

Digital Asset Manager Installation and Administration Guide
10g Release 3 (10.1.3.3.0)

March 2007

Digital Asset Manager Installation and Administration Guide, 10g Release 3 (10.1.3.3.0)
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INTRODUCTION

OVERVIEW

Digital Asset Manager enables you to define and provide images and videos in specified formats and sizes for download by the people in your organization who need them. This helps your organization maintain consistent standards for branding and digital content use.

Digital Asset Manager creates multiple formats of digital assets automatically when an image or video is checked into Content Server, and lists the formats under one content ID. This ensures that the asset, such as a corporate logo or promotional video, maintains a standard size and quality in the multiple formats required by your organization, while providing the content management and workflow features of Content Server. For people in your organization who need to find and use digital assets, Digital Asset Manager gives them the confidence that they are using the approved asset and format for their needs. For example, one person can bundle and download images of the logo for use on a web-site, and another can download and bundle images of the same logo for use in office presentations or print collateral, all from a single digital asset checked into Content Server.

Digital assets are valuable electronic images and videos to be made available within your organization in multiple output formats. Each output format is called a rendition. The quantity and type of renditions are defined by the system administrator in rendition sets. A user selects a rendition set used to create renditions of a digital asset at the time the asset is checked into Content Server.

For Digital Asset Manager to work, Inbound Refinery must be installed and properly configured to work with the content server on which Digital Asset Manager is installed. In addition to the components necessary to run Inbound Refinery, Digital Asset Manager

consists of four Content Server-side components, and one Inbound Refinery-side component.

Content Server-side components:

- Zip Rendition Management (ZipRenditionManagement.zip)
- Digital Asset Manager (DigitalAssetManager.zip)
- Digital Asset Manager Converter Support (DamConverterSupport.zip)
- Content Basket (ContentBasket.zip)

Inbound Refinery-side component:

- Digital Asset Manager Converter (DAMConverter.zip)






Note: As part of the successful installation of Inbound Refinery, the InboundRefinerySupport component must be installed on each content server for which Inbound Refinery is a provider. The InboundRefinerySupport component is part of the Inbound Refinery installation procedure, and separate from Digital Asset Manager.


ABOUT THIS GUIDE

This guide provides instructions for installing the Digital Asset Manager components on Content Server. The information contained in this document is subject to change as the product technology evolves and as hardware, operating systems, and third-party software are created and modified.

Symbols

Notes, technical tips, important notices, and cautions use the following symbols:

Symbol	Description
	Note: Brings special attention to information.
	Tech Tip: Identifies information that can be used to make your tasks easier.
	Important: Identifies a required step or required information.

Symbol	Description
	Caution: Identifies information that might cause loss of data or serious system problems.

Conventions

The following conventions are used throughout this document:

- ❖ The notation `<install_dir>/<instance_dir>/` is used to refer to the location on your system where a specific instance of Content Server is installed.
- ❖ Forward slashes (/) are used to separate the directory levels in a path name. A forward slash will always appear after the end of a directory name.
- ❖ Forward slashes (/) are used to separate parts of an Internet address. For example, `http://www.microsoft.com/windows2000/`. A forward slash might or might not appear at the end of an Internet address.
- ❖ Paths to access operating system dialogs or windows use the following formatting structure:

Start—Settings—Control Panel

- ❖ Required user input is distinguished using the following font formatting:
`xyz_name`
- ❖ Digital assets are defined for this guide as any content item of a format set up by the system administrator to be rendered with Digital Asset Manager.

ADDITIONAL HELP

User help for this product is integrated with the Content Server help under the Image Manager and Video Manager help sets. For issues relating to conversion, refer to the Inbound Refinery documentation set or to the documentation of the conversion application being used.

PREREQUISITES

For successful implementation of a Digital Asset Manager instance, the following prerequisites must be met.

Products

- ❖ A current instance of Content Server version 10gR3 must be installed.
- ❖ A current version of Inbound Refinery 10gR3 must be installed and added as a provider in at least one content server being used for digital asset management.

Conversion Application

- ❖ To convert images, a stand-alone graphics conversion application must be installed. Digital Asset Manager was designed using [Handmade Software's](http://www.handmadesw.com) Image Alchemy, but other graphic conversion applications can be used. For information on how to obtain a copy of Handmade Software's Image Alchemy, visit their website (<http://www.handmadesw.com>). See the section [Defining Rendition Sets](#) (page 3-2) for more information on how to integrate third-party conversion engines.
- ❖ To convert videos, a stand-alone video conversion application must be installed. Digital Asset Manager is currently configured to work with Telestream's Flip Factory version 5.1. FlipFactory version 5.1 must be obtained separately from Digital Asset Manager. FlipFactory is developed by Telestream and is available from their website: <http://www.telestream.net/products/flipfactory.htm>.



Important: Digital Asset Manager is designed and tested on fully functioning implementations of third-party conversion applications. Demonstration versions of conversion applications are not recommended or supported.

Streaming Servers

For streaming digital video, Digital Asset Manager currently supports the following streaming servers:

- ❖ Windows Streaming Media—versions for supported Windows operating systems
- ❖ QuickTime Streaming Media—Darwin and QuickTime Streaming Server version 10.4
- ❖ RealMedia—Helix DNA Server version 11

Supported Browsers

The following considerations apply to all web browsers on all client platforms (Windows, UNIX, and Mac):

- ❑ Browsers or versions other than the ones specifically mentioned in this section may also work, but there may be some issues, which are typically associated with supported layouts and advanced interface features such as option lists based on views. For example, some browser versions may only support the Classic layout, not the Trays or Top Menus layout. These browsers typically also fail to display the options of an option list based on a view.

Recommended Browsers on Windows Clients

The table below lists the web browsers that are supported for use with Digital Asset Manager for client computers running on the Microsoft Windows operating system:

Supported Web Browser	Version
Microsoft Internet Explorer	5.5 SP2, 6.0 SP2, or 7.0 (<i>see notes below</i>)
Firefox	1.5 or 2.0

Important Considerations

Please note the following important considerations for web browsers on Windows clients:

- ❑ Make sure that Internet Explorer uses version 5.5 or higher of Microsoft's JScript engine. Otherwise JavaScript rendering errors (for example, "Object Not Found") may be reported. Please note that Windows XP SP2 uses JScript engine 5.6.
- ❑ If you access a content server running on Windows Server 2003 using Internet Explorer 6.0 on the same computer as the content server, you will see many security prompts before you can actually access the content server. This is because of security features that are built into Windows Server 2003. To turn off these prompts, remove the Internet Explorer Enhanced Security Configuration (using Control Panel—Add or Remove Programs—Add/Remove Windows Components). Alternatively, you can also access the content server using a different web browser (for example, Firefox) or using Internet Explorer 6.0 from a different computer than the content server.

Recommended Browsers on Mac Clients

The table below lists the web browsers that are recommended for use with Stellent Content Server 10gR3 for client computers running on the Apple Macintosh operating system:

Supported Web Browser	Version
Firefox	1.5 or 2.0
Safari	2.02

Supported Operating Systems

Digital Asset Manager can be installed on all operating systems capable of running Content Server. Note that Inbound Refinery is not supported on two of those operating systems:

- ❖ HP-UX 11i
- ❖ IBM AIX 5L version 5.2

Consequently, Digital Asset Manager can be installed on a Content Server running on HP-UX 11i and IBM AIX 5L version 5.2, provided that Inbound Refinery is installed on another platform it supports. For information on platforms supported by Inbound Refinery, see the Inbound Refinery documentation.

For the latest information on the exact versions that are supported, and late-breaking Content Server considerations, refer to the installation guide and release notes that are shipped with the Content Server software.

Supported Input Formats

Supported input formats are determined by the graphic or video conversion application being used. Digital Asset Manager was designed using Handmade Software's [Image Alchemy](http://www.handmadesw.com) (<http://www.handmadesw.com>) for image conversion, and Telestream's [FlipFactory](http://www.telestream.net/products/flipfactory.htm) (<http://www.telestream.net/products/flipfactory.htm>) for video conversion.

Image Alchemy supports over 90 graphics formats, while FlipFactory supports 34 media formats for streaming, broadcast, or professional uses.

Formats supported by Image Alchemy include the following:

- ❖ JPG/JPEG (Joint Photographic Expert Group)

- ❖ GIF (Graphics Interchange Format)
- ❖ BMP (Bitmap)
- ❖ PNG (Portable Network Graphics)
- ❖ TIFF (Tag Image File Format)
- ❖ PSD (PhotoShop)
- ❖ AI (Adobe Illustrator)
- ❖ PDF (Portable Document Format)

For a comprehensive listing of formats supported by Image Alchemy, visit [Handmade Software's site](http://www.handmadesw.com/) at <http://www.handmadesw.com/> to view the documentation.

Formats supported by FlipFactory include the following:

- ❖ Flash Media Format
- ❖ MPEG Layer 3 and 4 Elementary Stream Media Format
- ❖ PacketVideo MPEG4 Format
- ❖ QuickTime Media Format
- ❖ QuickTime Streaming Format
- ❖ Windows Media Format
- ❖ AVI Media Format
- ❖ DVD Stream Media Format
- ❖ MPEG1 System Stream Media Format
- ❖ MPEG2 Program Stream Media Format
- ❖ MPEG2 Transport Stream Format
- ❖ MPEG4 Media Format
- ❖ Pinnacle MediaStream Media Format

See the FlipFactory documentation from [Telestream](#) for a comprehensive listing of formats supported by FlipFactory.

Supported Output Formats

Output formats are determined by the conversion application. Viewing of renditions in your browser is limited to what can be displayed effectively in your browser. For images, only formats supported by your web browser can be displayed. For video, only output formats supported by Windows Media Player, Real Player, or QuickTime Player are available for viewing in your web browser. Any image or video assets rendered in a format

not supported for viewing in a browser will still be managed by Content Server, but will be available only for download.

Video Manager currently supports the following output formats:

- ❖ MPEG Layers 1, 2, and 4 (.mpg, .mpeg, .mp2, .mp4)
- ❖ QuickTime (.mov)
- ❖ Audio Video Interleave (.avi)

Due to the extensive number of formats supported by Telestream's FlipFactory, Windows Media Player, Real Player, and QuickTime Player, and the difficulty in configuring all the possible combinations, Video Manager officially supports a limited subset of these formats. You can configure Digital Asset Manager to accept additional formats and test them as your needs require. For more information on setting up additional formats see [Associating a File Format](#) (page 2-12), and [Mapping File Extensions](#) (page 2-13).

INSTALLATION

OVERVIEW

When a digital asset is checked into Content Server, Content Server routes the asset to Inbound Refinery. Inbound Refinery places a copy of the asset in a staging directory on a file system shared by a third-party conversion application and Inbound Refinery. If the digital asset is an image, the refinery launches the image conversion application to convert the image and places the resulting renditions in a compressed file. If the digital asset is a video, then it places a request for the conversion application to render the asset in a watched directory on the same shared file system. The conversion application gets the file from the staging directory, creates the requested renditions and places them back in the watched directory. The conversion application notifies Inbound Refinery that the conversion process is done, Inbound Refinery collects the renditions and thumbnails from the key frames extracted by the conversion application, and returns them to Content Server.

Conversion Applications

Digital Asset Manager requires a third-party conversion application to render digital assets checked in to Content Server. For images, Digital Asset Manager is currently designed to work with Handmade Software's [Image Alchemy](http://www.handmadesw.com) version 1.4 (<http://www.handmadesw.com>). For video assets, Digital Asset Manager is designed to work with Telestream's [FlipFactory](http://www.telestream.net/products/flipfactory.htm) version 5.1 (<http://www.telestream.net/products/flipfactory.htm>). Other conversion applications can be used.



Important: Digital Asset Manager is designed and tested on fully functioning implementations of third-party conversion applications. Demonstration versions of conversion applications are not recommended or supported.

Converting Images

By default, Digital Asset Manager uses the image conversion application API to launch the conversion application to convert a digital asset. After conversion, Inbound Refinery collects the renditions from a shared directory and places them in a compressed file, which is then managed by Content Server.

Converting Videos

By default, Digital Asset Manager is designed to work with the video conversion application FlipFactory by Telestream. FlipFactory uses three plug-ins to communicate with Inbound Refinery:

- ❖ a monitor plug-in, to monitor a directory for the Refinery request, posted in XML format.
- ❖ a transport plug-in to move the renditions to the directory specified in the Refinery request.
- ❖ a notify plug-in to send a response back to the Refinery at the completion of the request. If the request failed, the response includes error information. If the request is successful, the response includes information regarding the renditions created.

To communicate properly, FlipFactory and Inbound Refinery must have access to a shared file system, where a staging directory and watched directory can be accessed by both applications. The staging directory is where Inbound Refinery places the source-file for rendering. Subfolders in the watched directory are where Inbound Refinery places the request to render an asset, and where FlipFactory returns the completed renditions.



Tech Tip: For best results, the watched directory should be located on the same server-class machine as the FlipFactory implementation.

Digital Asset Manager and Telestream's FlipFactory use different terminology to refer to aspects of rendering assets. To understand the installation and configuration of each product, it is important to understand the terminology used by each. The following table identifies the terms used and their meanings.

Digital Asset Manager	FlipFactory Term	Definition
Render	<ul style="list-style-type: none"> flip transcode 	Process of creating new formats from a submitted asset
Rendition Set	Factory	A set of assets in different formats
Rendition	Product	A single format of a digital asset
Rendition Name	Destination	The name given to a rendition, as displayed on the Rendition Information page.

This section covers the following topics:

- ❖ [Component Installation and Configuration](#)
- ❖ [Installing and Configuring FlipFactory](#) (page 2-20)
- ❖ [Uninstalling Digital Asset Manager](#)
- ❖ [Digital Asset Manager on a Macintosh Client](#)

COMPONENT INSTALLATION AND CONFIGURATION

Successful implementation of Digital Asset Manager includes installation and configuration of the following components on the Content Server:

- ZipRenditionManagement.zip
- DigitalAssetManager.zip
- DamConverterSupport.zip
- ContentBasket.zip



Note: As part of the successful installation of Inbound Refinery, the InboundRefinerySupport component must be installed on each content server for which Inbound Refinery is a provider. The InboundRefinerySupport component is part of the Inbound Refinery installation procedure, and separate from Digital Asset Manager.

Additionally, the following component must also be installed on the Inbound Refinery:

- DAMConverter.zip



Caution: The Digital Asset Manager installation adds metadata fields to your database tables. If your Content Server instance is set up to use a search engine that requires indexing, such as FAST, the search index must be rebuilt subsequent to Digital Asset Manager installation. Depending on the size of your search index and available system resources, the search index rebuild process can take up to several days. If rebuilding is necessary, rebuild at times of non-peak system usage. For information on how to rebuild your search index, see [Rebuilding the Search Index](#) (page 2-5).

Installing Digital Asset Manager

To install and configure the components, perform these steps:

1. Log in to Content Server. You must have administration rights.
2. Click **Admin Server** on the **Administration** tray.
3. Click the instance on which to install the components under the Administration for Servers section.
4. Click **Component Manager** on the left navigation area, under the instance options. The Component Manager page is displayed.
5. Click **Browse** next to Install New Components, and browse to the compressed file of the first component to install.



Note: The required Content Server components can be installed in any order.

6. Click **Install**. An installation page is displayed listing the files that will be installed.
7. Click **Continue**. A confirmation page is displayed with instructions on how to proceed.
8. Click **Click here to return to the Component Manager**. The Component Manager page is displayed.
9. Repeat steps 5 through 8 to install the remaining required components for Digital Asset Manager.
10. Select each component in the Disabled Components field one at a time and click **Enable**. The components listed in the field are:
 - ZipRenditionManagement
 - DigitalAssetManager
 - DamConverterSupport

- ContentBasket

The selected components move to the Enabled Components field.

11. Restart Content Server.
12. Log in to the Inbound Refinery server. You must have administration rights.
13. Click **Admin Server** under the Refinery Administration folder.
14. Click the refinery instance on which to install the component under the Administration for Servers section.
15. Repeat steps 4 through 8 to install the DAMConverter (DAMConverter.zip) component.
16. Enable the component and restart refinery server.
17. After installing the components, you must complete the following steps to publish the static graphic files so that they are available to Content Server.
 - a. Log on to the instance of Content Server on which you installed the DigitalAssetManager component. You must have administrator rights.
 - b. Click **Publish static layout files** in the Actions folder under the Administration tray. The new graphics files are now available to Content Server.

Rebuilding the Search Index

If your Content Server instance is set up to use a search engine that requires indexing, such as FAST, the search index must be rebuilt subsequent to Digital Asset Manager installation. If your instance is set up to use database search, then you do not need to rebuild the search index.



Caution: Depending on the size of your search index and available system resources, the search index rebuild process can take up to several days. If rebuilding is necessary, rebuild at times of non-peak system usage.

To rebuild the search index, perform these steps:

1. Log in to Content Server. You must have administration rights.
2. Click **Admin Applets** on the Administration tray. The Administration page is displayed
3. Click **Configuration Manager**. The Configuration Manager applet opens.
4. Click **Rebuild Search Index**.

5. If a message asks you to update the database design before rebuilding the search index, click **Update Database Design** to save changes to the database before proceeding.
6. Click **OK** when prompted that rebuilding is a time-consuming process.
7. Click **OK** when the message *Rebuild initiated* is displayed.

Confirming Installation

If component installation was successful, the following directories are added to your Content Server custom directory at `<CS_install_dir>/<instance_dir>/custom`:

- ❖ ZipRenditionManagement
- ❖ DigitalAssetManager
- ❖ DamConverterSupport
- ❖ ContentBasket

Also, three additional metadata fields are added to Content Server:

- ❖ PackagedConversions
- ❖ VideoRenditions
- ❖ DamConversionType

To verify the metadata fields were added and populated with the appropriate values, perform these steps:

1. Log in to Content Server. You must have administration rights.
2. Click **Admin Applets** on the Administration tray. The Administration page is displayed.
3. Click **Configuration Manager**. The Configuration Manager applet opens.
4. Verify the **Information Fields** tab is selected and confirm that **DamConversionType**, **PackagedConversions** and **VideoRenditions** are displayed in the Field Info column.



Note: If the fields were not created at install, they can be created manually. See the administration guide for Content Server for information on creation of custom metadata fields.

5. Select **DamConversionType** and click Edit. The Edit Custom Info screen is displayed.

6. Verify the **Enable on User Interface** and **Enable Option List** boxes are disabled, as this field is for internal use only. If not, then disable them and click **OK**.
7. Select **PackagedConversions** and click **Edit**. The Edit Custom Info screen is displayed.
8. Verify the Field Caption is **wwImageRenditionSet**.



Note: The field caption is displayed on the Content Information and Content Check In pages of Content Server. It is expressed as an Idoc Script variable and should not be changed here.

9. Verify the **Enable on User Interface** and **Enable Option List** boxes are enabled.

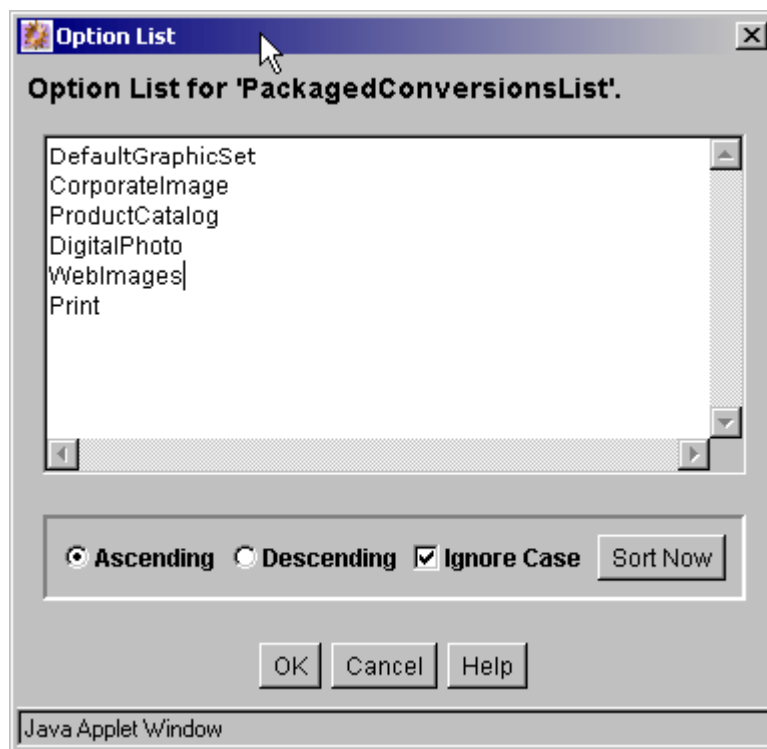


Note: If you are setting Digital Asset Manager to convert video only, then you can disable this field on the user interface.



Caution: Do not enter a value in the Default Value fields. Doing so sets the value for all content checked in, whether digital assets or not, causing Content Server to track all content as digital assets. This results in erroneous Rendition Information pages. The default value is set in the config.cfg file located in the `/<CS_install_dir>/<instance_dir>/config/` directory. For more information, see [Modifying the Content Server Configuration File](#).

10. Click **Configure**. The Configure Option List screen is displayed.
11. Click **Edit**. The Option List screen is displayed.

Figure 2-1 The PackagedConversionsList Option list screen

12. Verify the following default options are available:

- DefaultGraphicSet
- CorporateImage
- ProductCatalog
- DigitalPhoto
- WebImages
- Print

If not, then add them by entering them directly into the field.



Important: PackagedConversions is used for image assets. The options in the option list are established by default and correspond to the rendition sets defined in the `extraRendition_definitions.hda` resource file used by Inbound Refinery. Delete options you don't want from the option list to suppress the rendition set on the user interface. The DefaultGraphicSet option must always be available. Other options in this list can be added and deleted. For more information on editing the `extraRendition_definitions.hda` file, see the section [Defining Rendition Sets](#) (page 3-2).

13. Click **OK** to confirm the changes on all open screens.
14. Select **VideoRenditions** and click **Edit**. The Edit Custom Info screen is displayed.
15. Verify the Field Caption is **wwVideoRenditionSet**.
16. Verify the **Enable on User Interface** and **Enable Option List** boxes are enabled.



Note: If you are setting Digital Asset Manager to convert images only, then you can disable this field on the user interface.

17. Click **Configure**. The Configure Option List screen is displayed.
18. Click **Edit**. The Option List screen is displayed.
19. If converting videos, add the names of the factories defined in your conversion application to the option list.
20. Click **OK** to confirm the changes on all open screens and then close Configuration Manager.

Configuring

You must take additional steps to configure Digital Asset Manager, including modifying the following configuration files:

- ❖ Content Server config.cfg, located in the `<CS_install_dir>/<instance_dir>/config/` directory
- ❖ Inbound Refinery connection intradoc.cfg file, located in the `<refinery_install_dir>/bin/` directory

Setting the Image Conversion Application Path

Digital Asset Manager requires a third-party conversion application to create renditions of an image. This allows you the flexibility to choose a conversion application that best meets your needs. By default, Digital Asset Manager was designed to work with Handmade Software's Image Alchemy, which offers a wide variety of conversion format options. See [Appendix A \(Basic Image Alchemy Conversion Options\)](#) for more information.



Note: For best performance rendering images, install the image conversion application on the same server as the Inbound Refinery instance being used for Digital Asset Manager. For best performance rendering videos, refer to the recommendations of the video conversion application. For example, Flip Factory documentation recommends that it be installed on its own server-class machine.

You must set the path to the image conversion application being used, so that Digital Asset Manager knows where to find it. To do that, you must create an `extraRendition_definitions.hda` file in the `<refinery_install_dir>/data/configuration/dam/` directory.

To set the conversion application path, perform these steps:

1. Obtain and install an image conversion application.
2. Open the following directory of your Refinery server instance:
`<refinery_install_dir>/data/configuration/dam/`
Create the *configuration* and *dam* directories if they do not exist.
3. Create a new text file in the *dam* directory and save it as **extraRendition_definitions.hda**.
4. Enter the following code in the file:


```
@Properties LocalData
<conversion_app_name>=<path_to_conversion_app>
@end
```


For example, if you are using Image Alchemy as your conversion application, and it is installed to a directory called Alchemy at the root level of your C drive, the code would look like this:

```
@Properties LocalData
ImageAlchemy=c:/Alchemy/alchemy.exe
@end
```

5. Save the changes and close the extraRendition_definitions.hda file.
6. Restart the refinery.

Modifying the Content Server Configuration File

To avoid an error in case a video rendition set is not selected at time of check in, a default value must be set for the VideoRenditions metadata field.

To modify the configuration file, perform these steps:

1. Open the following directory of your Content Server instance:
`<CS_install_dir>/<instance_dir>/config/`
2. Open the config.cfg file in a standard text editor.
3. Under the **#Additional Variables** section, add **DefaultVideoConversionSet** and set it equal to the factory you want as the default rendition set. The default must match a rendition set in the choice list of the VideoConversions metadata field, defined using the Configuration Manager applet.



Important: The DefaultVideoConversionSet identifies the rendition set to be used if a user does not specify a Video Rendition Set when checking in a video. It must be set in the config.cfg file, and not in the [Default Value](#) field of the Content Manager applet.

4. Save changes to the config.cfg file and close the file.
5. Restart Content Server.



Tech Tip: Digital Asset Manager allows a user to bundle and download assets to a local or shared file system. You can specify the maximum allowable size of a download, either in megabytes or number of files in the Additional Variables section of the config.cfg file by setting the following variables:

- ❖ **MaxRenditionBundleInMegabytes**=*Maximum size of bundle in megabytes.*
- ❖ **MaxRenditionFileEntries**=*Maximum number of files in the bundle, expressed numerically.*

Associating File Formats and Mapping File Extensions

Content Server identifies content items as digital assets based on the extension of the file checked in. The following file formats must be associated with Digital Asset Manager and the file extensions mapped to the correct format.

Image Formats

- ❖ JPEG (.jpeg; .jpg)
- ❖ GIF (.gif)
- ❖ PSD (.psd)
- ❖ AI (.ai)
- ❖ BMP (.bmp)
- ❖ PNG (.png)
- ❖ TIFF (.tiff; .tif)

Video Formats

- ❖ MPEG Layers 1, 2, and 4 (.mpg, .mpeg, .mp2, .mp4)
- ❖ QuickTime (.mov)
- ❖ Audio Video Interleave (.avi)



Important: If you are only converting one type of digital asset, images or videos, then you should only associate the formats for that type of asset.

Remember, the conversion engine passes rendition information to the third-party conversion application, so any additional format you associate must be supported by the third-party conversion application used by your organization.

Associating a File Format

To associate a format with the Digital Asset Manager conversion engine, perform these steps:

1. Log in to Content Server. You must have administration rights.
2. Click **Admin Applets** on the **Administration** tray. The Administration page is displayed
3. Click **Configuration Manager**. The Configuration Manager applet opens.

4. Select **Options—File Formats**. The File Formats screen is displayed.
5. Associate the format with the Digital Asset Manager conversion engine by performing one of these steps:

If the format is listed in the File Formats (upper) section of the File Formats screen:

- a. Select the format from the list. For example select, *image/graphic* for images or *video/mpeg* for videos.
- b. Click **Edit**. The Edit File Format screen is displayed.
- c. Select **Digital Media Graphics** for image formats and **Digital Media Video** for video formats from the **Conversion** choice list. Digital Media Graphics and Digital Media Video are the names of the Digital Asset Manager conversion engines.
- d. Modify the description in the Description field if desired. This description is displayed in the Configuration Manager, and is not displayed in the Content Server interface.
- e. Click **OK**. The Edit File Format screen is closed.

If the format is not listed in the File Formats (upper) section of the File Formats screen:

- a. Click **Add**. The Add New File Formats screen is displayed.
- b. Enter the type of format in the **Format** field. The type can be anything, and is displayed on the Content Information and Rendition Information pages of Content Server. Choose something descriptive, for example, *application/PaintShop*.
- c. Select **Digital Media Graphics** for images or **Digital Media Video** for videos from the **Conversion** choice list. Digital Media Graphics and Digital Media Video are the names of the Digital Asset Manager conversion engines.
- d. Optionally, enter a description in the Description field. This description is displayed in the Configuration Manager, and is not displayed in the Content Server interface.
- e. Click **OK**. The Add New File Formats screen is closed.

Mapping File Extensions

After a format is associated with the appropriate Digital Media conversion engine, you must ensure that all appropriate file extensions are mapped to the file format in Configuration Manager. All files with a file extension mapped to the format will be passed to the Digital Asset Manager conversion engine.

To map a file extension to a file format associated with the Digital Asset Manager conversion engine, perform these steps:

1. Log in to Content Server. You must have administration rights.
2. Click **Admin Applets** under the **Administration** tray. The Administration page is displayed
3. Click **Configuration Manager**. The Configuration Manager applet opens.
4. Select **Options—File Formats**. The File Formats screen is displayed.
5. Map the extensions to the appropriate format by performing one of these steps:

If the extension is listed in the File Extensions (lower) section of the File Formats screen:

- a. Select the extension from the list. For example select, *psp*.
- b. Click **Edit**. The Edit File Extension screen is displayed.
- c. Select the appropriate format from the **Map to Format** choice list. For example, *application/PaintShopvideo/mpeg*.
- d. Click **OK**. The Edit File Extension screen is closed.

If the format is not listed in the File Formats (upper) section of the File Formats screen:

- a. Click **Add**. The Add File Extensions screen is displayed.
- b. Enter the file extension in the **Extension** field. For example, *psp*. Do not enter the dot of the file extension.
- c. Select the appropriate format from the **Map to Format** choice list. For example, *application/PaintShopvideo/mpeg*.
- d. Repeat steps a through c for each extension to be associated with the format. For example, *pspimage* could also be associated with *application/PaintShop*.
- e. Click **OK**. The Add File Extensions screen is closed.
- f. Click **Close**. The File Formats screen is closed.
- g. Close Configuration Manager.

After associating a format to the appropriate Digital Asset Manager conversion engine (Digital Media Graphics or Digital Media Video), and mapping the appropriate file extensions to the format, all files with those extensions checked into Content Server are passed to Inbound Refinery for processing through the conversion application. Remember, the conversion engine passes rendition information to the third-party conversion

application, so any additional format you associate must be supported by the third-party conversion application used by your organization.



Note: When accessing an instance of Content Server on which Digital Asset Manager is installed, an IP address or domain name should be used. For example, `http://10.10.192.168/contentserver/` or `http://companyname/contentserver`. If you try accessing an instance from the computer on which Content Server is installed using `localhost`, for example, `http://localhost/contentserver/`, then video thumbnails are not visible on the Rendition Information page.

Configuring Video Asset File Placement

If you are rendering videos, you must configure where you want video renditions placed. Videos rendered by Digital Asset Manager can be placed in a variety of locations, depending on your business need. For example, they can be returned to the Content Server web layout directory, placed on a file system for access outside of Content Server, or sent to a streaming server.



Note: If you are planning to stream rendered videos, you must install and properly configure a supported media server based on the instructions that came with your media server, and set your conversion application to deliver the correct streaming format. Currently Digital Asset Manager supports Darwin Streaming Server (QuickTime), Helix Streaming Server (RealMedia), and Windows Media Server

This section covers the following topics:

[Configuring Default File Placement Locations](#) (page 2-15)

[Configuring Specific File Placement Locations](#) (page 2-16)

Configuring Default File Placement Locations

For Digital Asset Manager to work, Inbound Refinery must know what to do with a submitted asset and its renditions, and Content Server must know how to access them. A default location for assets must be set in the configuration files of both Inbound Refinery and Content Server. Additionally, a default URL root must be set in the configuration file for Content Server.



Important: Both Content Server and Inbound Refinery must have physical access to the placement locations.

To set the default file placement locations, perform these steps:

1. Open the following directory of your Inbound Refinery server instance:

```
<refinery_install_dir>/bin/
```

2. Open the intradoc.cfg file in a standard text editor.
3. Under the **#Additional Variables** section, set DefaultMediaPhysicalRoot equal to the default location you want video renditions placed. For example:

```
DefaultMediaPhysicalRoot=\\\\NetworkIdentity/contentserver/weblayout/
```



Note: This is a root directory only. The media file will actually exist in a subdirectory that mirrors the typical Content Server /weblayout/ directory. For example, a file named movie.ra might be located in \\NetworkIdentity/contentserver/weblayout/media/groups/public/documents/adacct/movie.ra. The path can be a local, mapped, or a Universal Naming Convention (UNC) path. The backslash is an escape character in Java, so any path using a backslash must be escaped using two backslashes.

4. Open the following directory in your Content Server instance:

```
<CS_install_dir>/<instance_dir>/bin/
```

5. Open the intradoc.cfg file in a standard text editor.
6. Under the **#Additional Variables** section, set DefaultMediaPhysicalRoot equal to the default location you want video renditions placed. For example:

```
DefaultMediaPhysicalRoot=\\\\NetworkIdentity/contentserver/weblayout/
```



Important: Depending on how your network is set up, this path may or may not be identical to the path set in the Inbound Refinery intradoc.cfg file, but the two paths must resolve to the same location.

7. Also under the **#Additional Variables** section, set DefaultMediaUrlRoot equal to the default location of the URL root path, including the protocol, to where the file can be accessed: For example:

```
DefaultMediaUrlRoot=http://NetworkIdentity/contentserver/
```

8. Restart Content Server and Inbound Refinery.

If all rendered video assets are to go to the default locations, then setting the default variables in the configuration files are all you need to do. If you want to send some media formats to other locations, for example all .ra files to a streaming server or all .mpgs to an external storage system, then you must also configure where to [place those specific formats](#).

Configuring Specific File Placement Locations

You can specify different locations for differing video renditions based on the media format. Three media categories are available to define physical and URL roots for different formats:

- ❖ WinMedia
- ❖ QuickTime
- ❖ RealMedia

These category names serve as labels only, and any format can be grouped under any category label.

In order to specify different locations for different formats, you must edit the `intradoc.cfg` files for both Inbound Refinery and Content Server to:

- ❖ enable a category
- ❖ specify the formats handled by the category
- ❖ set the physical root specific to the category

For Content Server only:

- ❖ set the URL root specific to the category



Important: Both Content Server and Inbound Refinery must have physical access to the placement locations.

To set a different location for a specific format, do the following steps:

1. Open the following directory in your Inbound Refinery instance:
`<refinery_install_dir>/bin/`
2. Open the `intradoc.cfg` file in a standard text editor.
3. Under the **#Additional Variables** section, enable a category by setting the appropriate variable equal to true. For example, the following variables may be set:

```
WinMediaSupportEnabled=true
QuickTimeSupportEnabled=true
RealMediaSupportEnabled=true
```

4. Set the format of the media handled by the category by setting the appropriate variable equal to the format extension. For example

```
WinMediaFormats=wm*|asf|asx
```

Note that each format is separated by a pipe (`|`), and that an asterisk (`*`) can be used as a wildcard.

The following variables may be set, and must match the enabled category or categories:

```
WinMediaFormats
QuickTimeFormats
RealMediaFormats
```

5. Set the physical root for the media handled by the category by setting the appropriate variable equal to the physical path. For example:

```
RealMediaPhysicalRoot=\\\\\\NetworkIdentity\\RealMedia
```

The following variables may be set, and must match the enabled category or categories:

```
WinMediaPhysicalRoot
QuickTimePhysicalRoot
RealMediaPhysicalRoot
```



Note: This is a root directory only. The media file will actually exist in a subdirectory that mirrors the typical Content Server /weblayout/ directory. For example, a file named movie.ra might be located in \\NetworkIdentity\\contentserver\\weblayout\\media\\groups\\public\\documents\\adacct\\movie.ra. The path can be a local, mapped, or a Universal Naming Convention (UNC) path. The backslash is an escape character in Java, so any path using a backslash must be escaped using two backslashes.

6. Open the following directory in your Content Server instance:

```
<CS_install_dir>/<instance_dir>/bin/
```

7. Open the intradoc.cfg file in a standard text editor.
8. Repeat steps 3 through 5 in the Content Server intradoc.cfg file.
9. Also in the Content Server intradoc.cfg file, add one of the following variables based on the formats being rendered, and set it to the URL root path, including the protocol, where the file can be accessed: For example:

```
RealMediaUrlRoot=rtsp://NetworkIdentity:554/
```

The following variables may be set, and must match the enabled category or categories:

```
QuickTimeMediaUrlRoot
RealMediaUrlRoot
WinMediaUrlRoot
```

10. Restart Content Server and Inbound Refinery.

Using Streaming Servers

Depending on how you set your media conversions, categories, and URL root variables, renditions can be served out of a web server or streaming media server. If you are planning to stream rendered videos, you must:

- ❖ install and properly configure a supported media server based on the instructions that came with your media server
- ❖ set your conversion application to deliver the correct streaming format

- ❖ configure a category to deliver the rendition to the correct place
- ❖ configure the web URL root with the proper protocol and syntax for the streaming server

Currently Digital Asset Manager supports Darwin Streaming Server (QuickTime), Helix Streaming Server (RealMedia), and Windows Media Server. For information about protocols used with streaming media, see the documentation that came with your media server.

Setting FlipFactory Timeout Settings

When the DAMConverter component is installed and enabled on a refinery, timeout settings for FlipFactory processing are added to the Timeout Settings page in the refinery's administration interface. These timeout settings control how long the refinery waits for FlipFactory to complete each conversion job that the refinery sends. The default FlipFactory Processing timeout settings are:

- ❖ Minimum (minutes)=15
- ❖ Maximum (minutes)=60
- ❖ Factor=3

For more information about configuring timeout settings and examples, refer to the *Inbound Refinery Administration Guide*.

INSTALLING AND CONFIGURING FLIPFACTORY

Digital Asset Manager requires a third-party conversion application to render video assets checked in to Content Server. Currently, Digital Asset Manager is designed to work with Telestream's [FlipFactory](http://www.telestream.net/products/flipfactory.htm) version 5.1 (<http://www.telestream.net/products/flipfactory.htm>).

Installing FlipFactory

If you do not already have an instance of FlipFactory installed, follow the instructions included with FlipFactory to install and set up the application to meet your requirements. FlipFactory must be installed on a Windows server.



Caution: FlipFactory installation will fail if installing on a computer with an instance of Microsoft SQL Server 2000 or lower. Ensure that SQL Server 2000 or lower is not installed on the computer on which you are installing FlipFactory.



Caution: FlipFactory requires QuickTime to be installed for QuickTime renditions to be made. Review the FlipFactory documentation for information regarding obtaining and integrating the proper QuickTime version for use with FlipFactory 5.1. Also, visit Telestream's site at <http://www.telestream.net/> for the latest information relating to FlipFactory.



Tech Tip: Due to the demand on computer resources required for rendering video assets, it is recommended that FlipFactory and Inbound Refinery be installed on separate server-class machines. For ease of access, it is also recommended that both servers have a duplicate user list of administrators.

Installing Digital Asset Manager Video Plug-ins

The monitor, transport, and notification plug-ins that Inbound Refinery uses to communicate with FlipFactory to convert videos are distributed in the *idcFlipFactoryPlugin.zip* file installed by the DAMConverter component. The *idcFlipFactoryPlugin.zip* file is located in the `/<refinery_install_dir>/custom/DAMConverter/VideoManagerFlipFactoryPlugin/` directory.

To install and configure the Digital Asset Manager plug-ins for FlipFactory, perform these steps:

1. Open **Services** on the Windows server on which FlipFactory is installed.

2. Select the **Flip Engine** service and then select **Actions—Stop**.
3. Select the **idcFlipFactoryPlugin.zip** located in the
`/<refinery_install_dir>/custom/DAMConverter/VideoManagerFlipFactoryPlugin/`
 directory, and extract the file to the FlipFactory installation directory. For example:
`C:/Telestream/FlipFactory/`. Two directories are extracted to the following locations:
 - `/<FlipFactory_install_dir>/idcTools/`
 - `/<FlipFactory_install_dir>/Plugins/`



Caution: To ensure that all files are extracted to the correct place, keep the directory structure when extracting the idcFlipFactoryPlugin.zip file to the FlipFactory installation directory. The full directory structures are:

- `/<FlipFactory_install_dir>/idcTools/jars/`
- `/<FlipFactory_install_dir>/Plugins/com/stellent/refinery/ff/impl`

Configuring the FlipFactory Classpath

After unzipping the idcFlipFactoryPlugin.zip file, you must reconfigure the FlipFactory classpath in the Windows registry to include the JDOM and Xalan Java archives before restarting the Flip Engine service. The JDOM and Xalan Java archives are located in the `/<FlipFactory_install_dir>/idcTools/jars/` directory. They are the following files:

- ❖ jdom.jar
- ❖ serializer.jar
- ❖ xalan.jar
- ❖ xercesImpl.jar
- ❖ xml-apis.jar
- ❖ xsltc.jar

Paths to all six archives must be set in the FlipFactory classpath, and a new Java option string value must be set to the FlipFactory install directory.

To reconfigure the FlipFactory classpath, perform these steps:

1. Select **Start—run**, enter **regedit** and click **Open** to open the Windows Registry Editor. The registry editor is opens.
2. Backup the registry.
 - a. Select **File—Export**. The Export Registry File dialog box opens.
 - b. Enable **All** under the Export Range.

- c. Enter a name for the backup and navigate to the folder in which you want to export the registry information.
 - d. Click **Save**. The dialog box closes and the registry is saved.
3. Navigate to the following registry key:
`HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\FlipEngine\Parameters`
 4. Double-click the **JVM Option Number 0** string to modify the string value. The Edit String Value dialog box is displayed.
 5. At the end of the string value, enter the paths to the Java archives in the `/<FlipFactory_install_dir>\idcTools\jars\` directory. For example, if the string value ends with:
`C:\Telestream\FlipFactory\Jars\jaxen-1.1-beta-9.jar;`
 and FlipFactory was installed on the root level of your C drive, you would amend the string as follows:
`C:\Telestream\FlipFactory\Jars\jaxen-1.1-beta-9.jar;
 C:\Telestream\FlipFactory\idcTools\jars\jdom.jar;C:\Telestream\FlipFactory\idcTools\jars\serializer.jar;C:\Telestream\FlipFactory\idcTools\jars\xalan.jar;C:\Telestream\FlipFactory\idcTools\jars\xercesImpl.jar;C:\Telestream\FlipFactory\idcTools\jars\xml-apis.jar;C:\Telestream\FlipFactory\idcTools\jars\xsltc.jar;`
 6. Click **OK**. The Edit String Value dialog box closes.



Important: Remember to use backslashes (\) to separate directories and semi-colons (;) to separate path entries when editing the string value in the Windows registry.

7. Add a new JVM Option Number string value to the key as follows:
 - a. Note the number of JVM Option strings from **JVM Option Number 0** to **JVM Option Number *n***, where *n* is the last in a series of sequential numbers.
 - b. Select **Edit—New—String Value** in the Windows registry and name it **JVM Option Number *x***, where *x* is the next number in the sequence. For example, if the last JVM Option Number string was JVM Option Number 3, you would enter JVM Option Number 4.
 - c. Double-click the **JVM Option Number *x*** string to modify the string value. The Edit String Value dialog box is displayed.
 - d. Enter **-Dff.install.dir=<FlipFactory_install_dir>**. For Example, if FlipFactory was installed on the root level of your C drive, you would enter
`-Dff.install.dir=C:\Telestream\FlipFactory\`
8. Double-click the **JVM Option Count** string to modify the string value. The Edit DWORD Value dialog box is displayed.

9. Increment the JVM Option Count value by 1. For example, if the value is 4, you would enter 5. The value must equal the total number of JVM Option Number strings in the key.
10. Restart the Flip Engine service.

Sharing Directories With FlipFactory

To convert videos, each implementation of Digital Asset Manager must have a staging directory and a watched directory on a file system shared with FlipFactory. The staging and watched directory can be the same directory. For Digital Asset Manager to work properly, a subdirectory in each watched directory must have the same name as the rendition set in Digital Asset Manager, which in turn must have the same name as the factory created in FlipFactory.

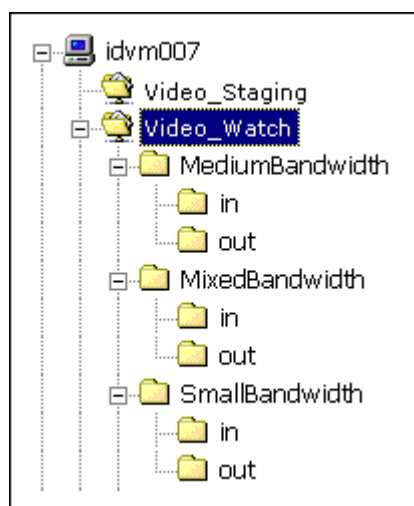
Additionally, there must be an “in” directory and an “out” directory within each subdirectory of the watched folder.



Caution: If multiple factories point to the same “in” directory, the input file will be rendered by whichever factory receives notification first. As different factories may have different parameters, unexpected results may occur. For conversion to work properly and provide the expected results for each rendition, each factory created in FlipFactory should point to its own unique “in” directory.



Important: The path to the shared directories must not contain spaces.



To create the required directories, perform these steps:

1. Establish a shared file system that can be accessed by both FlipFactory and Inbound Refinery.



Tech Tip: For best results, set up the shared directories on the system that has FlipFactory installed.

2. Create a staging directory. It can be named anything. For example, Video_Staging.
3. Create a watched directory. It can be named anything. For example, Video_Watch.



Note: A single shared directory can be used for both the watched and staging directory.

4. Open the watched directory and create a directory for each rendition set defined in Digital Asset Manager. The name of the directory must equal the name of the rendition set as defined by editing the VideoRenditions custom metadata field in Configuration Manager. See [Confirming Installation](#) (page 2-6) for more information.



Caution: For conversion to work properly, the names of the watched subdirectories, the Digital Asset Manager rendition sets, and the FlipFactory factories must be the same. Paths to the shared directories should not contain spaces.

5. Open each directory in the watched directory and create two subdirectories, one named **in**, the other **out**. For example,
`/<Video_Watch_dir>/MediumBandwidth/in` and
`/<Video_Watch_dir>/MediumBandwidth/out`.

Setting the Shared Directory Path

Once the staging and watched directories are created, both Inbound Refinery and FlipFactory must know where to find them. Inbound Refinery must be able to place a copy of the asset in the staging directory and retrieve the renditions from the watched directory when rendering is complete. Inbound Refinery must also post an XML file requesting the file be rendered in the watched directory, telling FlipFactory where to find the asset and where to return the renditions, in a syntax that FlipFactory can understand.



Tech Tip: For best results, set up the shared directories on the system that has FlipFactory installed.

Setting the Shared Directory Path In Inbound Refinery

To set the shared directory path in Inbound Refinery, perform these steps:

Open the **intradoc.cfg** file for each Inbound Refinery connection accessing the shared directories in a standard text editor. The intradoc.cfg file is located in the connection directory of an Inbound Refinery installation. For example:

```
<<refinery_install_dir>/bin/intradoc.cfg
```

6. Add the variable **VideoStagingDir** and set it equal to the path of the staging directory shared with FlipFactory. For example,

```
VideoStagingDir=\\\\NetworkIdentity/Video_Staging/.
```



Note: The path can be a local, mapped, or a Universal Naming Convention (UNC) path. The backslash is an escape character in Java, so any path using a backslash must be escaped using two backslashes. For example, the path
 \\NetworkIdentity/Video_Staging becomes \\\NetworkIdentity/Video_Staging.



Important: The path to the shared directories must not contain spaces.

7. Add the variable **RefineryFlipFactoryWatchRootDir** and set it equal to the path to the watched directory shared with FlipFactory. For example,

```
RefineryFlipFactoryWatchRootDir=\\\\NetworkIdentity/Video_Watch.
```

8. Save changes and close the intradoc.cfg file.

Multi-Platform Configuration

When both applications are running on a Windows platform, the VideoStagingDir and RefineryFlipFactoryWatchRootDir can have the same value, because the syntax for accessing the directories and posting the directory locations in the XML request can be identical.

If Inbound Refinery is running on a UNIX platform, however, the paths to the shared directory may require a different syntax for accessing the directory than for posting the directory location in the XML request in a way that FlipFactory, running on a Windows platform, can understand.

The following additional variables are added to the Inbound Refinery connection intradoc.cfg file to provide context for Inbound Refinery to accurately post a file path that FlipFactory can understand.

- ❖ VideoStagingDirFactoryContext
- ❖ RefineryFlipFactoryWatchRootDirFactoryContext

For example, if a staging directory is created on a FlipFactory instance at `\\\\\\NetworkIdentity/Video_Staging/`, and mounted on the UNIX Inbound Refinery machine as `/mnt/Video_Staging`, then the following would be true:

- ❖ `VideoStagingDir=/mnt/Video_Staging`
- ❖ `VideoStagingDirFactoryContext=\\\\\\NetworkIdentity/Video_Staging/`

To add the additional multi-platform support variables to the `intradoc.cfg` file, perform these steps:

1. Open the **intradoc.cfg** file for each Inbound Refinery connection accessing the shared directories in a standard text editor. The `intradoc.cfg` file is located in the connection directory of an Inbound Refinery installation. For example:
`<refinery_install_dir>/bin/intradoc.cfg`
2. Add the variable **VideoStagingDirFactoryContext** and set it equal to the path of the staging directory from the FlipFactory context. For example,
`VideoStagingDirFactoryContext=\\\\\\NetworkIdentity/Video_Staging/.`
3. Add the variable **RefineryFlipFactoryWatchRootDirFactoryContext** and set it equal to the path to the watched directory from the FlipFactory context. For example,
`RefineryFlipFactoryWatchRootDirFactoryContext=\\\\\\NetworkIdentity/Video_Watch.`
4. Save changes and close the `intradoc.cfg` file.

Setting the Shared Directory Path in FlipFactory

The watched directory is defined in FlipFactory using the Stellent monitor plug-in each time a factory is created. See the section [Configuring Plug-ins](#) (page 2-27) for more information.

The staging directory does not need to be explicitly defined in FlipFactory.



Important: For FlipFactory to access a shared directory on a UNIX platform, you may need to configure the Flip Engine service on the FlipFactory server to be run by particular user. For more information, see the documentation that came with FlipFactory.

Creating and Configuring Factories in FlipFactory

Factories created in FlipFactory must have the same names as rendition sets defined in Content Server, and must be configured to access the appropriate watched directory.

Creating Factories

To create a factory in FlipFactory, perform these steps:

1. After installing the Digital Asset Manager plug-ins, open Services and verify the Flip Engine service is started. For more information on installing the Digital Asset Manager plug-ins, see [Installing Digital Asset Manager Video Plug-ins](#) (page 2-20).
2. Start and log in to FlipFactory.
3. Click **Manage Factories**. The Manage Factories page is displayed.
4. Right-click on the **Factories** folder, and select **New Factory** from the contextual menu. An untitled folder is created in the Factories folder.
5. Select the new untitled folder. The Factory Editor panel is displayed on the right of the page.
6. Enter a name in the Name field that corresponds to the name of a rendition set in Digital Asset Manager. The names must be identical. For example, if your rendition set is named MixedBandwidth, the new factory must be named MixedBandwidth. A factory description is optional.

Configuring Plug-ins

Once a factory is created that corresponds to a rendition set in Digital Asset Manager, the appropriate plug-ins must be configured to communicate between FlipFactory and Inbound Refinery.

Setting the Watch Directory Path

The directory watched by Inbound Refinery must also be watched by the factory. To set the path to the watched directory for a factory, perform these steps:

1. Open the folder of the new factory. Four subfolders are displayed:
 - ❖ Monitors
 - ❖ Process/Analyze
 - ❖ Products
 - ❖ Notifications

2. Select the **Monitors** folder. A panel is displayed to the right, showing multiple tabs.
3. Select the **Stellent Refinery v7.5 Monitor** tab and click **Add**. The Stellent Refinery v7.5 Monitor item is displayed in the Monitors folder.
4. Select **Stellent Refinery v7.5 Monitor** in the Monitors folder. The Stellent Refinery v7.5 Monitor panel is displayed on the right side of the page.
5. Verify that the **Enable** check box is checked.
6. Click **Browse** under the Watch Folder section. The Watch Folder dialog box is displayed.
7. Using the dialog box, locate the watched folder created for this implementation and continue to browse within it to the “in” subfolder of the directory whose name is identical to the factory name. For example, if this factory is named MixedBandwidth, you would browse to <Video_Watch>/MixedBandwidth/in. If you have not created the subfolders of the watched directory, see [Sharing Directories With FlipFactory](#) (page 2-23).
8. Click **Select**. The Watch Folder dialog box closes.

Enabling KeyFrame Extraction

You must tell FlipFactory to create key frames of the video asset for use in the story board section of the Rendition Information page.

To enable keyframe extraction, perform these steps:

1. With the new factory folder still open, select **Process/Analyze** and select **Video Analysis**.
2. Check **Enabled**. Video Analysis is displayed in the Process/Analyze folder.
3. Select **Video Analysis** in the **Process/Analyze** folder. A tabbed panel is displayed on the right side of the page.
4. Verify that the **KeyFrame Extraction** tab is selected and the **Enabled** checkbox is checked.
5. Configure the key frame parameters to meet your needs. For more information on the parameter options, see the FlipFactory documentation.



Note: Failure to enable keyframe extraction results in broken image links for the rendition on a search result page in Content Server, and disables the story board functionality for that rendition on the Rendition Information page.

Enabling Notification

You must tell the factory to notify Inbound Refinery when a request has been completed. To enable notification, perform these steps:

1. With the new factory folder still open, select **Notifications**. A tabbed panel is displayed to the right of the page.
2. Select the **Refinery Notify v7.5** tab and click **Add**. The Refinery Notify v7.5 item is enabled and added to the Notification folder.



Note: There are no user configurable settings in the Refinery Notify v7.5 item.

Adding Products and Setting Rendition Destinations

Each product in a factory corresponds to a rendition in a rendition set, and the destination of each product corresponds to the rendition name that is displayed on a Rendition Information page.

To add a product and set the destination, perform these steps:

1. With the new factory folder still open, right-click on Products and select **New Product** from the contextual menu. A product folder is created and the Product panel is displayed on the right side of the page.



Caution: The Product panel is used to specify the conversion format. By default, Duplicate Original is enabled. For Digital Asset Manager to work properly, you must choose a format other than Duplicate Original, or the conversion may fail and an error may occur. Note that you may not have all format options available to you, depending on your license agreement with FlipFactory. Note that available options may not be supported by Digital Asset Manager. See the section, [Supported Output Formats](#) (page 1-7) for more information.



Tech Tip: To properly render to the correct output format, the correct codec to play the input format must be installed on the same server on which FlipFactory is installed. Popular web formats, such as .avi and others, may use different codecs even within the same format. If you experience problems rendering, verify that the original input file will play on the FlipFactory machine. If it does not, you may need to obtain the proper codec. For more information, refer to the FlipFactory documentation.

2. Open the **Product** folder. The Destination folder is displayed.
3. Select the **Destination** folder. A tabbed panel is displayed on the right side of the page.

4. Select the **Stellent Refinery v7.5 Transport** tab and click **Add**. The Stellent Refinery v7.5 Transport item is created in the Destinations folder.
5. Select the **Stellent Refinery v7.5 Transport** item in the Destinations folder. The Stellent Refinery v7.5 Transport panel is displayed on the right side of the page.
6. Enter the name of the rendition in the Rendition Name field. It can be anything. This is the name that is displayed on the Rendition Information page in Content Server.



Caution: You must enter a rendition name. If you do not, rendering of the asset will fail. If rendering fails, the content item must be removed from Content Server using Repository Manager, and Inbound Refinery must be restarted.

Enabling Plug-in Debugging Logs

The standard log outputs from FlipFactory are found in the stdout.log file located in the FlipFactory installation directory. Additional logging detail can be found by enabling the plug-in logging.

To enable FlipFactory plug-in debugging, perform these steps:

1. Stop the Flip Engine service.
2. Open the **log4j.properties** file located in the `</<FlipFactory_install_dir>/>` in a standard text editor.
3. Delete the # symbol in front of the following entries in the **log4j.properties** file:
 - `log4j.appender.A1=org.apache.log4j.RollingFileAppender`
 - `log4j.appender.A1.file=/<FlipFactory_install_dir>/idcTools/idc_logfile.txt`
 - `log4j.appender.A1.maxBackupIndex=3`
 - `log4j.appender.A1.maxFileSize=10MB`
4. Save the **log4j.properties** file and restart the **Flip Engine service**.

Information regarding plug-in output is now logged to
`/<FlipFactory_install_dir>/idcTools/idc_logfile.txt`.



Note: The path set in the `log4j.appender.A1.file` variable must adhere to 8.3 naming conventions. For example, if the `<FlipFactory_install_dir>` is **C:/Program Files/Telestream/FlipFactory**, then

```
log4j.appender.A1.file=C:/Progra~1/Telestream/FlipFactory/
idcTools/idc_logfile.txt
```

UNINSTALLING DIGITAL ASSET MANAGER

To remove Digital Asset Manager from Content Server, the following components must first be disabled and uninstalled:

- ZipRenditionManagement.zip
- DigitalAssetManager.zip
- DamConverterSupport.zip
- ContentBasket.zip

Additionally, the following component must also be disabled and uninstalled on the Inbound Refinery:

- DAMConverter.zip



Note: The components must be disabled and the content server or refinery restarted before the components can be successfully uninstalled. Uninstalling components does not remove the directories from the `<install_dir>/<instance_dir>/custom/` directory. Both ContentBasket and ZipRenditionManagement can function independent of Digital Asset Manager, and do not need to be removed, unless you also want to remove the functionality they provide to Content Server.



Caution: Removing DigitalAssetManager without removing ZipRenditionManagement causes the Content Information page of a video asset to display the key frames as attachments. If you have rendered large videos that generated many key frames, this can cause a problem with the Content Information page display.

Removing Digital Asset Manager Components

To disable and remove components, perform these steps:

1. Log in to Content Server. You must have administration rights.
2. Click **Admin Server** on the **Administration** tray.
3. Click the instance from which to remove the components under the Administration for Servers section.
4. Click **Component Manager** on the left navigation area, under the instance options. The Component Manager page is displayed.
5. Select the first component to disable from the **Enabled Components** field and click **Disable**. The component moves to the Disabled Components field.



Note: The components can be disabled in any order.

6. Repeat step 5 until all the components to disable are listed in the Disabled Components field.
7. Restart the content server.
8. Return to the Component Manager.
9. Select the component to uninstall from the Uninstall Component choice list and click **Uninstall**. A confirmation dialog box is displayed.
10. Click **OK** to confirm uninstall. A Content Server message is displayed to confirm the uninstall was successful.
11. Return to the component manager and repeat steps 9 and 10 for each component you want to uninstall.
12. When all desired components are uninstalled, restart Content Server.
13. Log in to the Inbound Refinery server. You must have administration rights.
14. Click **Admin Server** under the Refinery Administration folder.
15. Click the refinery instance on which to uninstall the component under the Administration for Servers section.
16. Repeat steps 4 through 10 to uninstall the DAMConverter (DAMConverter.zip) component.
17. Restart refinery server.

Re-enabling Components

If you disable and then re-enable Digital Asset Manager components, verify that the required custom metadata fields are set appropriately.

To verify the custom metadata field settings, perform these steps:

1. Log in to Content Server. You must have administration rights.
2. Click **Admin Server** on the **Administration** tray.
3. Click **Admin Applets**. The Administration page is displayed.
4. Click **Configuration Manager**. The Configuration Manager applet opens.
5. Verify the **Information Fields** tab is selected and confirm that **DamConversionType** and **PackagedConversions** are displayed in the Field Info column.
6. Select **DamConversionType** and click **Edit**. The Edit Custom Info screen is displayed.
7. Verify the **Enable on User Interface** and **Enable Option List** boxes are disabled. If not, then disable them and click **OK**.
8. Select **PackagedConversions** and click **Edit**. The Edit Custom Info screen is displayed.
9. Verify the **Enable on User Interface** and **Enable Option List** boxes are enabled. If not, then enable them and click **OK**.

DIGITAL ASSET MANAGER ON A MACINTOSH CLIENT

Digital Asset Manager will render digital assets when checked in using a Macintosh client provided the filename of the asset has a valid file extension. However, files created on Macintosh operating systems prior to OS X may have information stored in a file resource fork. Information in a resource fork is not transferred. Depending on your organization's needs, removing the resource fork generally does not create a problem.

ADMINISTRATION

OVERVIEW

When a digital asset is checked in to Content Server, Digital Asset Manager creates multiple renditions of that asset. For images, the criteria for each rendition is defined in a component resource file called `extraRendition_definitions.hda`. For videos, the criteria is defined in your video conversion application. By default, Digital Asset Manager was designed to work with FlipFactory, and so the criteria for rendering digital video assets is defined when a factory is created.

Image Asset Rendition Definition

The criteria defining the default rendition sets set up at installation are in the `extraRendition_definitions.hda` file located in the `<refinery_install>/<instance>/custom/DAMConverter/resources` directory. The definitions are grouped into rendition sets which correspond to rendition sets available to contributors on the content check in form when a image asset is checked in. It includes 6 pre-defined rendition sets:

- ❖ DefaultGraphicSet (default - required)
- ❖ CorporateImageSet
- ❖ ProductCatalog
- ❖ DigitalPhoto
- ❖ WebImages
- ❖ Print

The included rendition sets are examples. If they do not meet your organization's unique needs, you should remove them from the option list on the check in page using the Configuration Manager to suppress their functionality. You should not edit the resource file to remove the sets, as any changes made will be lost when a component is updated. For more information on removing options from the option list, see the section [Confirming Installation](#) (page 2-6).



Important: Modifications made to a component resource will be over-written if Digital Asset Manager is updated to a newer version.

Additional rendition sets can also be added, but should be added to the `extraRendition_definitions.hda` file that you created in the `<refinery_install>/<instance>/data/configuration/dam` directory during installation. Digital Asset Manager merges the two files when running, with the second file you created over-riding the resource file. For example, if you create a new rendition in your file with the same name as one in the resource file but with different parameters, the new parameters will be used. This avoids the possibility of custom rendition sets being over-written if Digital Asset Manager is updated to a newer version.

This section covers the following topics:

- ❖ [Defining Rendition Sets](#) (page 3-2)
- ❖ [Managing Conversion](#) (page 3-15)

DEFINING RENDITION SETS

When a contributor checks a digital asset into Content Server, they select a rendition set on the check in form. That rendition set matches either a rendition set defined in the `extraRendition_definitions.hda` file or a factory created in FlipFactory. Depending on the needs of your organization, the system administrator may need to modify, delete, or add renditions or rendition sets and factories. For example, higher resolution may be required for print material than is specified in the default Print rendition set, or a new rendition set to handle CAD files from an engineering company, or a new or larger format for training videos may need to be defined.

For images, image rendition sets defined in the `extraRendition_definitions.hda` files contain the options for converting digital assets into the image renditions specified in the set, and for displaying and accessing the renditions from within Content Server. The default renditions sets are in the component resource file, which should not be changed. Any additional rendition sets should be added to the `extraRendition_definitions.hda` file you created during installation. In that file, the top properties section contains the file path

to a third-party conversion application, such as Image Alchemy. The bottom section contains the rendition set options, organized into sets, called rendition result sets.

For video, factories defined in FlipFactory contain the options for converting digital assets into video renditions specified in the factory. A corresponding directory on a file system shared by FlipFactory and Inbound Refinery has an “in” subdirectory that is watched by FlipFactory for a request posted there by Inbound Refinery in the form of an XML file. Once a factory creates the requested renditions, the files are placed in an “out” subdirectory of the watched factory directory, along with an XML file. Inbound Refinery monitors the “out” directory for the XML file, and uses it to locate the finished renditions and return them to Content Server or place them at another configured location.

When a file is checked into Content Server, the format of the file determines whether or not it is a digital asset. If it is, Content Server passes the file to Inbound Refinery, which either calls rendition options from the `extraRenditions.hda` and pass them to the image conversion application, or notifies the video conversion application that there is a file to convert. The resulting renditions are then passed back through Inbound Refinery to Content Server or other specified location, where they are managed under a single content ID and made available to your organization.

For video assets, the names of the rendition sets defined for the choice list of the `VideoRenditions` metadata field in the Configuration Manager applet must match exactly with the names of factories set up in FlipFactory and the factory directories monitored in the watched directory. For image assets, the names of the rendition sets defined for the choice list in the `PackagedConversions` metadata field in the Configuration Manager applet must match exactly with the names of the rendition sets defined in the `extraRendition_definitions.hda` file.

Figure 3-1 Rendering an image asset

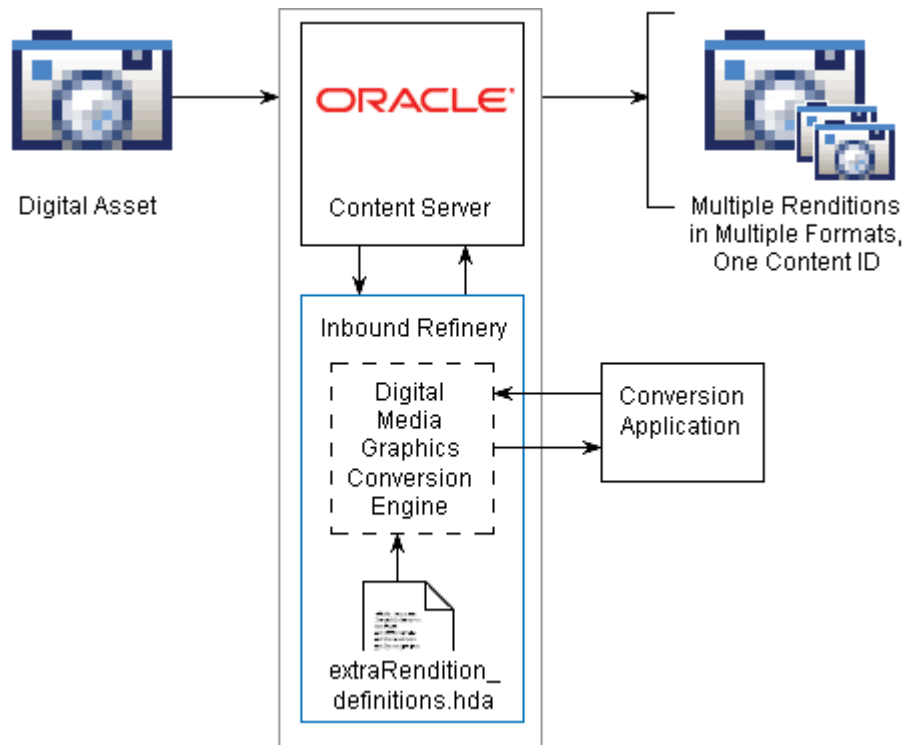
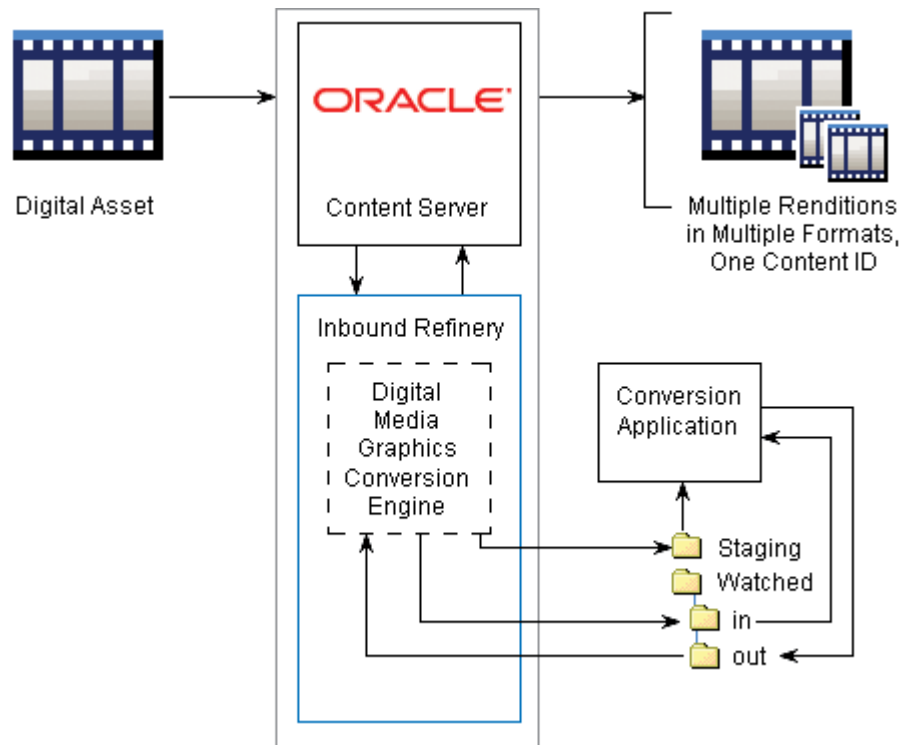


Figure 3-2 Rendering a video asset

When modifying or adding renditions or factories, it is important to remember that a contributor will only see the name of the rendition set when they check in a digital asset. The rendition set name should be descriptive. Rendition names and descriptions are displayed on the content information and rendition information pages.



Important: Spaces and other characters reserved for Idoc Script tags or are illegal for use in URLs, such as spaces, cannot be used in rendition names.

Working With Image Rendition Sets

To add, modify, or delete image renditions and rendition sets, you must edit the `extraRendition_definitions.hda` file, located in the `<refinery_install_dir>/<refinery_instance_dir>/data/configuration/dam/` directory. To successfully modify the `extraRendition_definitions.hda` file, you should be aware of basic HDA file structure. For more detailed information, see the *Working With Components* guide.

extraRendition_definitions.hda File Structure

When defining additional rendition sets, the `extraRendition_definitions.hda` file should contain two section types.

Section Types

The `extraRendition_definitions.hda` file has two section types using the following format:

```
@section_type section_name
Section data
@end
```

The two section types are:

- ❖ Properties Section
- ❖ ResultSet Section

In the `extraRendition_definitions.hda` file, there is one properties section and multiple result set sections. All rendition sets are organized in result sets.

Comments are not allowed within a section of an HDA file. However, you can place comments in the HDA file before the first section, between sections, or after the last section.



Important: Blank lines within a section of an HDA file are interpreted as a NULL value. Blank lines before the first section, between sections, or after the last section are ignored.

Properties Section

The properties section of the `extraRendition_definitions.hda` file defines the path to an external conversion application, such as Image Alchemy. In the default file, it also declares the values of Idoc Script variables defining conversion options used by the default rendition result sets.



Note: Default Idoc Script variables in the properties section are used by the default rendition sets. They are not required for any additional rendition sets you define and are not discussed in this guide. Conversion options can be specified directly within the result sets. For more information on working with IdocScript, see the Idoc Script Reference Guide.

Result Set Sections

There are three types of result sets in the `extraRendition_definitions.hda` file, listed here in order of display in the file:

- ❖ `packedConversion`
- ❖ Rendition Result Sets
- ❖ `ExtensionFormatMap`

The `packedConversion` result set lists the rendition result sets defined in the `extraRendition_definitions.hda` file and available to . For every rendition result set, there must be a corresponding listing in the `packedConversion` result set. There is only one `packedConversion` result set.

Figure 3-3 Example Result Set

```

@ResultSet packedConversion — Title
2 ————— Number of Columns
1 pcName ————— Column Names
2 pcDescription ————— Column Values
  DefaultGraphicSet Row 1
  Required Default Rendition Set
  CorporateImage Row 2
  Common Corporate Format Requirements
  ProductCatalog Row 3
  CMYK HiRes and Proof Images for Print
  DigitalPhoto Row 4
  Digital Photos at various sizes
  WebImages Row 5
  Renditions for web applications and web images
  Print Row 6
  Renditions for productivity and layout applications
@end

```

Rendition result sets organize rendition sets and contain information about creating renditions. There can be many rendition result sets, in any order. They can be added, modified, or deleted, but each name must be unique, and the `DefaultGraphicSet` rendition result set is required by that name.



Caution: The `DefaultGraphicSet` is a required result set. You can change the rendition options of the set, but do not delete it or change the name.

The ExtensionFormatMap result set lists file extension/format pairs, so that Inbound Refinery can return the correct file format to Content Server for use internally. With , almost any graphic format can be produced, and there must be an entry in the ExtensionFormatMap result set for every rendition format specified as a [web](#) rendition type. There is only one ExtensionFormatMap result set.

```

@ResultSet ExtensionFormatMap
2
1 extension
2 format
  jpg
  image/jpeg
  jpeg
  image/jpeg
  gif
  image/gif
  png
  image/png
  tif
  image/tiff
  tiff
  image/tiff
@end

```

Diagram illustrating the structure of the ExtensionFormatMap result set. The first line is the title "ExtensionFormatMap". The second line is the number of columns, "2". The third line is the column name "extension". The fourth line is the column name "format". The following lines are the column values, grouped by extension. The first group is for "jpg" and "image/jpeg", with "Row 1" and "Row 2" respectively. The second group is for "jpeg" and "image/jpeg", with "Row 3" and "Row 4" respectively. The third group is for "gif" and "image/gif", with "Row 5" and "Row 6" respectively. The fourth group is for "png" and "image/png", with "Row 7" and "Row 8" respectively. The fifth group is for "tif" and "image/tiff", with "Row 9" and "Row 10" respectively. The final line is the command "@end".

Adding A Rendition Set

The simplest way to add a rendition set to the extraRendition_definitions.hda file is to copy an existing rendition result set and modify it. To successfully modify an existing set, you should be aware of basic set structure.



Important: Modifications made to a component resource will be over-written if Digital Asset Manager is updated to a newer version. Additional rendition sets should be added to the extraRendition_definitions.hda file that was created in the `<refinery_install>/<instance>/data/configuration/dam` directory during installation. Digital Asset Manager uses both files when running.

Rendition Result Set Structure

HDA files are ordered using simple name/value pairs, representing tabular data in an ASCII text format. The first line of a ResultSet section declares the set with the command @ResultSet, and then specifies the name of the set. The second line specifies the number of columns a table has, and the following lines name and populate the columns based on their order in the result set. Finally, the last line closes the result set with the command @end.

For example, the DefaultGraphicSet rendition result set has the following format:


```

@ResultSet DefaultGraphicSet Title
6
extRenditionName
extEngine
extType
extSourceFile
extParameters
extDescription
Thumbnail
<$ImageAlchemy$>
thumbnail
<$InFilePath$>
<$inFile$> <$outFile$> <$Alchemy_DefaultSet_Thumbnail$>
A 72 dpi JPEG no wider or higher than 80 pixels
Preview
<$ImageAlchemy$>
preview
<$InFilePath$>
<$inFile$> <$outFile$> <$Alchemy_DefaultSet_Preview$>
A 72 dpi JPEG no wider or higher than 250 pixels
Primary
<$ImageAlchemy$>
primary
<$InFilePath$>
<$inFile$> <$outFile$> <$Alchemy_DefaultSet_Primary$>
A 72 dpi JPEG less than 800 pixels high and 600 pixels wide
@end

```


The first line of the rendition result set declares it as a result set by starting with @ResultSet, and the last line closes the set, with @end. The first line also gives the set a name. In this case, the name is DefaultGraphicSet.



Important: The name used should be descriptive, but spaces and other characters reserved for Idoc Script tags or illegal for use in URLs, such as spaces, cannot be used in rendition names. The name DefaultGraphicSet is reserved for the required default set.

The second line identifies how many columns are in the result set. In rendition result sets for Image Manager, there are 6 columns.

Each column has the following name and description:

Column Name	Column Description
extRenditionName	<p>The name of the rendition displayed on the Rendition Information page.</p> <p> Caution: Do not use Primary or Alternate for rendition names. These terms are reserved for internal use by Content Server.</p>

Column Name	Column Description
extEngine	The path to the conversion engine used. By default, this is expressed as an Idoc Script variable declared in the properties section of the extraRendition_definitions.hda file.
extType	<p>How the rendition is being used by .</p> <ul style="list-style-type: none"> • Thumbnail—Used on the Thumbnail view of a search results page. • Preview—Used on the Rendition Information page. • Web (required)—The web-viewable version of a content item. Displayed in the main content area when accessed by clicking the content ID or thumbnail from a search results page, or when clicking the web-viewable link on a content information page. Displayed in a new browser window when accessed by clicking the Preview image on a Rendition Information page. • Extra—Any rendition not defined as Thumbnail, Preview, or Web. <p>One rendition must be specified as the web type. Rendition types may be combined. For example, by listing the type as web, preview, the rendition is used both as the web file and as the preview file.</p>
extSourceFile	The file path to the asset checked into Content Server for conversion expressed as Idoc Script.

Column Name	Column Description
extParameters	<p>The options passed to the conversion engine defining how the source file is rendered. By default, this is expressed as Idoc Script variables declared in the properties section of the extraRendition_definitions.hda file, but it can be expressed as a literal string.</p> <ul style="list-style-type: none"> • <\$infile\$>—The name of the source file used to generate the rendition. This is a required parameter of the included conversion application, Image Alchemy, expressed as Idoc Script. • <\$outfile\$>—The name of the rendered file. This is a required parameter of the included conversion application, Image Alchemy, expressed as Idoc Script. • <\$parameter_variable\$>—The options used for rendering by the conversion application. In the provided rendition sets, these are expressed as Idoc Script variables, which are declared in the properties section of the extraRendition_definitions.hda file. They can also be expressed as a literal string of options used by your conversion application. For example, the variable used in the DefaultGraphicSet for the thumbnail rendition is: <pre><\$Alchemy_DefaultSet_Thumbnail\$></pre> but it could also be expressed as the following literal string of Image Alchemy options: <pre>-j40 -Xd80p -Yd80p -D 72 72 -Zm2 -Zc1 --- ++</pre> For more information on the options used by your conversion application, see Appendix A (Basic Image Alchemy Conversion Options), or the documentation that came with your conversion application.
extDescription	The description for the rendition displayed on the Rendition Information page.



Note: For more information on working with .hda files, see the *Working With Components* guide.

To add a new rendition result set, perform these steps:

1. Open the `extraRendition_definitions.hda` in a standard text editor.
2. Copy and paste an existing rendition result set.
 - a. Select a rendition result set to copy, starting at the `@ResultSet` line and ending at the `@end` line, and copy it.
 - b. Position the cursor between any two existing rendition result sets in the `extraRendition_definitions.hda` file.
 - c. Paste the rendition result set into the file.



Tech Tip: Blank lines between result set sections are ignored. To help visually organize the `extraRendition_definitions.hda` file, you may want to insert a blank line before and after the new rendition result set.

3. Change the name of the new rendition result set, listed next to `@ResultSet`. For example, `@ResultSet NewName`.



Important: The name used should be descriptive, but spaces and other characters reserved for Idoc Script tags or illegal for use in URLs, such as spaces, cannot be used in rendition names.

4. Change rendition information for each rendition you want to keep in the result set.
 - a. Change the name of the rendition, listed in the `extRenditionName` column. Rendition names may have spaces.
 - b. Change the type of the rendition, listed in the `extType` column. Each rendition can multiple types, for example, `preview`, `web`.
 - c. Change the conversion options for rendering, listed in the `extParameters` column. Conversion options are dependent on which third-party conversion application being used. See [Appendix A \(Basic Image Alchemy Conversion Options\)](#) for common options used by Image Alchemy, or check the conversion application documentation.
 - d. Change the description of the rendition, listed in the `extDescription` column. The description can be anything, and is displayed on the Rendition Information page.



Caution: Do not change the `<$InFilePath$>` variable used in the `extSouceFile` column. This is required by .

5. Delete any extraneous renditions in the result set.



Important: There must be at least one rendition specified as the [web rendition](#) type, or conversion of the rendition set will fail.

6. List the new renditions in the [packedConversion](#) result set, listed below the properties section of the extraRendition_definitions.hda file.
 - a. Position your cursor prior to @end in the packedConversion result set.
 - b. Enter the name of the rendition result set as defined in step 4a.
 - c. Press Enter on your keyboard to insert a line break.
 - d. Enter a description of the rendition result set.
 - e. Press Enter on your keyboard to insert a line break.
7. List the file format of the web rendition in the [ExtensionFormatMap](#) result set if it does not already exist. The ExtensionFormatMap result set is always the final result set of the extraRendition_definitions.hda file.
 - a. Position your cursor prior to @end in the ExtensionFormatMap result set.
 - b. Enter the extension of the format specified in the [web](#) rendition type.
 - c. Press Enter on your keyboard to insert a line break.
 - d. Enter the file type and format. For example, image/jpeg.
 - e. Press Enter on your keyboard to insert a line break.



Note: The file type and format listed in the ExtensionFormatMap result set is used internally by Content Server only.

8. Save the extraRendition_definitions.hda file.



Caution: The DefaultGraphicSet is a required result set. Except for the name, you can change the options of the set, but do not delete it.

Enabling A Rendition Set

After a factory is added to FlipFactoryrendition set is added to the extraRendition_definitions.hda file, it must be made available as an option in the VideoImage Rendition Set field on the Content Check In Form, using Configuration Manager.

To add the name of the rendition set as an option in Configuration Manager, perform these steps:

1. Log in to Content Server. You must have administration rights.

2. Click **Admin Applets** on the **Administration** tray. The Administration page is displayed
3. Click **Configuration Manager**. The Configuration Manager applet opens.
4. Verify the Information Fields tab is active, select the **PackagedConversionsVideoRenditions** information field and click **Edit**. The Edit Custom Info screen is displayed.
5. Click **Configure**. The Configure Option List screen is displayed.
6. Click **Edit**. The Option List screen is displayed.
7. Add the name of the new factory added to FlipFactorynew result set as it is listed in the extraRendition_definitions.hda file's [packedConversion](#) result set. Rendition sets can be listed in any order.



Important: The name used in the extraRendition_definitions.hda file and the PackagedConversions option list must match. Spaces and other characters reserved for Idoc Script tags or illegal for use in URLs cannot be used.



Caution: The DefaultGraphicSet is a required result set. Do not delete it from the option list.

8. Click **OK** to close the Option List screen.
9. Click **OK** to close the Configure Option List screen.
10. Click **OK** to close the Edit Custom Info screen.

MANAGING CONVERSION

Content Server identifies content items as digital assets based on the extension of the file checked in. At installation, Digital Asset Manager checks to see if the following common file formats exist in the Content Server Configuration Manager applet.

Editing the Video File Type Configuration Table

If you add a file format and map the extension to the Digital Media Video conversion engine, and would like that format to play in an embedded player (such as on the Rendition Information page), the extension must exist in the Video File Type configuration table of the `dam_cfg_tables.htm` file. The `dam_cfg_tables.htm` file is located in the `<CS_install_dir>/<instance_dir>/custom/DigitalAssetManager/resources` directory.



Note: The format must exist in the Video File Type configuration table only for the file to play in an embedded player. If the format is not in the table, the rendition can still be opened and played in a stand alone player that supports the rendered format.

To verify that the added format exists in the Video File Type configuration table, open the `dam_cfg_tables.htm` file in a standard browser and review the file extensions listed. If the file extension does not exist, you can add it to the table using a standard text or html editor.



Important: Modifications made to a component resource will be over-written if Digital Asset Manager is updated to a newer version.

<@table VideoFileTypes@>			
fileExtension	formatName	player	metafileExtension
rm	Real	real	ram
ra	Real	real	ram
wmv	WindowsMedia	wmplayer	asx

The following table lists the columns of the Video File Type configuration table and their function:

Column Name	Definition
fileExtension	The extension of the file formats to be supported played in the embedded players.
formatName	The name of the format associated with the extension. This value corresponds to the values in the Video Format Prefs table, which is configurable, and is displayed in the choice lists of the embedded players.
player	The player that supports the added format extension. The values are case-sensitive. Currently only three values are allowable: <ul style="list-style-type: none"> ❖ real ❖ quicktime ❖ wmpplayer
metafileExtension	The metafile extension associated with the format extension, used to determine what embedded player will play a streaming version of the format. There must be a value in this field if the format is streamed.

Setting the Default Video Format Preferences

Embedded players are displayed on the Rendition Information page or when a web-viewable link is clicked. The format chosen to play in the embedded player is based on a table of user preferences regarding available rendition format options, set on the Video Preferences page. Prior to user input, default preferences are based on values set in the Video Format Preferences table of the `dam_cfg_tables.htm` file. The `dam_cfg_tables.htm` file is located in the

`/<SCS_Install_dir>/<instance_dir>/custom/DigitalAssetManager/
resources` directory.


```
<@table VideoFormatPrefs@>
```

format	pickOrder_win	pickOrder_mac	pickOrder_other
Real	3	3	3
WindowsMedia	1	4	4
Quicktime	4	1	2
MPEG	2	2	1

```
<@end@>
```

You can edit the default preferences using a standard text or HTML editor.



Important: Modifications made to a component resource will be over-written if Digital Asset Manager is updated to a newer version.

The following table lists the columns of the Video Format Preferences table and their function:

Column Name	Definition
format	Configurable name displayed in the choice list of an embedded player.
pickOrder_win	Determines the order a format is selected on a Windows operating system.
pickOrder_mac	Determines the order a format is selected on a Macintosh operating system.
pickOrder_other	Determines the order a format is selected on an operating system other than Windows or Macintosh.



BASIC IMAGE ALCHEMY CONVERSION OPTIONS

OVERVIEW

Image Alchemy by Handmade Software, Inc., is a robust image conversion application that converts digital assets to a wide range of over 90 formats, with more being added regularly. It is distributed with Image ManagerVideo ManagerContent Basket.

Image Alchemy has no graphic user interface. It is a command-line application. Image Manager uses the Image Alchemy application programming interface (API) to pass conversion options and any option parameters to Image Alchemy and receive conversion output information back. Basic conversion options used by Image Alchemy are listed in this appendix. For a more comprehensive listing, see Image Alchemy's documentation, or visit Handmade Software, Inc.'s [website](http://www.handmadesw.com/) at <http://www.handmadesw.com/>.

Syntax

Image Alchemy basic syntax is:

```
inFile outFile outputExtension outputPathName -options
```

Name	Description
inFile	This is the name of the source file being converted, and must be specified. Typically this is the native vault file of the digital asset checked into Content Server. Handled automatically by the Idoc Script variable <\$inFile\$>.
outFile	This is the name of the converted file. If no output file name is specified, the input file name is used and modified with the format extension of the converted file. Handled automatically by the Idoc Script variable <\$outFile\$>.
outputExtension	This is the format extension appended to the output file name. If none is specified, the default three-character extension for the output format is used.
outputPathName	This is the file path to the converted file. This is handled automatically in Image Manager.
-options	Options for creating the conversion. All conversion options must be preceded by a dash (-). Specifying a format option is required. If no other options are specified, default values for the conversion format are used. See the Image Alchemy documentation for more information on default option values for each format.

Options are case sensitive. For example, -d and -D mean different things.

Parameters can be used with options, and are amended to the option. Multiple parameters are added together mathematically. For example,

```
-t
```

converts a file to the .tif format with a default color mode of RGB, and no compression. Amending the option with a parameter of 1 adds compression. For example,

```
-t 1
```

converts a file to the .tif format with a default color mode of RGB, and LZW compression.

If you want to change the color mode to CMYK and keep the LZW compression, you add 400 to the parameter. For example,

```
-t 401
```

converts a file to .tif with CMYK color mode and LZW compression. If you want to remove LZW compression, you subtract the compression parameter (1). For example,

```
-t 400
```

converts a file to .tif with CMYK color mode with no compression.

For more detailed information on syntax, visit Handmade Software, Inc.'s [website](http://www.handmadesw.com/) at <http://www.handmadesw.com/> to locate a copy of the latest Image Alchemy documentation.

Format Options

Option	Ext.	Description	Parameters
-j	.jpg .jpeg	Joint Photographic Experts Group (JPEG) —common web-viewable format that uses a lossy compression technique to achieve high compression ratios. Works best with pictures and gradients.	Coding — Default—Huffman coding h—Optimum Huffman coding Quality —Compression quality, expressed numerically: 1 through 100—lowest to highest. Default is 32. Passes —Determines whether or not file is decoded progressively over a number of passes: 1 through 10—number of passes required to decode the file for display. Default is 1.
Example: -j 65 Produces a jpeg file of Medium quality, decoded over 5 passes.			

Option	Ext.	Description	Parameters
-g	.gif	Graphics Interchange Format (GIF) —common web-viewable 8-bit format. Works best with logos and solid colors.	Type —The type of GIF: 0—GIF87A 1—GIF89A 0—non-interleaved 10—interleaved Disposal Method — 0—disposal method 0 100—disposal method 1 200—disposal method 2 300—disposal method 3 Defaults are GIF87A, non-interleaved, disposal method 0. Options are combined by adding.
Example: -g 111 Produces an interleaved GIF89A file with a disposal method of 1.			

Option	Ext.	Description	Parameters
-t	.tif .tiff	Tagged Image File Format (TIFF) —common format in print media. Popular for use with desktop publishing applications.	Compression— 0—None 1—LZW 2—PackBits 3—Group III Fax 4—Group IV Fax 5—CCITT RLE 7—LZW with Prediction Strip— 0—Multi-strip 100—One strip Bit Reversal (applies to fax compression)— 0—Not bit reversed 200—Bit reversed Color Mode— 0—RGB 400—CMYK Defaults are LZW Compression, multi-strip, not bit reversed, RGB Options are combined by adding.
Example: -t 401 Produces an LZW compressed TIFF file with CMYK color mode.			
-w	.bmp	Windows Bitmap —common image format used in Windows-based office applications.	Compression— 0—None 1—RLE 10—Write an icon (.ico) file Default is 0.
Example: -w 1 Produces an RLE compressed bitmap file.			

Option	Ext.	Description	Parameters
--d	.pdf	Adobe Portable Document Format (PDF) —ubiquitous format readable by the free Adobe Acrobat Reader software.	Compression— 0—None 1—Run Length 2—LZW 3—CCITT Group 3 fax 4—CCITT Group 4 fax 5—JPEG Low Quality 6—JPEG Medium Quality 7—JPEG High Quality Encoding— 0—ASCII Encoding 10—Binary Encoding Defaults are no compression, ASCII Encoding. Options are combined by adding.
Example: --d 12 Produces an LZW compressed PDF file with binary encoding.			

Option	Ext.	Description	Parameters
-e	.eps	Encapsulated Postscript (EPS) —EPS files are a subset of PostScript. They can be sent directly to a printer or plotter, or imported into other PostScript files without requiring interpretation by the importing application.	<p>Preview— 0—No preview 1—Device independent preview 2—TIFF preview</p> <p>Newlines— 0—UNIX newlines 10—Mac newlines 20—MS-DOS newlines</p> <p>Showpage— 0—Showpage 100—No showpage</p> <p>Color Mode— 0—RGB 400—CMYK</p> <p>Compression— 0—Uncompressed 1000—LZW 2000—CCITT Group 4 fax 3000—JPEG Low Quality 4000—JPEG Medium Quality 5000—JPEG High Quality</p> <p>Encoding— 0—ASCII 10000—Binary</p> <p>Defaults are TIFF preview, showpage, RGB, uncompressed, ASCII. Options are combined by adding.</p>
Example: -e 110 Produces an EPS file, no showpage, Mac newlines, and no preview.			

Size and Resolution Options

Option	Description	Parameters
-X	Scale the horizontal dimension of the image.	<p>Scale Type—The higher the scale type, the higher the quality and the longer the processing time.</p> <p>a—Nearest Neighbor</p> <p>b—Averaging/Linear Interpolation</p> <p>c—Lanczos2</p> <p>d—Lanczos3</p> <p>Default is a.</p> <p>Dimension—Numeric value</p> <p>Dimension Units—</p> <p>p—pixels</p> <p>i—inches</p> <p>c—centimeters</p> <p>x—factor</p> <p>Default is pixels.</p>
Example: <code>-t -Xb6.5i</code> Produces a TIFF file 6.5 inches wide.		

Option	Description	Parameters
-Y	Scale the vertical dimension of the image.	<p>Scale Type—The higher the scale type, the higher the quality and the longer the processing time.</p> <p>a—Nearest Neighbor</p> <p>b—Averaging/Linear Interpolation</p> <p>c—Lanczos2</p> <p>d—Lanczos3</p> <p>Default is a.</p> <p>Dimension—Numeric value</p> <p>Dimension Units—</p> <p>p—pixels</p> <p>i—inches</p> <p>c—centimeters</p> <p>x—factor</p> <p>Default is pixels.</p>
Example: <code>-t -Yb6.5i</code> Produces a TIFF file 6.5 inches high.		
-D	Specify image resolution in dots per inch for the output image.	<p>Horizontal value—Numeric value</p> <p>Vertical value—Numeric value</p>
Example: <code>-t -Xb6.5i -D 300 300</code> Produces a TIFF file 6.5 inches wide with a resolution of 300 dots-per-inch both horizontally and vertically.		
-+	Preserves the aspect ration of an image.	None
--+	Causes Alchemy to only scale images down if larger than specified dimensions.	None
---+	Causes Alchemy to only scale images up if smaller than specified dimensions.	None

PostScript, EPS, and PDF Input Options

Option	Description	Parameters
-Zc	Specify whether or not to trim any white space around an image during input.	Mode— 0—do not clip 1—clip Default is 0.
-Zm	Specify the color mode to apply during input.	Color Mode— 0—Black and White - 1 bit 1—GrayScale - 8 bit 2—RGB Color - 24 bit 3—CMYK Color - 4 bit 4—CMYK Color - 32 bit The default is Black and White.
-24	Forces truecolor during input.	None.

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ZLIB LICENSE

* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.3, July 18th, 2005

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