Omneon MediaBridge™

Installation and User's Guide

Release 1.1.0.0 (1.4.16.56)

Omneon, Inc. • MediaBridge™ • Installation and User's Guide

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Software Release

Release 1.1.0.0 (1.4.16.56)

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CHAPTER 1
Introduction

This section provides an overview of Omneon MediaBridge™ Release 1.1.0.0 (1.4.16.56). Choose from the following topics:

Overview

Omneon MediaBridge is a conversion application designed to meet the needs of broadcast networks that distribute programs in multiple formats. It converts legacy file formats, such as Pinnacle MPEG-2, Pinnacle MXF (Material eXchange Format) OP1a, and Grass Valley GXF (General eXchange Format), to Omneon MXF Operational Pattern 1a (OP1a) format, and then uploads them to a MediaDeck™ Integrated Media Server or a remote file server. The encoded files are then available for playout by a Spectrum™ Media Server System.

MediaBridge promotes the interchange of files between servers and storage systems, provides a convenient way to archive material in a format that can be repurposed and copied to independent transmission centers, and supplies a standard for interoperability among manufacturers of video equipment.

MediaBridge is a browser-based application that runs on Windows 2000 Service Pack 3 (SP3) or later, or Windows XP. It requires a license to install and use.

Supported File Formats

Table 1 lists the legacy file formats and the destination file formats supported by MediaBridge.

Table 1 MediaBridge File Formats

Source File Format	Destination File Format
Pinnacle MPEG-2 Program Stream: • MPEG-2 video • MPEG-1 Layer 2 audio or uncompressed/PCM audio • Program Stream wrapper	Omneon MXF OP1a: • MPEG-2 video (both SD and HD) • Uncompressed/PCM audio • Omneon MXF OP1a wrapper Notes: • The source file can support up to 8 channels of audio, and the destination file should match. • If the source material contains Dolby-E or AC3 audio, the audio format of the destination file remains Dolby-E or AC3.
Pinnacle MPEG-2 System Stream: • MPEG-2 video • MPEG-1 Layer 2 audio or uncompressed/PCM audio • System Stream wrapper	Omneon MXF OP1a: • MPEG-2 video (SD only) • Uncompressed/PCM audio • Omneon MXF OP1a wrapper Notes: The source file can support up to 8 channels of audio, and the destination file should match.
Pinnacle MXF OP1a: • MPEG-2 video • MPEG-1 Layer 2 audio or uncompressed/PCM audio • Pinnacle MXF OP1a wrapper	Omneon MXF OP1a: • MPEG-2 video (both SD and HD) • Uncompressed/PCM audio • Omneon MXF OP1a wrapper Notes: • The source file can support up to 8 channels of audio, and the destination file should match. • If the source material contains Dolby-E or AC3 audio, the audio format of the destination file remains Dolby-E or AC3.

Workflow

To use MediaBridge, you perform the following workflow:

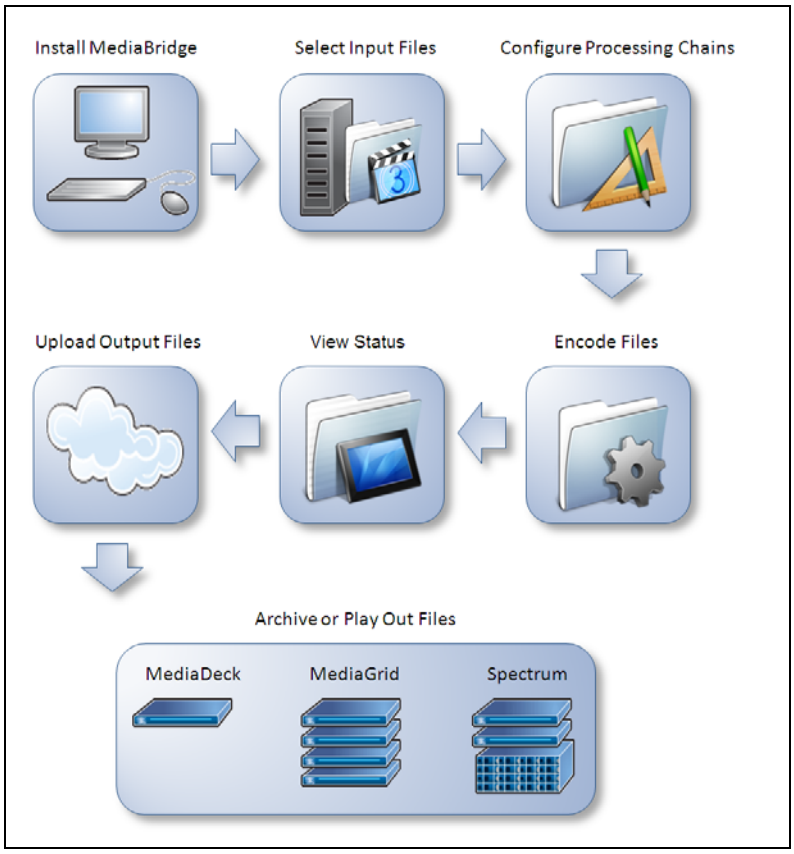
1. Install MediaBridge on a PC with network connectivity.
2. Identify the files you want to convert and place them in an input folder; a folder to which you have access on your local system or remote file server.
3. Launch MediaBridge in a browser and configure a processing chain to encode the files. Two configuration options are available for encoding the steams:
   - Configure a processing chain that encodes the files to your local desktop.
   - Configure a processing chain that encodes the files to a video file server via FTP.
4. Save the processing chain.

   The processing chain immediately becomes active and MediaBridge starts to convert the files in the input folder. During the conversion process, you can continue to copy or create new files and place them in the input folder.

   IMPORTANT: Once started, the encoding process occurs automatically and can be left unattended for the duration of the session. No intervention or action is required on your part.

5. Monitor active conversion jobs or view the status of completed jobs using the MediaBridge "Status" window.

   The Status window provides the processing status (idle, in-process, or completed), percentage complete, and other information about file conversion.
6. When the conversion process is complete, MediaBridge automatically uploads the encoded files to a specified folder based on the processing chain options you selected:
   - If you configured a processing chain that encodes the files to your local desktop, MediaBridge writes the assets to the specified output folder on your local system.
   - If you configured a processing chain that uploads via FTP, then you can upload the files to a specified output directory, for example, on Spectrum.
7. Archive or play out the files on a Spectrum Media Server System or a Omneon MediaGrid Active Storage System.



MediaBridge Workflow

Performance

To support real-time conversion of media clips, MediaBridge can convert up to four simultaneous active encodings, for example, four one-minute clips can be processed in one minute. MediaBridge can convert a greater number of files simultaneously, as well, but performance will be slower.

What's New in this Release

The following changes are new or changed in MediaBridge Release 1.1.0.0 (1.4.16.56):

- Microsoft Internet Explorer 8.0, Mozilla Firefox 3.6.8, or Google Chrome 6.0.472.33 (or greater) are now required.
- Whenever an operation fails, the target output file is removed. This action is not configurable.
- MediaBridge is now able to write the MediaStream Server SOM value into the MXF fields for Spectrum's first frame and start timecode values. The "Force setting the firstFrame value in the output MXF metadata," switch has been added. By default, it is enabled (on).
- An MPEG-1 audio decoding fix has been added to address the bad interpretation of some audio channels.
- Improvements have been made in MPEG PS demultiplexing.

- Tuning parameters for growing source files:
  - A Windows Registry entry has been included to configure the minimum size (in KB) that the std source file is required to have in order for MediaBridge to start reading it. The default configuration value is 1 MB.

    By increasing the value of this entry, MediaBridge can be forced to only act on closed std files, or it will only start processing the clip after its entire std file has been transferred into the watch folder. For example, if the std files of all source clips are smaller than 10 GB and the value is set to 10 GB, then no clip processing will be done on any clip until its std file is closed (the entire clip has been transferred).

    The entry is located at:

    ```
    key="HKEY_LOCAL_MACHINE\Software\Omneon\MediaBridge"
    param="MinimumRequiredSizeForStartReadingInKB" value="1000"
    ```

  - A Windows Registry entry has been included to configure the minimum amount of time (in seconds) that the std source file should not change in order for MediaBridge to consider it no longer growing. This is also relevant for growing input source workflows. The default configuration value is 30 seconds.

    The entry is located at:

    ```
    key="HKEY_LOCAL_MACHINE\Software\Omneon\MediaBridge"
    param="TimeForCompletionInSeconds" value="30"
    ```

    If, for some reason, these entries are removed from the Windows Registry, the applications will continue to work. The application default values are: `MinimumRequiredSizeForStartReadingInKB=500` and `TimeForCompletionInSeconds=5`.

Known Issues

The following known issues exist in MediaBridge Release 1.1.0.0 (1.4.16.56):

- Problems have been observed with growing files in watch folders that are Samba mounted Spectrum or MediaDeck folders.

  Workaround: Use watch folders on the local hard drive or on a MediaGrid.

- Each Pinnacle clip consists of a folder that has the name of the clip with inside it three files: “ft,” “header,” and “std.” The std file contains the essence of the clip, and the ft and header files are comparatively small. For MediaBridge to function correctly, the std file should be written to the watch folder last. Most FTP packages, including FileZilla, transfer files in a folder in alphabetical order.

- Problems have been observed with growing source files written by ProCast, resulting in failing MediaBridge jobs. If MediaBridge is installed on a system other than ProCast, then this problem occurs when 1) the MediaBridge watch folder (local on the MediaBridge PC) is Samba mounted on the ProCast node, or 2) ProCast uses FTP to transfer the files to the watch folder.

  Workaround: Install ProCast and MediaBridge on the same system. Use the ProCast “temp folder” configuration where ProCast moves the files to the MediaBridge watch folder once they are closed.

- A memory leak has been observed with earlier versions of MediaBridge when used in combination with Microsoft Internet Explorer 7.x (or earlier) for configuration and status updates. This leak caused large amounts of RAM to be consumed by Internet Explorer resulting in the slowing down or halting of jobs processed by MediaBridge.

  Workaround: Close Internet Explorer after MediaBridge has been configured and is made operational.

- Use of the Microsoft Internet Explorer FTP client to transfer source files into a MediaBridge watch folder can cause ASCII transfers, resulting in corrupt source files and failed MediaBridge jobs. Use of the Windows Copy and Paste procedures to transfer files into watch folders can also result in failing jobs do to the way that Windows allocates space for the destination files.

  Workaround: Use the FileZilla FTP package, configured for binary transfers.

Best Practices

This section provides recommendations for best practices with Omneon MediaBridge.

- Disable "write-to-disc" cache on the hard drive used for storing the incoming files. This action will decrease disk-write performance, but improve reliability of the system.

  1. In Windows Explorer, navigate to the hard drive and right-click it.
  2. Select **Properties** to open the Disk Properties dialog box.
  3. Click the **Hardware** tab.
  4. Select the hard drive and click the **Properties** button.
  5. In the Properties dialog box, select the **Policies** tab.
  6. Clear (deselect) the **Enable write caching on the disk check box**.
  7. Click **OK**.

- To avoid slowing down the operation of MediaBridge processing, do not install any other software that may consume significant CPU power or large amounts of RAM. One example of this issue is anti-virus software that monitors MediaBridge watch folders; such software may affect performance.

- To help eliminate PC resource contention, optimize the PC display settings for "best performance." The following instructions may vary depending on the graphics card installed in the PC.

  1. Right-click the desktop background and click **Properties** from the pop-up menu.
  2. In the Display Properties dialog, click the **Settings** tab.
  3. Click the **Advanced** button.
  4. Click the **Troubleshoot** tab.
  5. Move the **Hardware Acceleration** slider all the way to the right ("Full").
  6. Click **OK**.

Technical Support

Omneon provides many ways for you to obtain technical and operational support. In addition to contacting your Distributor, System Integrator, or Omneon Account Manager, you can contact the Technical Services department using the Internet, E-mail, phone, or fax.

For support in the Americas:

- +1.888.OVN.SPT1 (1+.888.686.7781) or +1.408.585.5200
- Fax Number: 408.585.5090
- E-mail: support@omneon.com
- http://www.omneon.com or support.omneon.com
- ftp: http://support.omneon.com

For support in Europe, Middle East and Africa:

- Telephone: +44 1256 347 401
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- Fax Number: +44 1256 347 410
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- E-mail: apacsupport@omneon.com
- Fax Number (APAC): +65.6548.0504
- http://www.omneon.com or support.omneon.com

For support in Japan:

- Telephone: +03.5488.7425
- E-mail: japansupport@omneon.com
- Fax Number (Japan): +81.3.5488.7433
- http://www.omneon.com or support.omneon.com

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CHAPTER 2
Installing MediaBridge

This section provides installation instructions for MediaBridge—a product in Omneon's line of software applications. The following topics are covered:

System Requirements

Prior to installing MediaBridge, your PC must conform to the following minimum requirements, and must be connected via Ethernet to your facility's LAN:

- Minimum 2.4 GHz Pentium 4 or equivalent CPU. Recommendation is Intel Quad Core Xeon X34xx series CPU for optimal performance (four streams parallel processing).
- Minimum 2 GB RAM.
- Minimum 20 GB system hard disk drive.
- System hard disk drive at least 50 percent empty.
- Separate hard disk drive for any local watch folders.
- Windows 2000 Service Pack 3 (or later) or Windows XP Professional Service Pack 2 (or later).
- Display resolution set to 1024 x 768 minimum.
- Microsoft Internet Explorer 8.0, Mozilla Firefox 3.6.8, or Google Chrome 6.0.472.33 (or greater)

System Compatibility

MediaBridge is compatible with Omneon Spectrum System software v5.0 or later.

What Gets Installed

The application consists of the main MediaBridge executable plus a PDF version of this guide.

Installing MediaBridge

To install:

1. Log on to the computer on which you want to install MediaBridge.
2. If you have not already done so, open the **MediaBridge.zip** folder that you downloaded from the Omneon support Web site, and extract the files using the password provided by Technical Support. Contact Technical Support for assistance.
3. Locate the **Omneon MediaBridge** executable file icon.

4. Double-click the **Omneon MediaBridge** executable file icon to begin the installation.

5. Click **Next** and then follow the installation steps to install MediaBridge.
6. Click **Finish** when installation is complete.

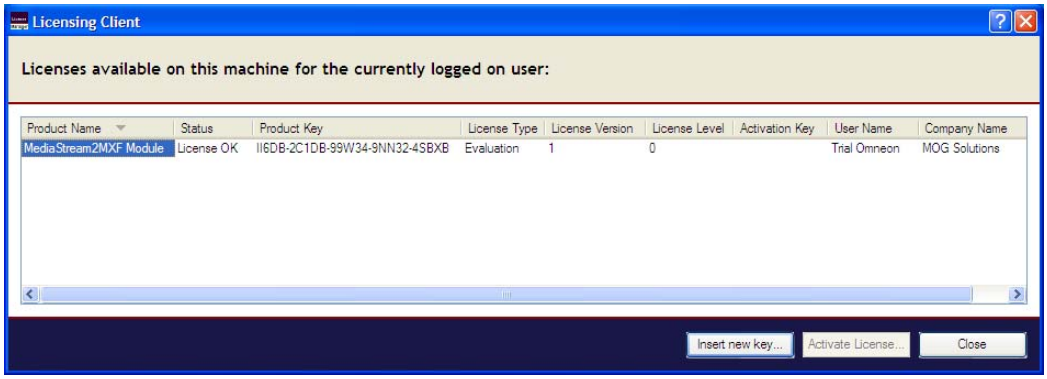
Licensing MediaBridge

A license file (provided by Omneon) supplies the licenses for the MediaBridge components. This file is installed on the Omneon SystemManager computer. One license is required for each product module that is in use on MediaBridge. For example, to encode Pinnacle MediaStreams, a license for the "MediaStream2MXF Module" is required.

To license:

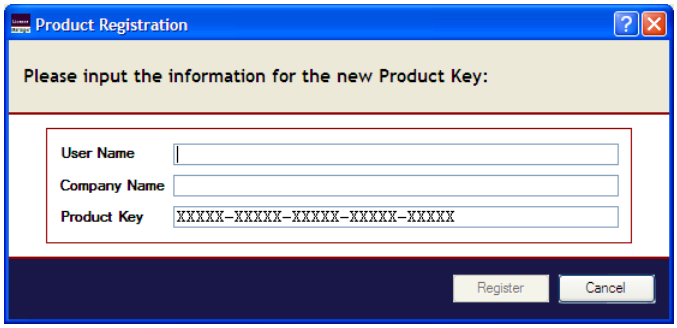
1. Log on to the computer on which MediaBridge is installed.
2. Click **Start > Programs > Omneon > Licensing**.

   The Licensing Client window opens.



3. Click **Insert New Key**.

   The Product Registration window opens.



4. Enter your **User Name** and **Company Name**.
5. Enter the **Product Key** provided to you from Omneon.
6. Click **Register**.

   After successfully registering the module, the Product Registration window closes.

Activating MediaBridge

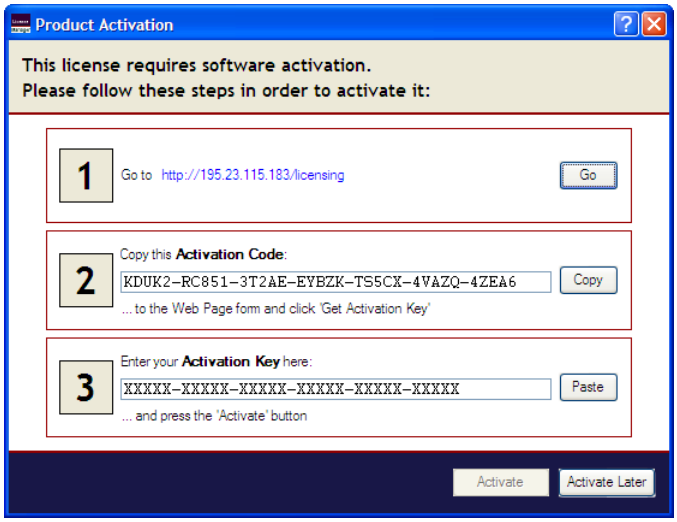
You can use MediaBridge for up to 10 days from the date the license key was generated. During this period, you will need to activate the product to continue using it beyond the expiration date.

To activate:

1. Log on to the computer on which MediaBridge is installed.
2. Click **Start > Programs > Omneon > Licensing**.

   The Licensing Client window opens.
3. Under **Product Name**, select the product you want to activate.
4. Click **Activate License**.

   The Product Activation window opens.



5. Click **Go**.

   The Omneon MediaBridge Activation web page opens.

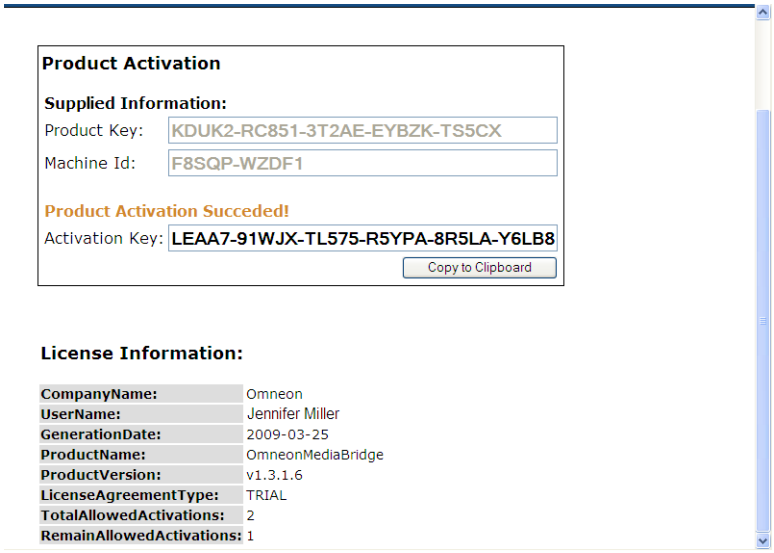
6. In the Product Activation window, click **Copy**.

7. In the Omneon MediaBridge Activation web page, do the following:

   a. Click **Paste Code**.

   b. Click **Get Activation Key**.

   A new window opens and provides the activation key.



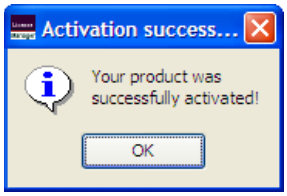
8. Click **Copy to Clipboard**.

9. In the Product Activation window, do the following:

   a. Click **Paste**.

   b. Click **Activate**.

   If activation is successful, the following window opens.



   c. Click **OK**.

   MediaBridge is now activated on the PC.

10. Click **Close**.

NOTE:

If you change the date of the computer during the activation period, the application may cease to work.

If you need to re-install the application on the same PC, this action is not counted as a new activation.

If you need additional licenses to install MediaBridge on other PCs, please contact Omneon Sales for assistance.

11. Go to **Starting MediaBridge** to get started using MediaBridge.

CHAPTER 3
Using MediaBridge

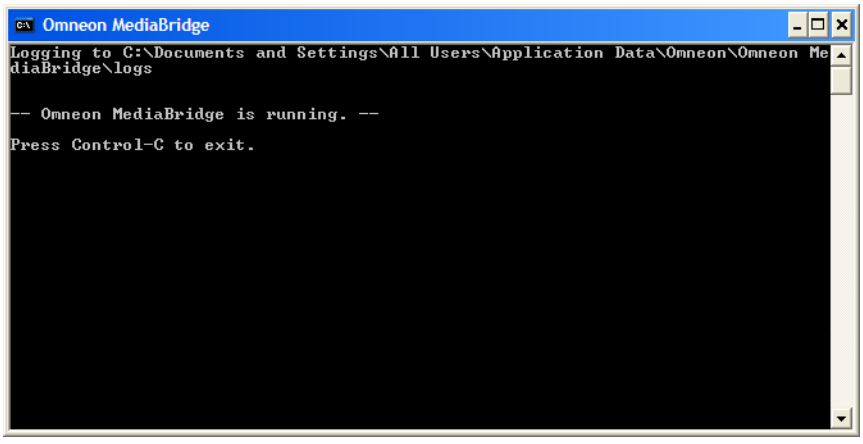
This section explains how to use the MediaBridge application. Choose from the following topics:

Starting MediaBridge

To start:

1. Click **Start > Programs > Omneon > Omneon MediaBridge > Omneon MediaBridge**.

   If MediaBridge successfully starts, the message, "Omneon MediaBridge is running," appears in the Omneon MediaBridge window.



Omneon MediaBridge

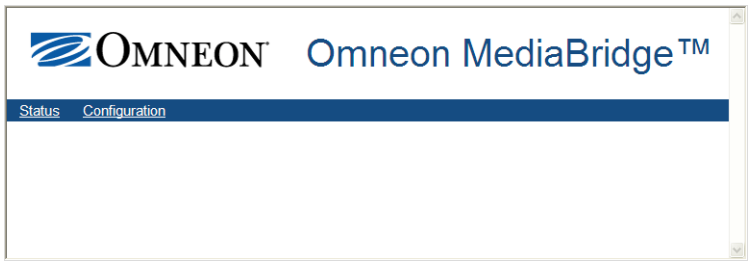
Launching MediaBridge

To launch:

1. Open a web browser.
2. Enter the following information in the address bar:

   `http://localhost:13400/`

   The Omneon MediaBridge GUI window opens.



Omneon MediaBridge GUI Window

Encoding Pinnacle MediaStreams

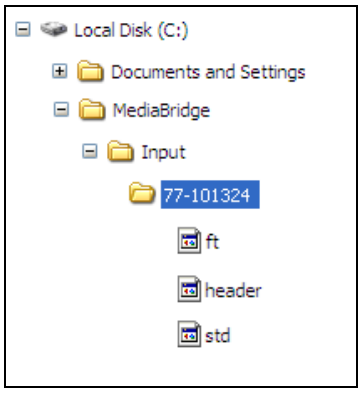
This section explains how to encode Pinnacle MediaStreams and covers the following tasks:

- **Creating Input and Output Folders**
- **Choosing the Source Files**
- **Configuring the Processing Chains**
- **Processing Pinnacle MediaStreams**
- **Processing FTP Pinnacle MediaStreams**

Creating Input and Output Folders

Input Folder

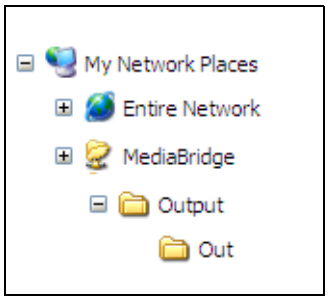
The source files selected for encoding must be placed in a directory specifically designated for use by MediaBridge. To prepare your files for encoding, you first create an input folder on a local directory, or on a remote directory to which you have access. After creating the input folder, which can be named with a label of your choice, you then create one or more subfolders to hold the Pinnacle source files.



Example Input Directory Structure

Output Folder

When the encoding process is complete, MediaBridge uploads the encoded files to a specified output directory. The output directory, which can be named with a label of your choice, can be created on a local directory on your PC, or on a remote directory to which you have access, for example, on a MediaDeck. If you selected the FTP option when configuring processing chains, you'll need permissions to access the FTP directory where the encoded files are saved.



Example Output Directory Structure

Choosing the Source Files

To encode a Pinnacle stream using MediaBridge, three source files are required:

- header file—contains the metadata information that the MSS file system uses to monitor the other tracks in the content.
- ft file—contains a frame table that the server uses to index the video content during trimming operations.
- std file—contains the video clip's native MPEG2 media content: video, audio, vertical interval, and so forth. For example:
  - MPEG Program Stream – 1 MPEG video(30Mbps) + 1 stereo or 2 stereo PCM audio channel
  - MPEG System –1 MPEG video (15Mbps) + 1 stereo or 2 stereo MPEG audio channel
  - MXF OP1A – 50 Mbps (IMX-MPG) or 56.2Mbps (long GOP MPEG) video + 8 channel audio

All three files, header, ft, and std, must be copied to a specified subfolder in the input folder.

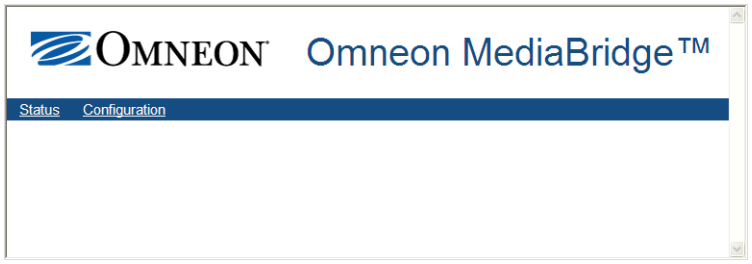
Configuring the Processing Chains

A processing chain is a set of rules that have been configured for conversion. Two configuration options are available for encoding the steams:

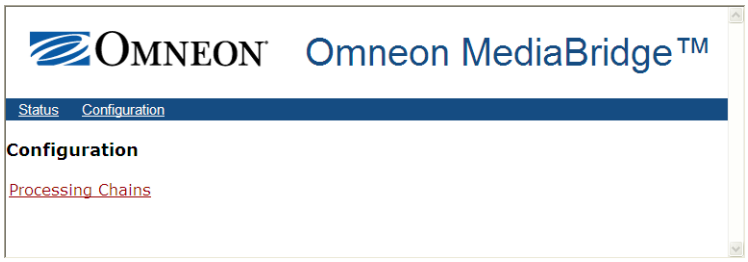
- Configure a processing chain that encodes the files to your local PC.
- Configure a processing chain that encodes the files to a video file server via FTP.

To configure:

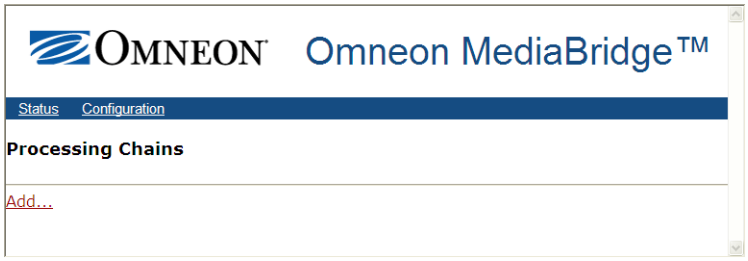
1. In the Omneon MediaBridge window, click **Configuration**.



2. Click **Processing Chains**.

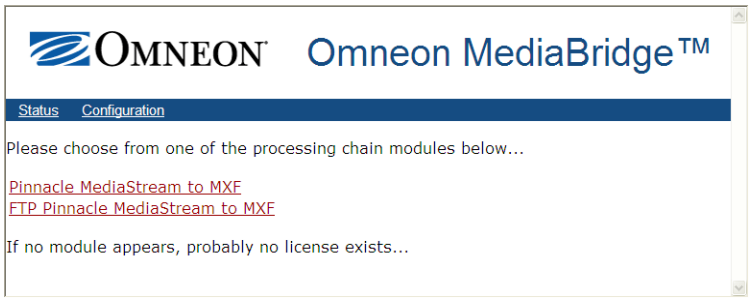


3. Click **Add**.



Add Processing Chains

4. Do one of the following:
   - To encode a Pinnacle MediaStream, go to **Processing Pinnacle MediaStreams**.
   - To encode an FTP Pinnacle MediaStream stream, go to **Processing FTP Pinnacle MediaStreams**.

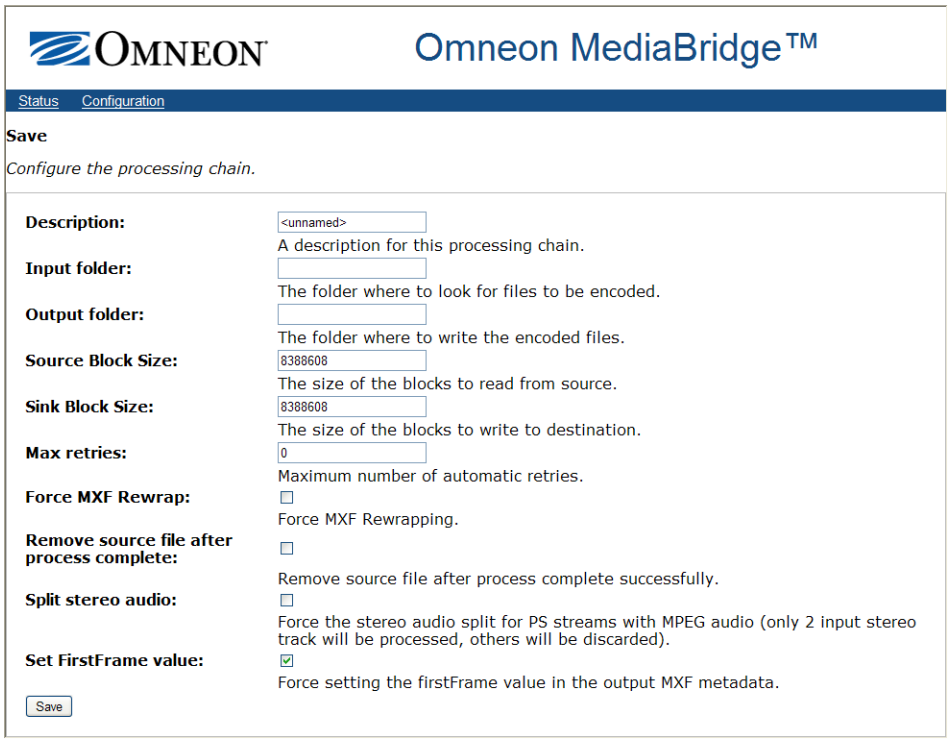


Choose Processing Chains

Processing Pinnacle MediaStreams

To process:

1. Click **Pinnacle MediaStream to MXF**.
2. Configure the processing chain as required.



Configure Processing Chain

Table 2 Pinnacle MediaStream Parameters

Description	Enter a description for this processing chain.
Input Folder	Enter the name of input folder where the subfolders and their files will be stored. For example: `C:\Input.`
Output Folder	Enter the name of the folder where the encoded files will be written. For example: `C:\Output`.
Source Block Size	Enter the size of the blocks to read from the source. The default is 4096.
Sink Block Size	Enter the size of the blocks to write to the output folder. The default is 65536.
Max Retries	Enter the maximum number of times the conversion process is attempted, before the MediaBridge aborts the process. The default is 0.

Table 2 Pinnacle MediaStream Parameters (Continued)

Force MXF Rewrap	Enable this option for error recovery. If an error occurs when recording a file, MediaBridge will attempt to re-read the partial file and recover all the frames recorded until the error point. If the option is disabled, any file produced by Omneon or by MediaBridge is only copied.
Remove source file after process complete	Select this option to remove the source file after the process complete successfully.
Split stereo audio	Select this option to force the stereo audio split for PS streams with MPEG audio. Only two input stereo track are processed, any other tracks are discarded.
Set FirstFrame value	Select this option to set the firstFrame value in the output MXF metadata.

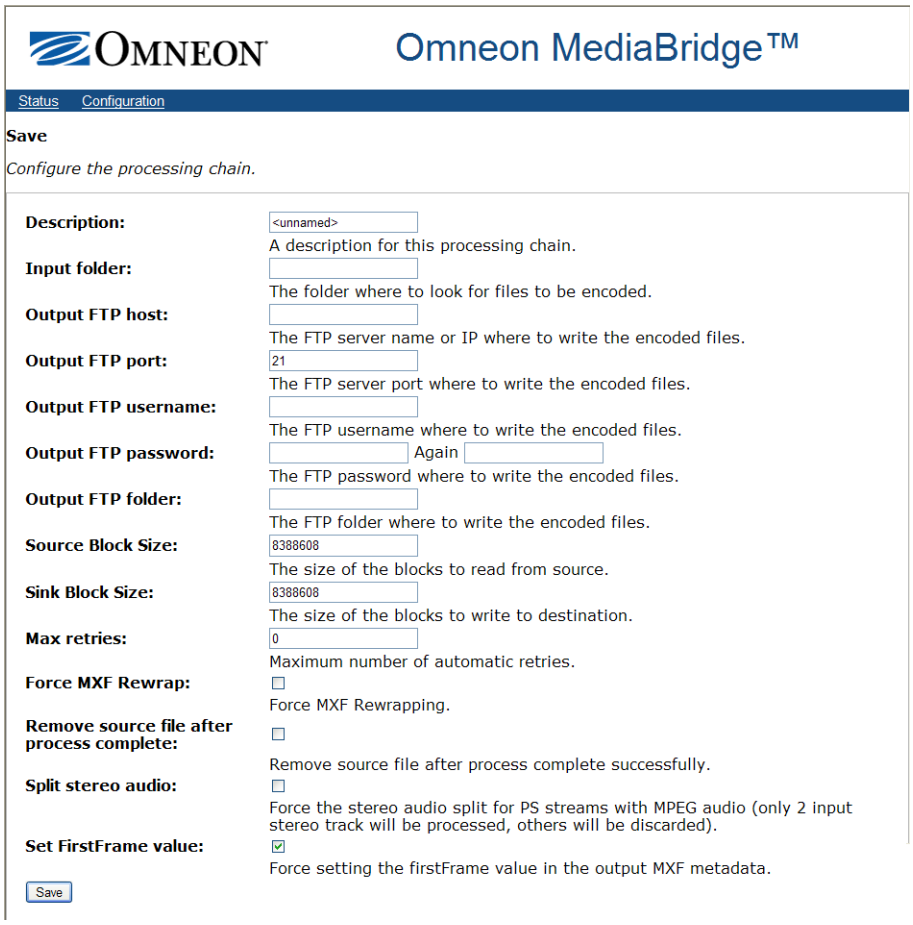
3. Click **Save**.

   MediaBridge starts the encoding process. Refer to **Monitoring MediaBridge** to monitor the process.

Processing FTP Pinnacle MediaStreams

To process:

1. Click **FTP Pinnacle MediaStream to MXF**.
2. Configure the processing chain as required.



Configure Processing Chain

Table 3 FTP Pinnacle MediaStream Parameters

Description	Enter a description for this processing chain.
Input Folder	Enter the name of input folder where the subfolders and their files will be stored. For example: `C:\Input`.
Output FTP Host	Enter the FTP server name or IP address where the encoded files will be written. For example, enter the name or IP address of the MediaDeck.
Output FTP Port	Enter the FTP server port number.
Output FTP Username	Enter the user name required to access the FTP directory where the encoded files will be written.
Output FTP Password	Enter the password (twice) required to access the FTP directory where the encoded files will be written.
Output FTP Folder	Enter the destination folder where the encode files will be written.
Source Block Size	Enter the size of the blocks to read from the source. The default is 4096.

Table 3 FTP Pinnacle MediaStream Parameters (Continued)

Sink Block Size	Enter the size of the blocks to write to the output folder. The default is 65536.
Max Retries	Enter the maximum number of times the conversion process is attempted, before the MediaBridge aborts the process. The default is 0.
File Complete Period	Enter the time (in seconds) to wait for a file to be encoded. The default is 1.0.
Force MXF Rewrap	Enable this option for error recovery. If an error occurs when recording a file, MediaBridge will attempt to re-read the partial file and recover all the frames recorded until the error point. If the option is disabled, any file produced by Omneon or by MediaBridge is only copied.
Remove source file after process complete	Select this option to remove the source file after the process complete successfully.
Split stereo audio	Select this option to force the stereo audio split for PS streams with MPEG audio. Only two input stereo track are processed, any other tracks are discarded.
Set FirstFrame value	Select this option to set the firstFrame value in the output MXF metadata.

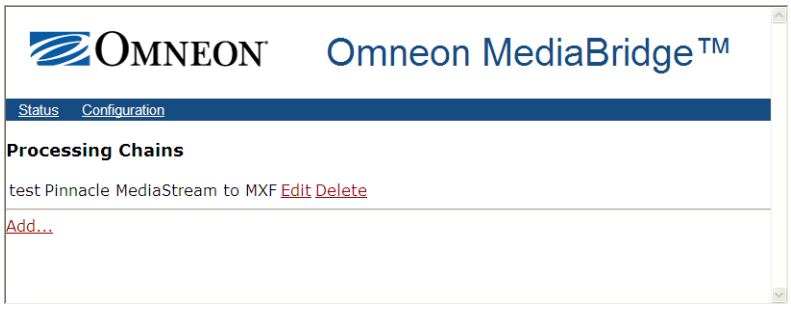
3. Click **Save.**

   MediaBridge starts the encoding process. Refer to **Monitoring MediaBridge** to monitor the process.

Editing Processing Chains

To edit:

1. From the MediaBridge window, click **Configuration**.
2. Identify the processing chain you want to edit.
3. Click **Edit**.



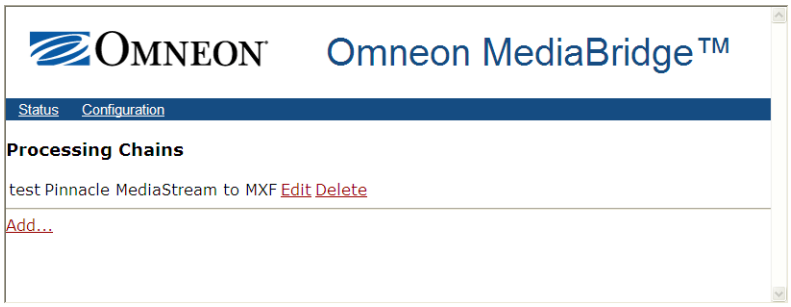
Processing Chains

4. Modify the processing parameters, as needed.
5. Click **Save**.

Deleting Processing Chains

To delete:

1. From the MediaBridge window, click **Configuration**.
2. Identify the processing chain you want to delete.
3. Click **Delete**.



Processing Chains

Monitoring MediaBridge

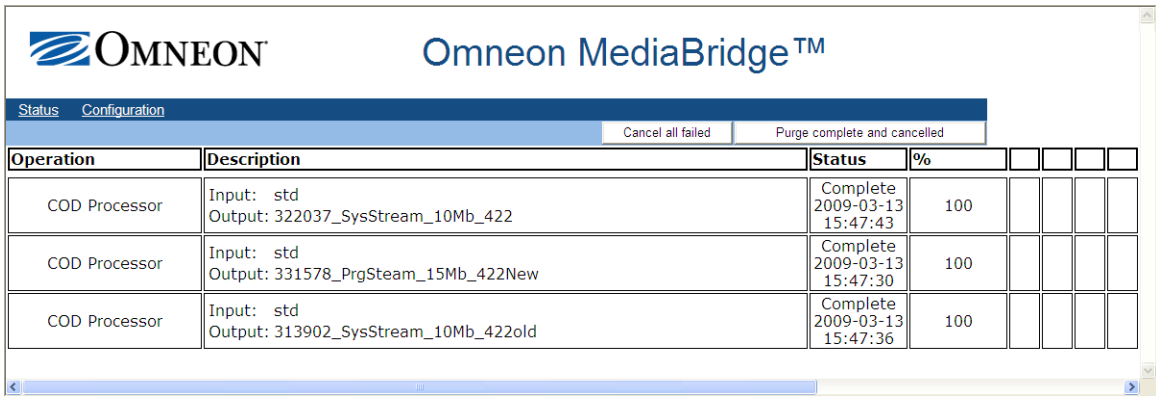
The Status page in the Omneon MediaBridge GUI enables you to monitor active conversion jobs.

- Processing status (idle, in-process, or completed)
- Percentage complete
- Log file for failure details
- Manual retry
- Alarms through XML RPC messages

To monitor:

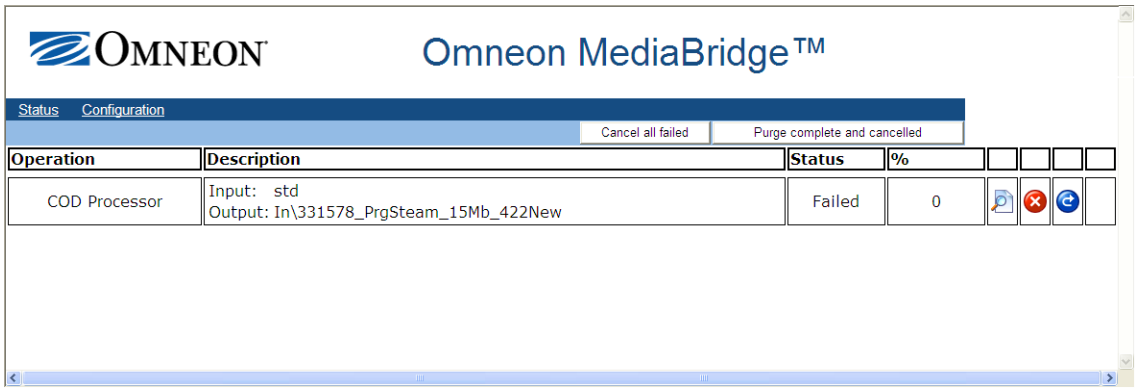
1. From the MediaBridge window, click **Status**.

   The following illustration shows an example of a successful encoding operation.



Status

The following illustration shows an example of an unsuccessful encoding operation.



Status

Refer to Table 4 for a description of the Status page.

Table 4 Status Parameters

Parameters	
Operation	Shows "COD processor."
Description	Shows the input file name ('std") and the output folder name.
Status	Shows Idle, Running, Failed, or Completed. **Note**: If an operation fails, the target output file is removed. This action is not configurable.
%	Shows the progress of the encoding operation as a percentage of completion. The percentage is 100% if the operation completed successfully and 0% if the operation failed.

Table 4 Status Parameters (Continued)

Buttons	
	Shows a log file of the error.
	Cancels the encoding operation.
	Retries the encoding operation.
Cancel all failed	Cancels all failed encoding operations.
Purge complete and cancelled	Cancels all completed and cancelled operations.

2. To manage a failed encoding operation, do the following:
   - Click  to view a log file of the error.
   - Click  to cancel the encoding operation.
   - Click  to retry the encoding operation.
3. To clear the Status page, do the following:
   a. Click **Cancel All Failed**.
   b. Click **Purge Complete and Cancelled**.
   c. Click **OK** to confirm.

Exiting MediaBridge

To exit:

1. Do one of the following:
   - Close the MediaBridge window.
   - Press **Ctl+C**.

   The MediaBridge session ends and the Omneon MediaBridge window closes.

CHAPTER 4
Troubleshooting MediaBridge

This section explains how to troubleshoot the MediaBridge application. Choose from the following topics:

Managing Firewalls and Anti-virus Applications

If your PC is configured with a firewall, or an anti-virus application is installed, MediaBridge may display the following message:

```
omneon_mediabridge is attempting to listen for connections from other computers
```

To work around this issue, select the **Allow Always** option in the pop-up window. When selected, this option unblocks system monitoring and web page functionality provided by the MediaBridge application.

Managing Failed Persistent Operations

MediaBridge maintains the persistency of operations even if the application is closed, or is abnormally terminated. When restarted, MediaBridge will attempt to retry the operation. If MediaBridge is unsuccessful, you need to remove the operation.

CAUTION: *The following procedure deletes all persistent operations and can result in the loss of data in this state.*

To manage:

1. Close MediaBridge and end your current session.
2. From the PC on which MediaBridge is installed, go to the following directory:

   ```
   C:\Documents and Settings\All Users\Application Data\Omneon\Omneon MediaBridge\operation_data
   ```

3. Delete all files in `operation_data` directory.

4. Go to the following directory:

   `C:\Documents and Settings\All Users\Application Data\Omneon\Omneon MediaBridge\persistence`

5. Delete all files in the `persistence` directory.

6. Restart MediaBridge to enable the changes.

Setting Advanced Configuration Parameters

MediaBridge provides an advanced configuration file that enables you to set the following parameters:

Table 5 Advanced Configuration Parameters

Parameter	Default	Description
`http_server`	`port value="13400"`	The port number of the HTTP server. If you change the HTTP default port to "80," ensure that no other HTTP service or application is running. In this circumstance, MediaBridge may not start.
`xml_rpc_server`	`host value="localhost"` `port value="88"`	The port number of the XML-RPC server.
`process_priority value`	`process_priority value="normal"`	The priority of the process. The values are: "low", "normal," or "high."
`max_simultaneous_ operations value`	`max_simultaneous_ operations value="1"`	The number of simultaneous operations to be done by the server. A higher value may impact system performance.

To set:

1. Close MediaBridge and end your current session.

2. From the PC on which MediaBridge is installed, go to the following directory:

   `C:\Documents and Settings\All Users\Application Data\Omneon\Omneon MediaBridge\config\core_server.xml`

3. Open the `core_server.xml` file.

4. Edit the file, as required.

5. Save your changes and close the file.

6. Restart MediaBridge to enable the changes.

Supplying Log Files to Omneon Support

A log file of MediaBridge operations is provided in the following directory:

```
C:\Documents and Settings\All Users\Application Data\Omneon\Omneon MediaBridge\logs
```

When contacting Omneon support, please have this information available.

APPENDIX A
Glossary

Container	A special file format that is used to combine or hold the audio and video assets within one file for convenient storage and transport.
Digital Audio Compression (AC-3)	A lossy format designed for the efficient encoding of surround sound, developed to support motion picture presentations in theaters and at home.
Dolby-E	A digital audio technology optimized for the distribution of surround and multichannel audio through digital two-channel post production and broadcasting infrastructures.
Essence	The audio-visual data in an MXF file.
General eXchange Format (GXF)	A file format originally created by Grass Valley Group for transporting compressed video files over Fiber Channel networks using FTP, GXF supports JPEG video and uncompressed audio, MPEG, DV, and HD.
Material eXchange Format (MXF)	A wrapper for professional digital video and audio media defined by SMPTE 377M: The MXF File Format Specification. MXF supports a number of different streams of coded "essence", encoded with any of a variety of codecs, together with a metadata wrapper which describes the material contained within the MXF file.
Metadata	A part of the MXF file that includes "data about data." Examples are sample rates, compression codecs and the order of clips in a composition.
MPEG-1 Audio Layer II	A lossy audio codec defined by ISO/IEC 11172-3.
MPEG-2	A standard for the generic coding of moving pictures and associated audio information. It describes a combination of lossy video compression and lossy audio data compression methods which permit storage and transmission of movies using currently available storage media and transmission bandwidth.
MXF Operational Pattern 1a (OP1a)	A single playable essence comprising a single essence element or interleaved essence elements as defined by SMPTE 378M-2004, Material Exchange Format (MXF) Operational pattern 1A (Single Item, Single Package).
Processing Chain	An MXF or GXF system or program stream that is configured for encoding by MediaBridge.
Pulse Code Modulation (PCM) Audio	A type of encoding used for audio bitstreams.
Wrapper	A type of container used in professional video to combine the elements (audio and video files) as well as the metadata.

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