select the *Hidden (Hid)* check box if you want the report hidden from users, otherwise leave it deselected.
- 11. Click the Check Mark icon on the lower left of the screen to save the new report column, or click the red **X** icon to cancel the addition.

Next you will configure Metadata Access for the group.

Metadata Filters

Metadata filters authorize and restrict user access to various metadata fields. You configure the filters on a per-group (not per-user) basis on the **Permissions (Metadata)** tab on the Groups screen. Users can only view the metadata fields that follow the

configured *Include Filters* and any fields configured in the *Exclude Filters* list will be hidden from users of the group.

The metadata filters are applied only within Queries, Edit Metadata and Shot List screens. Each field can be made accessible, inaccessible, and available or unavailable for publishing (refer to the Oracle DIVAdirector User's Guide for more information on publishing).

Next you will configure Metadata Publishing Settings.

Metadata Publish Settings

DIVAdirector can publish restored video clips to Oracle DIVApublish. A destination configured in DIVArchive must point to the DIVApublish location that is receiving the restored video clips and their metadata to use the publishing functions. This setting must be selected as the location for publishing in the *DIVArchive Destination* list on the **Metadata Publish Settings** tab on the Groups screen.

The FTP network protocol is used for DIVAdirector's Publish Metadata feature and must be configured in the FTP area of the screen. Publishing clips to DIVApublish requires sending the video clip's metadata as an XML file.

Metadata fields to be included in the XML file are selectable in the Metadata area of the screen. The available fields are determined by the settings configured in the Metadata Permissions Filter.

- 1. Select the available metadata fields to include in the XML file using the check box on the right of each field. A selected check box will include the field in the XML file and a deselected check box will not be included.
- Enter the FTP server's *Host* name, *Username*, *Password* and *Port* number in the designated fields. The port number can be entered manually or the up and down arrows to the right of the port field to raise or lower the selected number. The default FTP port (21) will be used if the port field is left empty.
- **3.** Select the destination from the *DIVArchive Destination* list.
- Click **Save** on the top right of the screen to save the settings.

Next you will configure Quality Control Reports.

Quality Control (QC) Report Configuration

DIVAdirector supports integration with QC Reports from Venera Rapid, Venera Pulsar, Tektronix Cerify, and Interra Baton. Report files should be placed in the path under the **IIS DIVAdirector 5** root folder:

DIVAdirector QC Report\[Report Name]\[Category]\[Object Name]\[Object Namel.xml

For example:

DIVAdirector QC Report\Venera Rapid\WMV\AUTO_20120615_031030\AUTO_ 20120615_031030.xml

First you will create a folder for the QC Reports, and then you will place all reports in the folder you create.

QC Report File Placement

Use the following procedure to create a folder for the QC Reports. Place completed reports in the appropriate folder.

- Open IIS and navigate to the **DIVAdirector QC Report** virtual directory under the **DIVAdirector 5** menu item.
- Right-click the **DIVAdirector QC Report** folder and select **Explore** from the context menu.
- 3. Create a new folder with a specific category (for example, Venera Rapid or Venera Pulsar) for the files under the report type folder.
- Create a new folder using the report name (for example, AUTO_20120615_031030).
- 5. Place the QC Report XML files in the newly created folder. Other report files (for example, PDF) can be placed in the same location.

Next you will configure Automated System Backups.

Automated Backup Configuration

You configure automated backup operations by identifying your desired schedule and selecting the check box to make the scheduled task active. The schedule can be set to run on a weekly or monthly basis.

Use the following procedure to setup your automated backups:

- Navigate to the Admin/Backup/Schedule screen.
- **2.** Either enter the time to begin the backup directly in the *Start Time* field, or use the **Clock** icon to the right of the *Start Time* field to display a selectable time menu called the Time Picker.

The Start Time field denotes the time when the backup should start and must be in 24-hour format using standard hh:mm notation where:

- hh = hours (0 23)
- mm = minutes (0 59)
- Use the *Occurrence* list to select either a **Weekly** or **Monthly** backup frequency.

If the Occurrence is set to Weekly, you can assign the days of the week when the backup should be performed by selecting the check box to the left of each day desired.

If the Occurrence is set to Monthly, you can set a day of the month (by date) when the backup should be performed by selecting the day of the month from the Days

- **4.** Select the destination folder for the backup snapshot files in the *Directory* field.
 - The root location is mapped to the virtual folder named DIVAdirector Database Backup Storage. Select the backup destination using the navigation provided in (or above) the Directory area on the right of the screen.
- **5.** Click **Save** on the top right of the screen to apply the settings. A confirmation message is displayed when the changes are saved successfully.

The DIVAdirector scheduled backup task that was created is now available in the Windows Task Scheduler. You can verify the task was scheduled correctly in the Windows Task Scheduler. Additional backup tasks will be number sequentially (for example, At2, At3, At4, and so on).

Support.

Important: Although you can delete scheduled tasks in the Windows Explorer, do not use this method to remove the task. If the task was accidentally deleted in the Scheduled Tasks, the Windows registry key named HKEY_LOCAL_ MACHINE\SOFTWARE\Wow6432Node\Front Porch Digital Inc.\DIVAdirector\DB\Backup must be removed. After the key is removed, DIVAdirector can continue to configure further scheduled backups correctly. If you require assistance or are not comfortable editing the Windows registry contact Oracle

Your initial configuration of DIVAdirector is now complete. In the next chapter you will find daily tasks that you use to keep DIVAdirector running.

DIVAdirector Daily Operations

You monitor DIVAdirector daily to insure proper operation, storage capacities, orphaned files, user interaction, successful backups, and general system health. If you discover any anomalies that you are uncertain of or how to handle them, contact Oracle Support for assistance. This chapter will discuss your daily operations routine.

Check Available Storage Capacity

In your initial DIVA director configuration you identified system storage locations and the limits for each location. Storage locations will fill up over time during normal use. You must check the remaining available space for each location daily. If a storage location is reaching it's limit, you must either migrate some (or all) of the data to another location (for proxy data - refer to "Proxy Migration Tasks") or configure a new location (refer to "Storage Location Configuration").

Use the following procedure to check your storage locations and remaining available space:

- Click **Proxy Storage Manager** on the DIVAdirector Server Configuration screen to load the Proxy Manager.
- Review the storage locations on the **Proxy Locations** tab.
- Check each location's Status Icon (in the first column) to identify the current storage location status. The icon descriptions are in "Proxy Location Operational States."
 - If the location's state is something other than operational (and you did not manually set it that way), you must identify why it is the current state and if necessary resolve the issue. You use the server logs and Drop folder logs to help identify issues. If you are unable to resolve the issue and need further assistance contact Oracle Support.
- Check the *Used* and *Available* columns to identify how much of the storage space is filled and how much is left available (respectively) for each location. You will need to decide if additional space is required, if data must be migrated to another location, or if the location is adequate in the current state.
- To add a new storage location refer to "Storage Location Configuration."
- To adjust the storage space limits refer to "Configure the Proxy Location's Storage Size."
- To migrate data to another storage location refer to "Proxy Migration Tasks." Next you will check for orphaned files.

Check for Orphaned Files

Throughout daily user interaction with DIVAdirector, you will occasionally get some orphaned files. Orphaned files are files that were placed in a Drop Folder and had the wrong format, different encapsulation than configured for the folder, or they do not exist in the database. The system identifies it as unrecognized and moves the files to a special Orphan Folder. You identified the Orphan Folder during initial configuration (refer to "Drop Folder Configuration").

Use the following procedure to locate and act on orphaned files:

- Open Windows File Explorer.
- Navigate to the Orphan Folder you configured for your first Drop Folder.
- Identify what each file contains that exists in the folder.
- Once you know what the file is, decide whether to 1) repair whatever caused the file to be placed in the Orphan Folder and re-drop it into the Drop Folder for re-processing, 2) move the file to another storage location, or 3) delete the file.

Determine the action you take on each file by abiding by your internal organizational policy and the importance of the file.

Next you will check the user interaction with audit trails.

Check Audit Trails

You check the audit trails to review system and user activity performed on specific objects. This is useful for general system overview and in the event errors occurred while a user was trying to perform an action on a specific object.

The Audit Trail screen displays user interactions with the DIVAdirector system. You can filter the display by Action, User, Time Period (From and To), Object Name and *Object Category* using the options on the right of the screen. The *Object Name* and *Object Category* fields in the filter can contain partial words.

For example, use the following procedure if you are searching specifically for actions performed by a user in the Marketing Department on an object named MySportsVideos and having the object category *MOV*:

- Enter Mark in the *Organization* field and select the *Organization* check box.
- Enter My in the *Object Name* field and select the *Object Name* check box.
- Enter MO in the *Object Category* field and select the *Object Category* check box.
- Click **Apply Filter** on the bottom right of the screen to locate the object. This procedure will locate the object if it exists in the audit trail.

Clicking **Export** on the top right of the screen will export the filtered (or unfiltered) audit trail to a file usable for tracking general system usage or errors.

Confirm Successful Backup Completion

System backups are necessary and extremely important in disaster recovery. You must verify that the backups you created during initial configuration are completing successfully and saved to the proper storage location. You cannot restore a corrupt backup file, so you should check them daily.

Use the following procedure to check the backup files:

- 1. Open Windows File Explorer.
- 2. Navigate to the storage location you designated in the initial system configuration. Refer to "Automated Backup Configuration" if you need a reminder of where you set the backup storage location.
- **3.** Check the creation date and time of the latest file in the folder. Confirm that the date and time match the backup schedule.
- 4. Check the system log files for errors related to the backup job. Refer to "Checking Log Files" for the procedure to use.

If a corrupt or unsuccessful backup is discovered, use the procedure described in "Performing a Manual Backup" to try performing a manual system backup before attempting to troubleshoot any issues.

In the next chapter you will find system maintenance tasks that you will use occasionally.

Confirm Successful Backup Completio	Confirm	Successful	Backup	Completion
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System Management

You must perform occasional system maintenance tasks on DIVA director. The tasks are completed on an as needed basis and include database synchronization editing, storage management, data and resource management, account management, and so on.

Database Synchronization Management

You added database synchronization filters in your initial DIVA director configuration (refer to "Database Synchronization Filtering"). You can update or remove existing filters as necessary. You can edit, enable, disable or remove filters from the synchronization filter list.

Use the following procedure to edit an existing synchronization filter:

- Select the filter and click the **Pencil** icon to enter the Edit screen.
- You can now make any necessary changes to the filter. 2.
- Click the **Check Mark** icon to save your changes.

Use the following procedure to enable or disable a synchronization filter:

- Select the filter and click the Pencil icon to enter the edit screen.
- Either select the *Enable* check box to enable the filter, or deselect the check box to disable the filter.
- Click the **Check Mark** to save your changes.

Use the following procedure to remove a synchronization filter from the filter list:

- Locate the filter you want to remove in the list.
- Click the red **X** icon to the right of the filter entry.
- The filter is now removed from the list.

Next you will manage Proxy Storage Locations.

Proxy Storage Management

You will check storage capacities during your daily system monitoring. Eventually you will have to add, reconfigure, remove storage locations, (refer to "Storage Location Configuration") or rearrange storage search priority. At times you may have to migrate data from one storage location to another for various reasons such as replacing a storage location, making more storage space available and so on.

Proxy Migration Tasks

You can migrate proxy storage location data to another open storage location. You will perform a migration for different reasons including reducing the amount of space used (while increasing available space), moving data to a different (physical) location or system, or possibly temporarily relocating data so the current location can undergo maintenance or replacement. Only Open, Closed or Overflown locations can be migrated. The migration process is performed according to the Filling Strategy selected on the **Proxy Locations** tab.

Use the following procedure to perform migration of proxy storage location content:

- On the DIVAdirector Server Configuration screen click **Proxy Storage Manager**.
- On the **Proxy Locations** tab select the proxy location to migrate.
- Click **Migrate** (if available).
- Click **Yes** in the confirmation dialog box.
- The state of the selected location will be changed to **Migrating**.

Note: A location that has been set to the **Migrating** state can only be set to the **Open** state after setting it to **Closed**. The migrating location will be set to the **Closed** state after completing the migration task, or after removing the migration task.

Click the Proxy Migration Tasks tab on the Proxy Storage Manager screen to view information about the migration process.

The Proxy Migration Tasks columns include the following information:

The path of the proxy location from where the migration process was run.

Files Total

The count of registered proxy files in the proxy location at the moment of beginning the migration.

Files Left

The count of registered proxy files not yet migrated from the proxy location.

Progress %

The percentage of migrated proxy files relative to the number of total files.

Elapsed Time

The elapsed execution time of the migration task.

Started At

The date and time when the migration process was started.

Finished At

The date and time when the migration process was completed.

The proxy migration task can be in one of three states and each state has its own status icon. To change the state of a proxy migration task, select the task in the list and click Run, Suspend or Remove within the Migration section of the screen. The proxy migration task states are as follows:

Running

The **Running** state status icon is a pink cylinder with a double-headed arrow underneath it. This indicates that the migration task is running. A running task can be suspended or removed from the task list.

Suspended

The **Suspended** state status icon is a greyed out cylinder with a red X on top. This indicates that the migration task is suspended. A suspended task can be run to continue the process of migration by selecting the task in the list and then clicking Run on the bottom left of the screen, or removed from the task list by clicking **Remove** on the bottom right of the screen.

Ended

The **Ended** state status icon is a green outlined cylinder. This indicates that the migration task has ended. An ended task remains in the task list only for informational purposes and can be removed from the list at any time. An ended task cannot be transitioned to a running or suspended state.

Proxy URL Search List

This tab manages the search order for the dropped proxies. The *Proxy URL* must correspond to virtual directories set up in IIS for the DIVAdirector Web Server. This tab does not configure the assignment of the virtual directories itself, but allows additional storage to be added to the system without the need to move existing proxies to a new storage location.

The buttons in the middle of the Proxy Location URL List section of the screen perform the following functions when clicked:

Set

Selecting a Proxy URL from the list, entering a name in the Virtual Directory Name field, and clicking **Set** renames the selected Proxy URL.

Shift Up

Selecting a Proxy URL from the list and clicking **Shift Up** moves the selected Proxy URL up in the search order, giving it a higher priority.

Shift Down

Selecting a Proxy URL from the list and clicking **Shift Down** moves the selected Proxy URL down in the search order, giving it a lower priority.

Entering a name in the Virtual Directory Name field and clicking Add inserts a new Proxy URL into the search list.

Selecting a Proxy URL from the list and clicking **Remove** deletes the Proxy URL from the search list.

Unmanaged Storage Locations

The Unmanaged Storage Locations tab displays storage locations in the network known to DIVAdirector, but not managed by the DIVAdirector system.

Next you will manage User Data and Resources.

User Data and Resource Management

Users have the ability to make their private data public so other users can see it including queries, work bins and shot lists. Once a user makes a resource public, you are the only user who can change it back to private again. If a user requests a status change for one of their resources, or if you suspect unauthorized access to data, you can make public resources private as appropriate for the situation.

Making a Public Resource Private

You manage public resources such as queries, work bins and shot lists on the Admin/System/Public Resources screen. Any item made public by a user can only be made private again from this page, and only by an administrator. Information about public resources such as resource name, type, user who created the resource, creation time, and time when resource was made public is displayed on this screen. If you delete a user from the system who owns one or more public resources , the admin user automatically becomes the owner of those public resources.

WARNING: If *Make Private* is clicked, the selected resources become private without additional confirmation.

You can select one or more resources to make private and use the following procedure to change the resource from public to private:

- To select multiple items simultaneously, press and hold the CTRL key and click (once) on each resource with the mouse.
- To select a range of resources, press and hold the SHIFT key and click the first, and then the last, resource in the range - all items contained within the range will be highlighted.
- Right-click the selection and click the **Make Private** context menu item to make the selected resources private. No additional confirmation will be presented.

Next you will manage Organization, Group, and User accounts.

Account Management

During normal operations you will eventually have to manage Organization, Group and User accounts. The following sections address modifying and removing accounts. To add new accounts refer to "Account Configuration."

Managing Organizations

Typically an organization will not need modification or deletion. However there are times where a company reorganization may require you to add a new organization, or change or delete an existing organization. Refer to "Adding a New Organization" for instructions on adding new organizations.

Modifying an Existing Organization

Use the following procedure to modify an existing organization:

WARNING: Changes cannot be reset once they are saved. To reset any changes made, the organization must be modified again.

- 1. Navigate to the Admin/Users/Organizations screen.
- Select the organization to modify from the *Organization* list. 2.
- Modify the organization's properties as required. 3.
- Click **Save** on the top right of the screen to apply the changes.

Deleting an Organization

Use the following procedure to delete an existing organization:

- Navigate to the Admin/Users/Organizations screen.
- Select the organization to delete from the *Organization* list. 2.
- Once the organization is selected, click **Delete** on the top right of the screen.
- Click **OK** in the resulting dialog box to confirm the deletion.

Managing Groups

Eventually you will have to add, modify, or delete groups during normal operations. Modifications could include changing user roles within the group, changing the group's name, changing content filters, and so on. Refer to "Adding a New Group" for instructions on adding new groups.

Modifying an Existing Group

Use the following procedure to modify an existing group:

- Navigate to the Admin/Users/Groups screen.
- Select the group to be modified from the *Group* list.
- As necessary, modify the group name in the *Group Name* field, the group permissions in the *Privileges* area, and the filters in the *Content Filter* area. Content Filters are discussed in "Content Filters."
- Click **Save** on the top right of the screen to apply the changes.

Deleting an Existing Group

You are a member of the SuperAdmin group. You and other users authorized by you are members of the *Admin* group. You have full control of the system. Your account must always be available and therefore these two groups can never be deleted. If deletion of these groups is attempted, a warning message is displayed and you should immediately check the security of the system.

A group cannot be deleted unless it has no active members. If you attempt to delete a group with active members an error is displayed notifying you that there are active users in the group.

Use the following procedure to delete an existing group with no active users:

- Navigate to the Admin/Users/Groups screen.
- Select the group name to delete from the *Group* list.
- Click **Delete** on the top right of the screen.
- Click **OK** in the resulting dialog box to confirm the deletion.

Managing User Accounts

During normal operations you will have to add, modify or delete user accounts. This includes removing users who no longer require access to the system, employees who are no longer with the company, users who change departments (groups or organizations), and so on. User account modification includes changing email addresses, resetting passwords (if they forgot their password), changing user mailing addresses and so on. Refer to "Adding a New User" for instruction on adding new

Modifying an Existing User

Use the following procedure to modify an existing user account:

WARNING: Changes cannot be reset once they are saved. To make additional changes or corrections after saving modifications, you must go through the user modification procedure again and then save the changes again.

- 1. Navigate to the Admin/Users/User screen.
- Select the user to be modified from the *User* list. The various fields will either be filled in or empty, depending upon the information previously entered when the user was created or last modified.
- **3.** Modify the user's properties as required.

Note: The *Password* and *Confirm Password* fields are never automatically provided by the system. Both fields must be manually modified to change the account password.

4. Click **Save** on the top right of the screen to apply the changes.

Deleting a User

Use the following procedure to delete an existing user. Remember that the admin user can never be deleted.

- Navigate to the Admin/Users/User screen.
- Select the user account to be removed from the *User* list.
- Click **Delete** on the top right of the screen to remove the user.

Search Management

You can add, update, or delete search metadata at any time. You added new search metadata, defined content filters, and assigned metadata publishing roles during the initial system configuration. All modification and deletion of metadata entries occurs on the Admin/Metadata screen. Refer to "Adding a New Metadata Entry" for instructions on adding new search metadata.

Metadata Column Manager

The Admin/Metadata screen contains a table with metadata entries for both base and object metadata. Each row is a different metadata entry called a Metadata Column and displays the entry's parameters in the appropriate table column.

You add, remove, edit, and reorder Metadata Columns for on-screen display in the Metadata Column Manager table. Certain rows, such as the parameters from DIVArchive and Proxy Metadata, are predefined and will always be present in the table - these rows cannot be deleted.

You change the order of the entries by dragging the row to another position and dropping it to complete the repositioning.

Check boxes display the state of each entry and you select or deselect the check boxes to enable or disable the different states.

Hid

Hidden - when selected the entry will not appear on the Metadata screen.

R/O

Read Only - when selected the entry will appear in the Metadata screen but cannot be modified.

SR

Search Results - when selected the entry will appear in the Search Results List View mode.

TT

Tooltip - when selected the entry will appear in the Tooltips.

Next you will edit a metadata column.

Editing a Metadata Entry

Use the following procedure to edit a Metadata Column:

- Navigate to the Admin/Metadata screen.
- Locate the metadata entry to edit.
- Click the **Pencil** icon in the first table-column of the entry row.
- The selected row is highlighted in the table and all parameters of the selected entry are displayed for editing.
- When you are finished editing the entry, click the **Check Mark** icon to save the changes, or click the **X** icon to cancel the changes.

Next you will delete a metadata entry.

Deleting a Metadata Entry

Use the following procedure to delete a metadata entry:

- Navigate to the Admin/Metadata screen.
- Locate the metadata entry to delete.
- Select the entry's row.
- Click **Delete** on the top right of the screen.
- Click **OK** in the confirmation dialog box to delete the entry.

Next you will manage user sessions.

Session Management

You view information about which users are currently online and which users are not logged in (offline) on the Session Management screen. Each user can log in from only one location (browser session) at a time. User login sessions have an inactivity timeout of one hour.

Currently logged in users can only see other logged in users and logged off statuses if the user's group visibility allows access to this function. For example, if the current user belongs to a group that does not have visibility of other groups, then only users within the same group are visible on the Session Management screen. The only exception is that the *SuperAdmin* user is always shown on the screen.

Use the following procedure to monitor user sessions, sort table rows, and log off online users (if necessary):

- Navigate to the Admin/Session Management screen.
- 2. Online users are displayed at the top of the screen and offline users at the bottom of the screen.
- For display purposes, sort the rows by clicking on the table header columns.
- You right-click an online user and select **Sign out user** from the context menu to log the user off from the system.

Next you will add a system message for all users.

Administrator's Message

The Message screen allows (only) you to add, change or delete a message displayed to all users of the system when they log in. There are three types of the messages:

- Announcement (default)
- Warning
- Alert

Use the following procedure to add or update the system message:

- Navigate to the Admin/Users/Messages screen.
- Select the type of message from the *Type* list.
- Enter the message content in the *Message* field.
- Click **Save** on the top right of the screen to save the message.

Next you will install and configure Contour's control pads (if your users require them).

Configuration for ShuttlePro V2 or ShuttleXpress Control Pads

You install and configure Contour's control pad on your user's client computer. You setup and configure the ShuttlePro V2 or ShuttleXpress Control Pads by running the installer program supplied with the software and using the default selections.

When installation is complete, copy the Shuttle configuration file as described below for the appropriate operating systems:

Windows 7

Copy C:\Program Files (x86)\DIVAdirector 5\Support\etc\Pref file -Windows\SDIshuttle.pref to C:\Program Data\Contour Design.

> **Note:** Windows requires privileges to show hidden files in the Folder Settings to see the path.

Mac OSX

Copy C:\Program Files (x86)\DIVAdirector 5\Support\etc\Pref file - ${\tt Mac \backslash com. contour design. shuttle.prefs} \ to \ {\tt \sim / Library / Preferences /.}$

Once you have completed setup of the Shuttle Control, you must set the focus to the player (click once in the player area) before the Shuttle Control can be used.

In the next chapter you will find troubleshooting and disaster recovery procedures.

Troubleshooting and Disaster Recovery

This chapter includes information for preliminary system troubleshooting and disaster recovery. You will perform these activities before contacting Oracle Support.

Screen Transparency

You set the *Screen Transparency* in the middle on the right of the Configuration Mode settings screen. The display's transparency level can be set between zero and ninety percent (zero value means full opacity) using the adjustment control in this area. This option is useful when you must view the DIVAdirector Server Status screen while having other dialogs (or screens) open simultaneously, and reduces the amount of screen space required to view both.

The DIVAdirector Server Configuration screen always starts in fully opaque mode. A live demonstration of the effects of changing the transparency level is shown while the adjustment control is being moved. You can visualize the different level's effects before actually accepting the change. When you release the mouse button the dialog reverts back to its opaque state after a short pause; however the last transparency level indicated by the control is temporarily saved. The changed settings are applied to all other server dialogs once you click **OK**. Click **Cancel** to discard the temporarily saved transparency level and keep the previous setting (before the changes were made).

Next you will start and stop DIVAdirector Server.

Starting and Stopping DIVAdirector Server

DIVAdirector Server automatically starts as a Windows system service during system startup by default. Native DIVA director logs (for example, logs of connections to DIVArchive) are kept as application logs in the System Event Viewer. During troubleshooting activities, you start and stop the server service manually using the Windows menu as necessary.

- To stop the DIVAdirector Server service, select Start, All Programs, FPDI **DIVAdirector 5**, and then **Stop DIVAdirector Server Service**.
- To start the DIVAdirector Server service, select **Start**, **All Programs**, **FPDI** DIVAdirector 5, and then Run DIVAdirector Server Service.

You can manually start DIVA director Server in interactive mode after first stopping the service. The DIVAdirector Server interactive mode application and the DIVAdirector Server service cannot be run simultaneously, so the service must be stopped first before entering interactive mode.

When running in interactive mode the DIVA director Server application adds an icon to the Windows System Status Area (System Tray) and displays the current status of the local database and connections to DIVArchive.

When you click the DIVAdirector tray icon, the displayed DIVAdirector Status screen is divided into three sections with specific information in each section.

The General Settings section is located on the top of the screen. This section displays the last date and time the server was started, total number of connections, total number of current connections, the operational mode of the server, last synchronization data and time, and the current server date and time.

The DIVArchive Manager section is located in the middle of the screen. This section displays the connection status of the Oracle DIVArchive Manager and includes the current connection status and the last time the connection was made.

The DIVAdirector Database section is located on the bottom of the screen and includes the Database Source Name (DSN - also known as the Data Source Name) in use, the current connection status, and the last date and time the connection to the database was made.

Command Line Parameters

When necessary during error resolution, you run DIVA director Server from the command line (rather than as a Windows system service) by opening a command line window and using the following command:

```
DIVAdirector Server.exe -parameter
```

You must enter one of the following valid command line parameters or you will be returned to the operating system prompt.

install (-i)

Installs the DIVAdirector Server service.

uninstall (-u)

Uninstalls the DIVAdirector Server service and removes it from the Windows Services list; however, Interactive Mode can be run instead of the service.

Run the DIVAdirector Server application in Interactive Mode.

config (-c)

Run the DIVAdirector Server in Configuration Mode (this is a limited mode).

runservice (-r)

Start the DIVAdirector Server service.

stopservice (-s)

Stop the DIVAdirector Server service.

help (-h or ?)

Displays the help dialog with command line syntax and a list of supported parameters.

Use the following procedure to install the DIVAdirector Server service from the command line:

- Open a Windows Command prompt (Start, Run, enter cmd, and then click OK).
- 2. Run the command DIVAdirector Server.exe -i

3. In the Installing DIVAdirector Server Service window select either the *Local* System or This User (DOMAIN\User) option. The options presented in the dialog

Local System

DIVAdirector will be limited to use only local Proxy storages due to native Windows limitations on the local system account.

This user (DOMAIN\User)

Enter your administrative user account in the form DOMAIN\User, the user's password, and confirm the password. The entered user will have access to proxy storage locations that are configured as network shares. The user must belong to the Admin Group and must be granted read and write access rights to NAS-based proxy storage. If no domain (or the '.' domain) is specified, the local system is implied as the account domain.

Click **OK** to start the DIVAdirector Server service.

Next you will start and stop the DIVAdirector Web Server.

Starting and Stopping the DIVAdirector Web Server

You can use the following procedure to start and stop the DIVAdirector Web Server manually if issues arise pertaining to the web-based user interface:

- Click the Windows **Start** button.
- Click **Run** and enter inetmgr in the text field, then click **OK**.
- In the Internet Manager, click the system's computer name and then locate **DIVAdirector 5** under the **Sites** menu.
- **4.** In the Actions panel (on the right of the screen), under the Manage Web Site section, click Start to start the web server, Restart to stop a running server and then start the web server again, or **Stop** to stop it completely.

A menu item that is grayed out and not selectable indicates the current state of the web server. For example, if the **Start** menu item is grayed out, the web server is currently running.

Next you will check the DIVAdirector Server and Drop Folder log files for errors.

Checking Log Files

DIVAdirector creates log files for both the system and for Drop Folders during normal operations. You configured the log file names, sizes and locations in the initial DIVAdirector configuration. Refer to "Logging Configuration" if you need a reminder of the file names and locations you assigned to the logs.

The DIVA director Server logs contain information regarding the various server operations and possible operation processing error information. The Drop Folder logs contain information specific to the Drop Folders.

You can find the web server logs in the DIVADirector_HOME\www\logs\log.txt file. The web server logs are used for troubleshooting the system and may be requested by Oracle Support when you request assistance.

The levels you set during initial system configuration may need to be changed to assist in troubleshooting activities. During troubleshooting it may be necessary to raise the

logging level higher to assist in locating the source of an error or fault. The recommended log file level settings for normal system operation are as follows:

- For DIVAdirector Server logs set the log level no higher than *Level 2* unless you are trying to locate an error, or instructed to do so by Oracle Support.
- For Drop Folder logs set the log level no higher than *Level 0* unless you are trying to locate an error, or instructed to do so by Oracle Support.

Next you will export the database tables to a flat file format.

Flat File Export

You should export the database tables before performing a database restore. The tables in the database can be exported using the following procedure:

- Navigate to the Admin/Backup/Flat File Export screen.
- Select the table or tables to export using the check boxes next to each table name in the list.
- **3.** On the top of the screen select the *Separator* that will distinguish the fields, and the *Enclosure* that will encase the statement. Typically the *Separator* will be a comma and the *Enclosure* will be double quotations.
- **4.** If the first row in the table export contains column names, select the check box next to *Include columns names as first line* (right next to *Enclosure* on the top line).
- **5.** Click **Refresh** on the top right of the screen to refresh the list of tables. This causes the list of tables to be regenerated and re-listed on the page using the selected Separator and Enclosure.
- **6.** Use the check box next to each table name to select (or deselect) the table for export. Selecting or deselecting the check box at the top will select (or deselect) all tables in the list.
- **7.** Choose **Download** All along the screen's header row to save all of the files together in zipped format, or click Export on the top right of the screen to save the files individually.

Next you will perform a manual backup and data restore.

Manual Backup and Data Restore

The manual backup and restore of the database are very important operations in any data system. DIVAdirector provides you a simple way to perform these operations when necessary.

Performing a Manual Backup

Use the following procedure to perform a manual backup of the DIVAdirector database:

- Navigate to the Admin/Backup/Manual Backup and Restore screen.
- Select *Backup* on the Manual Backup and Restore screen next to *Operation*.
- Browse the directory and select the backup destination folder.

Note: The backup file name DIVAdirector_database_timestamp.1hb is predefined and cannot be modified.

The time-stamp format is DDMMYY-hhmm and is designated as:

- DD = day of month
- MM = month
- YY = year
- hh = hour
- mm = minute
- **4.** Click **Backup Now** on the top right of the screen to begin the backup operation.

A message will appear at the bottom of the screen stating that the backup process has started and normally takes approximately 3-5 minutes to complete (depending on the amount of data in the database). The message displays in red text at the bottom of the Manual Backup and Restore screen.

Performing a Data Restore

Use the following procedure to manually restore the DIVAdirector database:

- Select *Restore* on the Manual Backup and Restore screen next to *Operation*.
- 2. Browse the *From* area to display the server's remote file system tree.
- Select the database snapshot file to be restored (click once on the file name).
- Browse the *To* area and select a restore destination folder, or select *Restore to* Active Database (logs off all connected users).

If you select the Restore to Active Database (logs off all connected users) option, the restore process will replace the existing database with the restored database. A confirmation dialog box is displayed notifying you that all connected users will be logged off.

5. If you have not selected the *Restore to Active Database (logs off all connected users*) option, click **Restore Now** to begin the restore process.

Glossary

Complex Object

A Complex Object contains one thousand or more files. This value is configurable in DIVArchive. Complex object handling may be different than non-complex objects. See **Object**.

Data Store

A data repository of a set of integrated objects.

Drop Folders

Network monitored folders that have specific operations assigned to them. When files are placed into a Drop Folder the system will perform the operations identified for that specific folder.

Internet Information Service (IIS)

The Internet Information Service is an extensible web server created by Microsoft for use with the Windows NT family of operating systems. IIS supports HTTP, HTTPS, FTP, SFTP, SMTP and NNTP protocols. IIS is not turned on by default when Windows is installed. The IIS Manager is accessed through the Microsoft Management Console or Administrative Tools in the Control Panel.

Lightweight Directory Access Protocol (LDAP)

The Lightweight Directory Access Protocol is an application protocol for accessing and maintaining Distributed Directory Information Services over an Internet Protocol (IP) network.

Object

Objects are archive entries. An object (archive entry) is identified by a pair (Name and Category) and contains video files, audio files, metadata files, and so on. The files are stored in DIVArchive as Object Instances. An object can contain up to one thousand files before being considered a complex object. See **Complex Object**.

Oracle Partial File Restore (PFR)

Restores only part of a file (rather than the entire file) from DIVArchive to a destination based on time code, byte offsets, folders, or DPX frames.

Proxy

A Proxy Video is a form of metadata. It consists of highly compressed, very low resolution video and sound that mirrors a high resolution original master digital recording.

Root

Also known as *SuperAdmin*, this special user account is identified with an authorization flag in the user profile allowing administrative functions to be performed, and full unrestricted access to the server host. In DIVAdirector this account is named admin.

Shot List

A list compiled by a user containing video clips (shots) which indicates the sequence of scenes included in the list. The list may include the scene number, the location of where the scene was shot, a description of the scene, the length of a scene, a list of actors in the scene, and so on.

Universal Naming Convention (UNC)

The Universal Naming Convention specifies a common syntax to describe the location of a network resource, such as a shared file, directory, or printer. The UNC syntax for Windows systems has the generic form \ComputerName\SharedFolder\Resource.

Work Bin

A working area for users allowing them to organize and work with video clips, files, objects, and so on in a single location.