



MOMENTUM V5.4

MEDIA ASSET MANAGEMENT SYSTEM

Configuration Guide

Issue 1 Revision 1

2020-11-17

www.grassvalley.com

FCC Compliance

In order to comply with FCC/CFR47: Part 15 regulations, it is necessary to use Mini HDMI to HDMI high-quality triple-screened cable assemblies with integrated ferrite suppression at both ends.

Patent Information

This product may be protected by one or more patents.

For further information, please visit: www.grassvalley.com/patents/

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Important Safety Information

This section provides important safety guidelines for operators and service personnel. Specific warnings and cautions appear throughout the manual where they apply. Please read and follow this important information, especially those instructions related to the risk of electric shock or injury to persons.

Symbols and Their Meanings



Indicates that dangerous high voltage is present within the equipment enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



Indicates that the user, operator or service technician should refer to the product manuals for important operating, maintenance, or service instructions.



This is a prompt to note the fuse rating when replacing fuses. The fuse referenced in the text must be replaced with one having the ratings indicated.



Identifies a protective grounding terminal which must be connected to earth ground prior to making any other equipment connections.



Identifies an external protective grounding terminal which may be connected to earth ground as a supplement to an internal grounding terminal.



Indicates that static sensitive components are present, which may be damaged by electrostatic discharge. Use anti-static procedures, equipment and surfaces during servicing.



Indicates that the equipment has more than one power supply cord, and that all power supply cords must be disconnected before servicing to avoid electric shock.



The presence of this symbol in or on Grass Valley equipment means that it has been tested and certified as complying with applicable Underwriters Laboratory (UL) regulations and recommendations for USA.



The presence of this symbol in or on Grass Valley equipment means that it has been tested and certified as complying with applicable Canadian Standard Association (CSA) regulations and recommendations for USA/Canada.



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The presence of this symbol in or on Grass Valley product means that it complies with all applicable European Union (CE) directives.



The presence of this symbol in or on Grass Valley product means that it complies with safety of laser product applicable standards.

Warnings



A warning indicates a possible hazard to personnel, which may cause injury or death. Observe the following general warnings when using or working on this equipment:

- Appropriately listed/certified mains supply power cords must be used for the connection of the equipment to the rated mains voltage.
- This product relies on the building protection. Ensure that a fuse or circuit breaker for the rated mains voltage is used on the phase conductors.
- Any instructions in this manual that require opening the equipment cover or enclosure are for use by qualified service personnel only.
- Do not operate the equipment in wet or damp conditions.
- This equipment is grounded through the grounding conductor of the power cords. To avoid electrical shock, plug the power cords into a properly wired receptacle before connecting the equipment inputs or outputs.
- Route power cords and other cables so they are not likely to be damaged. Properly support heavy cable bundles to avoid connector damage.
- Disconnect power before cleaning the equipment. Do not use liquid or aerosol cleaners; use only a damp cloth.
- Dangerous voltages may exist at several points in this equipment. To avoid injury, do not touch exposed connections and components while power is on.
- High leakage current may be present. Earth connection of product is essential before connecting power.
- Prior to servicing, remove jewelry such as rings, watches, and other metallic objects.
- To avoid fire hazard, use only the fuse type and rating specified in the service instructions for this product, or on the equipment.
- To avoid explosion, do not operate this equipment in an explosive atmosphere.
- Use proper lift points. Do not use door latches to lift or move equipment.
- Avoid mechanical hazards. Allow all rotating devices to come to a stop before servicing.
- Have qualified service personnel perform safety checks after any service.

Cautions



A caution indicates a possible hazard to equipment that could result in equipment damage. Observe the following cautions when operating or working on this equipment:

- This equipment is meant to be installed in a restricted access location.
- When installing this equipment, do not attach the power cord to building surfaces.
- Products that have no on/off switch, and use an external power supply must be installed in proximity to a main power outlet that is easily accessible.
- Use the correct voltage setting. If this product lacks auto-ranging power supplies, before applying power ensure that each power supply is set to match the power source.
- Provide proper ventilation. To prevent product overheating, provide equipment ventilation in accordance with the installation instructions.
- Do not operate with suspected equipment failure. If you suspect product damage or equipment failure, have the equipment inspected by qualified service personnel.
- To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.
- This unit may have more than one power supply cord. Disconnect all power supply cords before servicing to avoid electric shock.
- Follow static precautions at all times when handling this equipment. Servicing should be done in a static-free environment.
- To reduce the risk of electric shock, plug each power supply cord into separate branch circuits employing separate service grounds.

Electrostatic Discharge (ESD) Protection



Electrostatic discharge occurs when electronic components are improperly handled and can result in intermittent failure or complete damage adversely affecting an electrical circuit. When you remove and replace any card from a frame always follow ESD-prevention procedures:

- Ensure that the frame is electrically connected to earth ground through the power cord or any other means if available.
- Wear an ESD wrist strap ensuring that it makes good skin contact. Connect the grounding clip to an *unpainted surface* of the chassis frame to safely ground unwanted ESD voltages. If no wrist strap is available, ground yourself by touching the *unpainted* metal part of the chassis.
- For safety, periodically check the resistance value of the antistatic strap, which should be between 1 and 10 megohms.
- When temporarily storing a card make sure it is placed in an ESD bag.
- Cards in an earth grounded metal frame or casing do not require any special ESD protection.

Battery Handling



This product may include a backup battery. There is a danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. Before disposing of your Grass Valley equipment, please review the *Disposal and Recycling Information* at:

http://www.grassvalley.com/assets/media/5692/Take-Back_Instructions.pdf

Cautions for LCD and TFT Displays



Excessive usage may harm your vision. Rest for 10 minutes for every 30 minutes of usage.

If the LCD or TFT glass is broken, handle glass fragments with care when disposing of them. If any fluid leaks out of a damaged glass cell, be careful not to get the liquid crystal fluid in your mouth or skin. If the liquid crystal touches your skin or clothes, wash it off immediately using soap and water. Never swallow the fluid. The toxicity is extremely low but caution should be exercised at all times.

Environmental Information

European (CE) WEEE directive.



This symbol on the product(s) means that at the end of life disposal it should not be mixed with general waste.

Visit www.grassvalley.com for recycling information.

Grass Valley believes this environmental information to be correct but cannot guarantee its completeness or accuracy since it is based on data received from sources outside our company. All specifications are subject to change without notice.

If you have questions about Grass Valley environmental and social involvement (WEEE, RoHS, REACH, etc.), please contact us at environment@grassvalley.com.

On Receipt of the Momentum System

Any equipment is supplied in dedicated packaging provided by the manufacturer and should not be accepted if delivered in inferior or unauthorized materials.

Carefully unpack the system components and check them against the packing list. If there is anything incorrect notify your Grass Valley Partner, or Grass Valley, at once. Check that the equipment has not been damaged in transit. If any damage has occurred notify your Grass Valley Partner (or Grass Valley directly) and the carrier immediately. Always retain the original packing materials if possible, they could prove useful should it ever be necessary to transport or ship the system units.

Always read the *Installation Guide*, *Configuration Guide* and the *Operator's Guide* (separate manuals) carefully, it will provide you with helpful hints and tips about care and maintenance and help you get the most out of your Momentum system.

In the unlikely event of an equipment failure, contact your Grass Valley Partner, or Grass Valley, at once, contact details are at the rear of this manual.

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1 Introduction

Overview

Welcome to Momentum!

Momentum is a powerful, media asset management and workflow automation system, designed to suit the requirements of leading media organizations. An incredibly flexible, enterprise level system, Momentum features fully configurable workflows, detailed process reporting and extensive integration with third party applications and platforms, enabling you to take complete control of your media assets, operations and business processes.

Based on service-oriented architecture (SOA), Momentum provides access to your business processes through the Internet or the company intranet - supplying an extensive suite of tools for different stages of the production process.

Momentum maintains and tracks your media assets in an Oracle database, makes them searchable, augments them with rich metadata, manages various job queues, controls archive and other third party devices, and enables assets to be ingested and exported in a number of different formats.

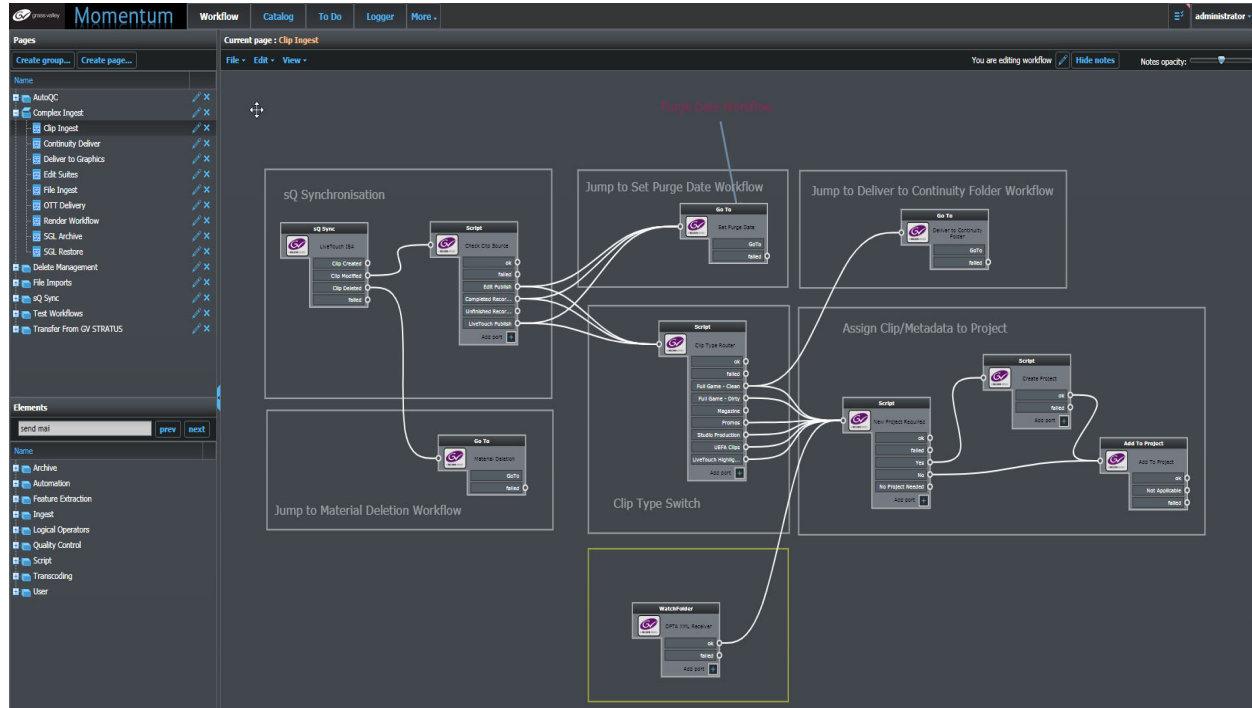


Fig. 1-1: Example Momentum Workflow Page

Most of these operations take place through managed workflows, in which you can define when and how a new or existing asset requires additional automated or manual processing to meet your needs. Powerful workflow modeling tools provide the building blocks to manage media assets on the Momentum Workflow page, a canvas on which your business processes are represented as a series of interconnected and easy-to-use schematic diagrams. Using the workflow functions, you can design and implement your workflows and the desired processing paths for the different media asset files. In addition, you can also monitor and analyze the progress of running processes and any associated tasks. As a file-based solution, Momentum is designed to deliver content to a range of targets including social media and video on demand (VOD) sites.

In summary, Momentum enables you to:

- Automate the processing of content through reliable and repeatable workflows.
- Deliver content to a range of platforms including social media and VOD applications.
- Extend your organization's capability as operations grow through configurable workflows and resource pooling.

Momentum Key Features

Momentum supports the following features:

- User configurable workflows with support for scripting in C#, Python, IronPython and Visual Basic.
- HTML5-based user interface for web browser access to a multi-user environment for media-file cataloging and faster content distribution.
- Automated media file ingest using watch folders, delivery to S3 and social media platforms. And use of both standard file transfer protocols and proprietary transfer applications such as Signiant and Aspera.
- Automated metadata ingest using watch folders, BXF messaging and other third party system integrations.
- Video and audio editing using the built-in editor or other integrated Grass Valley editors.
- Desktop proxy browsing, including automated generation of proxy files.
- Integration with a wide range of third party, automated quality checking, transcoding and archive devices.
- Integration with other Grass Valley products such as the Go! Video Timeline Editor, sQ Suite and Morpheus Playout Automation.
- Configurable metadata publishing templates for delivery to linear playout and non-linear delivery platforms.
- Web Services API for third party integration.
- Oracle 12c (12.1.0.2.0) database clustering.
- Support for Microsoft Windows 2012 with IIS for dual redundancy and user load balancing.
- Reporting and statistical analysis to understand processes and improve capacity planning.

This guide describes how to configure a Momentum system using the administrative functions in combination with the XML configuration files. For information on using Momentum and creating workflows, refer to the Momentum *Operator's Guide*.

Essential Momentum Configurations



Introduction

Before using Momentum, it is essential to perform some basic configuration in order to access the Momentum web interface and perform workflow activities.

The configuration procedure includes the following tasks:

- [Configuring the Momentum License](#), on page 9.
- [Configuring the Location of Media Files](#), on page 9.
- [Configuring the Database Connections](#), on page 9.
- [Configuring the Momentum Web Options](#), on page 10.
- [Configuring the Generic Momentum Server Parameters](#), on page 13.
- [Configuring the sQ Zone](#), on page 18.
- [Configuring the Alert System for Workflow Elements](#), on page 21.
- [Configuring the Momentum Farm](#), on page 22.
- Configuring the Momentum Watchfolder server, see [Configuring the WatchFolder Server and Node Components](#), on page 195.

It is also necessary to configure the following XML files located in the directory

C:\Mantrics

- FileBasicInfo.xml
- DBConfiguration.xml
- MantricsConfig.xml
- MantricsServer.xml
- MantricsNode.xml

When the basic configuration is complete, navigate to the window **Control Panel > System and Security > Administrative Tools > Services** and start the following Momentum manual services:

- Momentum Server
- Momentum Node
- Momentum RLM License Server
- Momentum WatchFolder

You might also need to start other manual services if available (for example, BXF Receiver, etc.) depending on the modules and third-party products included in your system.

Overview of XML Configuration Files

Momentum includes a suite of XML files used to configure the system before you can start configuring workflow elements and workflows in the user interface. These configuration files enable you to set-up licensing, communications between server and nodes, specific configurations for third party devices, etc. The XML files are available in the default installation folder:

XML File	Description
Folder: C:\Mantrics	
AudioTrackLanguages.xml	Defines the languages and labels supported for audio tracks.
AuthenticationConfig.xml ^[1]	Provides authentication data to connect to an LDAP server for the bulk import of users from a Microsoft Windows environment.
BxfDeleteMessagesGeneratorConfig.xml	Defines the parameters passed to the BxfDeleteMessagesGenerator executable, which generates a BXF message to trigger a workflow to remove BXF messages.
DBConfiguration.xml	Provides authentication data to connect to the Momentum database.
DivaConfig.xml	Defines DIVA error codes and associated descriptions that may be generated by a DIVArchive archiving system.
FFmpegFramerateConfig.xml ^[1]	Defines the source frame rates that can be selected when configuring the default Momentum FFmpeg transcoder workflow element.
FileBasicInfo.xml	Defines fundamental information to allow the Momentum file basic information reader to analyze the metadata in source media files to retrieve structural information (e.g., timecode in, duration, width, height, framerate, etc.)
HooksConfig.xml	Provides parameters to display the task notification panel.
IceConfig.xml	Defines authentication parameters to enable additional devices to communicate with Momentum using the Morpheus API (including Morpheus server, Omneon Server, sQ Devices, etc.) This file is also used to enable the simultaneous, dual-review of material, available on two different Omneon Server ports, in the Momentum Logger page using a Morpheus API.
InstanceLabelsConfig.xml	Defines the instance labels for the various supported media types that can be selected when configuring workflow elements (e.g., HQ, AUX, AUDIO, ORIGINAL, etc.)
LicenseConfig.xml	Defines the hostname and port of the Momentum license server.
MantricsConfig.xml	General configuration data for the Momentum system, including the configuration of ingest parameters, auxiliary files, accessible folders, date formats, storage map, etc.

XML File	Description
MantricsNode.xml	Defines the node-side parameters to communicate with connected Momentum nodes, including transcoder and QC devices, thumbnail generator utility, MXF utilities, additional workflow element nodes, social media nodes.
MantricsOwnerConfig.xml	Defines Owner IDs used for BXF message communication with a Morpheus system.
MantricsResourceConfig.xml	Defines the maximum tasks that can be processed on Momentum nodes.
MantricsServer.xml	Defines the server-side parameters to enable nodes to communicate with the Momentum server, including transcoder and QC devices, thumbnail generator utility, MXF utilities, additional workflow elements, social media sites.
MetadataChangeNotifierConfig.xml	Defines the settings of the Metadata Change Notifier , a tool that can trigger a workflow as a result of a change to metadata.
MorpheusServerConfig.xml ^[1]	Defines the communication parameters for a Morpheus Playout Automation system, including hostname and port, SMTP authentication parameters, synchronization parameters, etc.
queries.xml	Defines parameters to allow users to save queries defined in the Catalog and Logger Pages and in the Material Browser pane of the Editing page.
SchedulesConfig.xml	Defines the channel names and IDs used in the playout schedule.
SchedulesReceiverConfig.xml	Defines the location in which a Morpheus system saves schedule files for import into Momentum.
SegmentsConsolidatorConfig.xml	Defines parameters for third party segment consolidator devices.
ServerCommandsConfig.xml	Defines default values for the ServerCommands host and port used to direct user notifications to the correct web page.
TransferRequestsConfig.xml	Defines parameters to enable the communication of transfer requests between a Morpheus Playout Automation system and Momentum.
WatchFolderServerConfig.xml	Defines parameters on the Watchfolder server.
WebHooksRouter.xml	Defines communication parameters and credentials used by the Momentum Web application to start the HooksRouter service and to allow WebHooksRouter to get the relevant information about the certificate. For more information, see: https://nodejs.org/api/tls.html#tls_tls_createserver_options_secureconnectionlistener

Folder: C:\Mantrics\BxfExportTemplates

XML File	Description
Default.xml	Default template for the generation of BXF Export messages.
Folder: C:\Mantrics\BxfQueryTemplates	
Default.xml	Default template for the generation of BXF Query messages.
Folder: C:\Mantrics\BxfReceiverTemplates	
Default.xml	Default template for the generation of BXF Receiver messages.
Folder: C:\Mantrics\BxfTransferMetadataRetriever Templates	
Default.xml	Default template for the extraction of metadata from BXF Transfer Request messages.
Folder: C:\Mantrics\ExportTemplates\TransferRequests	
MissingMaterials.xml	Default XML template for schedule missing materials report.
MissingMaterials.csv	Default CSV template for schedule missing materials report.
Folder: C:\Mantrics\MaterialCheckerTemplates\	
MaterialCheckerTememplate.xml	Default XML template for schedule missing materials report.
Folder: C:\Mantrics\MetadataPublisherTemplates	
DemoTXT.txt	Default
DemoXML.xml	Default
KeySegment.xml	
Folder: C:\Mantrics\WatchfolderTemplates	
WatchfolderDefault.xml	Default

Configuring the Momentum License

To configure the license:

- 1 Navigate to the directory `C:\Mantrics` and open the file `LicenseConfig.xml` using a text editor. The file contains the following element:

```
<LicenseConfig>  
  <LicenseServer>2764@localhost</LicenseServer>  
</LicenseConfig>
```
- 2 Replace the word `localhost` in the node **<LicenseServer>** with the name or IP address of the Momentum license server (the machine where the dongle is connected and the file `license.lic` is stored).

Note: The prefix **2764@** must not be modified or replaced.

- 3 Save the file `LicenseConfig.xml` to store the setting.

Configuring the Location of Media Files

To set the location of media files for ingest:

- 1 Navigate to the directory `C:\Mantrics` and open the file `MantricsConfig.xml` using a text editor.
- 2 In the section **<IngestRootDirs>**, insert the path(s) to the location of the media files. For example:

```
<IngestRootDirs>  
  <IngestRootDir>\\hostname\folder</IngestRootDir>  
</IngestRootDirs>
```

Note: Both UNC and local paths are supported. It is also possible to use the IP address instead of the server hostname.

- 3 Save the file `MantricsConfig.xml` to store the locations.
For further information on the **<IngestConfig>** and **<AuxConfig>** sections of `MantricsConfig.xml`, see Section [Defining the Ingest Configuration](#) on page 53

Configuring the Database Connections

The Momentum server must be connected to at least one database. Each database can support more than one Momentum server. The database connection settings are set in the file:

`C:\Mantrics\DBConfiguration.xml`.

To configure the database connection:

- 1 Navigate to the directory `C:\Mantrics` and open the file `DBConfiguration.xml` using a text editor.

In the section **<DbConfiguration>**, set the user name **<user>**, the password **<password>** and the instance of the database connection **<addressname>**.

The default values for this section are as follows:

```
<DBConfiguration xmlns:xsi="http://www.w3.org/2001/XMLSchema-  
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">  
  <user>MOMENTUMDB</user>  
  <password>momentumdb</password>  
  <addressname>orcl</addressname>  
</DBConfiguration>
```

Note: By default, the database connection is set to the host details created during the installation of Oracle.

- 2 Save the file `DBConfiguration.xml` to store the settings.
- 3 Select **Control Panel > System and Security > Administrative Tools > Services** to open the Services window and restart the IIS Admin Service.

Configuring the Momentum Web Options

To configure the Momentum Web module, you will need to know the following information in advance:

- Name or IP address of the Momentum Server host machine.
- Path to the directory where Momentum stores temporary files for the creation of the Edit Decision Lists (EDLs).
- Paths for mapping the storage location of the Mist streaming server (if installed).

The file `MantricsConfig.xml` contains the main configuration data. Additional configuration is described in the subsequent sections.

Configuring the Momentum Server in MantricsConfig.xml

Note: Values used in the configuration file are case-sensitive.

To configure the Momentum server details:

- 1 Navigate to the directory `C:\Mantrics` and open the file `MantricsConfig.xml` using a text editor.
- 2 In the tag `<MantricsServer>`, replace the default IP value with the IP address of the Momentum server.
- 3 In the tag `<MantricsCatalogURL>`, replace the placeholder `localhost` with the hostname of the Momentum server.
- 4 In the tag `<IISAndServerAccessibleDirs><Dir>`, insert the path to the folder where Momentum stores its temporary files.

```
<IISAndServerAccessibleDirs>  
  <Dir>c:\Temp</Dir>  
</IISAndServerAccessibleDirs>
```


- 5 Set the tag **<CatalogShowAllMetadata>** to **true** (default) to display all metadata in the Catalog page. Alternatively, set to **false** to display only a limited subset of metadata.
- 6 Set the tag **<DefaultToDoViewType>** to the **materials** view (default) to use a materials-based search for tasks in the **To Do** page. Alternatively, set to **tasks** to display a tasks-based view where you can filter available tasks by Material ID in the **To Do** page.
- 7 Save the file `MantricsConfig.xml` to store the new settings.

Note: Ensure that the folder is shared and fully accessible from each machine that needs to be connected to the server using the Momentum Web interface.

Configuring the Date and Time

The Momentum system uses references to Date and Time values in several places. The file `MantricsConfig.xml` enables you to customize these settings as follows:

- 1 Navigate to the directory `C:\Mantrics` directory and open the file `MantricsConfig.xml` using a text editor.
- 2 Locate the tag **<DateFormats>**, which includes a link to information on additional date formats, if required.
- 3 A list of four date format tags is available by default, you can rearrange the elements of these formats to display the date and/or time as desired.

```
<DateFormats Comment="">
  <Date>d/m/Y</Date>
  <Date_And_Time>H:i d/m/Y</Date_And_Time>
  <With_Seconds>H:i:s d/m/Y</With_Seconds>
  <With_Milliseconds>H:i:s.u d/m/Y</With_Milliseconds>
</DateFormats>
```

Where **i** represents two digit minutes with leading zeros (e.g., 00 to 59) and **s** represents two digit seconds with leading zeros (e.g., 00 to 59).

- 4 Save the file `MantricsConfig.xml` to store the new settings.

Note: Adding parameters to a format is possible but it can have some unexpected results as any modification will affect all locations where Momentum applies the modified format.

Configuring the Key Segments

It can be useful to define a pattern for the ID or Title of the key segments. To set these rules, two specific tags are available in the file `MantricsConfig.xml`:

```
<KeySegmentIdPattern/>
<KeySegmentTitlePattern></KeySegmentTitlePattern>
```

Both tags can accept as values: a system keyword (variables), a numeric sequence or a combination of both as in the following example:

```
<KeySegmentIdPattern>{MATERIALID} - ##</KeySegmentIdPattern>
```

In the above example, the tag **<KeySegmentIdPattern>** is initialized using the variable {MATERIALID} value followed by a dash symbol (-) and a numeric sequence of two digits represented by the # characters.

Note: When using the # character to specify a numeric sequence, the following rules apply:
One # represents an unlimited sequence.
Two or more ## characters implies the use of 0s for padding the number and that the sequence is limited to the greatest number possible using the number of digits specified by the number of # characters.

Configuring the Mist Streaming Server

A Momentum installation includes a Mist streaming server which is installed in the directory `C:\Mantrics\MistServer`.

To activate the Mist Server:

- 1 Navigate to the directory `C:\Mantrics` and open the file `MantricsConfig.xml` file using a text editor.
- 2 Locate the tag **<MistHost>** and replace the default IP value with the IP address of the machine currently running the Mist streaming server.

Note: You can also change the default value for the port, 8080, but we recommend avoiding the use of port 80 if the Mist server is running on the same machine as the IIS server.

- 3 Save the file `MantricsConfig.xml` to store the new settings.

Note: For more information about installing and configuring the Mist Streaming Server, see Chapter *Using a Mist Streaming Server*.

Configuration of Miscellaneous Features in MantricsConfig.xml

Configure the Storage Mappings, HooksRouter and NotifierPopUpLifeTime in `MantricsConfig.xml` as follows:

- 1 Navigate to the directory `C:\Mantrics` and open the file `MantricsConfig.xml` file using a text editor.
- 2 Locate the section **<StorageMap>** and in the tag **<FromUNC>** enter the UNC path to the folder containing source files, for example QC reports.

For example:

```
<FromUNC>\\10.10.0.223\video</FromUNC>
```

- 3 In the **<StorageMap>** tag **<ToURL>**, enter a virtual folder as a web destination to map, enabling the review of the source files:

For example:

```
<ToURL>http://localhost/reports</ToURL>
```

- 4 Locate the section **<HooksRouter>** and set the IP address and port of the Hooks Router to allow access to the Hooks Router logs and dashboard using a web page.

For example:

```
<HooksRouter port="8081">127.0.0.1</HooksRouter>
```

- 5 Locate the section **<NotifierPopUpLifeTime>** and set the maximum time that the task notification pop-up can remain visible on the screen. Set a time limit in milliseconds (default is 20000 ms or 20 seconds) after which the Notifier Popup window will close.

For example:

```
<NotifierPopUpLifeTime>20000</NotifierPopUpLifeTime>
```

Configuring the Ingest Parameters in MantricsConfig.xml

See Chapter *Configuring the Ingest Elements* on [page 161](#) for details.

Configuring the Generic Momentum Server Parameters

The configuration file `MantricsServer.xml` is subdivided into several sections, including the section **<Generic>**, which contains values and settings used by various generic elements of the Momentum system as shown below:

```
<Generic>
<commandPort>9000</commandPort>
<MistAPIUrl>http://10.10.0.10:4242/api</MistAPIUrl>
<MistUsername>admin</MistUsername>
<MistPassword>password</MistPassword>
<DoNotRegisterAfterTranscode>true</DoNotRegisterAfterTranscode>
<WebHost>http://localhost/Momentum</WebHost>
<ThumbLx>100</ThumbLx>
<ThumbLy>75</ThumbLy>
<ThumbPath>\\10.10.0.221\Thumbnail\</ThumbPath>
<ThumbFullFrameSetAsIcon>true</ThumbFullFrameSetAsIcon>
<ThumbFullFrameFileName>{MATERIALID}_{INSTANCELABEL}
</ThumbFullFrameFileName>
<ThumbFullFramePath>\\10.10.0.221\Momentum_MEDIA\FULLFRAME
</ThumbFullFramePath>
<ThumbFullFrameSize>
  <SizeConditions />
</ThumbFullFrameSize>
<ThumbFullFrameExtension>jpg</ThumbFullFrameExtension>
<ThumbFullFrameStatusMetadata/>
<RecoverTimeIntervalInSec>30</RecoverTimeIntervalInSec>
<SNMPAgentAddress>127.0.0.1:161</SNMPAgentAddress>
<SNMPBroadcastAddress>10.10.255.255:162</SNMPBroadcastAddress>
<SNMPSendMomentumTrap>false</SNMPSendMomentumTrap>
<ServerCommands port="9004">127.0.0.1</ServerCommands>
<ServerHooksRouter port="9002">127.0.0.1</ServerHooksRouter>
<sQZonesList>
<sQzone ISAManagerPort="2096" ISAManagerIP2="127.0.0.1"
  ISAManagerIP1="10.250.170.100" zoneId="1090" zoneName="Newbury
  Broadcast Centre"/>
```

```
<sQzone zoneName="Mantrics Zone NTSC" zoneId="1401"  
  ISAManagerIP1="10.10.5.45" ISAManagerIP2="10.10.5.49"  
  ISAManagerPort="2096" />  
<sQzone zoneName="Mantrics Zone 1 NTSC" zoneId="1400"  
  ISAManagerIP1="10.10.5.38" ISAManagerPort="2096" />  
</sQZonesList>  
<OmneonHostsList>  
  <OmneonHost isSpectrum="false" isMediagrid="false"  
    OmneonServerAddressOrName=" " />  
</OmneonHostsList>  
<jobHistoryCleanup>  
  <maximumJobDeletionStep>50</maximumJobDeletionStep>  
  <clearHistoryTimeIntervalInMin>5  
    </clearHistoryTimeIntervalInMin>  
  <enabled>>false</enabled>  
</jobHistoryCleanup>  
</Generic>
```

Configure the Generic server tags to grant the Momentum nodes access to a Mist streaming server, sQ Zone, or an Omneon server and set Thumbnail and SNMP parameters as follows:

Configuring the Momentum Server Command Port

- Set the tag **<commandPort>** to the port used by the Momentum server.
For example: `<commandPort>9000</commandPort>`

Configuring the Mist Streaming Server

Configure communications between the Momentum Server and the Mist streaming server used by the various video players in the Momentum user interface as follows:

- 1 Set the tag **<MistAPIUrl>** value using the URL of the streaming server.
The port value of **4242** is fixed and the path `/api` directs the nodes to the correct API to connect with the Mist Server.
- 2 Set the values for the tags **<MistUsername>** and **<MistPassword>** using the user and password required to access the Mist server application.
- 3 Set the tag **<DoNotRegisterAfterTranscode>** to **true** if you want to prevent Momentum from automatically registering the MP4 proxy on the Mist Server directly after transcoding.

Momentum registers the proxy file at the first attempt to display the proxy in the Catalog and/or Logger page.

Configuring the Web Host

- Set the tag **<WebHost>** to the path of the Momentum web server.
For example: `<WebHost>http://<10.12.65.45>/Momentum</WebHost>`

Configuring Thumbnail Generation

Configure the generation of thumbnails as follows:

- 1 Set the tags **<ThumbLx>** and **<ThumbLy>** to specify the size of the created thumbnails.

The parameters specified in the **<ThumbGenerator>** element override these settings.

- 2 Set the tag **<ThumbPath>** to the path to be used as root for storing the thumbnails.

The specified folder contains a new folder for each title and a subfolder for each instance of the title. Each instance has its own thumbnails stored in a specific folder. The thumbnails are managed as children of the instance from which they are generated.

- 3 Set the tag **<ThumbFullFrameSetAsIcon>** to enable the use of the last full frame of the material saved as an icon.

The accepted values are **true** or **false**.

- 4 Set the tag **<ThumbFullFrameFileName>** to the name used for the saved full frame file.

You can use keywords and variables to make the allocated filename dynamic, for example:

```
<ThumbFullFrameFileName>{MATERIALID}-####</ThumbFullFrameFileName>
```

- 5 Set the tag **<ThumbFullFramePath>** to the path used to store the full frame files.

You can use keywords and variables to use a dynamic path.

- 6 Set the tags **<ThumbFullFrameSize>** and **<SizeConditions>** to set the size conditions for exporting a full resolution image frame from the Player.

The tag **<SizeCondition>** has the following attributes:

- **var** indicates which of the size parameters - width or height - must be validated against the rule.
- **op** is the size operation which can be either: **Lesser**, **LesserOrEqual**, **Greater**, **GreaterOrEqual**, **Equal**, or **NotEqual**.
- **value** is the value of the size condition against which the image is compared.

The tag **<SizeCondition>** includes the sub-tags **<width>** and **<height>** to populate with the desired height and width settings for the exported image. For example:

```
<ThumbFullFrameSize>
  <SizeConditions>
    <SizeCondition var="width" op="Equal" value="1920">
      <Width>1600</Width>
      <Height>900</Height>
    </SizeCondition>
    <SizeCondition var="width" op="NotEqual" value="1920">
      <Width>960</Width>
      <Height>540</Height>
    </SizeCondition>
  </SizeConditions>
</ThumbFullFrameSize>
```

Note: The order of <**SizeCondition**> tags is significant. If the first condition is true, its specified width and height are applied to the thumbnail, otherwise the second condition (if present) is analyzed and so on.

- 7 Set the tag <**ThumbFullFrameStatusMetadata**> to generate metadata that shows the status of the full frame creation saved from the Player on the Logger or Catalog page.
The permitted values are:
 - Requested
 - Queued
 - Processing
 - Created
 - Creation Failed.
- 8 Set the tag <**ThumbFullFrameExtension**> to select the desired file type extension for the full frame exported version of thumbnails.
You can select the following format: **JPG**.

Configuring SNMP Trap Communication

Configure SNMP traps as follows:

- 1 Set the tag <**SNMPAgentAddress**> to the IP address and port of the Momentum server which acts as the SNMP agent.

When the tag <**SNMPSendMomentumTrap**> is set to **TRUE**, the Momentum SNMP agent sends SNMP traps on the following events:

- Node registered successfully
- Node not successfully registered
- Node offline request
- Node offline complete
- Node online request
- Node online complete
- Node unreachable
- Node re-registered.

The management information base (MIB) file is located in the folder:

C:\Mantrics\MIB\Momentum-MIB.mib

- 2 Set the tag <**SNMPBroadcastAddress**> to the IP address and port of the SNMP network management system.
- 3 Set the tag <**SNMPSendMomentumTrap**> to **TRUE** to enable the Momentum SNMP agent to send SNMP traps.

When set to the default, **FALSE**, the Momentum SNMP agent will not send SNMP traps.

Configuring User Notifications

Whenever a task is created on a User Action workflow element, a **user notification** is triggered to users having the role specified in the element.

A user notification is a popup message appearing for some seconds at the bottom right of the screen, irrespective of the Momentum page that is currently displayed. The notification popup contains the following elements:

- A link to the relevant WorkFlow element.
- A link to the relevant Catalog material.
- Either:
 - A **Take** button, re-directing to the relevant ToDo task, or
 - A list of Ports on the element through which the task could be propagated.

The **Take** option is the default setting. To enable the port listing, select **Notification** from the **Task layout** options in the settings of the UserAction workflow element, see Figure 2-2:

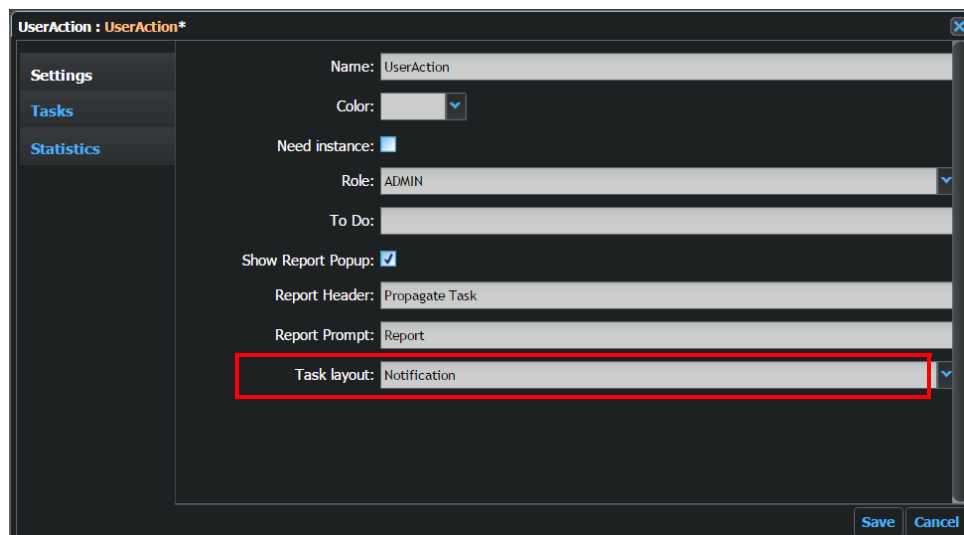



Fig. 2-2: UserAction Settings menu - Selecting the Notification Task Layout

The user can work directly through the notification popup, or open the **Notification Panel** by clicking the notification panel icon  at the top-right of the screen, next to the name of the logged-in user.

The **notification panel** lists all unexpired notifications for all tasks in waiting status at the UserAction workflow elements:

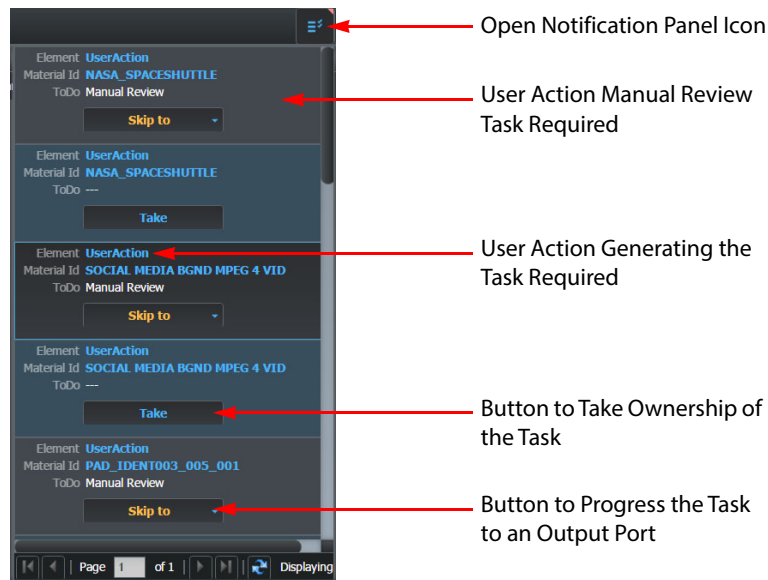


Fig. 2-3: User Action Notification Panel

Configure user notifications as follows:

- 1 Set the tag **<ServerCommands>** to the default values for the ServerCommands host and port used in the configuration file `ServerCommandsConfig.xml` to direct user notifications to the correct web page.
- 2 Set the tag **<ServerHooksRouter>** to the IP address and port of the Hooks Router to enable the Momentum tasks to progress correctly through the workflow and to direct user notifications to the correct web page.

Configuring the sQ Zone

sQ servers are configured into resilient production units, called **Zones**. An sQ Zone may be built of one or more sQ devices communicating by way of FileFlow, to provide scaling of ingest and output ports, bandwidth to support editing workstations and video storage capacity.

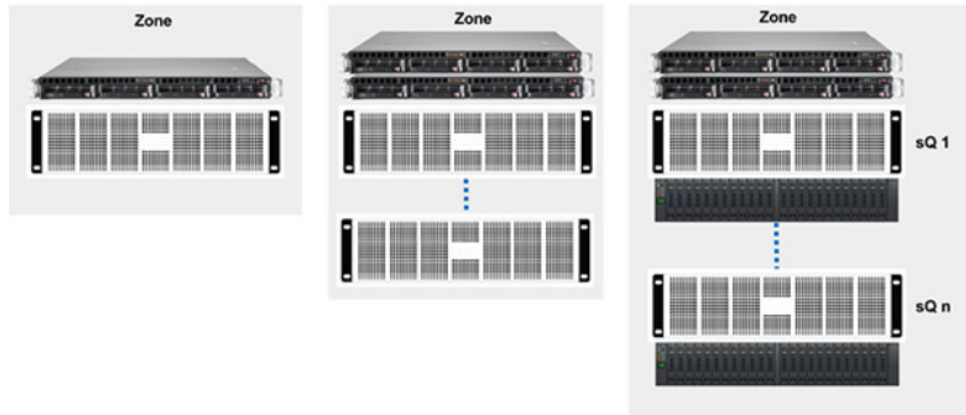


Fig. 2-4: Scalable sQ Zones

A Zone is managed by a resilient management unit, referred to as an **ISA Manager** (ISA = Integrated Server Architecture), which is a Windows application running on a dedicated pair of resilient servers. Communications between ISA Managers ensures that users have access to all content across the sQ Zones.

Configure the sQ Zones to allow communication with the Momentum environment as follows:

- 1 Set the tag **<sQZonesList>** to include a list of available, remote sQ zones that contain ISA Managers.
The Momentum server uses a CORBA-based C++ library to communicate with sQ ISA Manager(s) by allowing multiple Momentum components to access the library functions and search for metadata in the sQ database for a given **clip ID** and **zone ID**.
- 2 Set the tag **<sQZone>** to include the name of the sQ Zone, the sQ Zone ID and the IP address(es) and port(s) of the individual ISA Managers included in the sQ Zone. The tag **<sQZone>** has the following attributes:
 - **zoneName:** Name of the sQ Zone.
 - **zoneID:** sQ Zone identifier.
 - **ISAManagerIPn:** IP address of an ISA Manager in the sQZone. Each ISA Manager controls a zone, which may include multiple SQ Servers. You can include several IP addresses but each must be numbered sequentially, for example: **ISAManagerIP1, ISAManagerIP2**, etc.
 - **ISAManagerPort:** Communication port corresponding to the IP address of the ISA Manager.

Configuring Omneon Servers

Whenever Momentum sends a Keysegment, generated from a source clip, to Omneon Consolidator, the Omneon Consolidator workflow element checks the IP address of the source clip and target destination file against the Omneon server IP addresses specified in

the configuration. If the IP addresses match, then the Omneon Consolidator workflow element attempts to delegate to the remote Omneon Server to do the consolidation and transfer of essence data; the transfer is made internally by the remote Omneon Server as a local transfer between source and destination folders in the local Omneon storage.

Configure remote Omneon servers as follows:

- 1 Set the tag **<OmneonHostsList>** with the list of available, remote Omneon servers. Momentum supports either:
 - Omneon Spectrum server, or
 - Omneon Mediagrid Storage with the ContentBridge component.
- 2 Set the tag **<OmneonHost>** to include the IP address or hostname of the Omneon server. In addition, set the attributes **isSpectrum** or **isMediagrid** to True or False depending on the type of Omneon Server you are connecting.

Note: You can set only **one** of these attributes to True.

Configuring the Cleanup of Job History

This function enables a Momentum cleanup agent to run in configurable time cycles at which it will automatically remove a configurable number of jobs from the job history of a Material.

This function can work together with the **Clear History** function in the settings of a Material Deletion workflow element, which, when enabled, will clear the associated job history on deletion of the material. For more information, see Section Material Deletion on page 162.

This clean-up task avoids having to maintain the job history for a material that no longer exists on the system.

Configure the Job History cleanup agent as follows:

- Set the cleanup parameters in the section **<jobHistoryCleanup>** as follows:
 - **MaximumJobDeletionStep:** Defines the maximum number of jobs deleted each time the Clear History agent runs to delete job history.
 - **clearHistoryTimeIntervalInMin:** Defines the time interval (in minutes) that the agent will wait between job history clean-up cycles. If, in a cycle, the clean-up agent finds 300 jobs to delete, for example, but the tag **<maximumJobDeletionStep>** is set to 100, then the agent will delete the first 100 jobs on that cycle and then the remaining 200 on subsequent cycles. The minimum time between cycles is 5 minutes. The value of this parameter helps to reduce the impact on the Momentum database.
 - **enabled:** When set to **true**, activates the job history cleanup agent to allow the clean-up of

associated job history on deletion of a material Title.

Configuring the Alert System for Workflow Elements

You can configure each element of a workflow to raise an alert if the tasks that are currently processing are taking longer than expected to complete. The alert system automatically sends an email to a specified address to signal that an unexpected event is occurring using the Simple Mail Transfer Protocol (SMTP).

To configure the alert system, modify the **<Alarms>** tag in the configuration file `MantricsServer.xml` as follows:

```
<Alarms>
  <SmtpServer>10.10.0.225</SmtpServer>
  <SmtpUser>mailtest@mail.local</SmtpUser>
  <SmtpPwd>example password</SmtpPwd>
  <SmtpSSL>>false</SmtpSSL>
  <SmtpAuthenticate>>false</SmtpAuthenticate>
  <taskProcesingThreshold>
    <Recipients>support@momentum.com</Recipients>
    <AlarmSubject>Task threshold Alarm</AlarmSubject>
    <AlarmMessage>The task taskId = '{TASKID}' has exceeded the
      time processing threshold. MaterialId =
        '{MATERIALID}'.
      Filename = '{FULLMEDIA;PATH}'</AlarmMessage>
    <TimeNotificationInterval>5</TimeNotificationInterval>
  </taskProcesingThreshold>
</Alarms>
```

To activate this feature for a workflow element, first double-click the element and open the Setting dialog. Select the **Statistics** tab from the left-hand menu and check the **Active Alerts** check box.

The **Alerts** group of tags specifies the account access configuration for the SMTP server and define alert thresholds and email details as follows:

- **<SmtpServer>**: Sets the IP address of the SMTP server.
- **<SmtpUser>**: Specifies the user to log on the SMTP server.
- **<SmtpPwd>**: Specifies the password used by the **<SmtpUser>**.
- **<SmtpSSL>**: Specifies whether the SSL protocol is active or not and can be set to true or false.
- **<SmtpAuthenticate>**: Specifies whether the authentication of the SSL protocol is active or not, possible values are true or false.
- **<taskProcesingThreshold>**: Collects all the parameters needed to compose the email message sent by the alert system. The alert is raised when the processing of a task on a specific element of the workflow exceeds the expected time span of the task.
- **<Recipients>**: Collects the email address target for the alert (there can be multiple addresses, comma separated).

- **<AlarmSubject>**: Specifies the content of the Subject field in the sent email.
- **<AlarmMessage>**: Defines the content of the Body field of the sent email. System variables can be used to create messages for specific task properties. In the above example, the values {TASKID}, {MATERIALID}, and {FULLMEDIAPATH} are variables related to a task that is being processed and taking more time than expected.
- **<TimeNotificationInterval>**: Specifies the time span in minutes to wait between sending two consecutive emails. The emails are sent when a task crosses the threshold time set, until the task is managed.

Configuring the Momentum Farm

Momentum is based on a Server-Node configuration where a node is a service or system with which Momentum is permitted to communicate and manage, for example, Alchemist XF, Omneon Consolidator, DIVArchive, etc.) The server accepts connections from the nodes and, when registering on the server, the node provides information including:

- the tasks that the node can manage
- the available resources
- the node's status within a pool of nodes.

The server manages the job distribution to optimize the use of available resources. There is no software limitation to the number of nodes that can be managed by a server. The combination of server and nodes is referred to as the **Momentum Farm**.

To set up the communication channels between the server and associated nodes, the appropriate parameters must be initialized in both dedicated configuration files:

- `MantricsServer.xml`
- `MantricsNode.xml`

These two configuration files contain similar lists of **sections**, which correspond to the various nodes with which the Momentum server must communicate. A **section** is a custom XML tag that groups together one or more specific parameter tags having a similar function.

The configuration file `MantricsServer.xml` is composed of the following main sections:

```
<?xml version="1.0" encoding="UTF-8"?>
- <MomentumServerConfig xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  + <tsc>
  + <qcc>
  + <mxfc>
  + <usc>
  + <wfc>
  + <scl>
  + <Generic>
  + <Alarms>
</MomentumServerConfig>
```

Fig. 2-5: XML Sections in the Configuration File MomentumServer.xml

Each section contains the configuration parameters for the following server-side components:

- **<tsc>**: Configuration of the transcoder engines.
- **<qcc>**: Configuration of the quality check applications.
- **<mxfc>**: Configuration of the MXF communication parameters.
- **<usc>**: Configuration of server utility, the Thumbnail Generator.
- **<wfc>**: Configuration of the settings of the workflow elements implemented in the Momentum workflow page.
- **<scl>**: Configuration to publish material to the social media sites Facebook, Twitter, etc.
- **<Generic>**: Configuration of the generic Momentum components, including the Mist streaming server, SNMP traps, sQ Zones and Omneon servers.
- **<Alarms>**: Configuration of the alerting system for the workflow elements implemented in the Momentum workflow page.

The configuration file `MantricsNode.xml` is composed of the following main sections:

```
<?xml version="1.0" encoding="UTF-8"?>
- <MomentumNodeConfig xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  + <transcoderNodeConfig>
  + <qcNodeConfig>
  + <utilsNodeConfig>
  + <MXFUtilsNodeConfig>
  + <workflowNodeConfig>
  + <socialNodeConfig>
</MomentumNodeConfig>
```

Fig. 2-6: XML Sections in the Configuration File MantricsNode.xml

Each section contains the configuration parameters for the following node-side components:

- **<transcoderNodeConfig>**: Configuration of the transcoder engine nodes.
- **<qcNodeConfig>**: Configuration of the quality check nodes
- **<utilsNodeConfig>**: Configuration of the Thumbnail Generator utility node.
- **<MXFUtilsNodeConfig>**: Configuration of the MXF feature parameters.

- **<workflowNodeConfig>**: Configuration of the settings of the workflow elements implemented in the Momentum workflow page.
- **<socialNodeConfig>**: Configuration to publish material to the social media sites Facebook, Twitter, etc.

To complete the set-up of a specific section, see the related paragraph in Chapter *Configuring Additional Momentum Features*.

Momentum includes two dedicated applications that you can use to configure the Momentum Farm, avoiding having to edit XML files directly:

- **Momentum Server Configurator**
- **Momentum Node Configurator**

For further information, see the section [Using the Momentum Configuration Tools](#), on page 26.

Configuring the Basic Server Settings

To configure the basic settings of a server XML section:

- 1 Navigate to the directory `C:\Mantrics` and open the file `MantricsServer.xml` using a text editor.
- 2 Locate the section to configure, identified by its appropriate section tag, for example: consider the FFmpeg transcoder **<ffmpeg>**:

```
<ffmpeg>
  <server port="XXXX">0.0.0.0</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</ffmpeg>
```

- 3 Use the tag **<server port="">** to set the port required for communication between the server and the node.

By default, the attribute **port="XXXX"** is the same in the corresponding sections of the files `MantricsServer.xml` and `MantricsNode.xml`. If a change is required, remember to modify both files in the same way. Momentum uses the IP configuration to monitor incoming traffic from every valid IP address.

- 4 Use the tag **<policy>** to set the processing policy for that type of node. There are two available values: Failover and Weighted.
 - **Failover:** Allows the Momentum server to use a single node as the main processor. In the event that the main node fails, the Momentum server automatically uses the second node as the main processor creating the same queue of tasks as on the failing node.
 - **Weighted:** Allows the Momentum Server to use all available nodes. The **Pool** feature creates a pool of servers, which are loaded through the configuration of the workflow element to enable selective loading.

- 5 Use the tag **<retryCount>** to set the number of retries that the Momentum Server can perform in order to establish that a node is available.
- 6 Use the tag **<active>** to set the server status. There are two available values:
 - **True** - the Momentum server is ready to register a Momentum node of that type, in this example, an FFmpeg transcoder.
 - **False** - the Momentum server ignores all of the possible node's connection attempts.
- 7 The tag **<reconnectRetryCount>** sets the number of times that the Momentum server can try to establish whether a node is active and reachable after losing the connection.
- 8 The tag **<reconnectTimeout>** sets the delay between two consecutive connection attempts if the **<reconnectRetryCount>** value is greater than 1.

Configuring Base Node Settings

To configure the base settings of a node XML section:

- 1 Navigate to the directory `C:\Mantrics` and open the file `MantricsNode.xml` using a text editor.
- 2 Locate the section to configure identified by the appropriate section tag, for example: **<rhozet>**:

```
<rhozet slotCount="xx">
  <active>false</active>
  <server port="XXXX">127.0.0.1</server>
  <node port="XXXX">127.0.0.1</node>
  <pool />
  <rhozetNode port="xxxx">0.0.0.0</rhozetNode>
  <rhozetNode_descr>Node_Description</rhozetNode_descr>
</rhozet>
```

- 3 The attribute **slotCount** defines the number of slots available for processing tasks. If the Momentum node is installed on a third party application, it is recommended to set the same number of slots.

Note: The **slotCount** value is a way of measuring the number of analogous tasks that can be simultaneously started on a node. This value can increase depending on the number of physical resources available.

- 4 Use the tag **<active>** to set the node status. There are two available values:
 - **True:** The Momentum node is active and, once started, is registered to the Momentum server.
 - **False:** The Momentum node is not active and does not try to connect to the server.
- 5 Use the tag **<server port>** to define the port number used for communication between Server and Node.
Enter the name or the IP address of the machine where the server is installed. By default, the attributes **port="XXXX"** are the same in the corresponding sections of the

configuration files `MantricsServer.xml` and `MantricsNode.xml`. If a change is required, remember to modify both files in the same way.

- 6 Use the tag **<node port>** to define the port number used to communicate between server and node. Enter the hostname or the IP address of the machine on which the node is installed.
- 7 Use the tag **<pool>** to assign the node to a specific pool to balance processing.

Note: The pool value acts as a label to identify a subset or pool of nodes. Setting the pool parameter of a workflow element to a chosen value limits the server to selecting only the nodes with the same pool value in order to perform the task initiated by the workflow element.

- 8 Use the tag **<...Node_descr>** (e.g., `<rhozetNode_descr>`) to define a descriptive label for the node. This label enables Momentum to identify the specific node.

Using the Momentum Configuration Tools

To help configure the various Momentum features and any third party transcoders and modules, two dedicated applications are provided: the **Momentum Server Configurator** and the **Momentum Node Configurator**. These applications remove the need to open and manually edit the XML configuration files.

Using the Momentum Server Configurator

The Momentum Server Configurator populates the file `MantricsServer.xml`. Start the Momentum Server Configurator application as follows:

- 1 Navigate to the directory: `C:\ProgramFiles\Mantrics S.r.L\Momentum Server`.
- 2 Run the file `MantricsServerConfig.exe`.

The Server Configurator opens as follows:

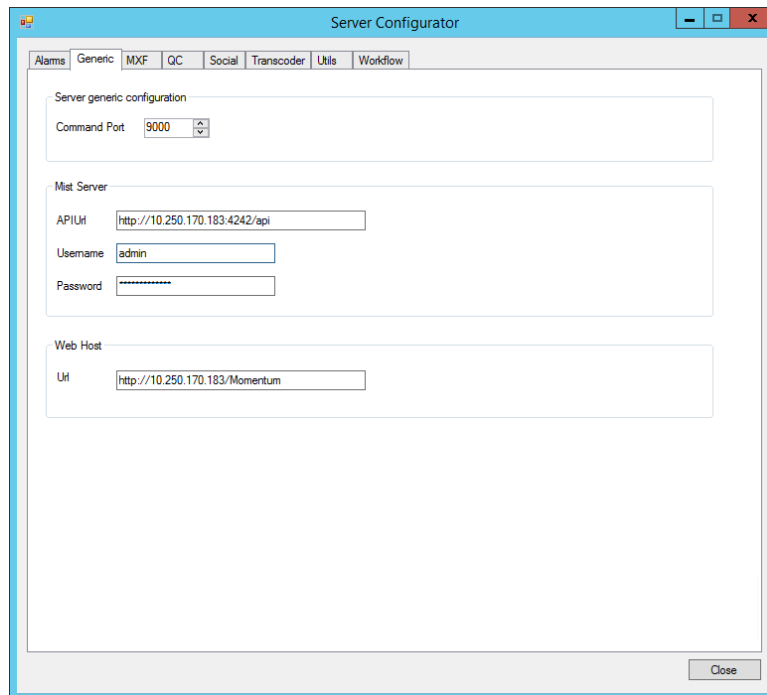


Fig. 2-7: Momentum Server Configurator

The panel includes the following tabs, corresponding to the main sections of the `MantricsServer.xml` file:

- **Alarms:** Use to configure the automatic alert system for workflow elements and corresponds to the section `<Alarms>` of `MantricsServer.xml`
- **Generic:** Use to configure the section `<Generic>` of the file `MantricsServer.xml`.
- **MXF:** Use to configure the MXF feature parameters and corresponds to the section `<mxfc>` of `MantricsServer.xml`.
- **QC:** Use to configure the settings of the quality check devices supported by Momentum and corresponds to the section `<qcc>` of `MantricsServer.xml`.
- **Social:** Use to configure the settings for publishing material to, or removing material from the social media sites Facebook and Twitter and corresponds to the section `<scl>` of `MantricsServer.xml`.
- **Transcoder:** Use to configure the settings of the transcoding engines supported by Momentum and corresponds to the section `<Alarms>` of `MantricsServer.xml`.
- **Utils:** Use to configure the Thumbnail Generator and corresponds to the section `<usc>` of `MantricsServer.xml`.

- **Workflow:** Use to configure the settings of the workflow elements implemented in the Momentum workflow page and corresponds to the section **<wfc>** of `MantricsServer.xml`.

Each of these tabs, when active, shows one or more sub-tabs in the main area, for each option available.

The main area is subdivided into two panels (Basic and Specific) as follows:

- **Base:** Enables you to configure the base settings of the corresponding Server section. For further information about the base server settings see section 'Configuring the Basic Server Settings' on page 24.
- **Specific:** Enables you to configure the specific settings of the corresponding Server section. For further information about the specific settings of a Server section see Configuring Additional Momentum Features.

Modifying the Server Settings

To modify the settings of a server section:

- 1 Select the appropriate tab and, if required, the appropriate sub-tab.
- 2 Modify the settings in the Base and/or Specific areas.
- 3 Click **Close**.
- 4 When prompted to save the new configuration, click the **Yes** button to save the configuration changes to the modified file.

Using the Momentum Node Configurator

This application populates the file `MantricsNode.xml`. Start the Momentum Node Configurator application as follows:

- 1 Navigate to the directory: `C:\Program Files\Mantrics S.r.L\Momentum Node`.
- 2 Run the file `MantricsNodeConfig.exe`
The Momentum Node Configurator opens as follows:

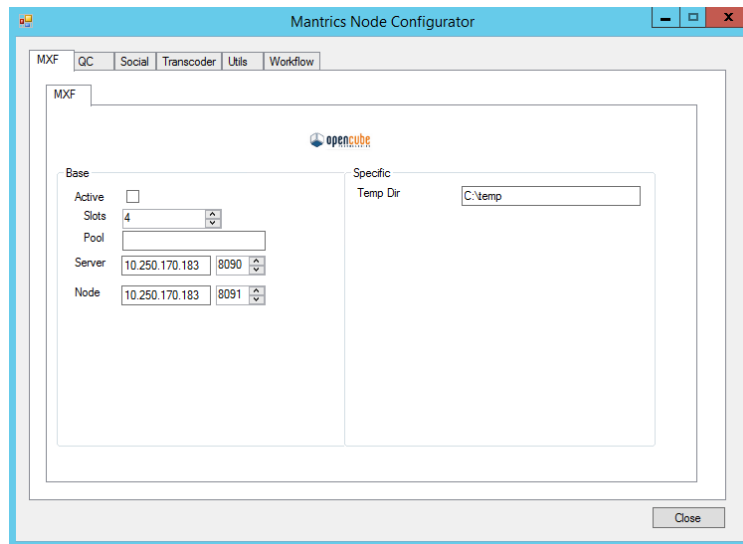


Fig. 2-8: Momentum Node Configurator

The panel includes the following tabs corresponding to the main sections of the file `MantricsNode.xml`:

- **MXF:** Use to configure the MXF feature parameters and corresponds to the section `<MXFUtilsNodeConfig>` of `MantricsNode.xml`.
- **QC:** Use to configure the settings of the quality check devices supported by Momentum and corresponds to the section `<qcNodeConfig>` of `MantricsNode.xml`.
- **Social:** Use to configure the settings for publishing material to or removing material from the social media sites Facebook and Twitter and corresponds to the section `<socialNodeConfig>` of `MantricsNode.xml`.
- **Transcoder:** Use to configure the settings of the transcoding engines supported by Momentum and corresponds to the section `<transcoderNodeConfig>` of `MantricsNode.xml`.
- **Utils:** Use to configure the Thumbnail Generator and corresponds to the section `<utilsNodeConfig>` of `MantricsNode.xml`.
- **Workflow:** Use to configure the settings of the workflow elements implemented in the Momentum workflow page and corresponds to the section `<workflowNodeConfig>` of `MantricsNode.xml`.

Each of these tabs, when active, shows one or more sub-tabs in the main area, for each option available.

The main area is subdivided into two panels (Base and Specific) as follows:

- **Base:** Enables you to edit the base settings of the corresponding Node section. For further information about the base node settings, see [Configuring Base Node Settings](#), on page 25.

- **Specific:** Enables you to edit the specific settings of the corresponding Node section. For further information about the specific node settings, see Chapter *Configuring Additional Momentum Features*.

Modifying the Node Settings

To modify the settings of a Node section:

- 1 Select the appropriate tab and, if required, the appropriate sub-tab.
- 2 Modify the settings in the Base and/or Specific areas.
- 3 Click **Close**.
- 4 When prompted to save the new configuration, click **Yes** to save the configuration changes to the modified file.

Using the Database Update Tool

On occasion, the Momentum software may require an update to the structure of the database to enable new features. To accomplish this task, use the Database Update Tool: `MDBVersionTool.exe`.

Once started, the `MDBVersionTool`, connects automatically to the Oracle database server using the parameters in the `DBConfiguration.xml` file.

Note: Do not run the `MDBVersionTool` on the Oracle DB server. The tool must be run from the Momentum Application Server for it to run correctly.

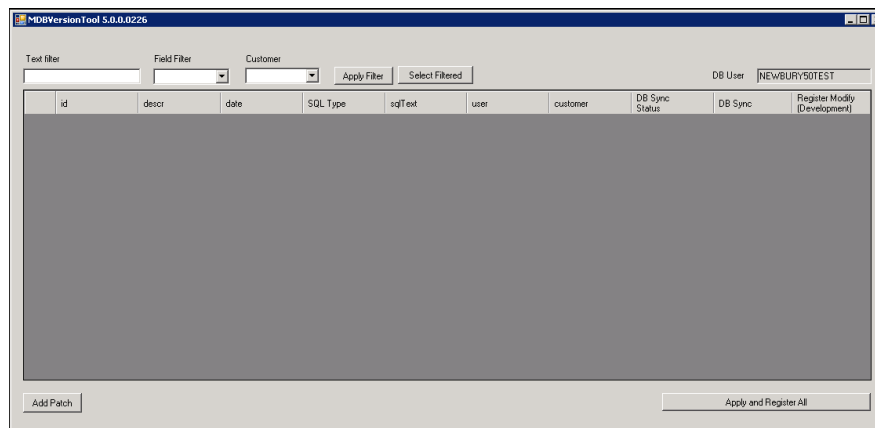


Fig. 2-9: Database Update Tool - `MDBVersionTool`

The interface of the `MDBVersionTool` consists of one panel, containing the following items:

- **DBUser** field - reports the name of the connected user.
- **Text filter**, **Field filter**, **Customer filter** and **Apply Filter** buttons - a group of filters to enable you to select specific subsets of patches from the patches list. The Text filter works as an additional filter applied to a Field. The Customer filter displays only the patches required for the installation of a specific customer. The button **Apply filter** runs the query and applies the set filters to the patches list.

- **Patches list** - the main area of the tool. For each patch, the following data items are reported:
 - **ID** - The ID which identifies each patch.
 - **descr** - Provides a a short description of the patch function.
 - **date** - Date that the patch was created.
 - **SQLType** - The object/s on which the patch operates.
 - **SQLText** - The SQL string that the patch executes.
 - **user** - The user that created the patch.
 - **customer** - Specifies whether the patch is required for a specific customer.
 - **DB Sync Status** - The color reports if the system requires the patch to be applied (red) or has already been applied (green).
 - **DB Sync** - Contains the button **Apply & Register**. This applies the patch and logs this action so that you can track the status of the database.
 - **Register modify (development)** - Contains the button **Register**. Only used in the development environment to register the patch log of an already applied patch.
- **Add patch** button - Used during development to add a new patch to the Patches list.
- **Apply and Register All** button - Applies all the patches marked with a red rectangle as DB Sync Status, on a single Oracle installation, instead of applying them one by one. A list of the patches is created and a progress bar shows the current installation status.

To apply the patch/es to a Momentum installation using the MDBVersionTool:

- 1 Start the **MDBVersionTool** application.
- 2 Apply the required patch/es individually by clicking the corresponding **button Apply & Register**, or all at once by clicking the button **Apply and Register All**. When applying each patch manually, start from the first patch marked by a red square, directly above the last patch marked by a green square

Modifying the Security Properties of the Configuration Files

Momentum requires that its processes have free access to the configuration files. To avoid any access problems, the Security Properties of each file can be modified as follows:

- 1 At the end of the configuration procedure, navigate to the folder `C:\Mantrics`.
- 2 Right click each of the files listed below and open the **Properties** panel:
 - DBConfiguration
 - FileBasicInfo
 - MantricsConfig
 - MantricsNode
 - MantricsServer
 - WatchFolderServerConfig
- 3 Select the **Security** tab.
- 4 From the **Group or User names** list, select **Users**.
- 5 Click **Edit**.

- 6 From the Group or User name list, select **Users**.
- 7 In the Permission for Users section, select the **Full Control Allow** option.
- 8 Click **OK** and then **OK** again.
- 9 Repeat steps 2-8 for all the listed files.

3

Setting-up Users, Roles and Permissions

Overview

In Momentum, users, roles and associated permissions, and the scope of assigned roles can be defined and modified in the **Admin > Users** page as shown below:

The screenshot displays the Momentum administrative interface. The top navigation bar includes 'Admin', 'Catalog', 'Workflow', 'To Do', 'Logger', and 'More'. The main content area is divided into two sections: 'Users' and 'User roles'.

Users Section: A table lists existing users with columns for 'User name', 'Full name', 'Email', 'Source', and 'Actions'. The table contains the following data:

User name	Full name	Email	Source	Actions
administ...	administ...		INTERN...	[edit] [delete]
Andrew	Andrew ...	andrew....	INTERN...	[edit] [delete]
Bob	Bob		INTERN...	[edit] [delete]
Guest	Guest		INTERN...	[edit] [delete]
MANTRI...	Mantrics...		INTERN...	[edit] [delete]
RichardC	Richard ...	richard....	INTERN...	[edit] [delete]
sam	SAM Ad...		INTERN...	[edit] [delete]
SAM_BOT	SAM Bot		INTERN...	[edit] [delete]
Steve	Steve R...	steve.ro...	INTERN...	[edit] [delete]

User roles Section: A 'Select:' area shows two columns: 'Available' and 'Selected'. The 'Available' column lists 'Guest', 'Ingest Operator', and 'SRF'. The 'Selected' column lists 'ADMIN', 'Ingest Administrator', and 'Momentum Administrator'. Navigation arrows are present between the columns, and 'Clear', 'Reset', and 'Save' buttons are at the bottom.

Fig. 3-10: Administration Page - User Set-up

Security is granted by a permission management system which controls user access according to company policy. For example, a user may have permission to see a page on the menu toolbar, to accept certain tasks in the workflow, or to edit metadata in the Catalog.

It is recommended to assign Permissions to a role, and then assign roles to the users. Different roles may have some permissions in common and a user can be assigned different roles.

Defining Users

Users are created and managed in the **Admin > Users** page. Using this page, you can create a User, modify a user's details, assign a role or roles to a user, or even remove a user from the system.

Creating a User

To create a new user:

- 1 Click the **Create user...** button.
- 2 In the dialog, type the user name, full name, password and email address for the user as shown in the example below:

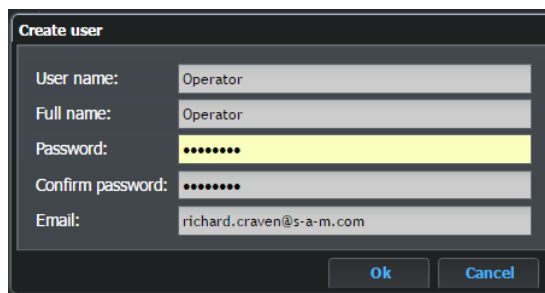


Fig. 3-11: Adding a New User

- 3 Click **Ok** to save the new user.

Assigning Roles To A User

To assign a role or roles to a user:

- 1 In the Users list, select the user.
- 2 In the **User roles** list, select the role(s) in the **Available** pane that you want to assign to the user and use the arrow buttons to move them into the **Selected** pane as shown in Figure 3-12:

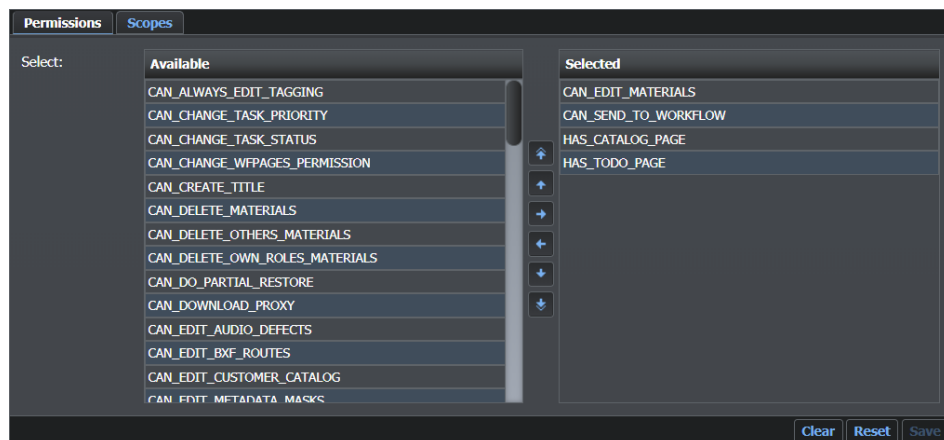








Fig. 3-12: Assigning Permissions to a Role

Use the arrow buttons to move the roles within the Selected pane. Optionally, in order to remove all roles from the user, click the **Clear** button. To undo the settings created in this session, click the **Reset** button.


- 3 Click the **Save** button to save the new settings.

Note: To create an Administrator user, assign the ADMIN role to the user.

Arrow Button	Description
	Move Role to the top of the list.
	Move Role up one line in the list.
	Move Role from the Available pane to the Selected pane.
	Move Role from the Selected pane to the Available pane.
	Move Role down one line in the list.
	Move Role to the bottom of the list.

Changing User Details and Passwords

To change a user's details or password:

- 1 In the users list, select the user.
- 2 Click **Edit details** () in the options area next to the user name as shown below:



- 3 Enter the new details or password and confirm it in the dialog, see Figure 3-13:

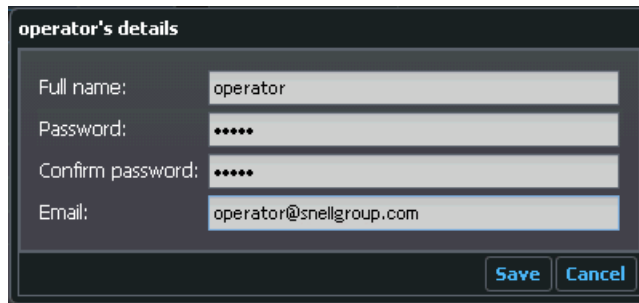



Fig. 3-13: Changing User Details or Password

- 4 Click **Save** to save your changes.

Deleting a User

To remove a user:

- 1 In the users list, select the user you want to remove.
- 2 Click **Delete**  in the options area next to the user name as shown below:

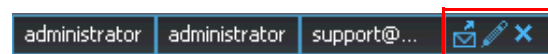


- 3 Click **OK** to confirm deletion.

Sending Email to a User

You can send an email to any user with an email address using this page as follows:

- 1 In the options area next to the user name as shown below:



- 2 Click the **Send Email** button shown below:



- 3 A send email window opens, pre-populated with the user's email address.
- 4 Write the message and send the email as usual.

Importing Users from an LDAP Source

When setting up several users in Momentum, it is generally more efficient to import groups of users from an LDAP source, for example, MS Windows Active Directory. Once imported, you can add the users to Momentum as valid accounts for logging, using the password rules and permissions established in the LDAP hierarchy.

To import LDAP groups:

- 1 Open the **Admin > Roles** page.
- 2 Click **Import LDAP Groups...** in the Roles pane. The Import LDAP groups dialog opens, see Figure 3-14:

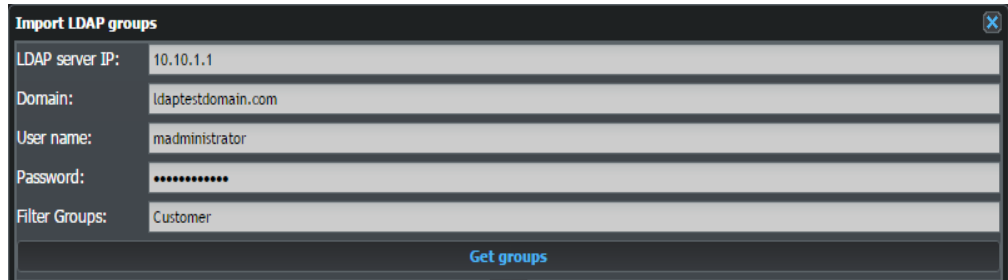


Fig. 3-14: Import LDAP Groups Dialog

- 3 Provide the following information in order to establish the connection to the LDAP source:
 - **LDAP server IP:** IP address of the target LDAP application server.
 - **Domain:** Domain in use for the LDAP application. Enter the fully-qualified domain name in this field (for example, **domain.com** or **subdomain.domain.com**) to ensure that your search will include the entire forest.
 - **User name:** User name of a valid account for logging onto the LDAP server.
 - **Password:** Password of the account for logging onto the LDAP server.
 - **Filter Groups:** Sets a value used to filter (include or exclude) the groups imported.
- 4 Click the **Get groups** button. On first connection to the LDAP server, some of the above information is stored in the configuration file

C:\Mantrics\AuthenticationConfig.xml, and is used for the successive connections to LDAP, for example, to refresh the user list. No password is stored.

When Momentum establishes a connection with the LDAP server, two new panes are displayed. On the left, the **Remote groups** pane reports the list of all existing groups, or the list of the groups matching the Filter Groups parameter, if a value was entered in this field. On the right, the **Local roles** pane lists all roles available in the Momentum system.

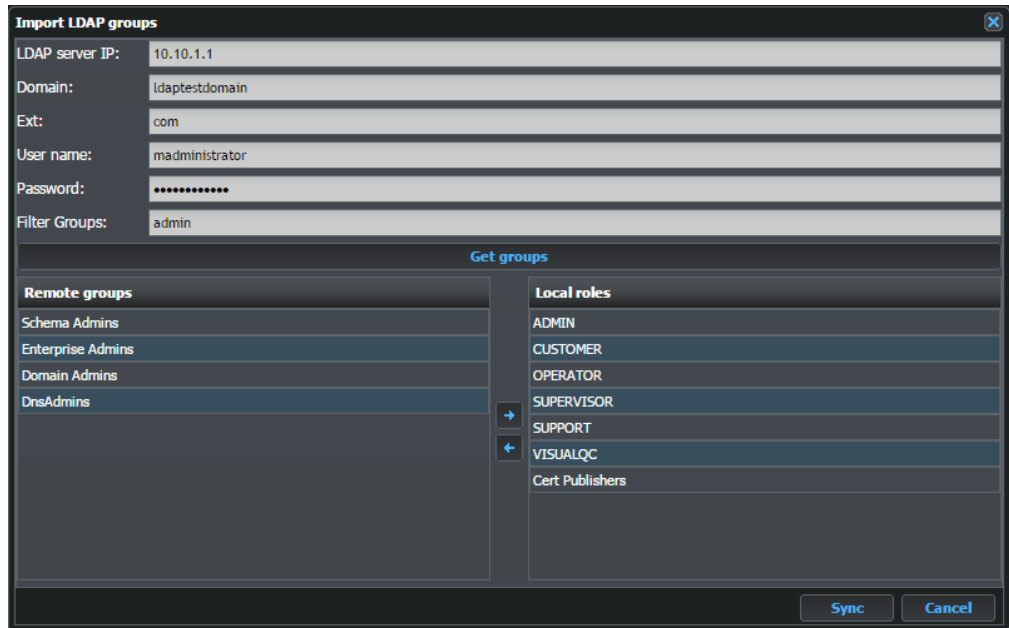



Fig. 3-15: Import LDAP Groups Pane Listing Groups

- 5 Select the group or groups you want to import from the LDAP list. You can make multiple selections by holding down the [**Ctrl**] key.
- 6 Click the arrow button  , or drag and drop the selection on the Local roles pane, to add the selected groups to the list of groups to import.
- 7 Click **OK**.
Momentum retrieves the data relating to the users in the selected groups and opens a new pane showing all imported users, grouped as either **Synced** or **Without Roles**. If necessary, you can remove any unneeded users from the list.

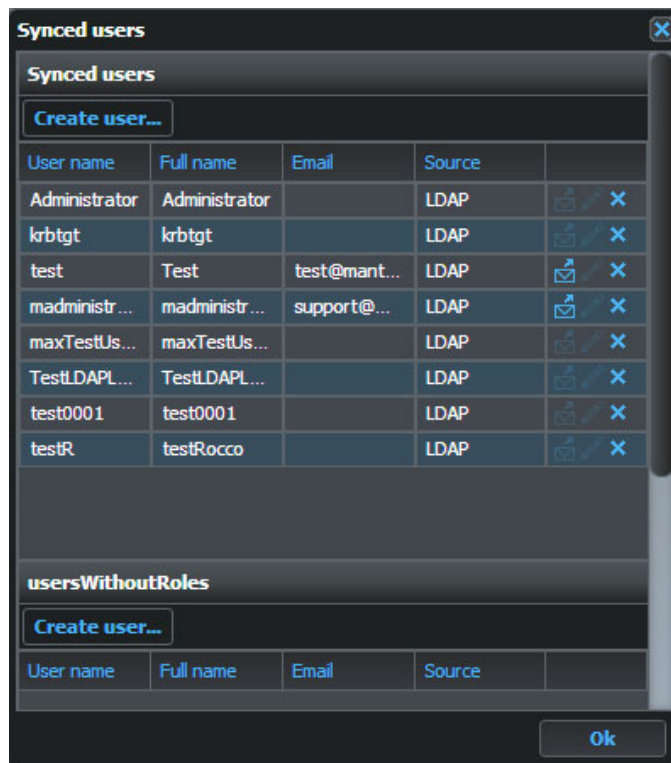


Fig. 3-16: Import LDAP Synced Users

- 8 Click **Ok** to import the users and close the **Synced users** pane or click **Cancel** to close the LDAP groups pane.
- 9 In the **Users** page, check that the newly imported users are available. You can now associate roles, permissions and scopes with the new users as required.

Note: It is not possible to change the password of a user imported from LDAP in Momentum as the password is managed under Windows Active Directory.

Synchronizing Deleted Users with the LDAP Source

When synchronizing with LDAP, as described in the previous section, if any current Momentum users are not present in any of the Windows LDAP groups, you are given the option to delete those users manually from Momentum.

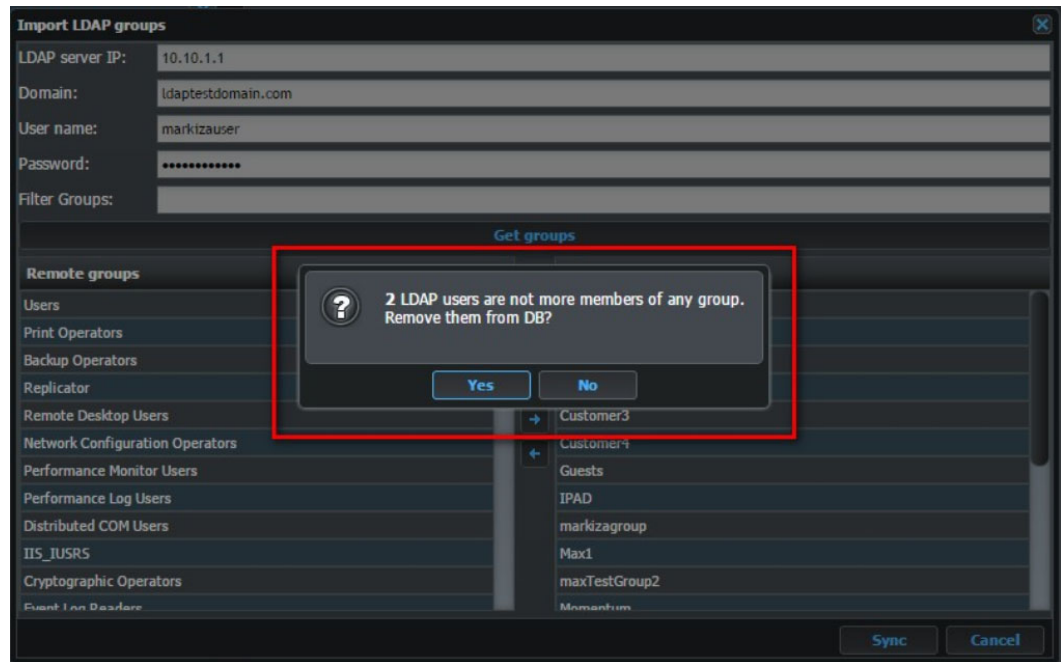


Fig. 3-17: LDAP Sync - Notification of Users to Remove

When the pop-up shown in Figure 3-17 is displayed, click **Yes** to confirm that the user(s) should be removed from the Momentum database.

A further screen is displayed, listing the users that can be deleted, see Figure 3-18.

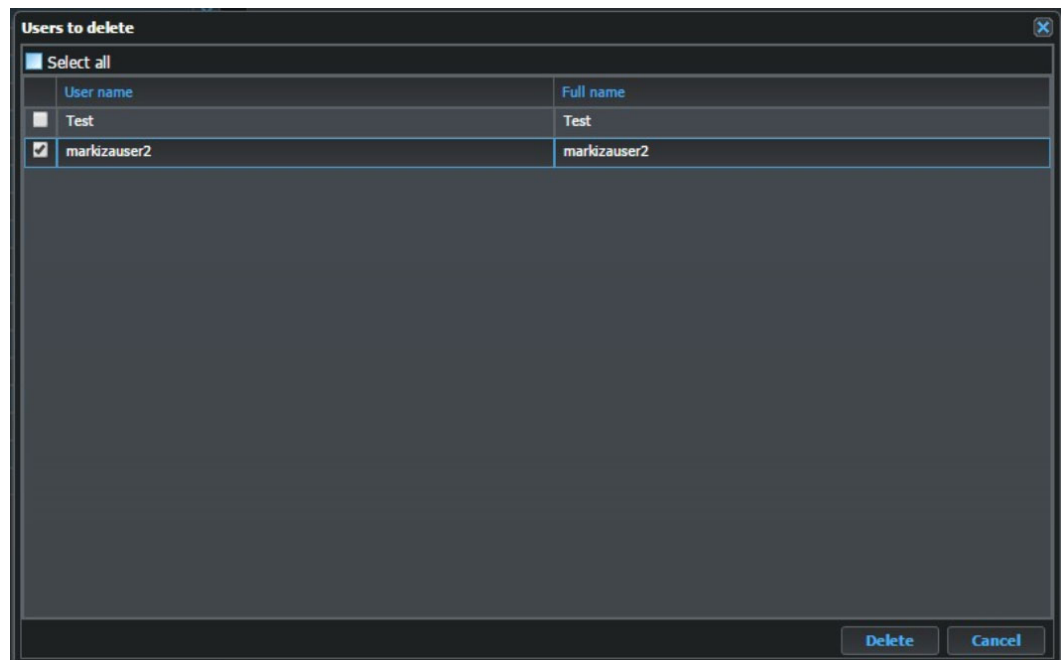


Fig. 3-18: LDAP Sync - Summary of Users to Delete

Select all users you want to remove from Momentum using the checkboxes, then click **Delete** to remove them from the database. If you decide not to remove a user at this point, click **Cancel**.

Defining Roles and Permissions

Roles and permissions are managed in the **Admin > Roles** page. Roles can be created or removed and permissions can be assigned to each role by deciding which pages and functions a role can access.

To access the Roles pages, click **Roles** in the left-hand menu of the **Admin** page. The **Roles** page is displayed as follows:

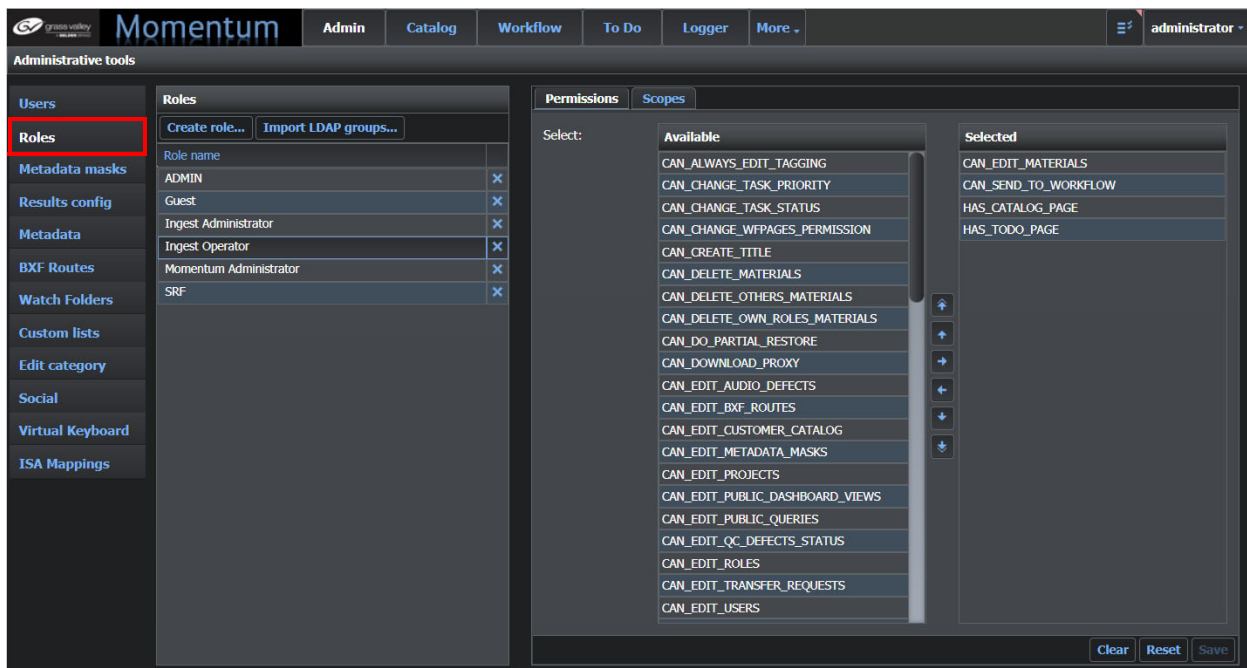


Fig. 3-19: Administration Page - Role Set-up

Note: Role names are case-sensitive.

The following permissions are available to assign to roles:

Permission	Description
CAN_ALWAYS_EDIT_TAGGING	TBA
CAN_CHANGE_TASK_PRIORITY	Allows the changing the priority of a task operating on the workflow page.
CAN_CHANGE_TASK_STATUS	Allows changing the status of a task using the related buttons in the workflow page.

Setting-up Users, Roles and Permissions
Defining Roles and Permissions

Permission	Description
CAN_CHANGE_WFPAGES_PERMISSION	Allows the user to set and modify the roles that can edit a workflow page.
CAN_CREATE_TITLE	Assigns the user access to the Actions > Create > Title function in the Catalog page.
CAN_DELETE_MATERIALS	Deletes any kind of material from the catalog page.
CAN_DELETE_OTHERS_MATERIALS	Allows deletion of material created by other roles.
CAN_DELETE_OWN_ROLES_MATERIALS	Allows the user to delete material created by users of the same role. The CAN_DELETE_MATERIAL permission is required.
CAN_DO_PARTIAL_RESTORE	Allows the user to perform a partial restore (create subclips) from the DIVA Archive.
CAN_DOWNLOAD_PROXY	Allows the user to download proxies.
CAN_EDIT_AUDIO_DEFECTS	Allows the user to create and edit audio defects.
CAN_EDIT_BXF_ROUTES	Allows the user to edit BXF routes using the Admin page.
CAN_EDIT_CUSTOMER_CATALOG	TBA
CAN_EDIT_MATERIALS	Allows the user to edit material metadata values and create timelines.
CAN_EDIT_METADATA_MASKS	Allows the user to create customized metadata masks for the Catalog page and also edit the metadata which appears in a result list.
CAN_EDIT_PROJECTS	Allows the user to create, edit, add and remove objects for projects in the Catalog page.
CAN_EDIT_PUBLIC_DASHBOARD_VIEWS	Allows the user to create, edit, add and remove different dashboard views.
CAN_EDIT_PUBLIC_QUERIES	Allows the user to create, edit and delete public queries.
CAN_EDIT_QC_DEFECTS_STATUS	Changes the defect's status from the VisualQC page.
CAN_EDIT_ROLES	Allows the creation and customization of roles on the Admin page.
CAN_EDIT_TRANSFER_REQUESTS	Allows the user to delete transfer requests using the Transfers page.
CAN_EDIT_USERS	Allows the creation and customization of users on the Admin page.
CAN_EDIT_WF_ELEMENTS_DEFAULT	Allows editing of workflow elements.
CAN_EDIT_WORKFLOW	Allows editing actions in the workflow.
CAN_EXPORT_WORKFLOWS	Allows the use of the export feature on the Workflow page.
CAN_HAVE_TASKS_NOTIFICATION	Assigns permission to receive notification of task status from the workflow.

Permission	Description
CAN_INGEST	TBA
CAN_JUKE_ARCHIVE	Juke capabilities are being deprecated Allows the archive feature on the Juke page. Note: It is planned to deprecate the Juke functions from Momentum version 5.1
CAN_JUKE_INGEST	Allows the ingest feature on the Juke page. Note: It is planned to deprecate the Juke functions from Momentum version 5.1
CAN_OMNEON_CONSOLIDATOR_ALL_ELEMENTS	Assigns permission to connect all workflow elements to the Omneon Consolidator.
CAN_PERFORM_QC	TBA
CAN_RELINK_MEDIA_ASSETS	TBA
CAN_REMOVE_GATEWAY_MEDIA	Allows the user to instruct an XMLGateway Receiver server to remove duplicate media files from the Gateway Receiver Dashboard, if the Required Action displays Remove Media . This function is only available if the Gateway Receiver Dashboard is configured.
CAN_REMOVE_GATEWAY_MEDIA_IN_PROGRESS	Assigns permission to instruct an XMLGateway Receiver server to remove unnecessary media files from the Gateway Receiver Dashboard, if the Required Action displays Upload Metadata . This function is only available if the Gateway Receiver Dashboard is configured.
CAN_REVIEW_HQ_ON_SDI	Provides the ability to review any media from the Catalog on any SDI output by assigning permission to switch viewing between proxy and HQ on SDI ¹ from the Tracks menu of the Catalog Player. The Tracks menu of the player(s) allows selection of the options: View > Proxy or View > HQ on SDI .
CAN_SAVE_CURRENT_FRAME	Allows the user to save the current frame in the player.
CAN_SEARCH EVERYTHING	TBA
CAN_SEND_TO_WORKFLOW	Allows the use of the Send To feature in the Catalog page.
CAN_SENDTO_ALL_ELEMENTS	Allows the use of the Send To feature to send material to all elements, bypassing the role restriction.
CAN_SKIP_TASKS	Allows the user to skip a task at an element on the Workflow page.
CAN_STOP_USERACTION_TASKS	Allows the user to stop tasks that are in waiting or processing statuses on User Action elements.
CAN_UPLOAD_PAMEVS_FILE	TBA
CAN_VIEW_EXPIRED_TRANSFERS	Allows the user to visualize the expired transfer requests in the Transfers page.

Permission	Description
CAN_VIEW_HQ	TBA
CAN_VIEW_INGEST_WORKFLOWS	TBA
CAN_VIEW_NON_INGEST_WORKFLOWS	TBA
CAN_VIEW_PATH	TBA
CAN_VIEW_PROXY_IN_MATERIAL_TREE	Allows access to proxy files when available in the Catalog Material Tree.
HAS_ABOUT_PAGE	Allows access to the About page.
HAS_ADMIN_PAGE	Allows access to the Admin page.
HAS_COCKPIT_PAGE	Not used
HAS_CATALOG_PAGE	Allows access to the Catalog page.
HAS_CUSTOMER_CATALOG_PAGE	Not used
HAS_DASHBOARD_PAGE	Allows access to the Dashboard page.
HAS_EDITING_PAGE	Allows access to the Editing page.
HAS_GATEWAY_DASHBOARD	Allows access to the Gateway Receiver Dashboard page.
HAS_INGEST_PAGE	Not used
HAS_LOGGER_PAGE	Allows access to the Logger page.
HAS_LOGS_PAGE	Allows access to the Logs page.
HAS_SCHEDULES_PAGE	Allows access to the Schedules page, which enables the user to import schedules into Momentum.
HAS_SERVICES_PAGE	Allows access to the Services page.
HAS_STATS_PAGE	Allows access to the Stats page.
HAS_TODO_PAGE	Allows access to the To Do page.
HAS_TRANSFERS_PAGE	Allows access to the Transfers page.
HAS_VISUALQC_PAGE	TBA
HAS_VKEDITOR_PAGE	TBA
HAS_VTR_PAGE	TBA
HAS_WORKFLOW_PAGE	Allows access to the Workflow page.

1.HQ on SDI - High Quality on Serial Digital Interface.

To find a permission, select it from the **Available** list on the right-hand side of the page.

Creating a Role

To create a new role:

- 1 Click the **Create role...** button.
- 2 In the dialog that opens, enter the role name as shown in the example below:

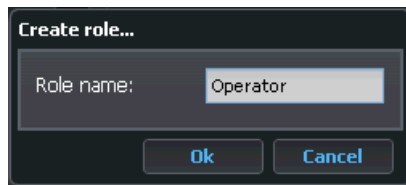


Fig. 3-20: Adding a Role

- 3 Click the **Ok** button.

Assigning Permissions to a Role

To assign permissions to a role:

- 1 In the roles list, select the role for which you want to modify the permissions.
- 2 In the permission list, select the required permissions in the **Available** pane and use the arrow buttons to move them into the **Selected** pane.

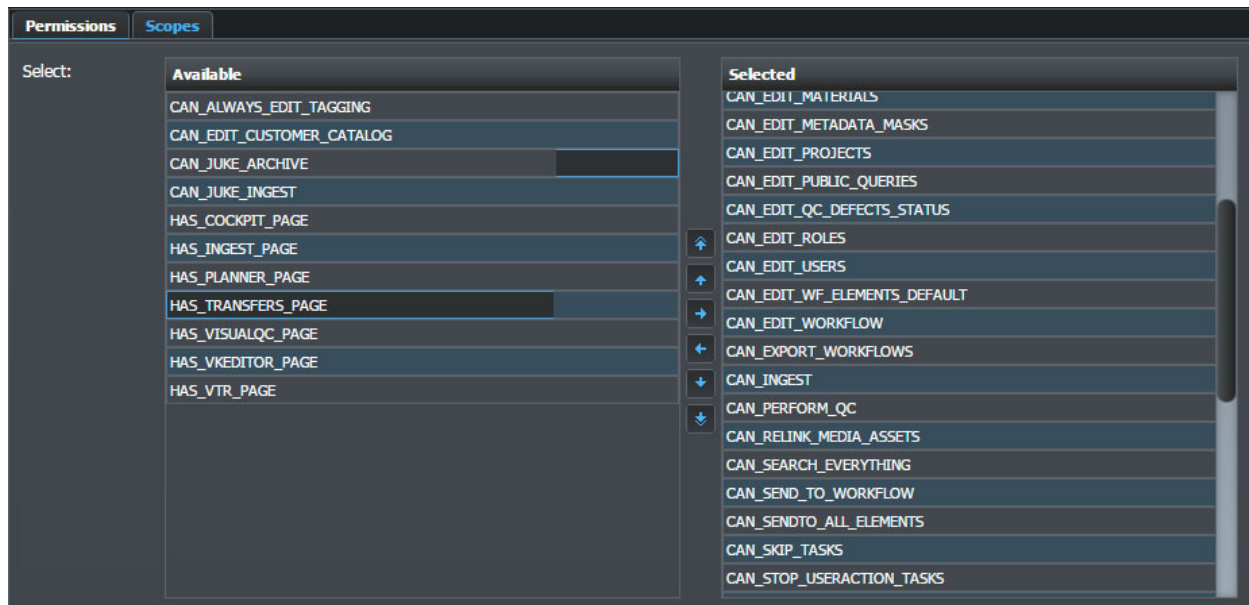


Fig. 3-21: Assigning Permissions to a Role

Use the arrow buttons to move the permissions up or down the **Selected** pane. Optionally, in order to remove all permissions from the role, click the **Clear** button. To undo the settings created in this session, click the **Reset** button.

- 3 Click the **Save** button to save your changes.

Removing a Role

To remove a role:

- 1 In the roles list, select the role you want to remove.



- 2 In the options area next to the role name click the **Delete** button shown below:



- 3 Click **Yes** to confirm that you want to delete the role.

Defining the Scope of a Role

The ability to associate users, roles and permissions enables you to create certain boundaries that can customize the experience and the tools available to specific users or groups of users. This can make certain pages visible or editable and allow specific users to perform some high-level actions such as ingesting or deleting materials.

Occasionally, a more detailed type of condition is useful. For example, an operator can edit all the materials ingested but when managing a large amount of material every day, it might be useful if only the materials ingested that same day are available on the pages used and the material from previous days is hidden.

You can define this level of detail using **Scopes**:

Title	Creation	Genre	Descripti	Keyword	Created	ISDROP
p Title	17:3...	TITLE	p Des..		5C49...	0
p Title	17:3...	TITLE	p Des..		5C49...	0
p Title	17:3...	MEDL..	p Des..		5C49...	0
p Title	17:4...	TITLE	p Des..		5C49...	0
p Title	17:4...	TITLE	p Des..		5C49...	0
p Title	17:3...	MEDL..	p Des..		5C49...	0

Fig. 3-22: Scopes Page

Creating a New Scope

Scopes are created by clicking the **Create scope...** button in the **Scopes** tab of the **Admin > Roles** page. The **Create scope** dialog appears as follows:

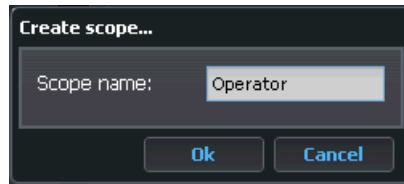


Fig. 3-23: Creating a Scope

Enter a new name to identify the scope in the scopes list, then click **Ok** to save the new scope.

The **Search** tool enables you to define filter criteria to apply to the scope as shown in the example below:

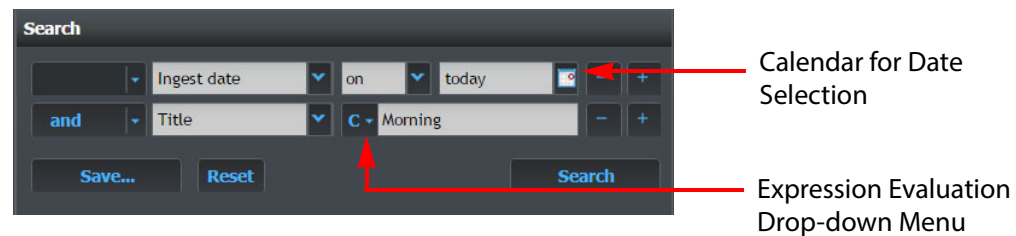


Fig. 3-24: Defining Filter Criteria in the Scope Search Tool

Click the expression evaluation drop-down (see Figure 3-24) to display the options menu for the matching expression.



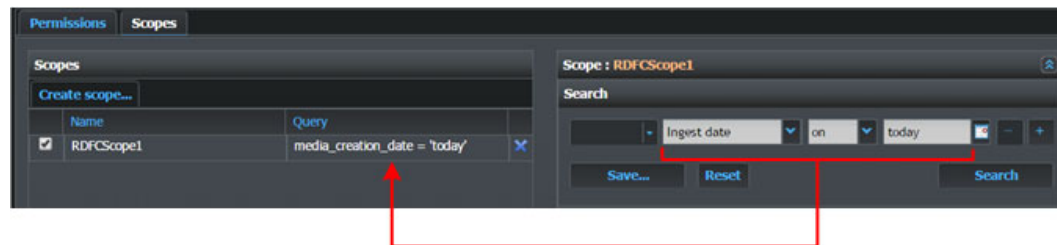
Fig. 3-25: Expression Evaluation Advanced Options

For more information on the buttons in the Scope Search panel, see the Momentum *Operator's Guide*.

After defining all required conditions, click **Save...** to save a search of the criteria so that it can be applied to additional scopes and searches in the future.

For example, to create a scope to limit the available material only to that which was ingested the same day, do the following:

- 1 Click the **Create scope** button.
- 2 Select the **Ingest date** option from the drop-down list for the first search field.
- 3 Leave the date condition field set to **on**.
- 4 Open the calendar and click the **Today** button.
- 5 Click **Search**. The Query column of the scope is updated with the new search criteria, see Figure 3-26.



Defined Search Criteria Saved to Scope Query

Fig. 3-26: Saving Search Criteria to Scope

Assigning a Scope to a Role

Assign a scope to a role as follows:

- 1 Select a role from the Roles list.

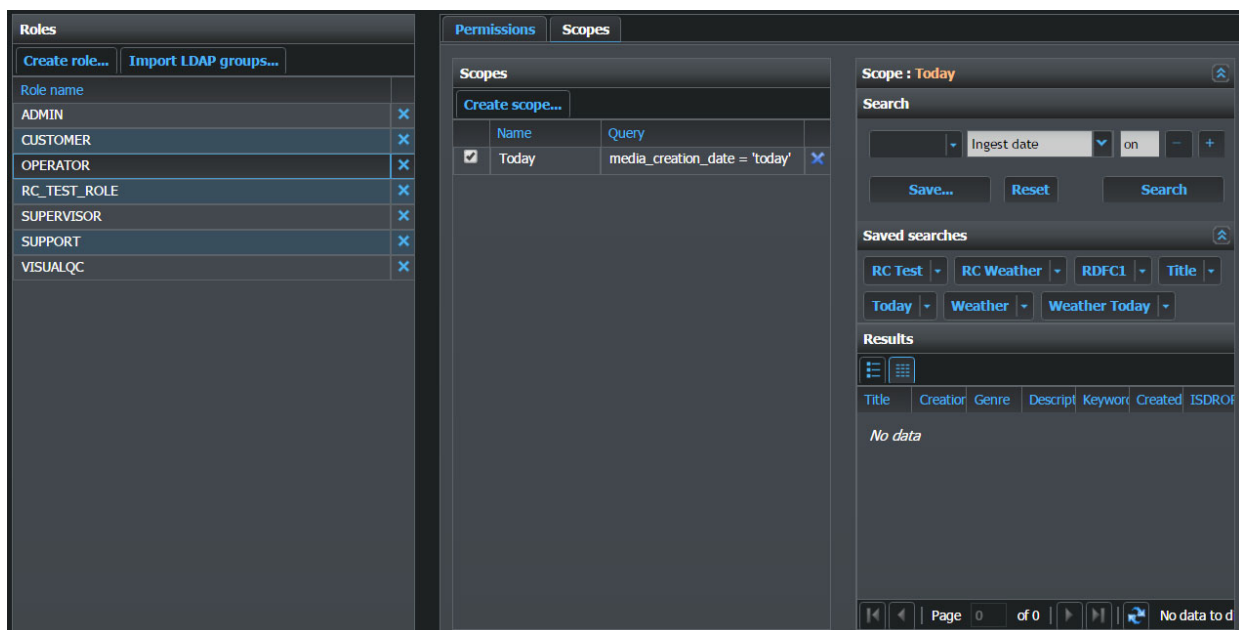



Fig. 3-27: Assigning Scopes

- 2 Select one or more scopes in the Scopes list by selecting the corresponding checkboxes.

Now the scope is active for the selected role and is assigned together with the role. In the example above, if a user with the role OPERATOR opens the Catalog page and starts to query the materials, the result of the query will only show materials ingested that day.

Deleting a Scope

To delete a scope:

- 1 Select a scope from the Scopes list.
- 2 Click the Delete icon .
- 3 Click **Yes** to confirm the deletion or **No** to cancel.

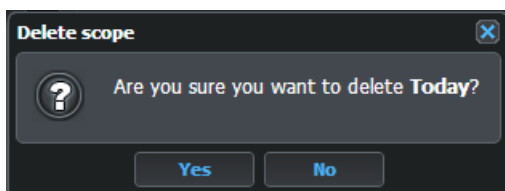


Fig. 3-28: Deleting a Scope

4 Configuring the Archive Elements

Configuring the Archive Workflow Elements

The Archive workflow elements enable you to archive, delete and partially or fully restore material using archiving solutions from either Masstech, Oracle or StorNext. The following Archive elements are available:

- Masstech FlashNet media object archiving solution elements:
 - Flashnet Archive
 - Flashnet Delete
 - Flashnet Partial Restore
 - Flashnet Restore
- Telestream DIVA archiving solution elements:
 - DIVA Archive
 - DIVA Delete
 - DIVA Partial Restore
 - DIVA Restore
- StorNext archiving solution elements:
 - StorNext Archive
 - StorNext Restore

The configuration details for these archiving workflow elements are provided in the following sections.

Archiving to a Masstech Flashnet System

The Masstech FlashNet workflow elements enable Momentum to integrate with SGL's FlashNet Media Archive Content Management solution by way of the FlashNet XML API

The following workflow elements are available to manage archiving to a Masstech Flashnet archive repository:

- Flashnet Archive
- Flashnet Delete
- Flashnet Partial Restore
- Flashnet Restore

Archiving Material to a Flashnet Archive



Fig. 4-29: Flashnet Archive Workflow Element

The Archive element initiates a media archive process on a FlashNet cluster. This process transfers data from a network-attached source server to a storage medium within the control of the FlashNet cluster.

Element Settings Configuration

The Flashnet Archive element has the following settings:

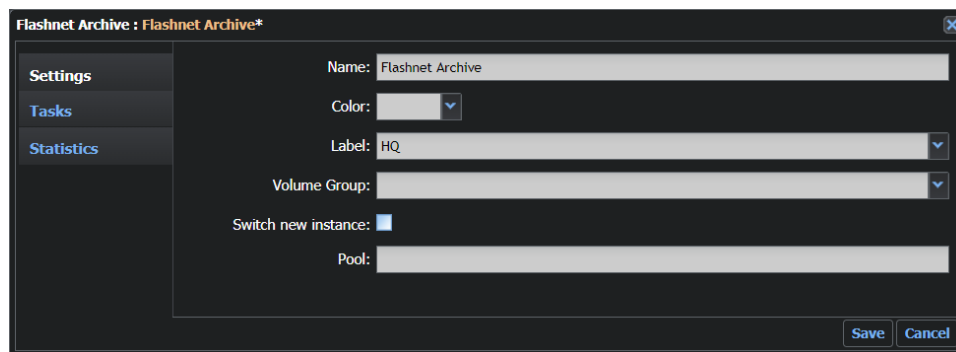


Fig. 4-30: Flashnet Archive Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	The label associated with the archived instance.
Volume Group	Defines the target set of tapes or disks to be used for the archive operation, for example: RAID%
Switch new instance	When selected (true), this option activates the newly created Instance and propagates the new Instance to the next step in the workflow. The default setting is false (unselected).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<flashnetarchive>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<flashnetarchive>
  <server port="8708">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</flashnetarchive>
```

MantricsNode.xml Configuration

The recommended port settings for this element are as follows:

Flashnet Element	Server Port	Node Port
Flashnet Archive	8708	8709

```
<flashnetarchive slotCount="4">
  <active>>false</active>
  <server port="8708">10.250.170.183</server>
  <node port="8709">10.250.170.183</node>
  <pool/>
  <flashnetip>172.31.7.13</flashnetip>
  <flashnetport>8199</flashnetport>
  <apiVersion>2018.001.006</apiVersion>
  <userName>Mike</userName>
</flashnetarchive>
```

The FlashNet specific XML tags have the following functions:

Tag	Description
flashnetip	Sets the IP address of the FlashNet server.
flashnetport	Sets the TCP socket number to the Flashnet cluster.
apiVersion	Identifies the revision of the FlashNet XML API to which the calling application has been written. Set to the revision number of your client package. This is generally used for support purposes and troubleshooting.
userName	Name of the operator making the call. It is recommended to supply a user-friendly name for the job as it is displayed in the job list, especially if multiple users communicate with the archive.

Deleting Material from a Flashnet Archive

The Flashnet Delete element removes the target material from the Flashnet Archive.

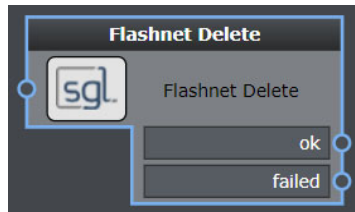


Fig. 4-31: Flashnet Delete Workflow Element

Element Settings Configuration

This element has the following settings:

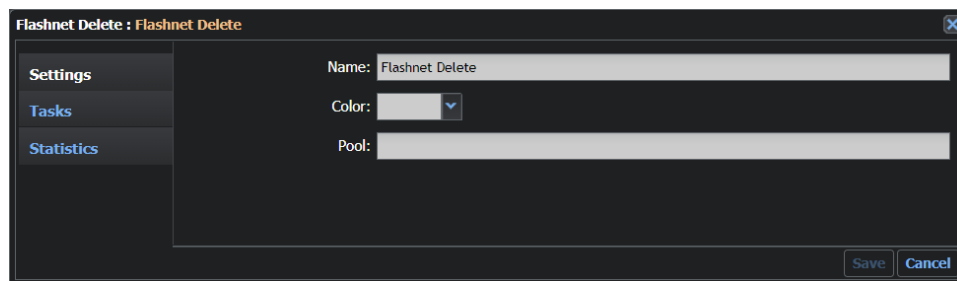


Fig. 4-32: Flashnet Delete Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<flashnetdelete>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<flashnetdelete>  
  <server port="8710">10.250.170.183</server>  
  <policy>Weighted</policy>
```

```
<retryCount>3</retryCount>
<active>>false</active>
<reconnectRetryCount>1</reconnectRetryCount>
<reconnectTimeout>0</reconnectTimeout>
</flashnetdelete>
```

MantricsNode.xml Configuration

The recommended port settings for this element are as follows:

Flashnet Element	Server Port	Node Port
Flashnet Delete	8710	8711

```
<flashnetdelete slotCount="4">
  <active>>false</active>
  <server port="8710">10.250.170.183</server>
  <node port="8711">10.250.170.183</node>
  <pool/>
  <flashnetip>172.31.7.13</flashnetip>
  <flashnetport>8199</flashnetport>
  <apiVersion>2018.001.006</apiVersion>
  <userName>Mike</userName>
</flashnetdelete>
```

For more information on the FlashNet specific XML tags, see [Configuration Files](#), on page 53.

Partial Restore from a Flashnet Archive

Use the Partial Restore element if the file to be restored is very large, and you only want to retrieve part of the file.

A partial file-restore is typically implemented as a frame offset, where the start and end values are defined by the start and end frames required. For MXF In order for this to function for MXF files, the content being archived must comply with the standard SMPTE 378.

The Partial Restore element passes start-frame and end-frame values to Flashnet. If the start timecode of the clip is greater than zero, subtract the start timecode of the clip from the start frame and end frame.

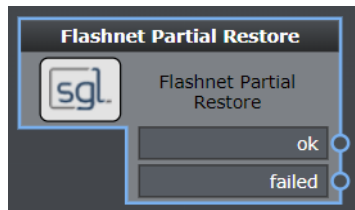


Fig. 4-33: Flashnet Partial Restore Workflow Element

Element Settings Configuration

This element has the following settings:

Fig. 4-34: Flashnet Partial Restore Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	The label associated with the archived instance.
Partial Restore Path	Defines the path to which the partial restore media file(s) will be saved. A partial restore returns from archive only part of the media in your sequence, based on in and out timecodes, helping to reduce retrieval times.
Switch new instance	When selected (true), this option activates the newly created Instance and propagates the new Instance to the next step in the workflow. The default setting is false (unselected).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<flashnetpartialrestore>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<flashnetpartialrestore>
  <server port="8712">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</flashnetpartialrestore>
```

MantricsNode.xml Configuration

The recommended port settings for this element are as follows:

Flashnet Element	Server Port	Node Port
Flashnet Partial Restore	8712	8713

```
<flashnetpartialrestore slotCount="4">
  <active>false</active>
  <server port="8712">10.250.170.183</server>
  <node port="8713">10.250.170.183</node>
  <pool/>
  <flashnetip>172.31.7.13</flashnetip>
  <flashnetport>8199</flashnetport>
  <apiVersion>2018.001.006</apiVersion>
  <userName>Mike</userName>
</flashnetpartialrestore>
```

For more information on the FlashNet specific XML tags, see [Configuration Files](#), on page 53.

Restoring Material from a Flashnet Archive

The Flashnet Restore element initiates a restore process on a FlashNet cluster. This process transfers data from a storage medium within the control of the FlashNet cluster to a target network-attached server.



Fig. 4-35: Flashnet Restore Workflow Element

The settings for the Flashnet Restore element are as follows:

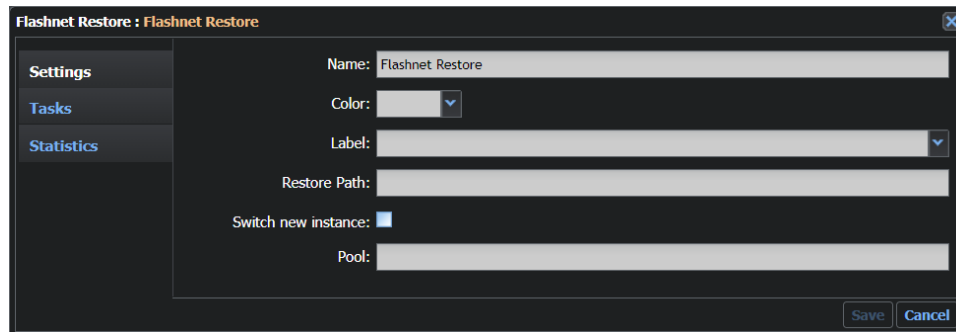


Fig. 4-36: Flashnet Restore Element Configuration Fields

This element has the following settings:

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	The label associated with the archived instance.
Restore Path	Defines the fully-qualified path to which the restored media will be saved. If not specified, media is restored to the original location from which it was archived. A full restore returns from archive all of the media in your sequence.
Switch New Instance	When selected (true), this option activates the newly created Instance and propagates the new Instance to the next step in the workflow. The default setting is false (unselected).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<flashnetrestore>` contains the configuration for this application.

MantricsServer.xml Configuration

```
<flashnetrestore>
  <server port="8714">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</flashnetrestore>
```

MantricsNode.xml Configuration

The recommended port settings for this element are as follows:

Flashnet Element	Server Port	Node Port
Flashnet Restore	8714	8715

```
<flashnetrestore slotCount="4">
  <active>false</active>
  <server port="8714">10.250.170.183</server>
  <node port="8715">10.250.170.183</node>
  <pool/>
  <flashnetip>172.31.7.13</flashnetip>
  <flashnetport>8199</flashnetport>
  <apiVersion>2018.001.006</apiVersion>
  <userName>User</userName>
</flashnetrestore>
```


For more information on the FlashNet specific XML tags, see [Configuration Files](#), on page 53.

Archiving to an Telestream DIVArchive System

Overview of the Telestream DIVArchive System

Momentum is designed to integrate with an Telestream DIVArchive¹ digital archive solution for the archiving of digital media assets and assistance in providing material for production workflows.

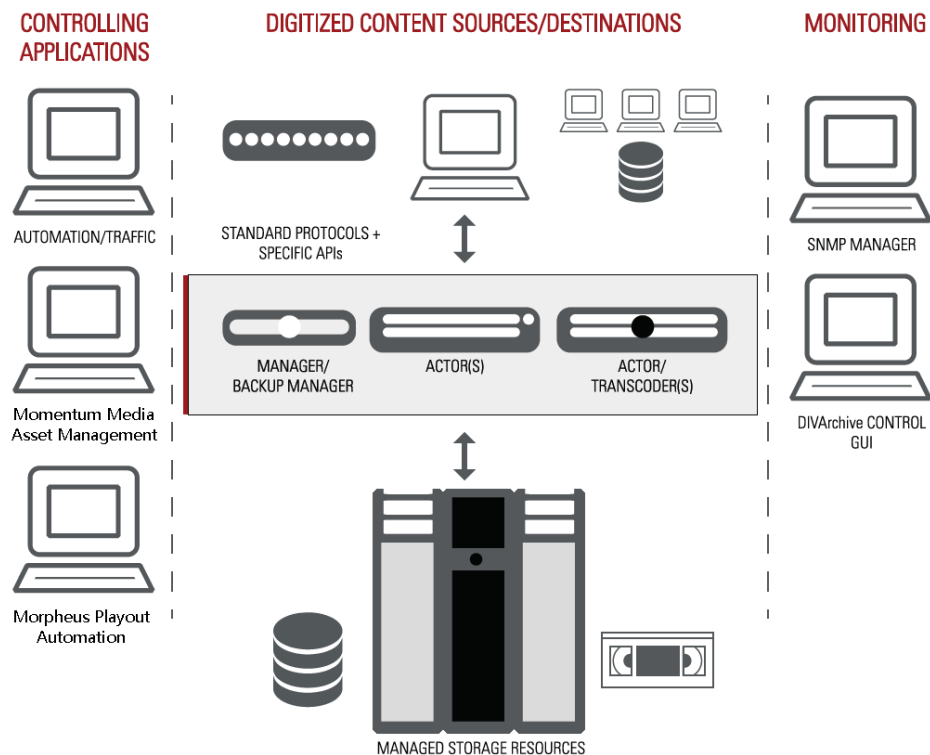


Fig. 4-37: Overview of a Typical DivArchive System

The Telestream DIVArchive solution has interfaces to broadcast and post-production devices; it understands how content is organized on the device, and stores all files belonging to this content as a single object. The DIVArchive system supports the storage and management of several instances of the same object, for example, it can store and track one instance on disk, one instance on tape within a robotic tape library, and one instance on tape stored on an external shelf.

1. Formerly known as Front Porch Digital DIVA and acquired by Oracle and later by Telestream.

The DIVArchive solution consists of, and uses, a number of related DIVA products.

The following are the most relevant to a Momentum Installation:

- **DIVArchive Manager:** Manages the overall archive solution. It also hosts the archive system database. Typically runs on dedicated hardware.
- **DIVArchive Partial File Restore:** Allows restoration of a segment of a piece of content that is managed by the DIVArchive. This is specified by an **in** timecode and an **out** timecode and is more efficient than restoring a full media asset when only a short clip is required.
- **DIVArchive Application Filter:** Limits access to DIVArchive managed content by third-party systems based on user permissions.
- **DIVAnet:** Facilitates a direct connection between separate DIVArchive Systems and automatically replicates content from one site to the other, typically for disaster recovery (DR) purposes.
- **DIVAdirector:** Asset Management System that provides direct interfaces into edit systems and provides some workflow management and search with low resolution proxy viewing, thumbnails and metadata management. This module also allows file upload with time-code based logging and tagging.

The interface with a DIVA archive system is managed using the following workflow elements:

- DIVA Archive used to archive material to DIVA.
- DIVA Delete used to remove a material asset from the DIVA archive.
- DIVA Restore used to restore a new instance of a material asset from the DIVA archive.
- DIVA Partial Restore used to restore a segment of a material asset from the DIVA archive, while maintaining a link with the source asset.

Configuring the DIVA Workflow Elements

Momentum provides four workflow elements (Archive, Delete, Restore and Partial Restore) to integrate workflows with the DIVArchive archiving system. These elements are available from the **Workflow** page in the elements folder: **Archive > Oracle**, see Figure 4-38.

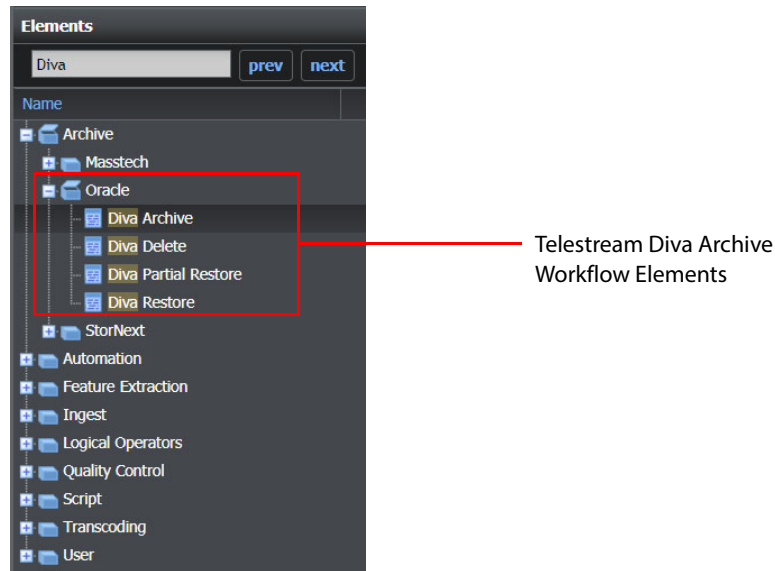


Fig. 4-38: Diva Archive Workflow Elements

The location of the DIVArchive Manager is configured for each of these archiving elements in the configuration files: `MantricsServer.xml` and `MantricsNode.xml`.

In addition, the configuration file `Diva.xml` contains a list of the DIVA error codes together with their associated error descriptions. The file `MantricsNode.xml` defines the default communication port between Momentum and the DIVArchive system as port **9763**.

Archiving Material to a DIVArchive

The **DIVA Archive** workflow element enables a workflow to push content, currently managed by Momentum, into the archive repository managed by a DIVArchive Manager.

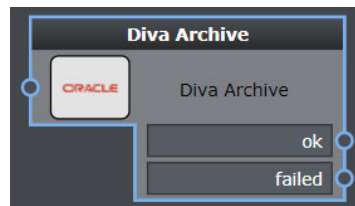


Fig. 4-39: DIVA Archive Workflow Element

The DIVA Archive workflow element has the following settings:

Configuring the Archive Elements

Archiving Material to a DIVArchive

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label for the instance. Available values from the configuration file <code>InstanceLabelConfig.xml</code> are included in the drop-down list.
Category	Sets the Category value used by DIVA when archiving the current object.
Source	Enables you to select a profile that describes the characteristics of the source of the assets to be archived (e.g. FTP, CIFS, Disk, etc.) from a list of existing DIVA profiles.
Media	Enables you to set (by selecting from a list of available DIVA Media profiles) the type of device used to store the material in the DIVA archive. This drop-down also lists the selectable Storage Plans created in the DIVA interface.
QoS	Sets the quality level to assign to the archived material.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Comments	Sets comments linked to the material.
Options	Enables you to specify parameters needed to manage the material correctly (for example, the credentials used to access an FTP site) if that information is not present in the selected Source profile.

Option	Description
Object Name	Metadata field used to identify the archived material. When this parameter is not specified, the {MATERIALID} is used by default. The DIVA Restore and DIVA Delete workflow elements both use the value from the Object Name when calling the DIVArchive API.
Proxy Output Dir	Defines the target folder into which the MP4 proxy file is copied. The DIVA Archive element will then assign a proxy to the new instance, based on the copied file.
Pool	Sets the name of a pool associated with the element to balance the processing load.

A **DIVAInstance** metadata category and schema, is linked to the DIVAInstance type definition. The DIVA Archive element does not delete the source Momentum Instance, rather it creates a new DIVAInstance as output, which includes the DIVA metadata in addition to the base, inherited metadata.

Configuration Files

To use a DIVA archiving system with Momentum, you will need to add the details to the configuration files `MantricsServer.xml` and `MantricsNode.xml`. The basic DIVA configuration follows the same rules and guidelines as the Momentum Farm (see [Configuring the Momentum Farm](#), on page 22).

The tags `<divaarchive>`, `<divarestore>`, `<divapartialrestore>` and `<divadelete>` in the configuration file `MantricsServer.xml` contain the server-side configuration for this application. In addition, the configuration file `MantricsNode.xml` contains the configuration of the DIVA node(s). Replace the default address of the tag `<ipdiva>` in `MantricsNode.xml` with the IP address of the DIVA server.

. If this is not the current port in use, modify this value accordingly.

For example:

```
<ipdiva>http://xxx.xxx.xxx.xxx:9763</ipdiva>
```

Note: The file `C:\Mantrics\DivaConfig.xml` stores the status code messages of the DIVA system and does not contain parameters for the configuration of the service.

MantricsServer.xml Configuration

```
<divaarchive>
  <server port="9763">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</divaarchive>
```

The port **9763** is the default port used by the DIVA application.

MantricsNode.xml Configuration

```
<divaarchive slotCount="2">  
  <active>false</active>  
  <server port="9763">10.250.170.183</server>  
  <node port="8179">10.250.170.183</node>  
  <pool/>  
  <ipdiva>http://172.19.77.80:9763</ipdiva>  
</divaarchive>
```

Deleting Material from a DIVArchive

The **DIVA Delete** workflow element enables a workflow to delete content, that Momentum is aware of, from the DIVArchive repository managed by a DIVArchive Manager. This action permanently deletes the physical material from the archive.

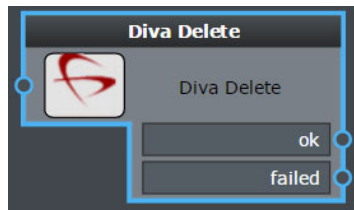


Fig. 4-41: *DIVA Delete Workflow Element*

The DIVA Delete workflow element has the following settings:

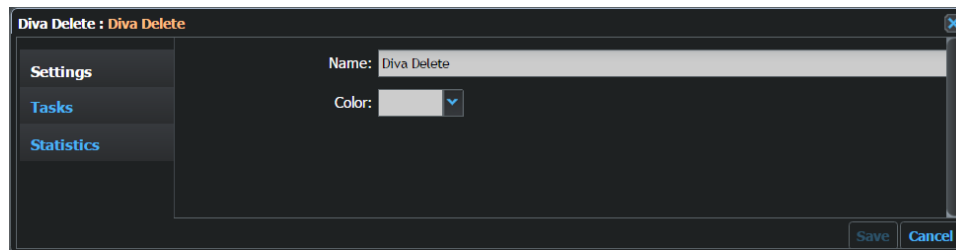


Fig. 4-42: *DIVA Archive Element Configuration Fields*

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.

The DIVA Delete workflow element calls an API function to delete an object entry in the DIVA Archive system, based on the metadata information of the MEDIA-ASSET material processed by the element.

This workflow element deletes the specified content only from the DIVA archive; it does not remove content from the Momentum database. To delete content from both DIVA and

Momentum, connect a **Material Deletion** workflow element after the **DIVA Delete** element and activate the option **Ignore file deletion error**.

Configuration Files

The tag `<divadelete>` contains the configuration for this application.

MantricsServer.xml Configuration

```
<divadelete>
  <server port="8196">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</divadelete>
```

MantricsNode.xml Configuration

```
<divadelete slotCount="2">
  <active>>false</active>
  <server port="8196">10.250.170.183</server>
  <node port="8197">10.250.170.183</node>
  <pool/>
  <ipdiva>http://172.19.77.80:9763</ipdiva>
</divadelete>
```

Partial Restoration of Material from a DIVArchive

The **DIVA Partial Restore** workflow element enables a workflow to instruct the DIVArchive Manger to restore a key segment of an entire asset contained in the DIVArchive repository. It uses the partial restore capability provided by the DIVArchive Partial File Restore. The **in** and **out** points for the partial restore can be determined by markers logged against the material.



Fig. 4-43: DIVA Partial Restore Workflow Element

The DIVA Partial Restore workflow element has the following settings:

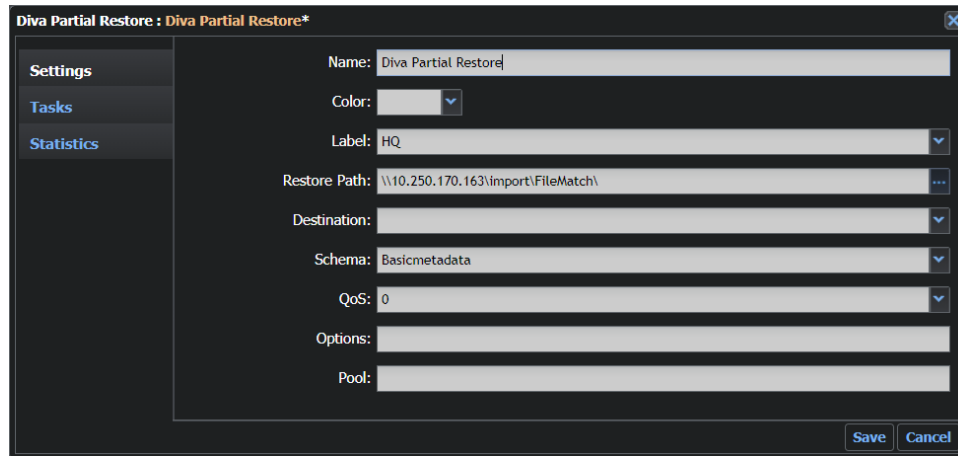


Fig. 4-44: DIVA Partial Restore Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label for the instance. Available values from the configuration file <code>InstanceLabelConfig.xml</code> are included in the drop-down list.
Restore Path	Sets the target directory for the restored file.
Destination	Enables you to select a profile describing the characteristics of the destination of the restored material (for example, path, type, etc.) from a list of existing DIVA profiles.
Schema	Sets the metadata schema to be applied to the new Title.
QoS	Sets the quality level that the DIVA system assigns to the material while restoring.
Options	Enables you to specify parameters needed to manage the material correctly (for example, the credentials used to access an FTP site) if that information is not present in the selected Source profile.
Pool	Sets the name of a pool associated with the element to balance the processing load.

As DIVA Partial Restore is a start element, it does not require an in-port. When the requested segment is retrieved from the DIVA archive, a new Title and Media Asset are generated and then propagated to the next steps of the workflow.

Configuration Files

The tag `<divapartialrestore>` contains the configuration for this application.

MantricsServer.xml Configuration

```
<divapartialrestore>
  <server port="8208">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</divapartialrestore>
```

MantricsNode.xml Configuration

```
<divapartialrestore slotCount="2">
  <active>>false</active>
  <server port="8208">10.250.170.183</server>
  <node port="8209">10.250.170.183</node>
  <pool/>
  <ipdiva>http://172.19.77.80:9763</ipdiva>
</divapartialrestore>
```

Restoring Material from a DIVArchive

The **DIVA Restore** workflow element enables a workflow to instruct the DIVArchive Manager to restore an entire asset from the archive repository.

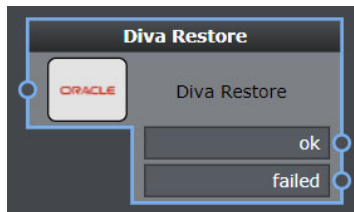


Fig. 4-45: DIVA Restore Workflow Element

The **DIVA Restore** workflow element has the following settings:

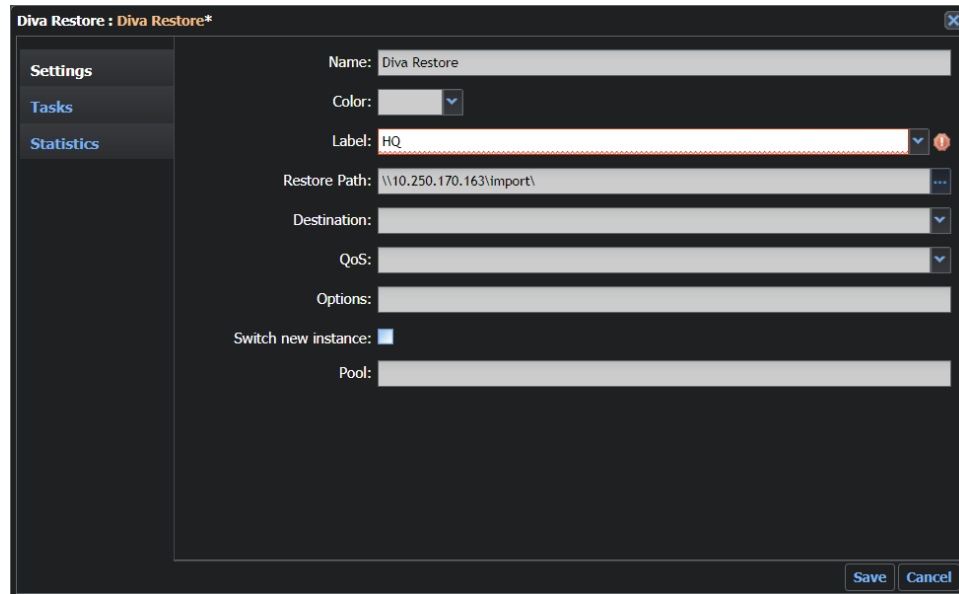


Fig. 4-46: DIVA Restore Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label for the instance. Available values from the configuration file <code>InstanceLabelConfig.xml</code> are included in the drop-down list.
Restore Path	Sets the target directory for the restored file.
Destination	Enables you to select a profile describing the characteristics of the destination of the restored material (for example, path, type, etc.) from a list of existing DIVA profiles.
QoS	Sets the quality level that the DIVA system assigns to the material while restoring.
Options	Enables you to specify parameters needed to manage the material correctly (for example, the credentials used to access an FTP site) if that information is not present in the selected Source profile.
Switch New Instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<divarestore>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<divarestore>
  <server port="8194">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</divarestore>
```

MantricsNode.xml Configuration

```
<divarestore slotCount="2">
  <active>>false</active>
  <server port="8194">10.250.170.183</server>
  <node port="8195">10.250.170.183</node>
  <pool/>
  <ipdiva>http://172.19.77.80:9763</ipdiva>
</divarestore>
```

Archiving to a Quantum Stornext System

The two StorNext elements enable you to create workflows that archive media to a Stornext archive or restore media from a Stornext archive.

An archive workflow can be used to place HR media into the deep archive while maintaining a proxy copy on SAN storage.

A restore workflow can be used to search and preview proxies in the Catalog page and if there is a Archived flag in metadata choose to implement a restore action manually.

Archiving Material to a StorNext Archive

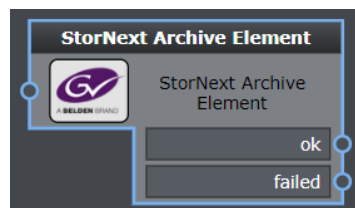


Fig. 4-47: StorNext Archive Workflow Element

The StorNext Archive workflow element has the following settings:

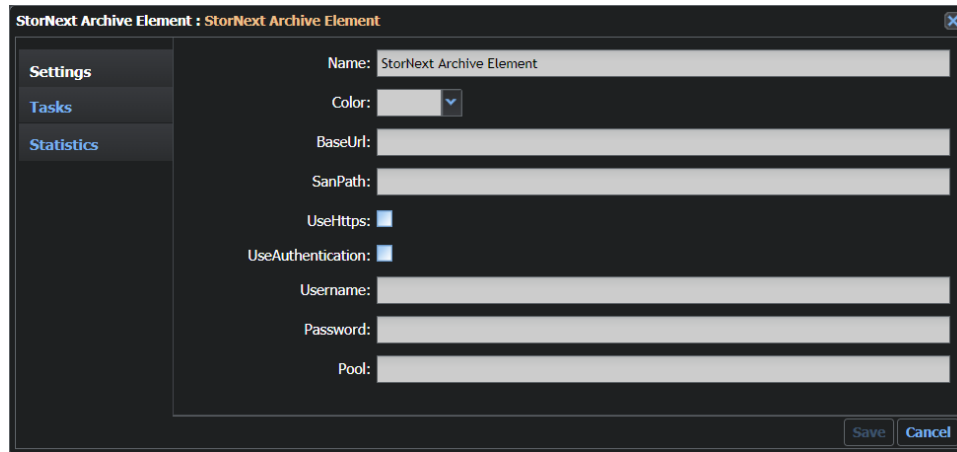


Fig. 4-48: StorNext Archive Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
BaseUrl	Defines the base URL for the StorNext web services address, in the form: <code><Protocol>://<Server>/sws/v2/</code> Where: <code><Protocol></code> is http or https <code><Server></code> is the IP address of the StorNext server. For example: http://192.168.1.214:81/sws/v2/
SanPath	Defines the path of the StorNext folder to which files will be archived. For example: /SAN/toTape/
UseHttps	Select this option if the StorNext web services are configured to use HTTPS.
UseAuthentication	Select this option if authentication is required to access the StorNext web services.
Username	The username for authentication by StorNext web services.
Password	The password for authentication by StorNext web services.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Restoring Material from a StorNext Archive

The **StorNext Restore Element** workflow element enables you to restore material from a StorNext archive. You can use this element to confirm that material is available in the StorNext archive and if required, trigger a restore action. It resides in the **SAM** folder of the **Automation** group of elements.

A StorNext archive system may include a primary storage disk system for immediate data access and a secondary LTO tape archive. The StorNext Restore element can restore data immediately from disk storage but must wait for the StorNext controller to restore material from tape before the element can start a restore to the Momentum environment.

Note: To transfer files to a StorNext archive use the Momentum **Copy** workflow element.



Fig. 4-49: StorNext Archive Workflow Element

This element has the following settings:

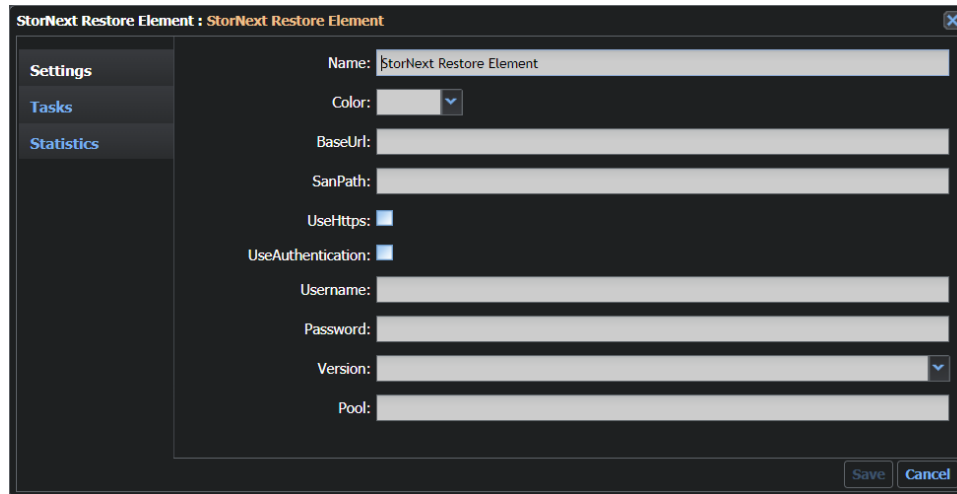


Fig. 4-50: StorNext Restore Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.

Option	Description
BaseUrl	The base URL for the StorNext web services address, in the form: <Protocol>://<Server>/sws/v2/ Where: <Protocol> is http or https <Server> is the IP address of the StorNext server. For example: http://192.168.1.214:81/sws/v2/
SanPath	The path of the StorNext folder from which files will be restored. For example: /SAN/toTape/
UseHttps	Select this option if the StorNext web services are configured to use HTTPS.
UseAuthentication	Select this option if authentication is required to access the StorNext web services.
Username	The username for authentication by StorNext web services.
Password	The password for authentication by StorNext web services.
Pool	Sets the name of a pool associated with the element to balance the processing load.

StorNext Configuration Files

The StorNext configuration files are available from the following folder:

C:\Mantrics\Plugins\StorNext

Include the following:

- For the StorNext Archive Element:
 - StorNextArchiveNode.xml
 - StorNextArchiveServer.xml
- For the StorNext Restore Element:
 - StorNextRestoreNode.xml
 - StorNextRestoreServer.xml

StorNextArchiveNode.xml

```
<StorNextArchiveNodeConfig xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" slotCount="4">
  <active>true</active>
  <server port="8030">127.0.0.1</server>
  <node port="8031">127.0.0.1</node>
  <pool />
</StorNextArchiveNodeConfig>
```

StorNextArchiveServer.xml

```
<StorNextArchiveServerConfig xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <server port="8030">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</StorNextArchiveServerConfig>
```

StorNextRestoreNode.xml

```
<StorNextRestoreNodeConfig xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" slotCount="4">
  <active>true</active>
  <server port="8032">127.0.0.1</server>
  <node port="8033">127.0.0.1</node>
  <pool />
</StorNextRestoreNodeConfig>
```

StorNextRestoreServer.xml

```
<StorNextRestoreServerConfig xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <server port="8032">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</StorNextRestoreServerConfig>
```


Configuring the Automation Elements



Configuring the Automation Workflow Elements

The Automation workflow elements enable you insert transcoder elements to transcode media files into different formats, depending on the supported codecs.

The following Automation elements are available:

- Automation File Transfer Elements
 - Aspera
 - Copy
 - Fileflow Export
 - Fileflow Import
 - FTP
 - Signiant
- Automation Grass Valley Elements
 - BXF Morpheus Export
 - BXF Morpheus Query
 - BXF Transfer Metadata Retriever
 - Gateway Export
 - iTX
- Automation Housekeeping Elements
 - Material Deletion
- Automation Imagine Communications Elements
 - Harris Data Updater
- Automation Social Elements
 - Publish to Dailymotion
 - Publish to Facebook
 - Publish to Twitter
 - Publish to Youtube
 - Remove from Dailymotion
 - Remove from Facebook
 - Remove from Twitter
 - Remove from Youtube
- Automation Miscellaneous Elements
 - Add to Project
 - End
 - Go To

- Instance switcher
- Key Segmentator
- Metadata Publisher
- Remove From Project
- Send Mail
- Send To...
- Set Metadata
- Set Priority
- Sleep
- Technical Metadata Retriever

The configuration details for these elements are provided in the following sections.

Note: All the elements described in this section require configuration of the files `MantricsServer.xml` and `MantricsNode.xml`.

Automation File Transfer Workflow Elements

The File Transfer group of workflow elements enables you to define various methods of transferring material in to, or out of, a workflow. This group contains the following:

- Aspera
- Copy
- Fileflow Export
- Fileflow Import
- FTP
- S3
- Signiant

File Transfer: Aspera

The **Aspera** workflow element connects to the Aspera service to enable the high-speed transfer of video content files using the Aspera FASP transfer technology interface.

The Aspera watchfolder communicates with the Aspera client on which the Aspera API is located to transfer files to the Aspera service for high-speed transmission to defined target endpoints.

Use a Watchfolder to ingest material then use an Aspera element in the workflow to transfer files to a target location, for example, to different regional stations or to a NAS.



Fig. 5-51: Aspera Workflow Element

Element Settings Configuration

This element is available in the **Automation > File transfer** folder and has the following settings:

This screenshot shows the configuration window for the Aspera element. The window title is "Aspera : Aspera". On the left, there is a sidebar with three tabs: "Settings", "Tasks", and "Statistics". The "Settings" tab is selected. The main area contains the following fields:

- Name: Aspera
- Color: [dropdown menu]
- Username: [text field]
- Password: [text field]
- Server Address: [text field]
- Server Folder: [text field]
- Server Port: [text field with up/down arrows]
- Timeout: 7200 [text field with up/down arrows]
- TransferURL: http://localhost:40001 [text field]
- Upload Target Rate: 100000 [text field with up/down arrows]
- Polling Interval: 5 [text field with up/down arrows]
- Create new instance:

Fig. 5-52: Aspera Element Configuration Fields - Part 1

This screenshot shows the continuation of the configuration fields for the Aspera element. The fields include:

- Create new instance:
- Label: (CLOB) HQ [dropdown menu]
- Host: [text field]
- Shared Folder: [text field]
- Pool: [text field]

At the bottom right, there are "Save" and "Cancel" buttons.

Fig. 5-53: Aspera Element Configuration Fields - Part 2

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Username	Username to access the Aspera client on which the Aspera API is located.
Password	Password to access the Aspera client on which the Aspera API is located.
Server Address	IP address of the Aspera client.
Server Folder	Destination IP address and folder for the transferred files.
Server Port	Port to communicate with the Aspera server.
Timeout	Defines the transfer timeout in seconds for the current transfer. Default: 7200 seconds
TransferURL	Defines the URL address of the web service used to send files to the Aspera service. Set by default to: http://localhost:40001
Upload Target Rate	Sets the maximum transfer rate to upload files to a target endpoint. This enables you to use the maximum transfer rate offered by the various delivery stations when using the Aspera workflow element. The default upload target rate is 100,000 kbps or 100 Mbps per element (where the default unit is 1 kbps or 1000 bps). It is important to consider the Aspera licensing requirements when defining the upload target rate. For example, with an Aspera client licensed for a maximum upload rate of 300 Mbps that allows two concurrent client logins, when using a workflow with two Aspera elements, it would be recommended to set the upload target rate on each element to 150 Mbps .
Polling Interval	Interval in seconds at which the Aspera element checks for information on the status and completion of the data transfer process.
Create New Instance	Option to create a new instance as the result of a successful transfer. This should allow to configure the hostname + shared folder name to be assigned to the instance. Default: unchecked
Label	Hidden unless Create new instance is checked. When Create new instance is checked, select the label assigned to the new instance from <code>InstanceLabelsConfig.xml</code> using the drop-down menu.
Host	Hidden unless Create new instance is checked. When Create new instance is checked, defines the hostname of the target server to which Momentum transfers the new instance.

Option	Description
Shared Folder	Hidden unless Create new instance is checked. When Create new instance is checked, defines the shared folder on the target server to which Momentum transfers the new instance.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<aspera>** contains the configuration details to allow this application to communicate with Momentum.

MantricsServer.xml Configuration

```
<aspera>
  <server port="8210">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</aspera>
```

MantricsNode.xml Configuration

```
<aspera slotCount="4">
  <active>false</active>
  <server port="8210">127.0.0.1</server>
  <node port="8211">127.0.0.1</node>
  <pool/>
</aspera>
```

File transfer: Copy

The **Copy** element copies an instance of material into a selected destination folder. You can configure the behavior of the element to treat a file that may already exist in the destination folder.

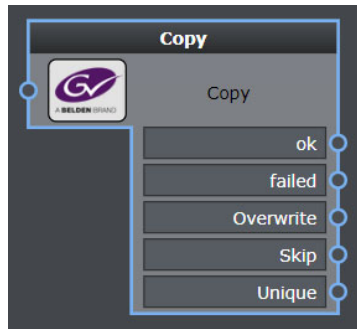


Fig. 5-54: Copy Workflow Element

Element Settings Configuration

This element is available in the **Automation > File Transfer** folder and has the following settings:

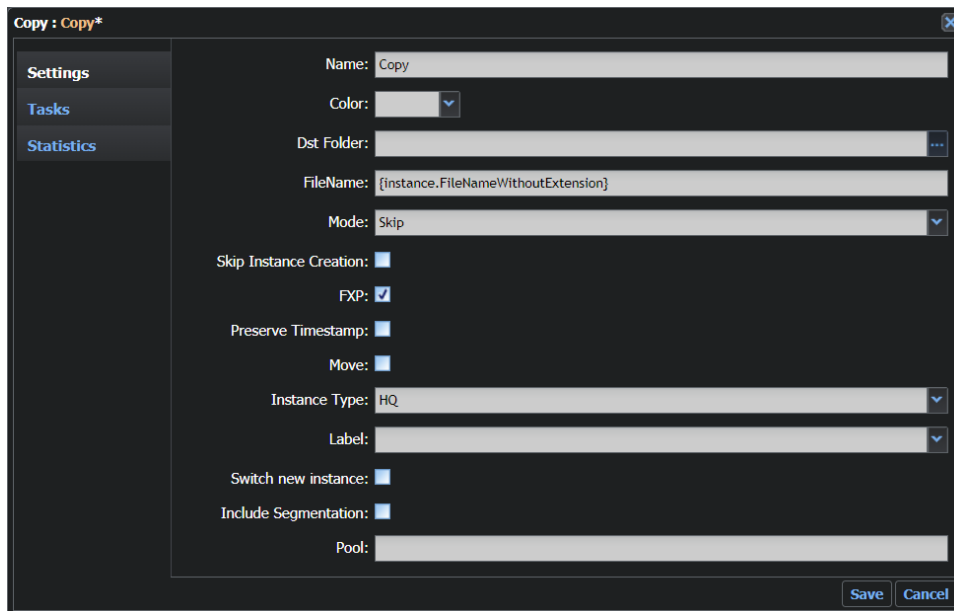


Fig. 5-55: Copy Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Dst Folder	Sets the destination directory. Type in a UNC path or set it using the browser.

Option	Description
FileName	Specify the name of the Instance destination file <i>without</i> a file extension. The default setting is to use the keyword {instance.FileNameWithoutExtension} so by default the copied file is not renamed. This is a copy operation so file extension changes are not permitted.
Mode	Defines what happens if the file already exists in the destination directory. The values are: Overwrite - to overwrite the existing file Skip - to skip the copy Unique - to rename the copy by automatically appending a progressive number to the file name. In all the above cases, if an instance of the selected material already exists in the database, then no action is taken and the task goes through the failed port. If no Instance exists, then Momentum creates it and the file is managed as set by the mode selected. The task goes through the port named for the Mode value.
Skip Instance Creation	When checked, prevents the copy process from creating a new instance.
FXP	Activates the File eXchange protocol (FXP) which enables you to copy files from one FTP server to another by way of an FXP client. The Copy workflow element will validate the FXP settings in both the element settings and in the configuration file <code>MantricsServer.xml</code> . If invalid parameters are specified, a suitable error message will be displayed.
Preserve Timestamp	Active only when the FXP protocol option is selected. Sets the timestamp of the destination file to be the same as that of the original file.
Move	Changes the Copy operation into a Move and removes the files after the copy action. If the file does not already exist in the target location, then Momentum always creates a new Instance in the database and a file in the target location. The task goes through the ok port. If the file is already present, then the behavior matches the selected Mode and the task goes through the port named as the Mode value. This option is available if the FXP protocol option is inactive.
Instance Type	Sets which Instance to copy through the workflow. The values are: HQ (high quality) or AUX (Auxiliary Instance, formats include e.g. TXT, PDF, PAC, DOC, DOCX file).
Label	Sets the label of the AUX Instance. Available values are retrieved from the file <code>InstanceLabelConfig.xml</code> .
Switch New Instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).

Option	Description
Include Segmentation	Active only when Instance Type set to HQ. When checked, includes soft segmentation in the copy process. The default setting is not to include soft segmentation.
Segment Id Pattern	Active only when Include Segmentation is checked for HQ instances. Enter a pattern to use for the Segment ID in the copied file. The default setting of this parameter is: {GUID}-## to copy the segment incrementally from the key-segments parent list.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<copy>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<copy>
  <server port="8118">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <fxpItemList/>
  <overwriteInstance>false</overwriteInstance>
</copy>
```

MantricsNode.xml Configuration

```
<copy slotCount="4">
  <active>true</active>
  <server port="8118">10.250.170.183</server>
  <node port="8119">10.250.170.183</node>
  <pool/>
  <fxp>false</fxp>
  <fxp_descr>Fxp</fxp_descr>
</copy>
```

Configuring FXP in the Copy Element

Configuring FXP in MantricsServer.xml

FXP is configured in the `<fxpItemList>` section of the `<copy>` tag and appears as follows:


```

<fxpItemList>
  <fxpItem>
    <schemaDir />
    <host />
    <port />
    <username />
    <password />
  </fxpItem>
</fxpItemList>

```

These tags have the following functions:

Option	Description
fxpItemList	A collection of all of the FXP sources and destinations.
fxpItem	Contains the data for a single FXP source or destination.
schemaDir	Defines the UNC path to the Destination directory. Momentum validates entries in this field to ensure that correct paths are entered.
host	Defines the IP address of the FTP host.
port	Defines the port number to use for an FXP transfer by the Copy workflow element.
username	Defines the user to logon to the FTP host.
password	Provides the password for the user defined in <username>.
overwriteInstance	When set to false (default) the Copy action will not overwrite an instance of material with the same characteristics that is already present in the database. Set the value to true to enable the Copy action to overwrite an existing instance.

Configuring FXP in MantricsNode.xml

FXP is configured in the **<copy>** tag and appears as follows:

```

<fxp>false</fxp>
<fxp_descr>Fxp</fxp_descr>

```

The tag **<fxp>** defines whether the FXP feature is active for the node. The available values are **true** and **false**. Set to **true** to activate FXP.

File transfer: Fileflow Export

The Fileflow Export element provides Momentum with an interface to media clips exported from an sQ Server environment by way of the sQ Fileflow API. The Fileflow Export element picks up the exported sQ media clip and generates a physical media file in MXF format in the Momentum database.

The successful output of the Fileflow Export task is a new Instance located in an accessible, defined file path.



Fig. 5-56: Fileflow Export Workflow Element

Element Settings Configuration

This element is available in the **Automation > File Transfer** folder and has the following settings:

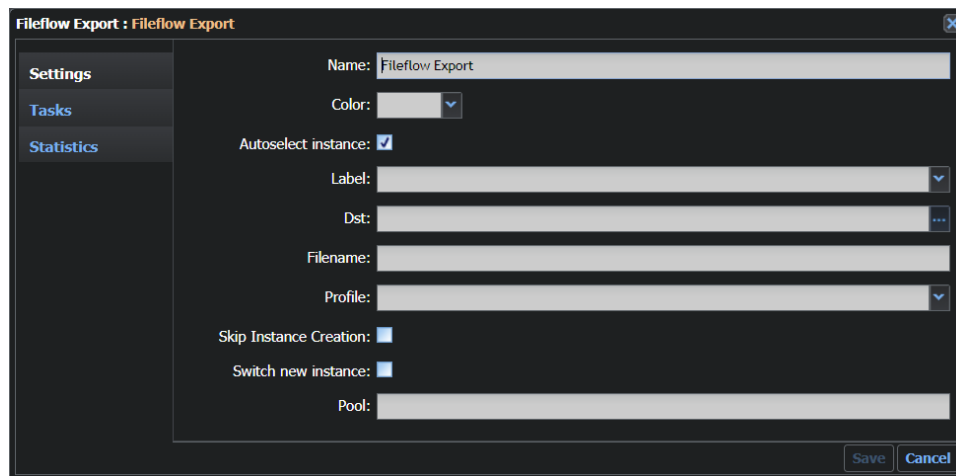


Fig. 5-57: Fileflow Export Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Autoselect instance	When selected (default) automatically takes the sQ instance with the most recent creation date and uses this in the export operation and creation of the MXF file. When unselected Fileflow Export will select only a specific sQ instance.
Label	Sets the label of the newly generated Instance. The available values are contained in the InstanceLabelConfig.xml file.

Option	Description
Dst	Defines the destination file path in which to store the new Instance (in MXF format) generated by the Fileflow Export task from the sQ source.
Filename	Filename of the media Instance (in MXF format) generated by the Fileflow Export task from the sQ source instance.
Profile	A task-specific configuration set that can be attached to a task to instruct the Fileflow API to process the task using the defined profile instead of the default configuration.
Switch New Instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<fileflowexport>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<fileflowexport>
  <server port="8312">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</fileflowexport>
```

MantricsNode.xml Configuration

```
<fileflowexport slotCount="4">
  <active>true</active>
  <server port="8312">10.250.170.183</server>
  <node port="8313">10.250.170.183</node>
  <pool/>
  <ipfileflow>http://10.250.170.141:8080/fileflowqueue/ffq</ipfileflow>
</fileflowexport>
```

File transfer: Fileflow Import

The **Fileflow Import** workflow element provides Momentum with an interface to an sQ Server environment by way of the sQ Fileflow API. The **Fileflow Import** element creates a media Instance in a suitable format and with appropriate metadata in the Momentum

database to enable the sQ Fileflow API to import the sQ Instance into the sQ Server environment.

The successful output of the **Fileflow Import** task is a new sQ Clip Instance, with ClipID and ZonelD set using the sQInstance metadata schema.

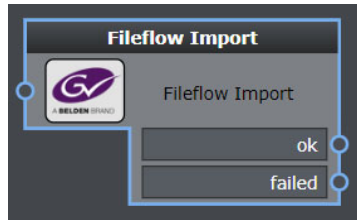


Fig. 5-58: Fileflow Import Workflow Element

Element Settings Configuration

This element is available in the **Automation > File Transfer** folder and has the following settings:

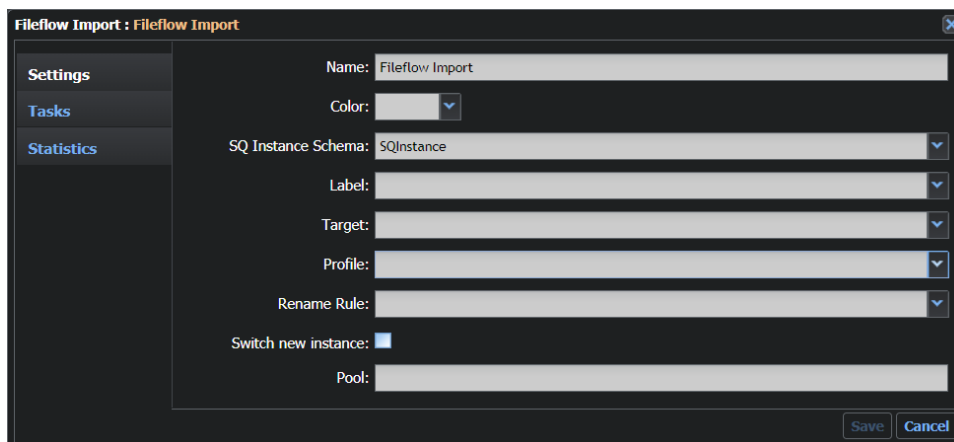


Fig. 5-59: Fileflow Import Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
SQ Instance Schema	Sets the instance category for the imported sQ instance. Default: SQ Instance
Label	Sets the label of the newly generated Instance. The available values are contained in the InstanceLabelConfig.xml file.

Option	Description
Target	<p>Sets the target network destination for the output clip instance on the target ISA Manager.</p> <p>The specified network path may be outside the list of configured hosts for the Fileflow Queue as long as it can be accessed.</p> <p>Note: If authentication is required for network access, the Fileflow Queue must be correctly configured with the relevant authentication details. Refer to the Fileflow Queue documentation for more information.</p>
Profile	<p>A task-specific configuration set that can be attached to a task to instruct the Fileflow API to process the task using the defined profile instead of the default configuration.</p>
Rename Rule	<p>Select one of the available rename rules used to tell the Fileflow Engine to add either a prefix or suffix to the output name or to override it completely. You can select from the following options:</p> <p>None: No change to the output name.</p> <p>Prefix: Add the specified string as a prefix at the beginning of the output name.</p> <p>Replace: Overwrite the output name with the specified string.</p> <p>Suffix: Add the specified string as a suffix to the end of the output name.</p>
Rename Rule Text	<p>Active only when you specify a Rename Rule.</p> <p>Enter a text string, which may include variables, to be applied to the output name as specified in the field Rename Rule.</p>
Switch New Instance	<p>When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).</p>
Pool	<p>Sets the name of a pool associated with the element to balance the processing load.</p>

Configuration Files

The tag **<fileflowimport>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<fileflowimport>
  <server port="8310">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</fileflowimport>
```

MantricsNode.xml Configuration

```
<fileflowimport slotCount="4">
  <active>true</active>
  <server port="8310">10.250.170.183</server>
  <node port="8311">10.250.170.183</node>
  <pool/>
  <ipfileflow>http://10.250.170.141:8080/fileflowqueue/ffq</ipfileflow>
</fileflowimport>
```

File transfer: FTP

The **FTP** workflow element enables you to deliver material to a remote destination using FTP (file transfer protocol).

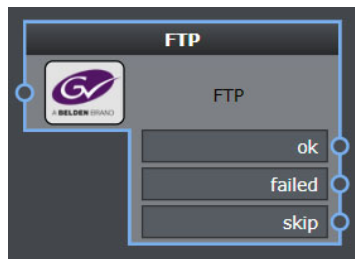


Fig. 5-60: FTP Workflow Element

Note: The buffer size for FTP transfers is set at **100 MB**.

Element Settings Configuration

This element is available in the **Automation > File Transfer** folder and has the following settings:

Fig. 5-61: FTP Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Host	Sets the IP address of the FTP host site (for example, ftp://ip_address/folder_name or ftp://ftp_name/folder_name).
User	Sets a username for accessing the FTP site.
Password	Sets a password for accessing the FTP site.
Dst Folder	Defines the destination folder on the FTP host server for the file(s) transferred by FTP.
Mode	Sets how the transfer process behaves if a transferring file is already present in the destination folder. The values are: Overwrite The file into the destination folder is overwritten by the new file. Skip The task is skipped and the next file (if present) is taken for transfer (port Skip). Unique No transfer is attempted and a failure procedure is started (see the On Failure option below).
Transfer Mode	Sets whether the FTP connection works in passive or active mode.

Option	Description
On Failure	<p>Sets the action in the event of an upload failure, using the Retry Count and Interval values (if needed) in order to try to restore a connection.</p> <p>The values are:</p> <p>Do nothing No attempt is made to restore the connection and the task is propagated through the Failed port.</p> <p>Append If the transfer can be restored, it continues from where it stopped.</p> <p>Restart A new transfer is started from the beginning, erasing the previous transfer.</p>
Retry Count	<p>Active when you set the parameter On Failure to Append or Restart.</p> <p>Sets the maximum number of attempts to restore a broken connection. This option is active if Append or Restart are selected as On Failure values. A minimum value of 1 is the default setting.</p>
Interval	<p>Active when you set the parameter On Failure to Append or Restart.</p> <p>Sets the number of attempts for the retry mode.</p>
Check Consistence	<p>This option activates a post-transfer control that compares the size of a just transferred file against the size of the original file to verify that they are the same.</p>
Port	<p>Allows you to specify a non-standard port for the FTP transfer, where this is required. By default, the FTP element uses the standard port 21.</p>
Pool	<p>Sets the name of a pool associated with the element to balance the processing load.</p>

Configuration Files

The tag **<ftp>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<ftp>
  <server port="8126">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</ftp>
```

MantricsNode.xml Configuration

```
<ftp slotCount="4">
  <active>true</active>
  <server port="8126">10.250.170.183</server>
  <node port="8127">10.250.170.183</node>
  <pool/>
</ftp>
```

File transfer: S3 File Pusher

The **S3 File Pusher** workflow element enables you to publish content of any type to an Amazon S3 bucket.



Fig. 5-62: S3 File Pusher Element

Element Settings Configuration

This element is available in the **Automation > File Transfer** folder and has the following settings:

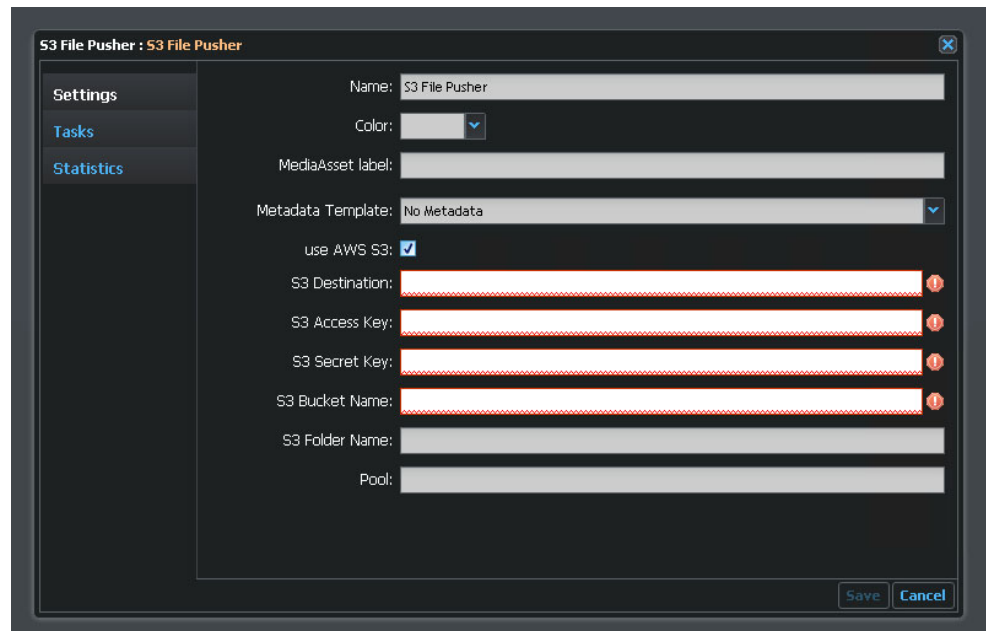


Fig. 5-63: S3 File Pusher Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
MediaAsset label	Specifies the value of the label of a media asset to be published. Multiple, comma-separated, entries are permitted.
Metadata Template	Specifies the name of the metadata template to be published.
use AWS S3	Select the S3 destination: <ul style="list-style-type: none"> Selected - AWS S3 destination. Deselected - MinIO S3 destination.
S3 Destination	URL to access the S3 destination server.
S3 Access Key	A string similar to a user name (e.g. "EDPKUH1883PYN2PS4O9D").
S3 Secret Key	A String similar to a password (e.g. "ezpqjMTAQjeNlf+XZupxS+ozjbTT0WiiDvliFBgn").
S3 Bucket Name	The S3 "folder" where the file shall be stored.
S3 Folder Name	MinIO supports folders beneath buckets. Note: This is only supported by a MinIO S3 destination. Leave empty for a non-MinIO destination.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<s3filepusher>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<s3filepusher>
  <server port="8262">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</s3filepusher>
```

MantricsNode.xml Configuration

```
<s3filepusher slotCount="4">
  <active>true</active>
  <server port="8262">10.127.181.84</server>
  <node port="8263">10.127.181.84</node>
  <pool />
</s3filepusher>
```

File transfer: Signiant

The **Signiant** workflow element enables you to configure jobs to transfer files using the third party Signiant file transfer applications.



Fig. 5-64: Signiant Workflow Element

Element Settings Configuration

This element is available in the **Automation > File Transfer** folder and has the following settings:

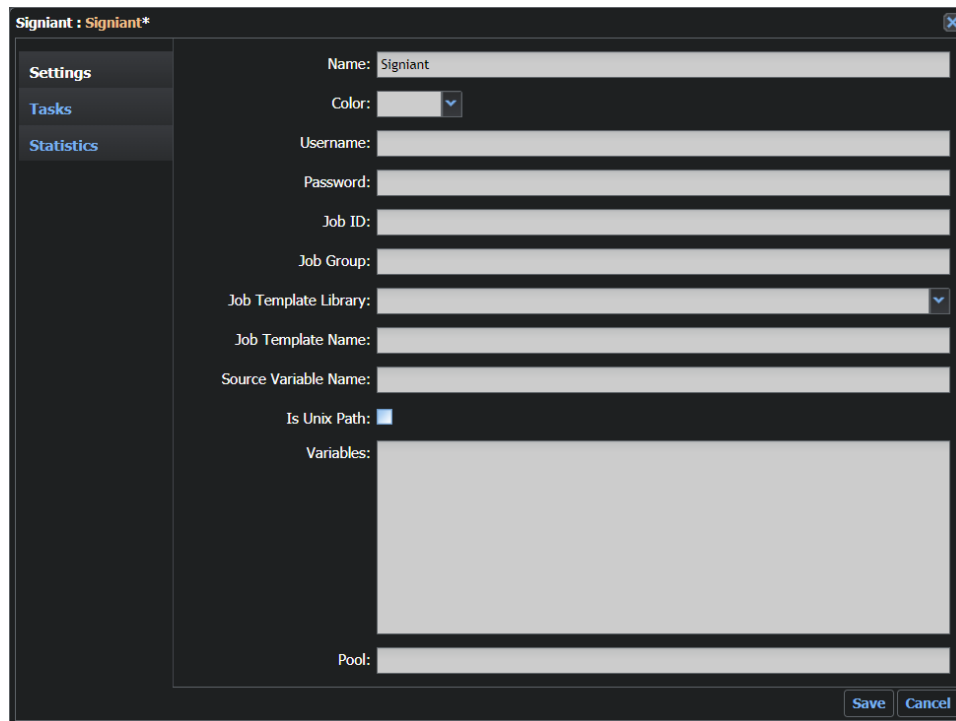


Fig. 5-65: Signiant Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Username	User name required to run the Signiant job.
Password	Password required to run the Signiant job.
Job ID	Unique identifier of the Signiant job. Also referred to as Job Name. For example: mam_export1234
Job Group	Name of the Signiant Job grouping. For example: mam_sigxfer
Job Template Library	Name of the library to which the job template belongs. For example: Sig_Lib
Job Template Name	Name of the template used to run the Signiant job. For example: Job_Tmplt_START
Source Variable Name	Variable to define the source file to transfer. For example: Job_Tmplt_START.filename_to_send Note: The Source Variable must not be used in the Variables parameter described below.
Is Unix Path	Check to specify that the source agent uses a UNIX path.

Option	Description
Variables	Variables to define the transfer parameters. For example: Job_Tmplt_START.localAgent=sig-agt001.playout.co.uk Job_Tmplt_START.destinationAgent=sig-agt001.playout.co.uk Job_Tmplt_START.emailAddress=rdfc44@gmail.com Job_Tmplt_START.message=Signiant Transfer Complete Job_Tmplt_START.destinationFolder=/mnt/server/momentum/sigdestination
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<signiant>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<signiant>
  <server port="8210">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</signiant>
```

MantricsNode.xml Configuration

```
<signiant slotCount="4">
  <active>>false</active>
  <server port="8210">10.250.170.183</server>
  <node port="8211">10.250.170.183</node>
  <pool/>
  <ipsigniant/>
  <username>username</username>
  <password>password</password>
  <sourceAgentPathMap/>
</signiant>
```

Automation Grass Valley Workflow Elements

The Grass Valley group of workflow elements provides a BXF messaging interface with a Morpheus system, an interface with iTX and a generic Gateway Export interface. This group contains the following:

- BXF Morpheus Export
- BXF Morpheus Query
- BXF Transfer Metadata Retriever

- Gateway Export
- iTX

Grass Valley: BFX Morpheus Export

BFX messages are used to integrate Momentum with a Morpheus Playout Automation system and its database, or with another Momentum system. **BFX Morpheus Export** is one component of the set of BFX workflow elements in Momentum, with the others being **BFX Receiver** and **BFX Morpheus Query**.

The **BFX Morpheus Export** workflow element enables you to publish metadata available in Momentum to a Morpheus database, or to another Momentum, using BFX messaging.

BFX Morpheus Export inserts or updates metadata as defined by the configuration of the **Mode** attribute, see the table on the following page. This metadata insert or update action can occur as a result of a transfer request being opened from a Morpheus system, or even without a transfer request being initiated.

For example, if you select the operational mode **Complete Transfer**, BFX Morpheus Export expects that a transfer request was previously opened. Once the BFX Morpheus Export element receives a transfer request for a Morpheus ID, then it sends a **complete transfer** message back to Morpheus. This BFX message will complete the transfer in MAPP and insert the material in the Morpheus database. Morpheus then returns an acknowledgment (ACK) to Momentum.

Alternatively, if the operational mode is set to **Import Content**, **Delete Content** or **Smart Import Content** the BFX Morpheus Export element inserts or updates metadata without checking whether a transfer request exists for the specific Morpheus ID. In the event that a transfer request is open, BFX Morpheus Export does not complete the transfer request in these modes.



Fig. 5-66: BFX Morpheus Export Workflow Element

Element Settings Configuration

This element is available in the **Automation > Grass Valley** folder and has the following settings:

Fig. 5-67: BXF Morpheus Export Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Bxf Route	Select one of the pre-configured BXF communication routes. BXF Routes are defined in the Momentum Admin page. The BXF Agent section of the BXF Route sets the receiver mode of the BXF Receiver. You can choose whether the element monitors a watchfolder for the arrival of BXF message files or whether it uses a socket connection to an IP address and port. To set up a list of available BXF Routes, select Admin > BXF Routes .

Option	Description
Mode	<p>Sets the desired operational mode of the element, with the settings being:</p> <p>Complete Transfer Request: Complete a transfer request associated with a specific Morpheus ID and originally received by a BXF Receiver element.</p> <p>Delete Content: Delete an Item and/or Instance from the Morpheus database. This mode can check whether the operation is allowed in the Morpheus database if the Use Query checkbox is enabled.</p> <p>Import Content: Add / Update an Item and/or Instance in the Morpheus database. This mode can check whether the operation is allowed in the Morpheus database if the Use Query checkbox is enabled.</p> <p>Send Transfer Request: Sends a transfer request from Momentum either to another Momentum system or to a Morpheus system. The request can be either a File Transfer or a Purge.</p> <p>Smart Import Content: Adds or updates an item and/or instance in the Morpheus database. The action (add or update) is decided after performing a query in the Morpheus database.</p> <p>Each mode selected, opens additional configuration fields specifically for that mode.</p>
Transfer Type	<p>When Mode is set to Send Transfer Request, defines the type of transfer request in the BXF message. You can select either: FileTransfer, Purge or Set Icon.</p> <p>Note: A Purge transfer type message will trigger the deletion of the specified material from <i>all</i> devices in the Morpheus environment.</p>
Origin	<p>Specifies the originator of the BXF message, for example, MomentumSystem.</p> <p>All BXF messages have an Origin attribute which must be set to the name of the originator of the message. This is free-form text string and is case-sensitive.</p>

Option	Description
Destination	<p>Specifies the name of the Morpheus host shell service which processes the BXF messages. This is often the BXF Import Content Service. It contains the same value as the Processing Agent Name field in the BXF Import Content service.</p> <p>BXF messages can use an optional attribute Destination that is used to decide which BXF agent should process a given message once it is placed in the Morpheus database. The BXF agents are configurable so that the destination they represent can be set as required, for example: SAM.BXF.ImportContentService.</p>
Use Query	<p>Active when Transfer Type is set to Delete Content or Import Content.</p> <p>When enabled, checks whether the selected operation is allowed in the Morpheus database. Displays the field Query Destination and the Send Ack to Morpheus checkbox.</p> <p>If you do not want to enable the Use Query option or use the mode Smart Import Content, you can achieve the same result by using a BXF Morpheus Query element in front of a BXF Morpheus Export element.</p>
Query Destination	<p>Active when you enable the Use Query checkbox.</p> <p>Specifies the name of the Morpheus BXF Query host shell service which processes BXF Morpheus Query messages. For example:</p> <p>If a Momentum system identifies itself with the name: MomentumSystem and you have configured the BXF Morpheus Query host shell service with the agent name: BXF Query Main System, when Momentum queries whether a material exists, it creates a BXF query message with the values of the Origin and Query Destination fields in the header: "MomentumSystem" and "BXF Query Main System". The Query header must match exactly and is case-sensitive.</p> <p>The BXF Query service receives the message and immediately generates an acknowledgment (ACK) message to confirm receipt of the message and that the message will be processed, This new ACK message will invert the Origin and Destination in the header as: "BXF Query Main System" and "MomentumSystem".</p>
Template	<p>Defines the BXF Export template selected from the list of available files stored in the folder: C:\Mantrics\BXFExportTemplates.</p> <p>The default template (Default.xml) defines the following components of the BXF Export element:</p> <p>BXF Metadata List: Contains the list of generic fields to set for the BXF Message, Every field has a default value but only some fields are mandatory for BXF message creation. If left empty, BXF Export uses the default values.</p> <p>BXF Program and Non-Program Additional Metadata List: define additional metadata.</p> <p>Custom Parameter List: define custom parameters for the BXF Export element.</p> <p>Output Port: configurations for BXF Export actions.</p>

Option	Description
Include Segments	<p>Checkbox is active when Modes Import Content and Smart Import Content are selected.</p> <p>When enabled, includes segmentation information with the other content to be imported into the Morpheus database.</p>
Delete Action	<p>Active when you select the mode Delete Content, the following options are available:</p> <p>Remove Item - purges the specified Item from the Item table of the Morpheus database. If the target Item is not present in the Morpheus database, it returns an error in the BXF ACK message.</p> <p>Update Item, Remove Instance - Updates the specified Item in the Item table of the Morpheus database and purges the specified Instance, if present, from the Instance table of the Morpheus database. If the target Item or Instance is not present in the Morpheus database, it returns an error in the BXF ACK message.</p>
Import Action	<p>Active when you select the mode Import Content, the following options are available:</p> <p>Add Item and Instance - Inserts the Item into the Item table of the Morpheus database and inserts the Instance into the Instance table. If either Item or Instance is already present in the Morpheus database, it returns an error in the BXF ACK message.</p> <p>Update Item and Instance - Updates the Item in the Item table of the Morpheus database and updates the Instance in the Instance table. If either Item or Instance is not present in the Morpheus database, it returns an error in the BXF ACK message.</p> <p>Update Item, Add Instance - Updates the Item in the Item table of the Morpheus database and inserts the Instance in the Instance table. If the Item is not present in Morpheus database, it returns an error in the BXF ACK message.</p>
Ack Analysis	<p>For Quick ACK Analysis, Momentum simply checks whether or not an Ack is received and does not analyze other folders (e.g., completed, failed, etc.) on Morpheus for further information. In general, it is recommended to use Quick ACK Analysis. In the event that an ACK/NACK is not received, the task is propagated through the Timeout port without any additional information.</p> <p>For Detailed ACK Analysis, if Momentum does not receive an ACK/NACK message it directs any failures to the failure port, for further processing or investigation of the completed and failed folders in Morpheus.</p> <p>You can only use the Ack Analysis functions if the selected BXF Route is set-up for Watchfolder file communication. Do not use Ack Analysis with a BXF Route setup for Socket communication.</p>
Wait for Ack	<p>Checkbox active when you select the mode Send Transfer Request.</p> <p>When enabled, waits for receipt of an ACK message before progressing the task.</p>

Option	Description
Interval (sec)	Sets the interval, in seconds, that Momentum waits to receive an ACK/NACK from the Morpheus database. When the Interval is exceeded, the task is propagated through the Timeout port.
Skip Complete Message	Active when you select the mode Complete Transfer Request . When selected all parameters relating to the Complete Transfer Request messages are hidden as the transfer is completed in the Momentum database without sending a BXF Complete Transfer message.
Origin ID in Ack Filename	This field will be deprecated from Momentum version 5.1 and should not be used. Momentum always includes the Origin ID in its ACK/NACK messages. When enabled, Momentum expects that the messages from Morpheus will contain the Origin ID.
Send Ack to Morpheus	When enabled, sends an ACK/NACK message to the originating service (Morpheus) for all messages received, as appropriate.
Archive	When selected, Momentum will archive a copy of all messages involved in the specific task, including queries, query responses, import content messages, and all ACKs/NACKs.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<bxlexport>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<bxlexport>
  <server port="8168">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <messageType/>
  <origin/>
  <originType/>
  <userName/>
  <checkDstFolderCount>0</checkDstFolderCount>
  <retryDstFolderSeconds>0</retryDstFolderSeconds>
  <AddDeleteAfterDays>60</AddDeleteAfterDays>
</bxlexport>
```

MantricsNode.xml Configuration

```
<bxlexport slotCount="4">
  <active>>false</active>
```

```
<server port="8168">10.250.170.183</server>
<node port="8169">10.250.170.183</node>
<pool/>
</bxfexport>
```

Configuring the BXF Morpheus Export Message Template

For the element **BXF Morpheus Export** to export BXF messages in the correct format, at least one template file must be available. A default template file `Default.xml` is stored in the installation folder: `C:\Mantrics\BXFExportTemplates\Default.xml`.

More than one template file can be stored in the folder although they must all follow the rules of the structure described below. You can select the template to be used by the BXF Export workflow element from the **Template** drop-down menu in the **Settings** dialog of the workflow element.

To configure the BXF Export template settings:

- In a text editor, open the file: `C:\Mantrics\BxfExportTemplates\Default.xml`

The file has the following structure:

```
<BXFExportTemplate>
  <BXFMetadataList>
    <BXFMetadata>
      <Label>Notes</Label>
      <Value>MomentumCore.MomentumCore.Notes</Value>
      <Kind></Kind>
    </BXFMetadata>
  </BXFMetadataList>
  <BXFProgrammeAdditionalMetadataList>
    <BXFMetadata>
      <Label></Label>
      <XPath></XPath>
      <Value></Value>
      <Kind></Kind>
    </BXFMetadata>
  </BXFProgrammeAdditionalMetadataList>
  <BXFNonProgrammeAdditionalMetadataList>
    <BXFMetadata>
      <Label></Label>
      <XPath></XPath>
      <Value></Value>
      <Kind></Kind>
    </BXFMetadata>
  </BXFNonProgrammeAdditionalMetadataList>
  <CustomParametersList>
    <BXFMetadata>
      <Label></Label>
      <XPath></XPath>
      <Value></Value>
      <Kind></Kind>
    </BXFMetadata>
  </CustomParametersList>
  <AddDaysToNowIfDeleteAfterIsNull>60
  </AddDaysToNowIfDeleteAfterIsNull>
  <TransferFilters>
    <Filter>
```

```

        <Label></Label>
        <Value></Value>
    </Filter>
</TransferFilters>
<NackReceived_Port>failed</NackReceived_Port>
<Timeout_Port>failed</Timeout_Port>
<BxfInvalid_Port>failed</BxfInvalid_Port>
<MorpheusNotResponsive_Port>failed</MorpheusNotResponsive_Port>
<MessageLost_Port>failed</MessageLost_Port>
<ItemNotInMorpheus_Port>failed</ItemNotInMorpheus_Port>
<ItemAlreadyInMorpheus_Port>failed</ItemAlreadyInMorpheus_Port>
<InstanceNotInMorpheus_Port>failed</InstanceNotInMorpheus_Port>
<InstanceAlreadyInMorpheus_Port>failed
</InstanceAlreadyInMorpheus_Port>
<NoRequest_Port>failed</NoRequest_Port>
<TransferNotFound_Port>NotFound</TransferNotFound_Port>
</BXFTemplate>

```

These XML tags have the following functions:

Tag	Description
BXFMetadatalist	<p>Contains a list of the generic fields contained in the generated BXF message to be exported, Every field has a default value but only some fields are mandatory for the creation of the message. If the <BXFMetadatalist> list is empty, BXF Export uses the default values: Label Value Kind. Collects all the metadata to be included in the BXF message being exported from Momentum.</p> <p>The tag <Label> is used to mark the metadata in the BXF file. The value is specified using the extended ID of the metadata in the Momentum system and can be retrieved in the Admin page Metadata, in the Metadata ID field.</p> <p>The tag <Value> is the value given to the metadata specified in <Label>. The tag <Kind> specifies whether the metadata is taken from the Title or the Instance of the related material.</p>
BXFProgrammeAdditionalMetadataList	<p>Collects the metadata specific to the materials belonging to the category Programme that have to be exported from Momentum. The tags <Label>, <Value> and <Kind> have the same functions as described above.</p> <p>The tag <XPath> specifies the XML path to map the value stored in the related <Value> tag to a specific node of the BXF message structure.</p>
BXFNonProgrammeAdditionalMetadataList	<p>Collects the metadata specific to the materials belonging to categories other than Programme that have to be exported from Momentum. The tags <Label>, <Value>, <Kind> and <XPath> of the list are the same as described previously.</p>

Tag	Description
CustomParametersList	Collects the metadata specific to the materials belonging to any custom parameters that have to be exported from Momentum. The tags <Label>, <Value>, <Kind> and <XPath> of the list are the same as described previously.
TransferFilters	Collects a list of Transfer Request metadata with specific values to filter out a unique Transfer Request to complete that matches the filter values. If the list of metadata is empty, there must not be more than one Transfer Request related to the specific route and Morpheus ID.
Output Port Configurations	Use to configure the output ports. You can map an action, whether successful or not to a designated port.

Grass Valley: BFX Morpheus Query

BFX messages are used to integrate Momentum with a Morpheus Playout Automation system and its database, or with another Momentum system. **BFX Morpheus Query** is one component of the set of BFX elements in Momentum, with the others being **BFX Morpheus Export** and **BFX Receiver**.

The **BFX Morpheus Query** workflow element enables you to query the Morpheus database for the existence of specific material in a playlist or for playlists using specific material, with the returned data in BFX message format. This element can query the following:

- Whether a specific Material exists in the Morpheus database.
- Whether an Instance on a specific device exists in the Morpheus database.

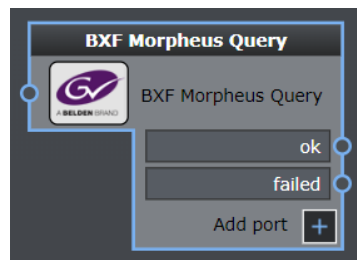


Fig. 5-68: BFX Morpheus Query Workflow Element

Element Settings Configuration

This element is available in the **Automation > Grass Valley** folder and has the following settings:

Fig. 5-69: BXF Morpheus Query Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Bxf Route	Select one of the pre-configured BXF communication routes. BXF Routes are defined in the Momentum Admin page. The BXF Agent section of the BXF Route sets the receiver mode of the BXF Receiver. You can choose whether the element monitors a watchfolder for the arrival of BXF message files or whether it uses a socket connection to an IP address and port. To set up a list of available BXF Routes, select Admin > BXF Routes .
Origin	Specifies the originator of the BXF message, for example, MomentumSystem. All BXF messages have an origin attribute which must be set to the name of the originator of the message. This is free-form text and is case-sensitive.
Destination	Specifies the name of the Morpheus host shell service which processes the BXF messages. BXF messages can have an optional attribute Destination that is used to decide which BXF agent should process a given message once it is placed in the Morpheus database. The BXF agents are configurable so that the destination they represent can be set as required. For example: SAM.BXF.ScheduleQuery for a query service. This option specifies the destination of the query as the BXF Query workflow element enables you to perform only query actions. As a result, you need to know the agent name of the Query Service .

Option	Description
Template	<p>Defines the BXF Query template selected from the list of available files stored in the folder: C:\Mantrics\BXFQueryTemplates. The default template (Default.xml) defines the following components of the BXF Query element:</p> <p>Material Type - set the type of Notifier messages to skip, if any.</p> <p>MorpheusID, DeviceID, LongFileID</p> <p>Output Port configurations for BXF Query actions.</p>
Mode	<p>Sets the type of query that you want the element to perform in the target Morpheus database. The following options are available:</p> <p>Item Only: Queries the Morpheus database Item table for the presence of an Item.</p> <p>Item and Instance: Queries both the Morpheus database Item and Instance tables for the presence of an Item and Instance.</p> <p>Instance Only: Queries the Morpheus database Instance table for the presence of an Instance.</p>
Ack Analysis	<p>For Quick ACK Analysis, Momentum simply checks whether or not an Ack is received and does not analyze other folders (e.g., completed, failed, etc.) on Morpheus for further information. In general, it is recommended to use Quick ACK Analysis. In the event that an ACK/NACK is not received, the task is propagated through the Timeout port without any additional information.</p> <p>For Detailed ACK Analysis, if Momentum does not receive an ACK/NACK message it directs any failures to the failure port, for further processing or investigation of the completed and failed folders in Morpheus.</p> <p>You can only use the Ack Analysis functions if the selected BXF Route is set-up for Watchfolder file communication. Do not use Ack Analysis with a BXF Route setup for Socket communication.</p>
Interval (sec)	<p>Sets the interval, in seconds, that Momentum waits to receive an ACK/NACK from the Morpheus database. When the Interval is exceeded, the task is propagated through the Timeout port,</p>
Origin ID in Ack Filename	<p>This field will be deprecated from Momentum version 5.1 and should not be used.</p> <p>Momentum always includes the Origin ID in its ACK/NACK messages. When enabled, Momentum expects that the messages from Morpheus will contain the Origin ID.</p>
Send Ack to Morpheus	<p>When enabled, sends an ACK/NACK message to the originating service (Morpheus) for all messages received, as appropriate.</p>
Archive	<p>When selected, Momentum will archive a copy of all messages involved in the specific task, including queries, query responses, import content messages, and all ACKs/NACKs.</p>
Pool	<p>Sets the name of a pool associated with the element to balance the processing load.</p>

Configuration Files

The tag **<bxquery>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<bxquery>
  <server port="8218">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</bxquery>
```

MantricsNode.xml Configuration

```
<bxquery slotCount="4">
  <active>false</active>
  <server port="8218">10.250.170.183</server>
  <node port="8219">10.250.170.183</node>
  <pool/>
</bxquery>
```

Configuring the BXF Query Message Template

For the element **BXF Query** to generate BXF Queries in the correct format, at least one template file must be available. A default, `template.Default.xml` is stored in the default installation folder: `C:\Mantrics\BXFQueryTemplates`.

More than one template file can be stored in the folder although they must all follow the rules of the structure described below. You can select the template to be used by the BXF Query workflow element from the **Template** drop-down menu in the **Settings** dialog of the element.

To configure the BXF Query template settings:

- In a text editor, open the file: `C:\Mantrics\BxfQueryTemplates\Default.xml`

The file has the following structure:

```
<?xml version="1.0"?>
  <BXFQueryTemplate>
    <MaterialType>
      <Value>MomentumCore.MomentumCore.MATERIAL_TYPE</Value>
      <Kind>TITLE</Kind>
    </MaterialType>
    <MorpheusId>
      <Value>MomentumCore.MomentumCore.MORPHEUS_ID</Value>
      <Kind>TITLE</Kind>
    </MorpheusId>
    <DeviceId>
      <Value>MomentumInstance.MomentumInstance.DEVICE_ID
      </Value>
      <Kind>MEDIAASSET</Kind>
    </DeviceId>
    <LongFileId>
      <Value>MomentumInstance.MomentumInstance.LONG_FILE_ID
```

```

        </Value>
        <Kind>MEDIAASSET</Kind>
    </LongFileId>
    <NackReceived_Port>failed</NackReceived_Port>
    <Timeout_Port>failed</Timeout_Port>
    <BxfInvalid_Port>failed</BxfInvalid_Port>
    <MorpheusNotResponsive_Port>failed
    </MorpheusNotResponsive_Port>
    <MessageLost_Port>failed</MessageLost_Port>
    <ItemNotInMorpheus_Port>failed</ItemNotInMorpheus_Port>
    <InstanceNotInMorpheus_Port>failed
    </InstanceNotInMorpheus_Port>
    <ItemAndInstanceNotInMorpheus_Port>failed
    </ItemAndInstanceNotInMorpheus_Port>
    <OnlyItemInMorpheus_Port>failed</OnlyItemInMorpheus_Port>
</BXFQueryTemplate>
    
```

These XML tags have the following functions:

Tag	Description
MaterialType	Contains a list of the standard Morpheus material types (Programme, Commercial, Live, Live Record, Junction, etc.) The tag <Value> is a Metadata Id if Kind is TITLE or MEDIAASSET, the value can be rendered if Kind is set to NOMETADATA. The tag <Kind> specifies whether the metadata is taken from the Title or the Instance of the related material.
MorpheusId	ID of the target Morpheus system, for example; <pre> <MorpheusId> <Value>MomentumCore.MomentumCore. MORPHEUS_ID</Value> <Kind>TITLE</Kind> </MorpheusId> </pre>
DeviceId	For a given list of devices, Momentum queries the MAPP database for all the instances on that device Specifies a list of devices by Device ID of a single video server, for example: <pre> <DeviceId> <Value>MomentumInstance.MomentumInstance. DEVICE_ID </Value> <Kind>MEDIAASSET</Kind> </DeviceId> </pre>
LongFileID	Specifies the LongFileID to restrict a query of the MAPP database, together with DeviceID
Output Port Configurations	Use to configure the output ports. You can map an action, whether successful or not to a designated port.

Grass Valley: BXF Transfer Metadata Retriever

The **BXF Transfer Metadata Retriever** workflow element enables you to retrieve values from a BXF Transfer Request message and save the values, as a string, to a metadata field.

You can configure the workflow element to select a Transfer Request by matching a specific Job ID, or to a list of transfers related to a RouteID, MorpheusID and configurable filter criteria.

This workflow element extracts the value of the matching metadata from the selected Transfer Requests and writes the value(s) to a metadata value associated with the Title or the Media Asset. You can also configure the element to propagate the task through a specific port named after the metadata value.

Note: The target metadata for the BXF Transfer Metadata Retriever element must be of the data type **string**.

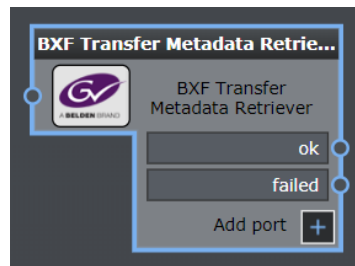


Fig. 5-70: BXF Transfer Metadata Retriever Workflow Element

Element Settings Configuration

This element is available in the **Automation > Grass Valley** folder and has the following settings:

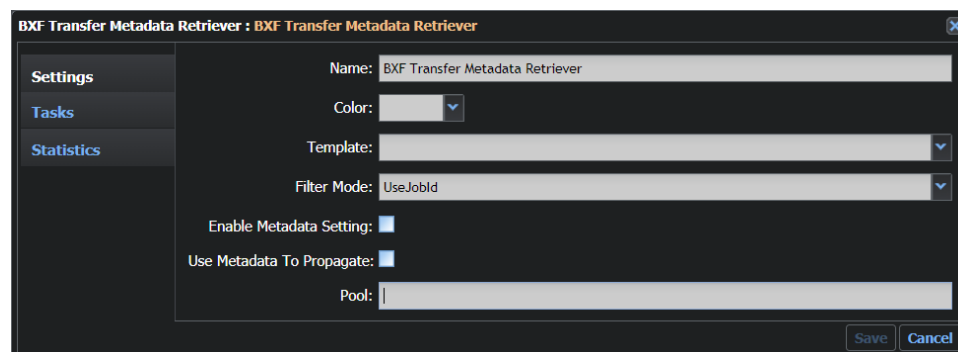


Fig. 5-71: BXF Transfer Metadata Retriever Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Template	<p>Defines the BXF Transfer Metadata Retriever template selected from the list of available files stored in the folder: C:\Mantrics\BXFTransferMetadataRetrieverTemplates.</p> <p>The default template (Default.xml) defines the following components of the BXF Transfer Metadata Retriever element:</p> <p>Transfer Filters - set filters to select specific transfer requests.</p> <p>Propagation Case - set whether the metadata case is significant when using the Use Metadata to Propagate option.</p> <p>Output Port - port configuration for matched and unmatched transfer requests.</p> <p>For more information on the template settings, see Configuring the BXF Transfer Metadata Retriever Template, on page 111</p>
Filter Mode	<p>Sets the mode used to filter Transfer Requests received from the Morpheus database. The following options are available:</p> <p>UseFilterSection - Select a transfer request, with a status of open, that matches the filter criteria specified in the section <code><TransferFilters></code> of the template BXFTransferMetadataRetrieverTemplate. On matching, the element extracts the specific metadata field and creates a string by concatenating the values.</p> <p>UseJobId - Select a transfer request, with a status of open, that matches a specific JobID. On matching, the element extracts the specific metadata field and creates a string by concatenating the values.</p>
Enable Metadata Setting	When checked, displays fields to specify the type of target material, the specific metadata element and its value.
Material Kind	Only displayed when Enable Metadata Setting checked.
Metadata	Only displayed when Enable Metadata Setting checked.
Value	Only displayed when Enable Metadata Setting checked.
Use Metadata To Propagate	When checked, uses the value of the transfer metadata as port name to propagate the task. You can use the BXF Transfer Metadata Retriever Template to specify whether the case of the metadata is significant when propagating the task using the value of the metadata.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<technical MetadataRetriever>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<technicalMetadataRetriever>
  <server port="8642">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</technicalMetadataRetriever>
```

MantricsNode.xml Configuration

```
<technicalmetadataretriever slotCount="4">
  <active>true</active>
  <server port="8642">10.250.170.183</server>
  <node port="8643">10.250.170.183</node>
  <pool/>
</technicalmetadataretriever>
```

Configuring the BXF Transfer Metadata Retriever Template

To enable the workflow element **BXF Transfer Metadata Retriever** to extract metadata from a Transfer Request in the correct format, at least one template file must be available. A default template `Default.xml` is provided in the default installation folder:

`C:\Mantrics\BxfTransferMetadataRetrieverTemplates.`

You can configure multiple template files as required and save them in this folder, however, they must all follow the rules of the structure described below. You can select the template to be used by the BXF Transfer Metadata Receiver workflow element from the **Template** drop-down menu in the **Settings** dialog of the element.

To configure the **Transfer Metadata Retriever** template settings:

In a text editor, open the file:

`C:\Mantrics\BxfTransferMetadataRetrieverTemplates\Default.xml`

The file has the following structure:

```
<?xml version="1.0"?>
<BXFTransferMetadataRetrieverTemplate>
  <MetadataLabelToRetrieve/>
  <TransferFilters>
    <Filter>
      <Label></Label>
      <Value></Value>
    </Filter>
  </TransferFilters>
  <PropagationCase>SENSITIVE</PropagationCase>
  <TransfersMatch_Port>ok</TransfersMatch_Port>
  <TransferUnMatch_Port>failed</TransferUnMatch_Port>
</BXFTransferMetadataRetrieverTemplate>
```

These XML tags have the following functions:

Tag	Description
MetadataLabelToRetrieve	Contains the label of the transfer request metadata from which you want to extract the value.
TransferFilters	Groups filter conditions to match the transfer request. In this section you can specify a list of transfer metadata which match specific values, to filter out a selection of the transfer requests. If the list is empty, you take all the transfer requests related to a Route ID and a Morpheus ID.
Filter	Defines each filter criterion for the target transfer requests.
Label	Defines the metadata to match, to obtain a selection of the transfer requests.
Value	Defines the metadata value to extract from the transfer request message. If the list is empty, you take all the transfers related to the Route ID and Morpheus ID.
PropagationCase	Only used when the Settings parameter Use Metadata To Propagate is checked. In this case, Momentum uses the value of the transfer metadata as the output port name to propagate the task. This field enables you to specify whether to use the value as case-sensitive (SENSITIVE), in upper-case (UPPER) or in lower-case (LOWER). Leave blank to ignore the case of the value.
TransfersMatch_Port	You can specify a port name to propagate the task if at least one transfer request matches the filter criteria. This port is used only if the Settings parameter Use Metadata To Propagate is unchecked or if the Settings parameter Filter Mode is set to UseFilterSection .
TransferUnMatch_Port	You can specify a port name to propagate a task if no transfer request matches the filter criteria.

Grass Valley: Gateway Export

The **Gateway Export** workflow element enables you to export material metadata in Morpheus Gateway XML format. This is useful for segmented material metadata as it can be exported to a single file. It resides in the SAM folder in the Automation group of elements.

Note: It is recommended to use the workflow element **BXF Morpheus Export** in preference to the Gateway Export as it is planned to deprecate this element in Momentum version 5.1.



Fig. 5-72: Gateway Export Workflow Element

Element Settings Configuration

This element is available in the **Grass Valley > File Transfer** folder and has the following settings:

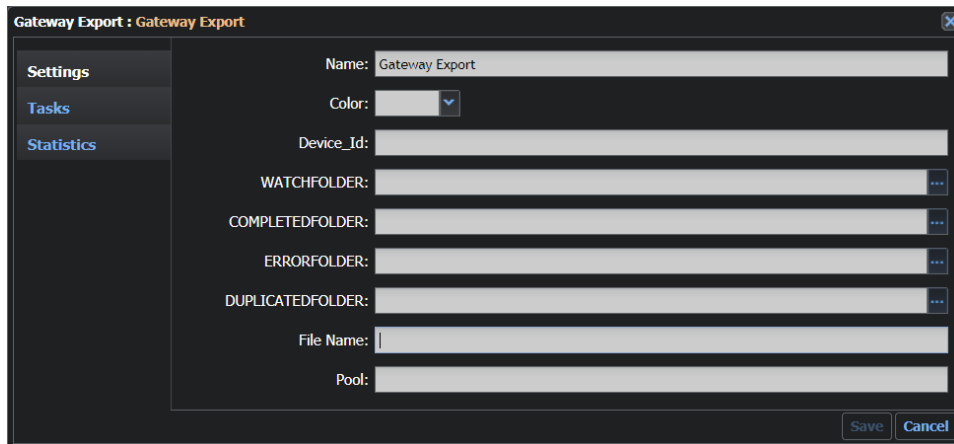


Fig. 5-73: Gateway Export Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables the user to select a color in order to easily identify the element on the Dashboard page. Black is equivalent to no color.
Device_ID	Specifies the Morpheus's Device ID for a storage device.
Watchfolder	Sets the path to the directory to be monitored.
Completed Folder	Specifies the location in which the completed Gateway XML file is placed if the process is successful.
Error Folder	Specifies the location in which the completed Gateway XML file is placed if the message is invalid.

Option	Description
Duplicated Folder	Specifies the location in which the completed Gateway XML file is placed if the file already exists.
File Name	Sets the name of the metadata file to export.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<xmlGatewayExport>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<xmlGatewayExport>
  <server port="8188">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <XmlWithoutTaskId>>false</XmlWithoutTaskId>
  <isTitleMandatory>>false</isTitleMandatory>
  <momentumCoreMandatoryFields/>
  <momentumInstanceMandatoryFields/>
  <areEmptyFieldsVisible>>false</areEmptyFieldsVisible>
  <isKeySegmentTimecodeOutNotEmpty>>false
    </isKeySegmentTimecodeOutNotEmpty>
  <checkDstFolderCount>0</checkDstFolderCount>
  <retryDstFolderSeconds>0</retryDstFolderSeconds>
</xmlGatewayExport>
```

These XML tags have the following functions:

Tag	Description
isTitleMandatory	Specifies whether the Title field in the XMLGateway message is to be initialized. Tasks for messages which do not match this setting automatically fail.
momentumCoreMandatoryFields	Collects all of the tags required to specify mandatory fields using the tag <momentumCoreMandatoryField> .
momentumCoreMandatoryField	Specifies a single Momentum Core field to be initialized in the XML message. Tasks for messages which do not match this setting automatically fail.
momentumInstanceMandatoryFields	Collects all of the tags required to specify mandatory fields using the tag <momentumInstanceMandatoryField>

Tag	Description
momentumInstanceMandatoryField	Specifies a single Momentum Instance field to initialize in the XML message (use one or more tags as needed). Tasks for messages which do not match this setting automatically fail.
areEmptyFieldsVisible	Creates an XML message, formatted in a compact way, which hides all empty fields.
isKeySegmentTimecodeOutNotEmpty	Specifies if the Segment Timecode Out field of the XML message needs to be initialized.
checkDstFolderCount	Sets the maximum number of checks done by Momentum to verify if Morpheus has screened the XML message, copying it to one of the directories specified in the related element parameters.
retryDstFolderSeconds	Defines the amount of time elapsed between two consecutive checks.

Example:

```
<areEmptyFieldsVisible>false</areEmptyFieldsVisible>
<isKeySegmentTimecodeOutNotEmpty>false
  </isKeySegmentTimecodeOutNotEmpty>
<checkDstFolderCount>10</checkDstFolderCount>
<retryDstFolderSeconds>30</retryDstFolderSeconds>
```

MantricsNode.xml Configuration

```
<xmlgatewayexport slotCount="4">
  <active>false</active>
  <server port="8188">10.250.170.183</server>
  <node port="8189">10.250.170.183</node>
  <pool/>
</xmlgatewayexport>
```

Grass Valley: iTX

The **iTX** workflow element enables Momentum to register content with an iTX or iTX Flex system and deliver media for playout. It is assumed that content is ingested into Momentum by way of a Watchfolder.

The **Signiant** workflow element enables you to configure jobs to transfer files using the third party Signiant file transfer applications.

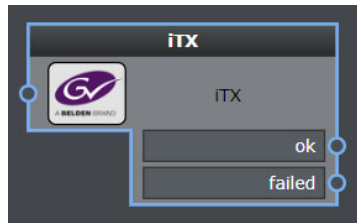


Fig. 5-74: iTX Workflow Element

Element Settings Configuration

This element is available in the **Automation > Grass Valley** folder and has the following settings:

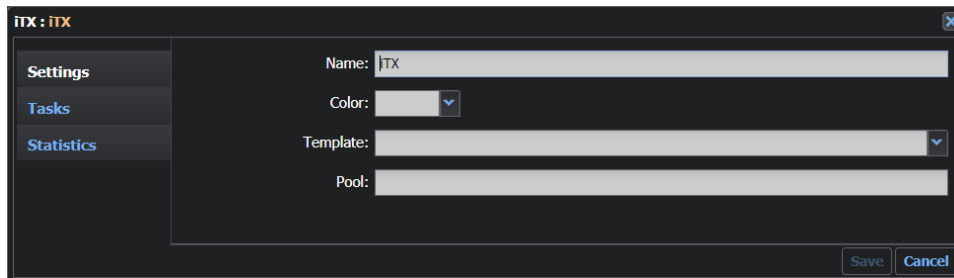


Fig. 5-75: iTX Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables the user to select a color in order to easily identify the element on the Dashboard page. Black is equivalent to no color.
Template	Provides access to the iTX templates used to communicate with the iTX system. Used to define media assets that can be imported into an iTX system.
Pool	Sets the name of a pool associated with the element to balance the processing load.

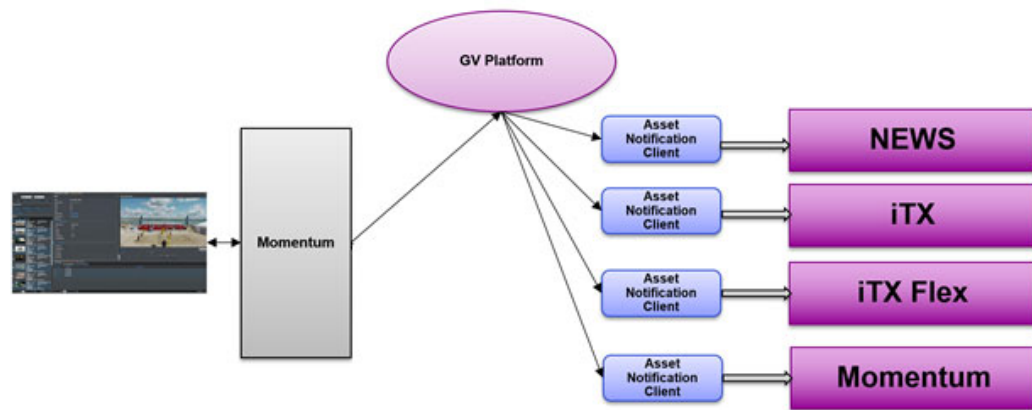


Fig. 5-76: Schematic Overview of Communication Between Momentum and iTX

Configuration Files

The **iTX** workflow element is not configured in either `MantricsServer.xml` or `MantricsNode.xml`.

MantricsServer.xml Configuration

Not applicable for the iTX element.

MantricsNode.xml Configuration

Not applicable for the iTX element.

Automation House-keeping Workflow Elements

The Housekeeping group of workflow elements provides an element to delete material that is no longer required.

This group contains the workflow element:

- Material Deletion

House-keeping: Material Deletion

The **Material Deletion** workflow element enables you to remove an item of material (and its instances, if specified) from the Momentum database. If configured, this workflow element can also delete clips from an sQ Server. It resides in the House Keeping folder of the Automation group of elements.

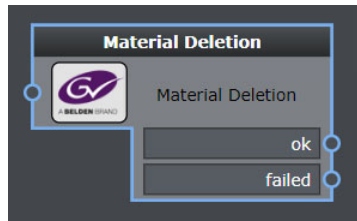


Fig. 5-77: Material Deletion Workflow Element

Element Settings Configuration

This element is available in the **Automation > House Keeping** folder and has the following settings:

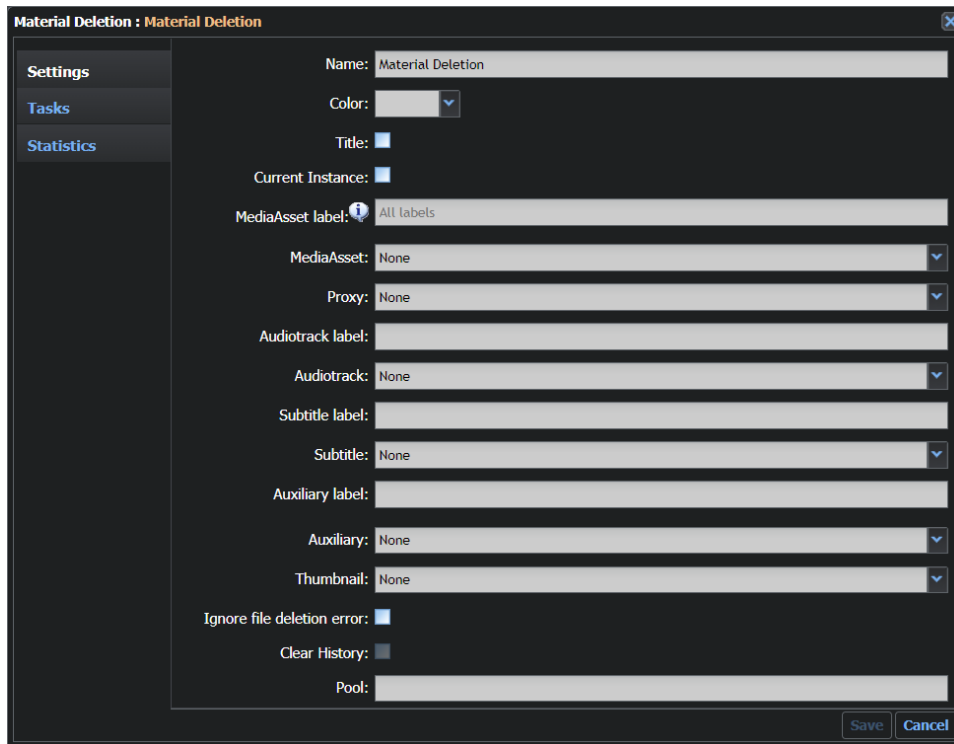


Fig. 5-78: Material Deletion Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables the user to select a color in order to easily identify the element on the Dashboard page. Black is equivalent to no color.

Option	Description
Title	Specifies that the Title is to be deleted. If selected, the other parameters can be set to delete everything related to the title. For the MediaAsset, Audiotrack, Subtitle, Proxy and Thumbnails parameters, you can select whether to delete both the instances and the files, or preserve the file while deleting the instances' data. Selecting this checkbox also activates the Clear History checkbox.
Current instance	Specifies that the currently selected instance into the workflow, of the material is the one undergoing deletion.
MediaAsset label	Specifies the value of the label for which a media asset can be deleted. Multiple entries, comma separated, are permitted.
MediaAsset	Specifies which parts of the MediaAsset are to be deleted. The choices are: File, Instance, InstanceAndFile or None. When the Title is active, only the Instance and InstanceAndFile values are available.
Proxy	Specifies which type of Proxy instance is deleted. The options are: Instance, InstanceAndFile, None.
Audiotrack label	Specifies the value of the label for which an audio track can be deleted. Multiple entries, comma separated, are permitted.
Audiotrack	Specifies which part of the audio track is to be deleted. The choices are: File, Instance, InstanceAndFile or None. When the Title is active, only the Instance and InstanceAndFile values are available.
Subtitle label	Specifies the value of the label for which a subtitle can be deleted. Multiple entries, comma separated, are allowed.
Subtitle	Specifies which part of the subtitle is to be deleted. The choices are: File, Instance, InstanceAndFile or None. When the Title is active, only the Instance and InstanceAndFile values are available.
Auxiliary label	Selects the auxiliary entity to be deleted by the Material Deletion element. Auxiliary files associated with a generic object include files of format: txt, pdf, pac, doc, docx, etc.)
Auxiliary	Select the deletion mode for the type of auxiliary entity that should be deleted from: File, Instance, InstanceAndFile, or None.
Thumbnail	Specifies which part of the Thumbnail is to be deleted. The choices are: File, Instance, InstanceAndFile or None. When the Title is active, only the Instance and InstanceAndFile values are available.
Ignore file deletion error	Enables you to delete the data in the database and the related structures even if the files are not accessible. If this option is not active, when a file is not accessible, the data and data structure related to this item are retained in the database.
Clear History	Enables you to clear the tasks recorded in the job history related to an item of material when a Material Deletion workflow element deletes that material. When selected, Momentum will remove the task history for material that is no longer present in the system. This checkbox is only enabled if the checkbox Title is enabled.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<materialDeletion>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<materialDeletion>
  <server port="8158">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</materialDeletion>
```

MantricsNode.xml Configuration

```
<materialdeletion slotCount="4">
  <active>true</active>
  <server port="8158">10.250.170.183</server>
  <node port="8159">10.250.170.183</node>
  <pool/>
</materialdeletion>
```

Automation Imagine Communications Workflow Elements

The Imagine Communications group of workflow elements provides elements to connect to a Harris database to extract or update material and/or metadata.

This group contains the elements:

- Harris Data Updater

Imagine Communications: Harris Data Updater

The **Harris Data Updater** workflow element enables you to connect to a Harris system to update media asset metadata in the Harris database.

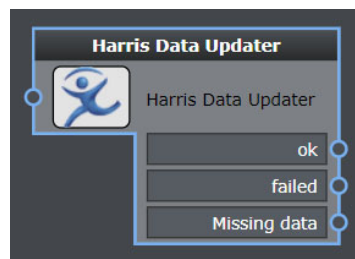


Fig. 5-79: Harris Data Updater Workflow Element

Element Settings Configuration

This element is available in the **Automation > Imagine Communications** folder and has the following settings:

Fig. 5-80: Harris Data Updater Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables the user to select a color in order to easily identify the element on the Dashboard page. Black is equivalent to no color.
DNS	Sets the Domain Name System (DNS) name of the target database server to be accessed.
User ID	Allows the specified user access to the Harris database.
Password	Sets the user's password for access to the Harris database.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<??>` contains the configuration for this application.

MantricsServer.xml Configuration

TBA

MantricsNode.xml Configuration

TBA

Automation Social Workflow Elements

The **Social** group of workflow elements provides elements either to publish material to or remove material from various social media websites.

This group contains the elements:

- Publish To Dailymotion
- Publish To Facebook
- Publish To Twitter
- Publish To Youtube
- Delete From Dailymotion
- Delete From Facebook
- Delete From Twitter
- Delete From Youtube

Social: Publish to Dailymotion

The **Publish to Dailymotion** workflow element enables you to publish text and/or videocontent (the instance) on the social network website Dailymotion. In addition, you can create a new instance, using the Social Instance schema in the Catalog, to track the published material.



Fig. 5-81: Publish to Dailymotion Workflow Element

Element Settings Configuration

This element is available in the **Automation > Social** folder and has the following settings:

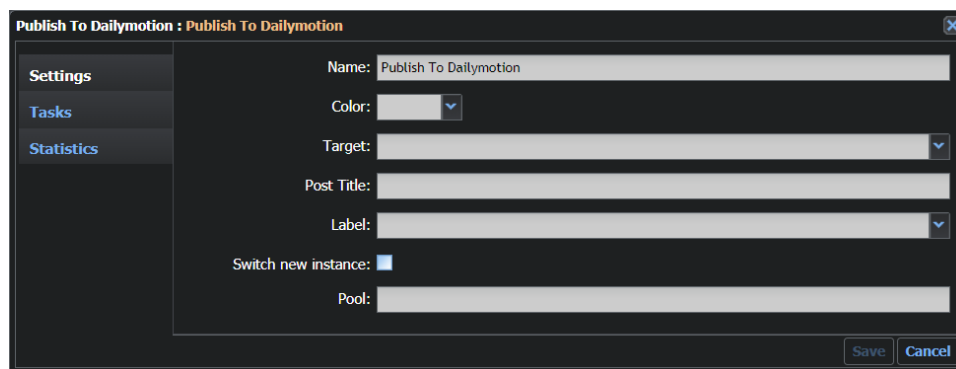


Fig. 5-82: Publish to Dailymotion Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables the user to select a color in order to easily identify the element on the Dashboard page. Black is equivalent to no color.
Target	The target profile for the publishing action selected from the list of target profiles already defined in the Momentum Admin > Social page.
Post Title	The content to be published to the Dailymotion site.
Label	The label of the new Social instance.
Switch new instance	When selected, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Note: Registration on the Dailymotion page uses the OAuth 2.0 authorization protocol, which requires you to configure your browser to allow pop-ups.

Configuration Files

The tag `<publishtodailymotion>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<publishtodailymotion>
  <server port="8700">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</publishtodailymotion>
```

MantricsNode.xml Configuration

```
<publishtodailymotion slotCount="4">
  <active>>false</active>
  <server port="8700">127.0.0.1</server>
  <node port="8703">127.0.0.1</node>
  <pool/>
</publishtodailymotion>
```

Social: Publish to Facebook

The **Publish to Facebook** workflow element enables you to publish text and/or video content (the instance) to pre-configured target Facebook sites. In addition, you can create a new instance, using the Social Instance schema in the Catalog, to track the published post.

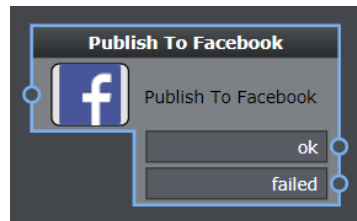


Fig. 5-83: Publish to Facebook Workflow Element

Element Settings Configuration

This element is available in the **Automation > Social** folder and has the following settings:

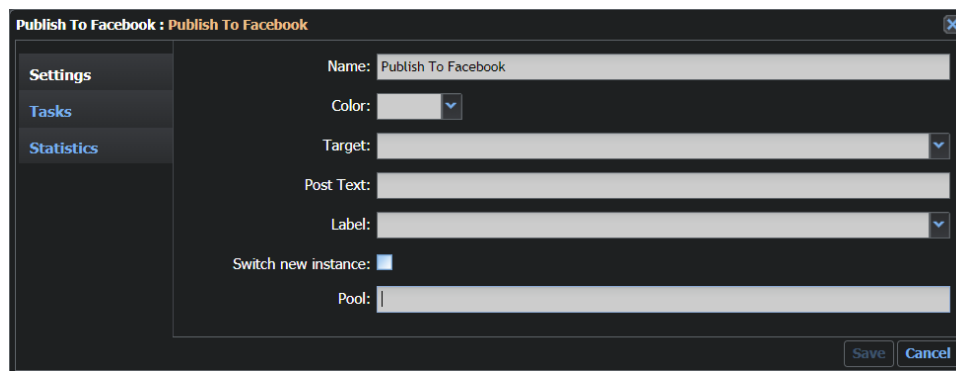


Fig. 5-84: Publish to Facebook Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Target	The target Facebook profile for the publishing action selected from the list of target profiles already defined in the Momentum Admin > Social page.
Post Text	The content to be included in the post. You can use variables in this field, for example <code>{dateTime.Now}:{Core.Description}</code>
Label	The label of the new Social instance.

Option	Description
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Note: Registration on the Facebook page uses the OAuth authorization protocol, which requires you to configure your browser to allow pop-ups.

Configuration Files

The tag `<publishtofacebook>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<publishtofacebook>
  <server port="8686">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</publishtofacebook>
```

MantricsNode.xml Configuration

```
<publishtofacebook slotCount="4">
  <active>>false</active>
  <server port="8686">127.0.0.1</server>
  <node port="8687">127.0.0.1</node>
  <pool/>
</publishtofacebook>
```

Social: Publish to Twitter

The **Publish to Twitter** workflow element enables you to publish text and/or video content (the instance) on the social network website Twitter. In addition, you can create a new instance, using the Social Instance schema in the Catalog, to track the published tweet.

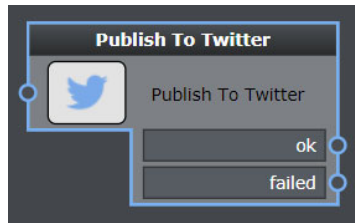


Fig. 5-85: Publish to Twitter Workflow Element

Element Settings Configuration

This element is available in the **Automation > Social** folder and has the following settings:

Fig. 5-86: Publish to Twitter Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Target	The target Twitter profile for the publishing action selected from the list of target profiles already defined in the Momentum Admin > Social page.
Tweet Text	The content to be included in the tweet. Note: as you can enter variables in this field, Momentum does not check the number of characters at this point.
Label	The label of the new Social instance.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Note: Registration on the Twitter site uses the OAuth authorization protocol, which requires you to configure your browser to allow pop-ups.

The tag **<publishtotwitter>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<publishtotwitter>
  <server port="8690">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</publishtotwitter>
```

MantricsNode.xml Configuration

```
<publishtotwitter slotCount="4">
  <active>>false</active>
  <server port="8690">127.0.0.1</server>
  <node port="8691">127.0.0.1</node>
  <pool/>
</publishtotwitter>
```

Social: Publish to YouTube

The **Publish to YouTube** workflow element enables you to publish video and/or playlists (the instance) direct to a YouTube channel. This element uses the YouTube API to automate the publishing process.

Note: The material may need to be submitted to a transcoder as part of the publishing process.

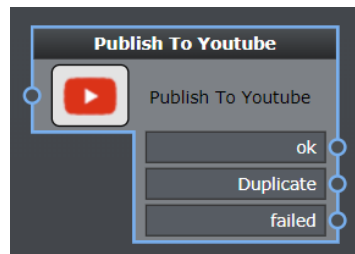


Fig. 5-87: Publish to YouTube Workflow Element

Element Settings Configuration

This element is available in the **Automation > Social** folder and has the following settings:

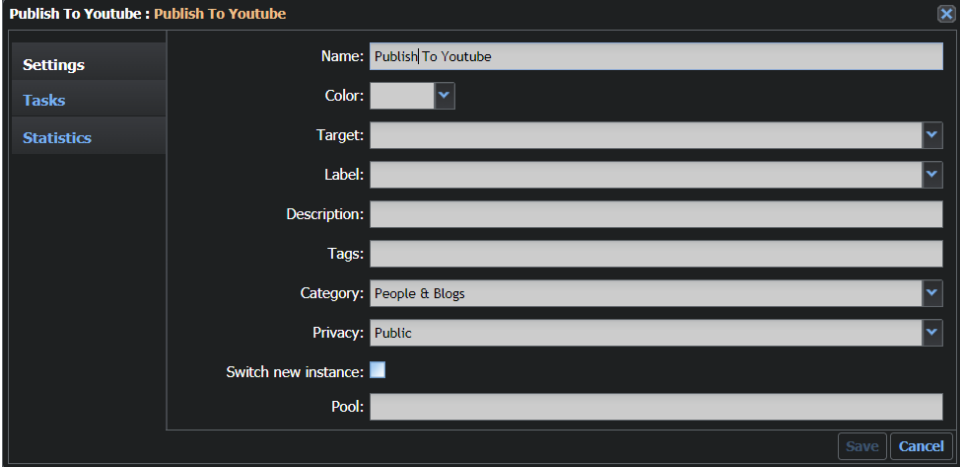


Fig. 5-88: Publish to YouTube Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Target	The target YouTube profile for the publishing action selected from the list of target profiles already defined in the Momentum Admin > Social page.
Label	The label of the new Social instance.
Description	A description of the published video to convey information that helps viewers find your videos in search results and understand what they'll be watching.
Tags	Descriptive keywords you can add to your video to help people find your content. You can also add tags to change the appearance and format of your video on YouTube and on embedded players.
Category	YouTube category in which the published content is included. Content categories are used by YouTube to organize channels and videos, helping publishers to target specific audiences. Categories include: Autos & vehicles, comedy, education, entertainment, film & animation, people & blogs, pets & animals, science & technology, sports, travel & events.

Option	Description
Privacy	<p>Defines the privacy status applied to the published content. Privacy status options are:</p> <p>Private: Videos and playlists can only be seen by you and the users you choose. Private videos do not appear to other visitors of the Videos tab on your channel page and do not appear in YouTube search results.</p> <p>Public: Videos can be seen by, and shared with, anyone using YouTube; they are posted on your channel when uploaded and appear in search results and related video lists.</p> <p>Scheduled: Schedule a private video to go public at a specific time.</p> <p>Unlisted: Videos and playlists can be seen and shared by anyone with the link. Unlisted videos do not appear to others who visit the Videos tab of your channel page and do not show up in YouTube search results unless added to a public playlist.</p>
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Note: Registration on the Youtube site uses the OAuth 2.0 authorization protocol, which requires you to configure your browser to allow pop-ups.

The tag `<publish toyoutube>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<publish toyoutube>
  <server port="8704">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</publish toyoutube>
```

MantricsNode.xml Configuration

```
<publish toyoutube slotCount="4">
  <active>>false</active>
  <server port="8704">127.0.0.1</server>
  <node port="8705">127.0.0.1</node>
  <pool/>
</publish toyoutube>
```

Social: Remove from Dailymotion

The **Remove from Dailymotion** workflow element enables you to delete text and/or video content (the instance) from the social network website Dailymotion.

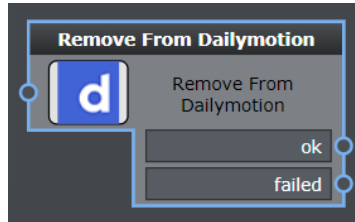


Fig. 5-89: Remove from Dailymotion Workflow Element

Element Settings Configuration

This element is available in the **Automation > Social** folder and has the following settings:

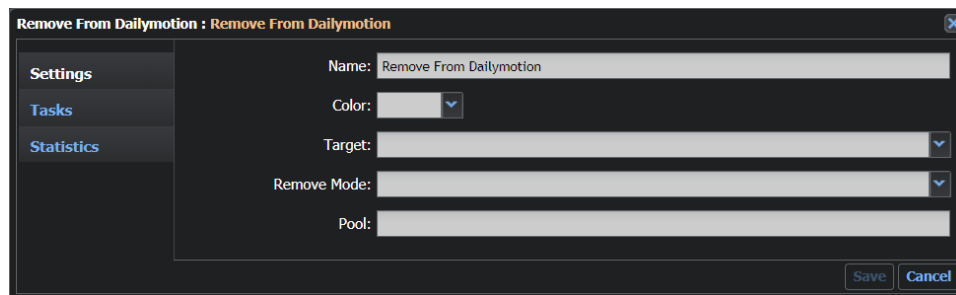


Fig. 5-90: Remove from Dailymotion Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables the user to select a color in order to easily identify the element on the Dashboard page. Black is equivalent to no color.
Target	Identifies the target material you want to remove from the Dailymotion website.
Remove Mode	Defines the method used to remove the target material. Options are: Instance, InstanceandPost, or Post.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<removefromdailymotion>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<removefromdailymotion>
  <server port="8702">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</removefromdailymotion>
```

MantricsNode.xml Configuration

```
<removefromdailymotion slotCount="4">
  <active>>false</active>
  <server port="8702">127.0.0.1</server>
  <node port="8703">127.0.0.1</node>
  <pool/>
</removefromdailymotion>
```

Social: Remove from Facebook

The **Remove from Facebook** workflow element enables you to remove published material (text and/or video content - the instance) from the target Facebook sites.

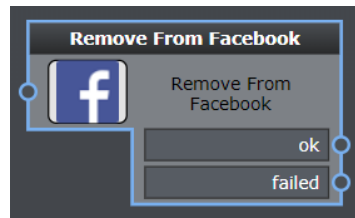


Fig. 5-91: Remove from Facebook Workflow Element

Element Settings Configuration

This element is available in the **Automation > Social** folder and has the following settings:

Fig. 5-92: Remove from Facebook Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Target	The target Facebook page from which you want to remove the post. This option is required for security reasons as Momentum does not save the access token in the Instance metadata.
Remove Mode	Enables you to select whether to remove only the instance, both instance and post, or only the post from the target page. Options are: Instance, InstanceAndPost, Post.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<removefromfacebook>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<removefromfacebook>
  <server port="8688">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</removefromfacebook>
```

MantricsNode.xml Configuration

```
<removefromfacebook slotCount="4">
  <active>>false</active>
  <server port="8688">127.0.0.1</server>
  <node port="8689">127.0.0.1</node>
  <pool/>
</removefromfacebook>
```

Social: Remove from Twitter

The **Remove from Twitter** workflow element enables you to delete text and/or video content (the instance) from the social network website Twitter.

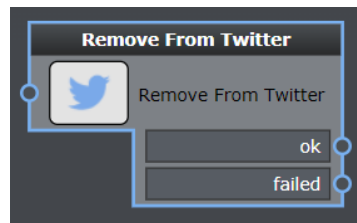


Fig. 5-93: Remove from Twitter Workflow Element

Element Settings Configuration

This element is available in the **Automation > Social** folder and has the following settings:

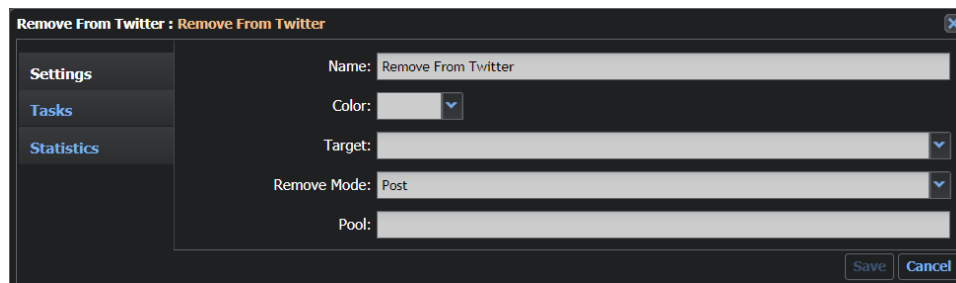


Fig. 5-94: Remove from Twitter Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Target	The target Twitter profile from which you want to remove the tweet. This option is required for security reasons as Momentum does not save the access token in the Instance metadata.
Remove Mode	Enables you to select whether to remove only the instance, both instance and tweet, or only the tweet.
Pool	Sets the name of a pool associated with the element to balance the processing load.

The tag `<removefromtwitter>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<removefromtwitter>
  <server port="8692">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</removefromtwitter>
```

```
<validationTimeoutInSec>30</validationTimeoutInSec>
</removefromtwitter>
```

MantricsNode.xml Configuration

```
<removefromtwitter slotCount="4">
  <active>false</active>
  <server port="8692">127.0.0.1</server>
  <node port="8693">127.0.0.1</node>
  <pool/>
</removefromtwitter>
```

Social: Remove from YouTube

The **Remove from YouTube** workflow element enables you to remove a video or playlist from the YouTube website.

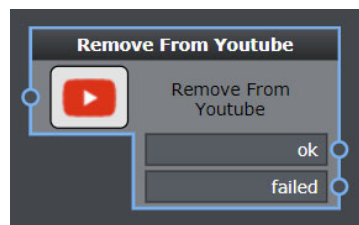


Fig. 5-95: Remove from YouTube Workflow Element

Element Settings Configuration

This element is available in the **Automation > Social** folder and has the following settings:

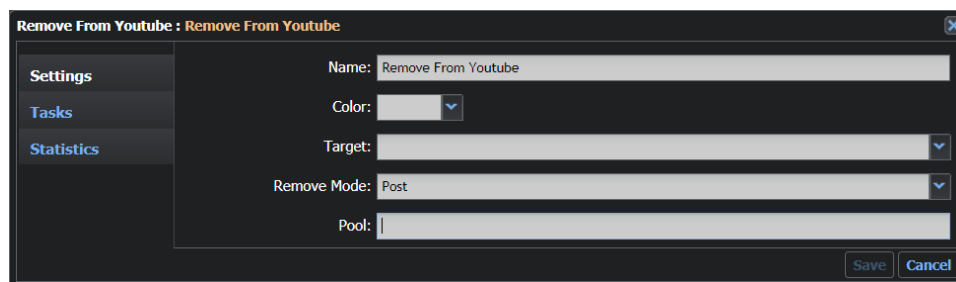


Fig. 5-96: Remove from YouTube Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Target	The target material you want to remove from YouTube.

Option	Description
Remove Mode	Enables you to select whether to remove only the instance, both instance and post, or only the post.
Pool	Sets the name of a pool associated with the element to balance the processing load.

The tag **<removefromyoutube>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<removefromyoutube>
  <server port="8706">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <validationTimeoutInSec>30</validationTimeoutInSec>
</removefromyoutube>
```

MantricsNode.xml Configuration

```
<removefromyoutube slotCount="4">
  <active>>false</active>
  <server port="8706">127.0.0.1</server>
  <node port="8707">127.0.0.1</node>
  <pool/>
</removefromyoutube>
```

Miscellaneous Automation Workflow Elements

The remaining miscellaneous workflow elements are ungrouped and provide elements to automate different aspects of your workflows.

Th miscellaneous elements are:

- Add To Project
- End
- Go To
- Instance Switcher
- Key Segmentator
- Metadata Publisher
- Remove From Project
- Send Mail
- Send To...
- Set Metadata
- Set Priority
- Sleep

- Technical Metadata Retriever

Automation: Add to Project

The **Add to Project** workflow element enables you to associate an item of material with a specific project.

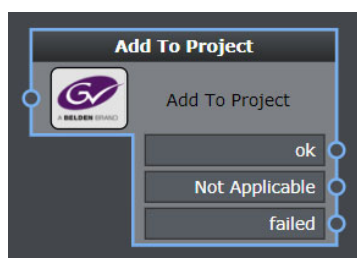


Fig. 5-97: Add to Project Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

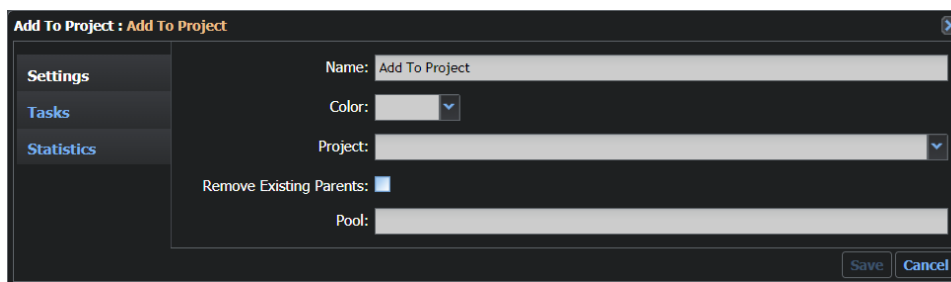


Fig. 5-98: Add to Project Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Project	Enables you to select a project from the available list of projects. You can create new projects in the Catalog page by selecting: Results Actions > Create... > Project
Remove Existing Parents	Specifies if the selected project is the only project linked to the material. If activated, it removes any other existing links.
Pool	Sets the name of a pool associated with the element to balance the processing load.

The **Add to Project** element has a port **Not Applicable** to manage situations where the Material may already be included in the selected project, or the Material may not be a TITLE so the action cannot be applied.

Configuration Files

The tag **<setproject>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<setproject>
  <server port="8150">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</setproject>
```

MantricsNode.xml Configuration

```
<setproject slotCount="4">
  <active>true</active>
  <server port="8150">10.250.170.183</server>
  <node port="8151">10.250.170.183</node>
  <pool/>
</setproject>
```

Automation: End

The **End** workflow element enables you to mark the status of the connected job for each task in the workflow. This status is used to trigger corrective actions in the result of a task failure.

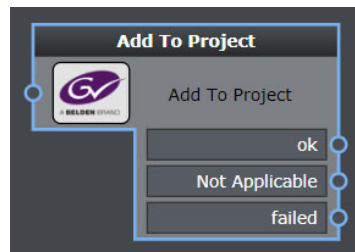


Fig. 5-99: End Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

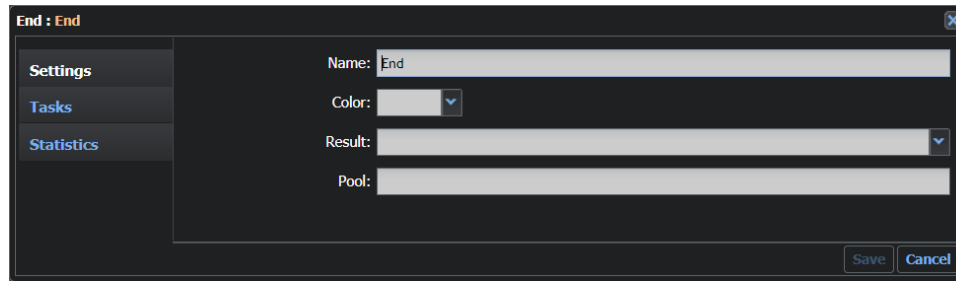


Fig. 5-100: End Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Result	Specifies the status of the connected job for each task. The options are: Completed or Failed .
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<end>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<end>
  <server port="8154">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</end>
```

MantricsNode.xml Configuration

```
<end slotCount="4">
  <active>true</active>
  <server port="8154">10.250.170.183</server>
  <node port="8155">10.250.170.183</node>
  <pool/>
</end>
```


Automation: Go To

The **Go To** workflow element enables you to connect elements located on different workflow pages.

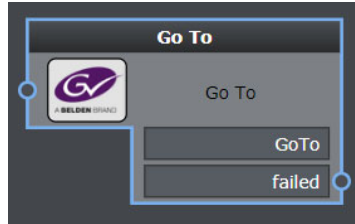


Fig. 5-101: Go To Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

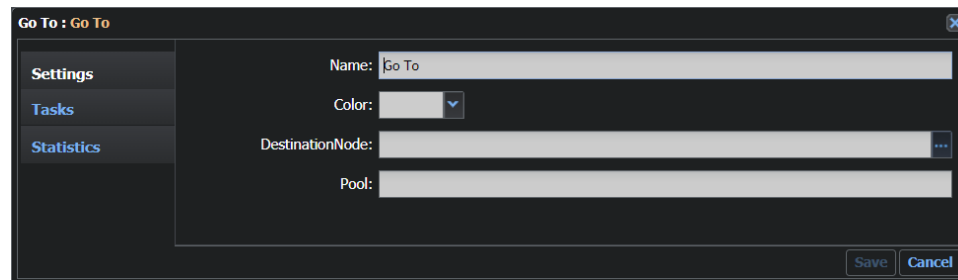


Fig. 5-102: Go To Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
DestinationNode	Enables you to select the target element in the DestinationNode dialog box, see Figure 5-103.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<teleport>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<teleport>
  <server port="8146">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
</teleport>
```

```
<active>true</active>
<reconnectRetryCount>1</reconnectRetryCount>
<reconnectTimeout>0</reconnectTimeout>
</teleport>
```

MantricsNode.xml Configuration

```
<teleport slotCount="4">
  <active>true</active>
  <server port="8146">10.250.170.183</server>
  <node port="8147">10.250.170.183</node>
  <pool/>
</teleport>
```

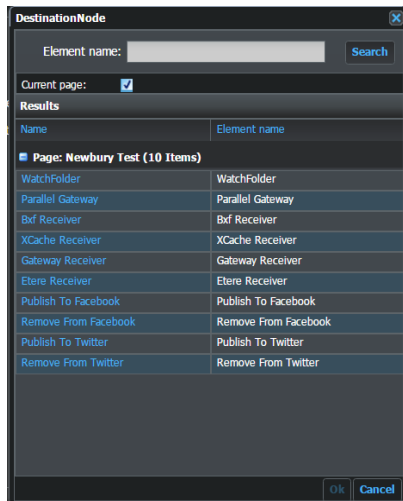


Fig. 5-103: DestinationNode Selection

Automation: Instance Switcher

The **Instance Switcher** workflow element enables you to select which instance of the material is sent through the workflow. For example, you can carry out a QC (quality check) on the original material instead of the low resolution proxy created in the previous element.

Note: By default, the high quality (HQ) instance of the material is propagated by the Instance Switcher.

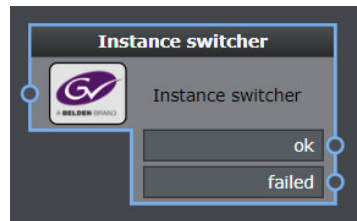


Fig. 5-104: Instance Switcher Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

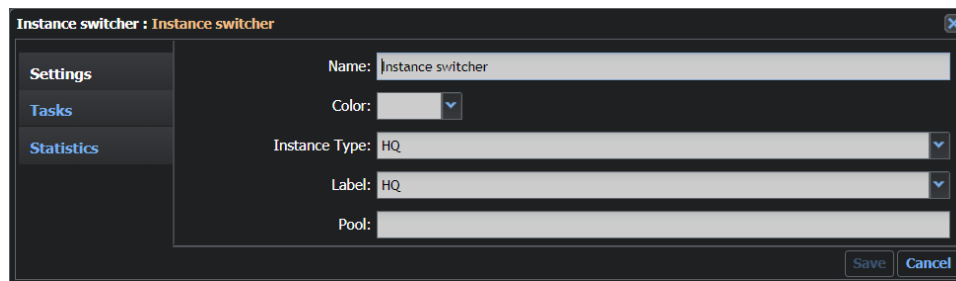


Fig. 5-105: Instance Switcher Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Instance Type	Sets which Instance to send through the workflow. The values are: HQ (high quality) or AUX (Auxiliary Instance, formats include e.g. txt, pdf, pac, doc, docx file).
Label	Sets a specific instance for the AUX instance type, for example, wm9. Available values are retrieved from the file InstanceLabelConfig.xml.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<instanceswitcher>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<instanceswitcher>
  <server port="8122">10.250.170.183</server>
</instanceswitcher>
```

```

    <policy>Weighted</policy>
    <retryCount>3</retryCount>
    <active>true</active>
    <reconnectRetryCount>1</reconnectRetryCount>
    <reconnectTimeout>0</reconnectTimeout>
</instanceswitcher>

```

MantricsNode.xml Configuration

```

<instanceswitcher slotCount="4">
  <active>true</active>
  <server port="8122">10.250.170.183</server>
  <node port="8123">10.250.170.183</node>
  <pool/>
</instanceswitcher>

```

Automation: Key Segmentator

The **Key Segmentator** workflow element automatically creates key segments of a specific length. The segment starts from the first frame and each key segment is named using the name of the parent material in combination with the starting timecode of the key segment using an underscore character.

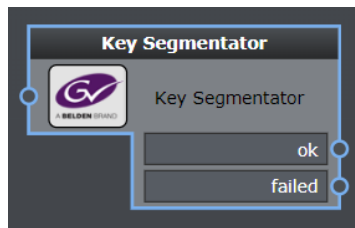


Fig. 5-106: Key Segmentator Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

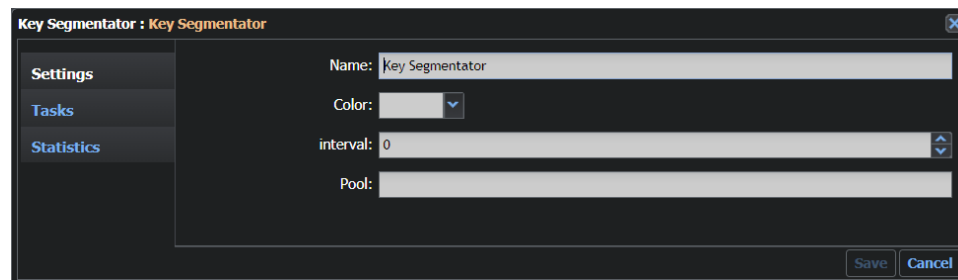


Fig. 5-107: Key Segmentator Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Interval	Specifies the length (in seconds) of each key segment.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<keysegmentator>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<keysegmentator>
  <server port="8094">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</keysegmentator>
```

MantricsNode.xml Configuration

```
<keysegmentator slotCount="4">
  <active>false</active>
  <server port="8094">10.250.170.183</server>
  <node port="8095">10.250.170.183</node>
  <pool/>
</keysegmentator>
```

Configuring Metadata Publisher Templates

The Metadata Publisher workflow element uses templates to format the available metadata and create a report file. In a typical installation, this folder is located in the directory `C:\Mantrics\MetadataPublisherTemplates`.

The following templates provide an example of the structure of the final output file:

- DemoTXT.txt
- DemoXML.xml
- KeySegment.xml

The template file `DemoXML.xml` contains the following XML definition of the metadata sidecar:

```
<SidecarXML>
  <TITLE_DESC>{MaterialInfo.Material Info.Title}</TITLE_DESC>
  <HOUSEIDS>{MaterialInfo.Material Info.Keywords}</HOUSEIDS>
```

```
<PRODUCT_DESC>{MaterialInfo.Material
  Info.Description}</PRODUCT_DESC>
<PLAY_LENGTH>00:00:15:00</PLAY_LENGTH>
<START_TIME>00:00:00:00</START_TIME>
<END_TIME>00:00:15:00</END_TIME>
<FRAME_RATE>29.97</FRAME_RATE>
<FILE_SIZE>120315112</FILE_SIZE>
<DURATION>15</DURATION>
<SPOT_TYPE>NTSC_HD</SPOT_TYPE>
<MEDIA_DESCRIPTION>1080i</MEDIA_DESCRIPTION>
</SidecarXML>
```

This template generates a simple XML file containing the metadata associated with a material instance.

If a specific item of metadata is required, use its full name and write it as the variable name, for example: {Fullname}. The value of the metadata is then written in the output file. Using this technique, custom templates can create extremely detailed reports.

Note: The Full name is available on the **Admin > Metadata Masks** page by selecting a Schema and activating the Advanced mode option in the description panel.

All the file formats that are text files can be used as models for a template, for example, HTML, XML, RTF and TXT files are all permitted as well as custom formats if they are described as a simple text file.

Automation: Metadata Publisher

The **Metadata Publisher** workflow element publishes a document containing a set of Sidecar XML metadata as specified in a default template file. The Metadata Publisher transfers the output file using either FTP or a Samba (SMB) connection to a shared folder.

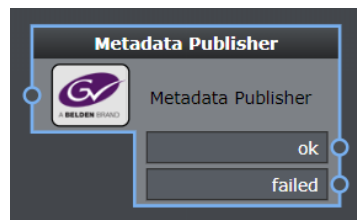


Fig. 5-108: Metadata Publisher Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

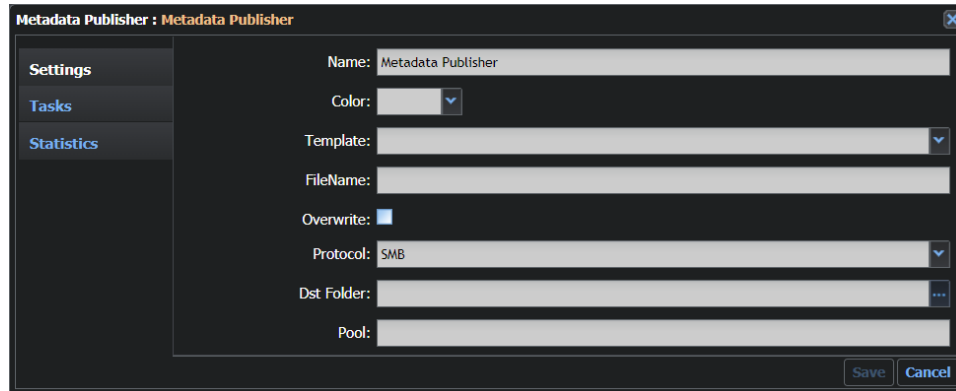


Fig. 5-109: Metadata Publisher Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Template	Specifies the default template used to format the Sidecar XML metadata. In a typical installation, the metadata format templates are located in the folder: C:\Mantrics\MetadataPublisherTemplates. Templates include DemoTXT.txt and DemoXML.xml
FileName	Sets the name of the metadata file (or the name format, if using variables) and the file extension.
Overwrite	Overwrites existing files, if checked.
Protocol	Select the protocol used to transfer the published file from the options: FTP or SMB (Samba).
Host	Displayed when you select: FTP Protocol. Specifies the name of the FTP host where the publishing takes place (example format: ftp.<hostname>.com).
User	Displayed when you select: FTP Protocol. Sets the user name of the FTP account.
Password	Displayed when you select: FTP Protocol. Sets the password for the FTP account.
Port	Displayed when you select: FTP Protocol. Port ID for the FTP connection.
Dst Folder	Either enter the path to the target directory for the FTP output. When Protocol is set to SMB, the output file is created by way of Samba in the shared directory selected using the File Browser.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<metadatapublisher>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<metadatapublisher>
  <server port="8184">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</metadatapublisher>
```

MantricsNode.xml Configuration

```
<metadatapublisher slotCount="2">
  <active>true</active>
  <server port="8184">10.250.170.183</server>
  <node port="8185">10.250.170.183</node>
  <pool/>
</metadatapublisher>
```

Automation: Remove From Project

The **Remove From Project** workflow element enables you to remove the association a material has with a specific project.

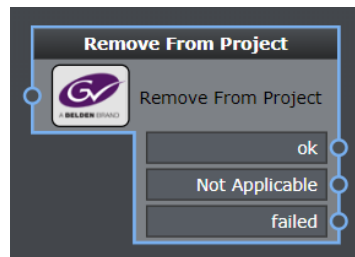


Fig. 5-110: Remove From Project Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

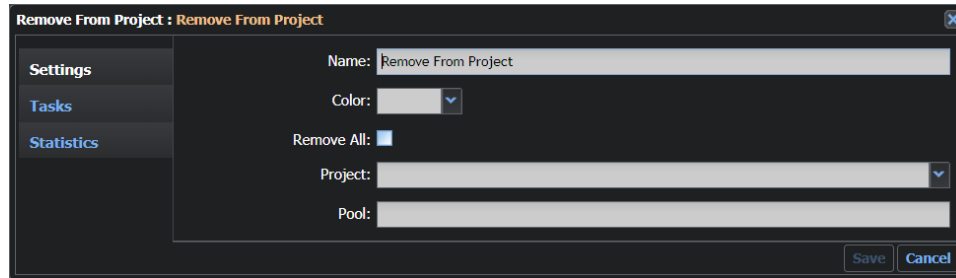


Fig. 5-111: Remove From Project Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Remove All	When enabled, removes the Material from all projects.
Project	Displayed only when Remove All is unchecked. Enables you to select a project, in the available list of projects, from which you want to remove the Material. You can create new projects in the Catalog page by selecting: Results Actions > Create... > Project
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<removefromproject>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<removefromproject>
  <server port="8214">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</removefromproject>
```

MantricsNode.xml Configuration

```
<removefromproject slotCount="4">
  <active>true</active>
  <server port="8214">10.250.170.183</server>
  <node port="8215">10.250.170.183</node>
  <pool/>
</removefromproject>
```

Automation: Send Mail

The **Send Mail** workflow element automatically generates and sends an email to the specified email addresses.

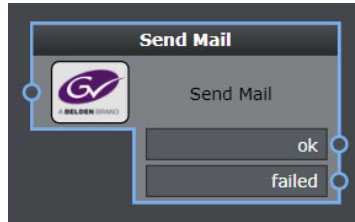


Fig. 5-112: Send Mail Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

The image shows a configuration dialog box titled 'Send Mail : Send Mail'. On the left, there is a sidebar with three tabs: 'Settings' (selected), 'Tasks', and 'Statistics'. The main area contains the following fields: 'Name' (text box with 'Send Mail'), 'Color' (dropdown menu), 'Need instance' (checkbox), 'To' (text box), 'subject' (text box with 'SUBJECT'), 'body' (text area containing HTML code: 'Title: {Core.Title}\\nDescription: {Core.Description}\\nBODY'), and 'Pool' (text box). At the bottom right, there are 'Save' and 'Cancel' buttons.

Fig. 5-113: Send Mail Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Need instance	Requires the instance of the propagated material to complete the operation, if activated.
To	Sets the email address(es) to receive the email.
Subject	Sets the subject of the email.

Option	Description
Body	Sets the text sent in the body of the email.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<sendmail>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<sendmail>
  <server port="8128">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <SmtpServer>smtp.emailaddress</SmtpServer>
  <SmtpServer_descr>SMTP Server</SmtpServer_descr>
  <SmtpSSL>true</SmtpSSL>
  <SmtpSSL_descr>SMTP SSL</SmtpSSL_descr>
  <SmtpUser>user@emailaddress</SmtpUser>
  <SmtpUser_descr>SMTP User</SmtpUser_descr>
  <SmtpPwd>password</SmtpPwd>
  <SmtpPwd_descr>SMTP Password</SmtpPwd_descr>
  <SmtpAuthenticate>true</SmtpAuthenticate>
  <SmtpAuthenticate_descr>SMTP Auth</SmtpAuthenticate_descr>
  <Sender>operator@emailaddress</Sender>
  <Sender_descr>Mail Sender</Sender_descr>
</sendmail>
```

Configure Send Mail in the **<wfc>** section **<sendmail>** of the file `MantricsServer.xml` as follows:

- 1 Replace the default text of the tag **<SmtpServer>** with the SMTP information for the required email server.
- 2 Set the default text in the tag **<SmtpSSL>** to **true** to use secure authentication.
- 3 Replace the default text of the tag **<SmtpUser>** with the user name of the sender email account.
- 4 Replace the default text of the tag **<SmtpPwd>** with the password of the sender email account.
- 5 Set the default text in the tag **<SmtpAuthenticate>** to **true** to enable SMTP authentication.
- 6 Replace the default text of the tag **<Sender>** with the description to appear in the sender field of the email.

Note: The tags using the **descr** word (for example, **<Smtppwd_descr>**) are optional, descriptive tags used by the system to identify the elements.

MantricsNode.xml Configuration

```
<sendmail slotCount="4">  
  <active>true</active>  
  <server port="8128">10.250.170.183</server>  
  <node port="8129">10.250.170.183</node>  
  <pool/>  
</sendmail>
```

Automation: Send To...

The **Send To...** workflow element enables you to submit material that is archived in the catalog to one or several workflows. You can use the Send To element as a trigger to start other workflows, for example, when using the Metadata Change Notifier.

Note: If a proxy is selected, the related HQ instance (parent) is sent to the workflow. If both the proxy and HQ instances are selected and sent, only the HQ instance is sent.

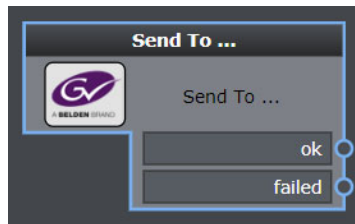


Fig. 5-114: Send To... Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

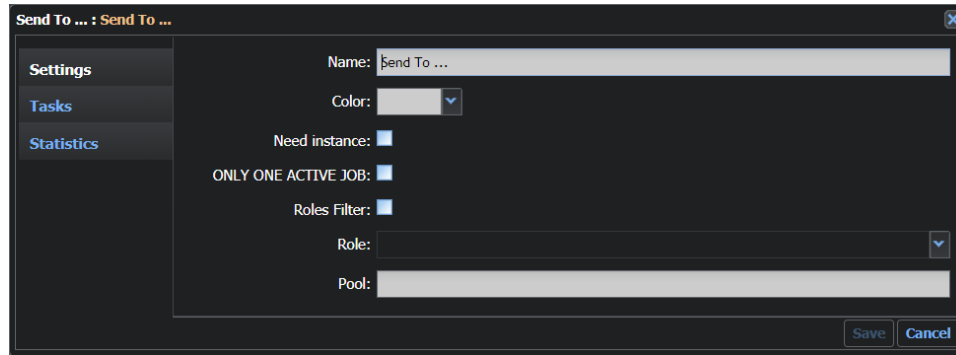


Fig. 5-115: Send To... Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Need instance	Requires an instance of the propagated material to complete the operation, if activated.
ONLY ONE ACTIVE JOB	Enables you to check whether a title already has an active job running on the branch following the Send To element. If active, multiple jobs for the title are forbidden until the first one ends and the task is propagated through the failed port.
Roles filter	When checked, links the Send To element to a specific role that you can select in the Role field. If not checked, all roles can access the Send To element from the Actions on the Catalog page.
Role	Sets the role that is permitted to use the element and restricts access to the element in the Actions menu of the Catalog page. See the Momentum <i>Operator's Guide</i> for further information on Actions and how they work.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<sendto>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<sendto>
  <server port="8124">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</sendto>
```

MantricsNode.xml Configuration

```
<sendto slotCount="4">  
  <active>true</active>  
  <server port="8124">10.250.170.183</server>  
  <node port="8125">10.250.170.183</node>  
  <pool/>  
</sendto>
```

Automation: Set Metadata

The **Set Metadata** workflow element enables you to assign a new metadata value to the Material according to a specific category.

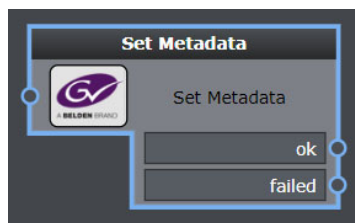


Fig. 5-116: Set Metadata Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

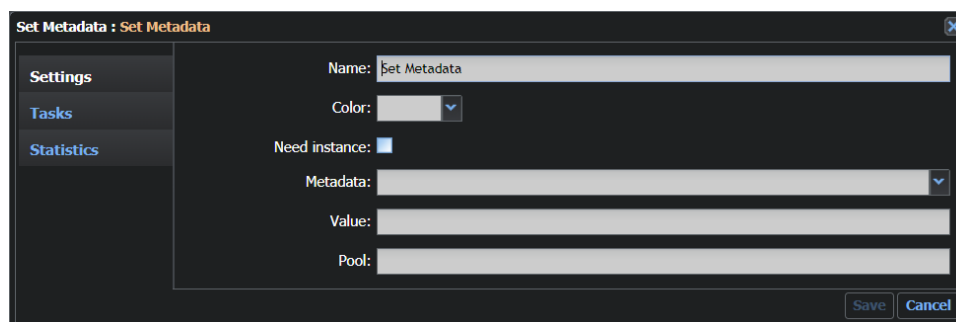


Fig. 5-117: Set Metadata Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.

Option	Description
Need Instance	Requires the Instance of the propagated material to complete the operation, if activated.
Metadata	Sets the metadata category.
Value	Sets the metadata value.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<setmetadata>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<setmetadata>
  <server port="8138">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</setmetadata>
```

MantricsNode.xml Configuration

```
<setmetadata slotCount="4">
  <active>true</active>
  <server port="8138">10.250.170.183</server>
  <node port="8139">10.250.170.183</node>
  <pool/>
</setmetadata>
```

Automation: Set Priority

The **Set Priority** workflow element enables you to change the priority of a task or a job (a series of tasks applied to a material). The default priority value for a task is 5 (Low).

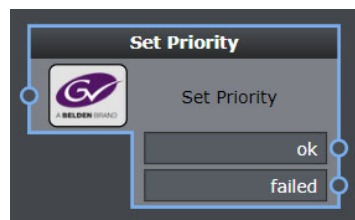


Fig. 5-118: Set Priority Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

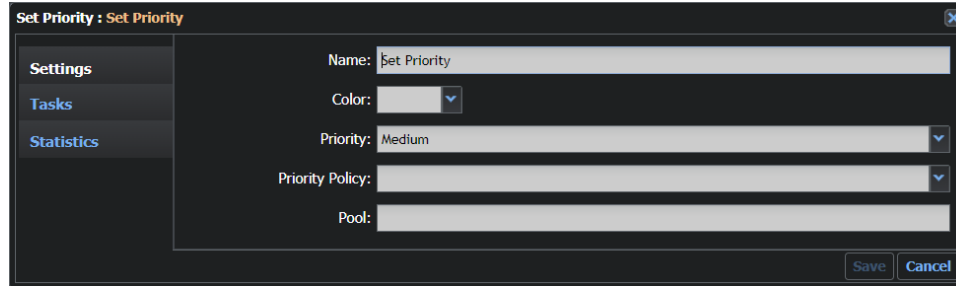


Fig. 5-119: Set Priority Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Priority	Select the new priority value from the options: Low, Medium, High, Urgent, Immediate.
Priority Policy	Select either: Entire Job or Next Task. to set whether the change of priority is applied only to the next task or to the entire job.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<setpriority>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<setpriority>
  <server port="8162">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</setpriority>
```

MantricsNode.xml Configuration

```
<setpriority slotCount="4">
  <active>true</active>
  <server port="8162">10.250.170.183</server>
  <node port="8163">10.250.170.183</node>
  <pool/>
</setpriority>
```


Automation: Sleep

The **Sleep** workflow element keeps the task in a waiting state for a set duration.

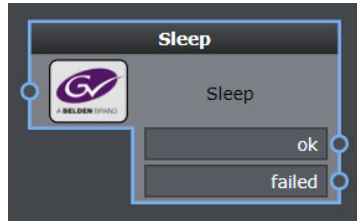


Fig. 5-120: Sleep Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

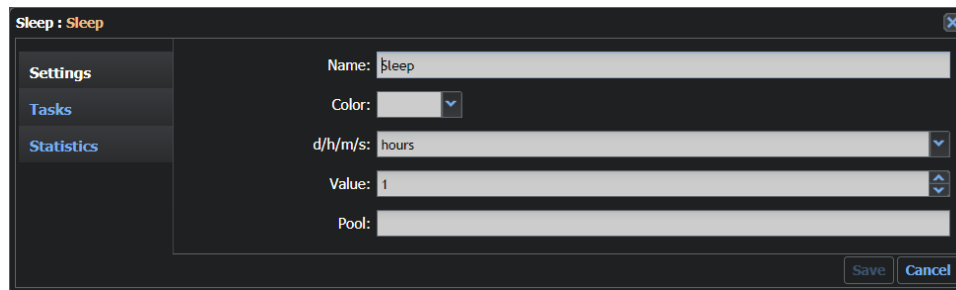


Fig. 5-121: Sleep Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
d/h/m/s	Sets the unit used to express the duration from the options: days, hours, minutes, seconds.
Value	Sets the duration of the sleep period in the selected unit.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<sleep>** contains the configuration for this element.

MantricsServer.xml Configuration

```
<sleep>
  <server port="8106">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</sleep>
```

MantricsNode.xml Configuration

```
<sleep slotCount="4">
  <active>true</active>
  <server port="8106">10.250.170.183</server>
  <node port="8107">10.250.170.183</node>
  <pool/>
</sleep>
```

Automation: Technical Metadata Retriever

The **Technical Metadata Retriever** workflow element enables you to retrieve technical metadata (for example, width or height), by analyzing the header of a media file. The Metadata Retriever then uses this data to complete the appropriate metadata fields in Momentum.

This workflow element is typically used to populate metadata when a media file is inserted in the Catalog by way of an API, without metadata.

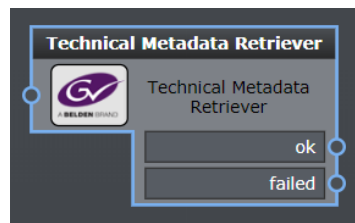


Fig. 5-122: Technical Metadata Retriever Workflow Element

Element Settings Configuration

This element is available in the **Automation** folder and has the following settings:

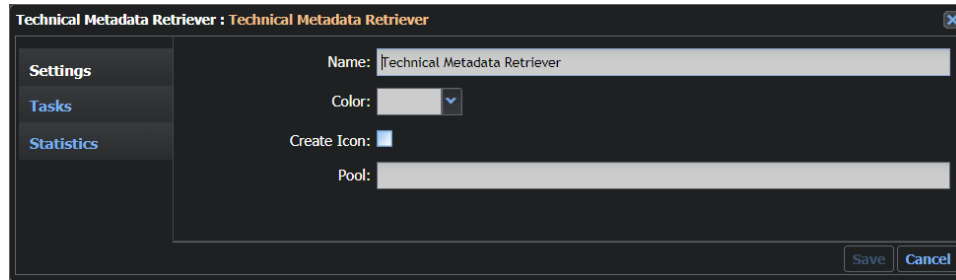


Fig. 5-123: Technical Metadata Retriever Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Create Icon	Forces Momentum to create an icon to represent the material, which, if imported by API, may not have an icon.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<technicalMetadataRetriever>` contains the configuration for this element.

MantricsServer.xml Configuration

```
<technicalMetadataRetriever>
  <server port="8642">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</technicalMetadataRetriever>
```

MantricsNode.xml Configuration

```
<technicalmetadataretriever slotCount="4">
  <active>true</active>
  <server port="8642">10.250.170.183</server>
  <node port="8643">10.250.170.183</node>
  <pool/>
</technicalmetadataretriever>
```


6 Configuring the Feature Extraction Element

Configuring the Feature Extraction Workflow Element

The Feature Extraction workflow element enables you to extract specific features from media data sources for use in other areas of our workflow. The following Feature Extraction element is available:

- Scene Change Fast

The configuration details for this element are provided in the following section.

Scene Change Fast

The **Scene Change Fast** workflow element takes a Media asset as its input and processes the related media file frame-by-frame in order to detect the points at which a change of scene happens. The search analysis is based on detecting a variation in overall pixel brightness levels in the frames. The element uses this information to create as many Keysegments of a few seconds duration as *scene change* spots are detected. These Keysegments have mark-in points that match all the detected scene change points found in the Media asset.

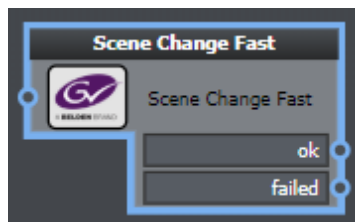


Fig. 6-124: Scene Change Fast Workflow Element

Element Settings Configuration

The Scene Change Fast element has the following settings:

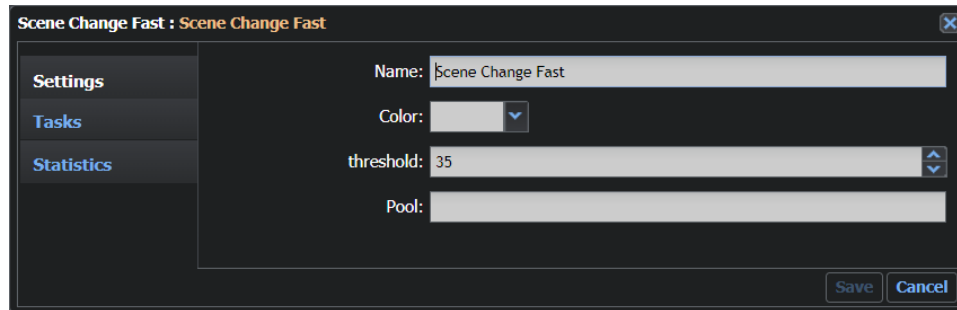


Fig. 6-125: Scene Change Fast Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Threshold	Sets the sensitivity of the brightness analysis: the value ranges from 0 to 100; the higher the threshold, the greater the sensitivity in detecting differences between consecutive frames, leading to the element generating more key segments.
Pool	Sets the name of a pool associated with the element to share the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<scenechange>
  <server port="8170">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</scenechange>
```

MantricsNode.xml Configuration

```
<scenechange slotCount="4">
  <active>>false</active>
  <server port="8170">10.250.170.183</server>
  <node port="8171">10.250.170.183</node>
  <pool/>
</scenechange>
```

7 Configuring the Ingest Elements

Configuring the Ingest Workflow Element

The Ingest workflow elements enable you to choose from a variety of methods to ingest media into the Momentum environment from various media sources to trigger your workflows. The following Ingest elements are available:

- Grass Valley Ingest Elements:
 - BXF Receiver
 - Gateway Receiver
 - Morpheus
 - Pam-Evs
 - sQ Sync
 - XCache Receiver
 - XMLDB IF Query
- Wait for File
- Watchfolder
- Watchfolder FTP

The configuration details for these elements are provided in the following sections.

BXF Receiver

BXF Receiver

The **BXF Receiver** is one component of the set of BXF messaging elements in Momentum, with the others being **BXF Morpheus Export** and **BXF Morpheus Query**.

The **BXF Receiver** workflow element allows Momentum to ingest BXF format messages either from a Morpheus Playout Automation system or from another Momentum. The BXF Receiver ingests the BXF message, validates the message and then propagates a response from the appropriate, configurable output port.

BXF messages can be created by either the Morpheus **BXF Notifier** or the **MAPP BXF Transfer Request Service**. A transfer request from Morpheus might specify content that Morpheus is due to play on air, but which is not currently available to Morpheus, for example, missing material may not have been retrieved from an archive.

When Morpheus issues a BXF content transfer request message, the Momentum BXF Receiver will start a workflow task to confirm that media are in the correct format (if needed) and attempt to return the requested content. On receipt of a transfer request from Morpheus, the BXF Receiver checks the **MORPHEUS_ID** value in the BXF message against

the Momentum database. Depending on whether the material exists in the Momentum database, or not, the BXF Receiver propagates the task through the appropriately configured port of the element.

In addition to the standard element configuration, you can configure the behavior and output ports of the BXF Receiver element in the default XML template located in the following directory:

```
C:\Mantrics\BxfReceiverTemplates\Default.xml
```

You can use this template to define whether the BXF Receiver will accept messages from both transfer request and notification services or to ignore (skip) certain notification messages. Furthermore, you can also define the receiver **mode** of the BXF Receiver element, by configuring the BXF Route to use either a watchfolder or socket.

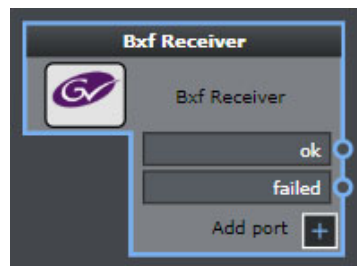


Fig. 7-126: BXF Receiver Workflow Element

Element Settings Configuration

The BXF Receiver workflow element resides in the SAM folder of the Ingest group of elements and has the following settings:

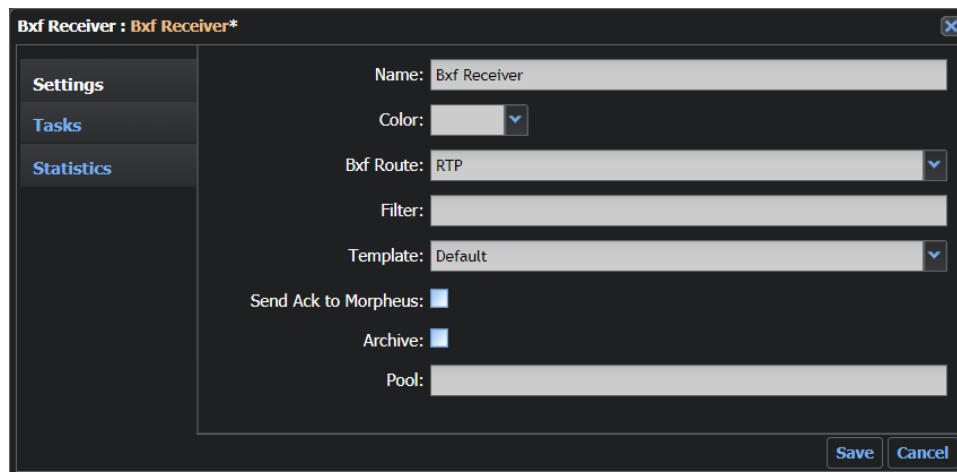


Fig. 7-127: BXF Receiver Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Bxf Route	<p>Select one of the pre-configured BXF communication routes. BXF Routes are defined in the Momentum Admin page.</p> <p>The BXF Agent section of the BXF Route sets the receiver mode of the BXF Receiver. You can choose whether the element monitors a watchfolder for the arrival of BXF message files or whether it uses a socket connection to an IP address and port.</p> <p>To set up a list of available BXF Routes, select Admin > BXF Routes.</p>
Filter	<p>Use to filter the file path of the XML sent to the BXF Receiver.</p> <p>For example, consider the following file path as a source of an XML file: \\10.10.0.221\test\import.xml</p> <p>If your filter was set to include the keywords: test, import the XML file would be processed by the BXF Receiver element. If your filter was set to test2, however, the XML file in the example above would not be processed.</p> <p>Start typing in the filter field to display a list of available keywords. Use a comma (,) to separate each keyword used in the filter.</p>
Template	<p>Specifies the BXF Receiver template selected from the list of available files stored in the folder:</p> <p>C:\Mantrics\BXFReceiverTemplates.</p> <p>The default template (Default.xml) defines the following behavior of the BXF Receiver:</p> <ul style="list-style-type: none"> • SkipConfig - set the type of Notifier messages to skip, if any. • TransferConfig - define how to manage unknown transfer request types, and configure the output ports for different transfer request scenarios. For example, you might send an Update Transfer request to the ok output port. • NotifierConfig - define how to manage Title / Instance defaults and XML rules for notifications, and configure the output ports for different notification types. For example, you might send an Update Content request to the ok output port.
Send Ack to Morpheus	When enabled, sends an ACK/NACK message to the originating service (Morpheus) for all messages received, as appropriate.
Archive	When selected, Momentum will archive a copy of all messages involved in the specific task, including queries, query responses, import content messages, and all ACKs/NACKs.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<bxfreceiver>
  <server port="8202">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</bxfreceiver>
```

MantricsNode.xml Configuration

```
<bxfreceiver slotCount="4">
  <active>>false</active>
  <server port="8202">10.250.170.183</server>
  <node port="8203">10.250.170.183</node>
  <pool/>
</bxfreceiver>
```

Configuring the BXF Receiver Message Template

The BXF Receiver workflow element allows Momentum to ingest BXF format messages either from a Morpheus Playout Automation system or from another Momentum. Based on the configuration of the BXF Receiver Message Template, the BXF Receiver element ingests the BXF message, validates the message and then propagates a response from the appropriate, configurable output port.

The configuration of the BXF Receiver template can be divided into the following sections:

- Generic settings
- Skip settings
- Transfer settings
- Notifier settings
- Query response settings

Configuring the Generic Settings in the BXF Receiver Template

To configure the generic settings of the BXF Receiver Server:

- 1 In a text editor, open the file: C:\Mantrics\BxfReceiverTemplates\Default.xml
- 2 Locate the section **<BxfReceiverTemplate>**:

```
<BxfReceiverTemplate>
  <timeoutSec>3</timeoutSec>
  <retriesCount>5</retriesCount>
```

These XML tags have the following functions

Tag	Description
timeoutSec	Sets the elapsed time (in seconds) after which a connection is considered to have timed out. Enable only if BXF Route is file-based and not connected by socket.
retryCount	Sets the number of retry attempts to establish a connection. Enable only if BXF Route is file-based and not connected by socket.

Configuring the Skip Settings in the BXF Receiver Template

The **<skipConfig>** section of the BXF Receiver template enables you to choose to skip messages generated by the Metadata Change Notifier service.

To configure the Skip settings of the BXF Receiver:

- 1 In a text editor, open the file: C:\Mantrics\BxfReceiverTemplates\Default.xml
- 2 In the section **<SkipConfig>**, set the available parameters as required:

```
<SkipConfig>
  <SkipAdd>false</SkipAdd>
  <SkipUpdate>false</SkipUpdate>
  <SkipRemove>false</SkipRemove>
  <SkipAddTransfer>false</SkipAddTransfer>
  <SkipUpdateTransfer>false</SkipUpdateTransfer>
  <SkipRemoveTransfer>false</SkipRemoveTransfer>
  <SkipCompleteTransfer>false</SkipCompleteTransfer>
  <SkipQuery>false</SkipQuery>
</skipconfig>
```

These XML tags have the following functions:

Tag	Description
SkipConfig	Set to true or false (default). Enables you to choose whether to skip messages generated by the Notifier service and if so, the type of messages to be skipped.
SkipAdd	Set to true or false (default). When true , skips all Import Content Add messages received from the Notifier.
SkipUpdate	Set to true or false (default). When true , skips all Import Content Update messages received from the Notifier.
SkipRemove	Set to true or false (default). When true , skips all Import Content Remove messages received from the Notifier.

Tag	Description
SkipAddTransfer	Set to true or false (default). When true , skips all Transfer Add messages.
SkipUpdateTransfer	Set to true or false (default). When true , skips all Transfer Update messages.
SkipRemoveTransfer	Set to true or false (default). When true , skips all Transfer Remove messages.
SkipCompleteTransfer	Set to true or false (default). When true , skips all Transfer Complete messages.
SkipQuery	Set to true or false (default). When true , skips all Query messages.

Configuring the Transfer Settings in the BXF Receiver Template

The transfer settings of the BXF Receiver configure the behavior of Momentum on receipt of BXF messages from the Morpheus Transfer Request Service.

To configure the Transfer settings of the BXF Receiver:

- 1 In a text editor, open the file: C:\Mantrics\BxfReceiverTemplates\Default.xml
- 2 In the section **<TransferConfig>**, set the available parameters as required:

```

<TransferConfig>
  <FailTransfersForNotExistingMaterial>>false
  </FailTransfersForNotExistingMaterial>
  <SkipUnknownTypes>>false</SkipUnknownTypes>
  <CloseUnknownTypes>>false</CloseUnknownTypes>
  <TransferMetadataFilters>
    <TransferMetadataFilter></TransferMetadataFilter>
  </TransferMetadataFilters>
  <UnknownTypes>
    <Type>PROGRAMME</Type>
  </UnknownTypes>
  <Defaults>
    <Default>
      <Label>channel</Label>
      <Value>Bye</Value>
      <Type>TEXT</Type>
    </Default>
    <Default>
      <Label>MaterialType</Label>
      <Value>PROGRAMME</Value>
      <Type>TEXT</Type>
    </Default>
  </Defaults>
  <XMLRules>
    <XMLRule>
      <xPath>//BxfMessage/BxfData/ContentTransfer/Content/Non
      ProgramContent/Details/SpotType</xPath>
    </XMLRule>
  </XMLRules>
</TransferConfig>

```

```

        <targetMetadata>MaterialType</targetMetadata>
    </XMLRule>
    <XMLRule>
        <xPath>//BxfMessage/BxfData/ContentTransfer/Content/Non
        ProgramContent/ContentMetaData/PrivateInfor
        mation/Owner</XPath>
        <targetMetadata>channel</targetMetadata>
    </XMLRule>
</XMLRules>
<CompleteTransfer_Port>ok</CompleteTransfer_Port>
<CompleteNotExistingTransfer_Port>failed
    </CompleteNotExistingTransfer_Port>
<CompleteExpiredTransfer_Port>failed</CompleteExpiredTransfer_Port>
<CompleteCompletedTransfer_Port>failed
    </CompleteCompletedTransfer_Port>
<AddTransferForExistingMaterialId_Port>ok
    </AddTransferForExistingMaterialId_Port>
<AddTransferForNotExistingMaterialId_Port>failed
    </AddTransferForNotExistingMaterialId_Port>
<AddExistingTransfer_Port>failed</AddExistingTransfer_Port>
<AddExistingTransferWithDifferentId_Port>failed
    </AddExistingTransferWithDifferentId_Port>
<UpdateTransferForExistingMaterialId_Port>ok
    </UpdateTransferForExistingMaterialId_Port>
<UpdateTransferForNotExistingMaterialId_Port>failed
    </UpdateTransferForNotExistingMaterialId_Port>
<UpdateNotExistingTransfer_Port>failed
    </UpdateNotExistingTransfer_Port>
<UpdateCompletedTransfer_Port>failed
    </UpdateCompletedTransfer_Port>
<SkipTransferUpdate_Port>failed</SkipTransferUpdate_Port>
<RemoveTransfer_Port>ok</RemoveTransfer_Port>
<RemoveNotExistingTransfer_Port>failed
    </RemoveNotExistingTransfer_Port>
</TransferConfig>

```

These XML transfer request tags have the following functions:

Tag	Description
FailTransfersForNotExistingMaterial	Set to true or false (default). When true , Momentum sends a failed transfer message to Morpheus if the material is not found. In this event, the status of the failed transfer message is Failed and the status Description is Material doesn't exist
SkipUnknownTypes	Set to true or false (default). When true , skips all BXF messages with a type contained in the <UnknownTypes> list field.
CloseUnknownTypes	Set to true or false (default). When true , sends a NACK to complete all BXF messages with a type contained in the <UnknownTypes> list field.

Tag	Description
TransferMetadataFilters	<p>Can contain a list of Transfer Metadata Labels used to filter active transfers to identify a unique transfer request. If another transfer exists that matches the same filters, the new transfer is skipped, and a NACK is sent with a specific error message. The task is propagated to the port specified in the field <AddExistingTransferWithDifferentId_Port> of the BXF Receiver Template.</p> <p>Each <TransferMetadataFilter> defines a Transfer Metadata Label to use as a filter. If multiple transfer metadata labels are listed, the filter must satisfy all conditions using AND logic.</p>
UnknownTypes	<p>Use to group specific BXF message types to be treated as unknown by the BXF Receiver.</p> <p>Each <Type> defines a BXF message type to be treated as Unknown by the BXF Receiver. For example, BXF message type PROGRAMME.</p> <p>If no message types are defined as Unknown, all BXF message types are processed by the BXF Receiver.</p>
Defaults	<p>Use to group the default settings of BXF message transfer requests received from Morpheus/MAPP database by the BXF Receiver.</p>
XMLRules	<p>A collection of all the BXF metadata used to populate the data of each transfer request object listed on the Transfer page. Each <XMLRule> defines a single rule of the <XMLRules> list.</p>
Output Port Configurations	<p>Use to configure the output ports. You can map a task, whether successful or not to a designated port.</p>

The following XML extract is an example of a Transfer-failed BXF message, generated when the material does not exist in Momentum:

```
<?xml version="1.0"?>
<BxfMessage xmlns="http://smpte-ra.org/schemas/2021/2008/BXF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
originMessageId="urn:uuid:c4073c29-e93c-4d6d-8c40-7a8dc465e808"
userName="Momentum" destination="Morpheus" originType="Automation"
origin="Momentum" messageType="Information" dateTime="2019-04-
21T14:54:51.6Z" id="urn:uuid:cb58b2e5-1369-4da0-988f-24623fb6dcb9">
  <BxfData action="add">
    <ContentTransfer statusDescription="Material does not
      exist" status="Failed" transferType="File transfer"
      transferId="urn:uuid:
        06b80cc2-5153-420a-8af4-2be2d2a51bae">
      <Content>
        <ProgramContent>
          <ContentMetaData>
            <ContentId>
              <HouseNumber>test1</HouseNumber>
            </ContentId>
            <UsagePolicy>
              <FirstAirDate>
                2017-05-07T15:21:00.0Z</FirstAirDate>
              </UsagePolicy>
            <PrivateInformation/>
          </ContentMetaData>
        </ProgramContent>
      </Content>
    </ContentTransfer>
  </BxfData>
</BxfMessage>
```

Configuring the Notifier Settings in the Message Template

To configure the Notifier settings of the BXF Receiver:

- 1 In a text editor, open the file: C:\Mantrics\BxfReceiverTemplates\Default.xml
- 2 In the section **<NotifierConfig>**, set the available parameters as required:

```
<NotifierConfig>
  <Title>
    <TitleId/>
    <TitleSchema/>
  </Title>
  <UseMorpheusIdAsTitleId>>false</UseMorpheusIdAsTitleId>
  <UseLongFileIdAsTitleId>>false</UseLongFileIdAsTitleId>
  <DefaultTitleSchema>BasicMetadata</DefaultTitleSchema>
  <CreateThumbForSegments>>true</CreateThumbForSegments>
  <TitleDefaults>
    <Default>
      <Label></Label> <Value></Value> <Type></Type>
    </Default>
  </TitleDefaults>
  <TitleXMLRules>
```

```

        <XMLRule>
            <xPath></XPath> <targetMetadata>
                </targetMetadata>
            </XMLRule>
        </TitleXMLRules>
    <InstanceDefaults>
        <Default>
            <Label></Label> <Value></Value> <Type></Type>
        </Default>
    </InstanceDefaults>
    <InstanceXMLRules>
        <XMLRule> <xPath></XPath> <targetMetadata>
            </targetMetadata> </XMLRule>
    </InstanceXMLRules>
    <VideoServers>
        <VideoServer> <DeviceId></DeviceId>
        <UncPath></UncPath> <Label></Label>
        <InstanceSchema></InstanceSchema>
        <Extension></Extension> <Type></Type></VideoServer>
    </VideoServers>
    <AddItem_Port>ok</AddItem_Port>
    <AddExistingItem_Port>failed
        </AddExistingItem_Port>
    <UpdateItem_Port>ok</UpdateItem_Port>
    <UpdateNotExistingItem_Port>failed
        </UpdateNotExistingItem_Port>
    <RemoveItem_Port>ok</RemoveItem_Port>
    <RemoveNotExistingItem_Port>failed
        </RemoveNotExistingItem_Port>
    <InvalidMessage_Port>failed</InvalidMessage_Port>
</NotifierConfig>
    
```

These XML tags have the following functions:

Tag	Description
Title	Defines a list to associate a Title ID and Title Schema to the Notifier message.
TitleId	The value defines an XPath used to locate the Title ID in the message.
TitleSchema	The value specifies an existing schema name that is valid for a title.
UseMorpheusIdAsTitleId	Set to true or false (default). When true , recovers the Title ID from the Morpheus ID if the Title ID was not recovered using the XPath.
UseLongFileIdAsTitleId	Set to true or false (default). When true , recovers the Title ID from the Long File ID if the Title ID was not recovered using the XPath or Morpheus ID.
DefaultTitleSchema	Defines the default schema for the Title; if empty, the default schema BasicMetadata is used.
CreateThumbForSegments	Set to true or false (default). When true , it creates an icon for all the segments added

Tag	Description
TitleDefaults	Collects all the values for the Title that are used by default to fill missing values in the BXF message. Momentum uses these values in the <XPath> of an <XMLRule> .
TitleXMLRules	<p>A collection of all the BXF metadata used to populate the data of each Title object listed by the Notifier. Each <XMLRule> defines a single rule of the <TitleXMLRules> list.</p> <p>For example:</p> <pre data-bbox="760 579 1349 919"> <TitleXMLRules> <XMLRule> <xPath>//BxfMessage/BxfData/ Content/ProgramContent/ ContentMetaData/ItemInfo/Notes </XPath> <targetMetadata>MomentumCore.MomentumCore. NOTES </targetMetadata> </XMLRule> </TitleXMLRules> </pre> <p>Where the <xPath> specifies the BXF data for a single <XMLRule>, and the tag <targetMetadata> specifies the metadata of the database that is going to be set using the value of the <xPath> data.</p>
InstanceDefaults	Collects all the values for the Instance that are used by default to fill missing values in the BXF message. Momentum uses these values in the <XPath> of an <XMLRule> .
InstanceXMLRules	<p>A collection of all the BXF metadata used to populate the data of each Instance object listed by the Notifier. Each <XMLRule> defines a single rule of the <InstanceXMLRules> list.</p> <p>Where the <xPath> specifies the BXF data for a single <XMLRule>, and the tag <targetMetadata> specifies the metadata of the database that is going to be set using the value of the <xPath> data.</p>

Tag	Description
VideoServers	<p>Collects the list of video servers available to associate the various devices, when the action is Add, with each <VideoServer> tag specifying a single video server; to include the <DeviceID>, <UncPath>, <Label>, <InstanceSchema>, <Extension> and <Type> to identify the video server. Permitted values for the <Type> field are: VIDEO (default), AUDIO, SUBTITLE, and IMAGE.</p> <p>For example:</p> <pre><VideoServer> <DeviceId>QUANTUM</DeviceId> <UncPath>\\10.10.0.221\video\UsersTestArea\ Gateway Receiver\HQRepository\</UncPath> <Type>VIDEO</Type> </VideoServer></pre>
AddIfDoesNotExist	<p>Set to true or false (default).</p> <p>When true, if an Import content message with an Update action is received and the material does not exist, then it treats the message as an import content message with an Add action.</p>
UpdateIfExists	<p>Set to true or false (default).</p> <p>When true, if an Import content message with an Add action is received and the material already exists, then it treats the message as an import content message with an Update action.</p>
Output Port Configurations	<p>Use to configure the output ports. You can map an action, whether successful or not to a designated port.</p>

Configuring the Query Response Settings in the Message Template

To configure the Query Response settings of the BXF Receiver:

- 1 In a text editor, open the file: C:\Mantrics\BxfReceiverTemplates\Default.xml
- 2 In the section **<QueryResponseConfig>**, set the available parameters as required:

```
<QueryResponseConfig>
  <TimeoutSec>20</TimeoutSec>
  <VideoServers>
    <VideoServer> <DeviceId></DeviceId>
    <UncPath></UncPath> <Label></Label>
    <InstanceSchema></InstanceSchema>
    <Extension></Extension> <Type></Type></VideoServer>
  </VideoServers>
  <BXFMetadataList>
    <BXFMetadata>
      <Label></Label>
      <XPath></XPath>
      <Value></Value>
      <Kind></Kind>
    </BXFMetadata>
  </BXFMetadataList>
</QueryResponseConfig>
```

```

</BXFMetadataList>
<CustomParametersList>
  <BXFMetadata>
    <Label></Label>
    <XPath></XPath>
    <Value></Value>
    <Kind></Kind>
  </BXFMetadata>
</CustomParametersList>
</QueryResponseConfig>
<SendAck>>false</SendAck>

```

These XML tags have the following functions:

Tag	Description
TimeoutSec	Sets the elapsed time (in seconds) after which a connection is considered to have timed out. Enable only if BXF Route is file-based and not connected by socket.
VideoServers	Collects the list of video servers available to associate the various devices, when the action is Add , with each <VideoServer> tag specifying a single video server; to include the <DeviceID> , <UncPath> , <Label> , <InstanceSchema> , <Extension> and <Type> to identify the video server. Permitted values for the <Type> field are: VIDEO (default), AUDIO, SUBTITLE, and IMAGE.
BXFMetadataList	<p>Contains a list of the generic fields contained in the generated BXF message to be exported, Every field has a default value but only some fields are mandatory for the creation of the message. If the <BXFMetadataList> list is empty, BXF Export uses the default values: Label Value Kind.</p> <p>Collects all the metadata to be included in the BXF message being exported from Momentum.</p> <p>The tag <Label> is used to mark the metadata in the BXF file. The value is specified using the extended ID of the metadata in the Momentum system and can be retrieved in the Admin page Metadata, in the Metadata ID field.</p> <p>The tag <Value> is the value given to the metadata specified in <Label>. The tag <Kind> specifies whether the metadata is taken from the Title or the Instance of the related material.</p>

Tag	Description
CustomParametersList	Collects the metadata specific to the materials belonging to any custom parameters that have to be exported from Momentum. The tags <Label> , <Value> , <Kind> and <XPath> of the list are the same as described above for BXFMetadataList .
SendAck	Set to true or false (default). When set to true allows Momentum to send an ACK/NACK to the originating service for all BXF messages received (excluding ACKs/NACKs)

Save the file: `C:\Mantrics\BxfReceiverTemplates\Default.xml` to store the new settings.

See the *Momentum Operator's Guide* for information on configuring the BXF routes needed for the workflow elements.

Configuring the BXF Messages Generator

Two utilities are provided to generate BXF messages to trigger workflows on a time basis, launched through Windows Task Scheduler:

`BxfAddMessagesGenerator.exe`

and

`BxfDeleteMessagesGenerator.exe`

By default the executable files are located in the folder:

`C:\Program Files\Mantrics S.r.L\Momentum BXF Receiver`

Both utilities can be launched as part of a scheduled task.

BxfAddMessagesGenerator

This program filters one or more video files in a specific folder to create a BXF Add message for each one that matches the criteria specified using the `BxfAddMessagesGenerator.exe` parameters as follows:

- **Watchfolder:** Specifies the path where the video files are located.
- **Extension:** Specifies the file extension that identifies the video files for which the BXF message has to be created.
- **Number of Days:** Specifies the number of days after which the BXF file has to be created. The Last Modified Date of the files is checked and the files having Last Modified Date less than Number of Days + Current Date trigger the creation of the message.
- **Destination Folder:** Specifies the folder where the created BFX files are stored.
- **Suffix:** Specifies a suffix that is added to the HouseNumber metadata, usually the HouseNumber is equal to the FileName, using a suffix it becomes equal to FileName_Suffix. This parameter is not mandatory and can be omitted.

BxfDeleteMessagesGenerator

This program filters the materials of the Momentum database to match the criteria given by its parameters to create for each one a Delete BFX message using the

`BxfDeleteMessagesGenerator.exe` parameters as follows:

- **Destination folder:** Specifies the folder where the created BFX files are stored.
- **Number of Days:** Specifies the number of days after which the BFX Message has to be created. A query in the Momentum system database is run then materials having a value of Creation Date that is older than Number of Days + Current Date, trigger the creation of the BFX message. Into the BFX message is specified the House Number and if the material is a Programme or not.

You can use the configuration file

`C:\Mantrics\BxfDeleteMessagesGeneratorConfig.xml` to pass further parameters to `BxfDeleteMessagesGenerator.exe`. The metadata parameters passed to the executable are used to delete material matching the parameter values.

The structure of the configuration file `BxfDeleteMessagesGeneratorConfig.xml` is as follows:

```
<BxfDeleteMessagesGeneratorConfig>
  <BxfMetadataList>
    <BxfMetadata>
      <Value>ToBeDeleted</Value>
      <Label>Description</Label>
      <CategoryId>86C9B05827E14635A250B701FE53DACF</CategoryId>
      <TypeDefId>185ECB5C3A1A411997035C28BE43B80B</TypeDefId>
      <TypeId>10F266181FB84CF8A16A9BC313A8428D</TypeId>
    </BxfMetadata>
  </BxfMetadataList>
  <DestinationFolder></DestinationFolder>
  <NumberOfDays></NumberOfDays>
</BxfDeleteMessagesGeneratorConfig>
```

The tags have the following functions:

Tag	Description
BxfMetadataList	Collects all the metadata that has to be used to find the matching materials.
BxfMetadata	Collects the parameters describing a single item of metadata in the list.
Value	Specifies the matching value of the metadata.
Label	Specifies the label linked to the metadata (optional).
MetadataID	Specifies which metadata to use for the match. You can retrieve the MetadataID value from the Admin > Metadata panel. The value of the Metadata parameter has the format: <code>CategoryID1/CategoryID2:TypeDefID:TypeID</code>
CategoryID	Specifies the category of material to match.

Tag	Description
TypeDefID	Specifies the type definition of the material to match.
TypeID	Specifies the type of material to match.
DestinationFolder and NumberOfDays	The same values described above as the mandatory parameters used to launch the application

Note: The value used in the configuration file always overrides the parameters passed by the command line.

Gateway Receiver

The XML **Gateway Receiver** workflow element is an entry point that uses a Gateway XML document as a source for ingesting material into the workflow. It resides in the SAM folder in the Ingest group of elements. This element has the following settings

Note: It is recommended to use the workflow element BXF Receiver in preference to the Gateway Receiver as it is planned to deprecate this element in Momentum version 5.1.

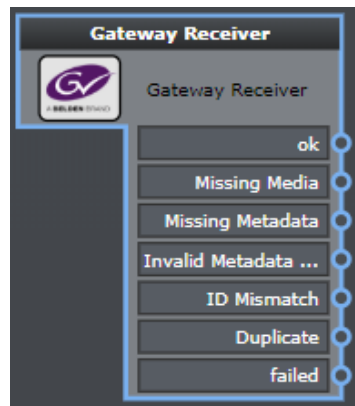


Fig. 7-128: Gateway Receiver Workflow Element

Element Settings Configuration

The Gateway Receiver workflow element resides in the Grass Valley folder of the Ingest group of elements and has the following settings:

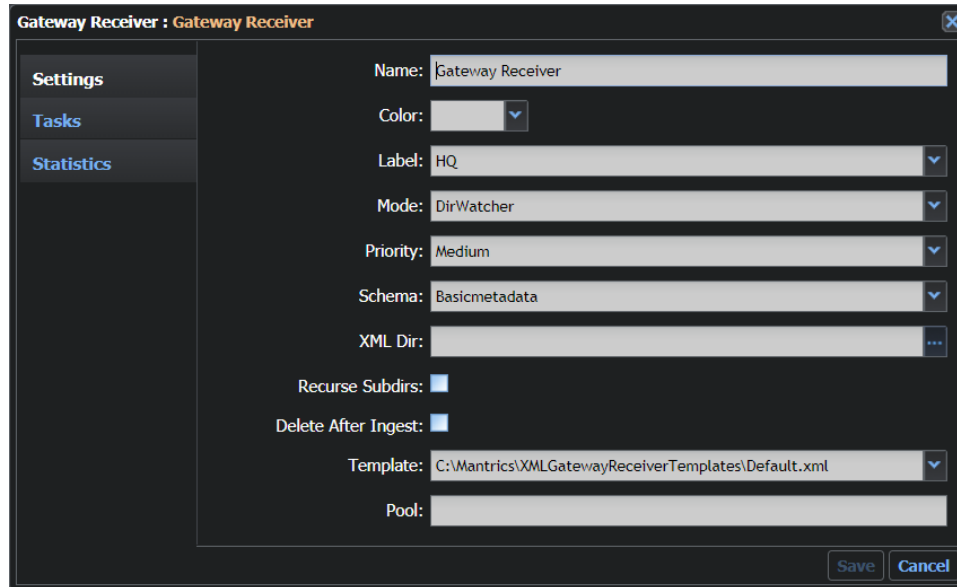


Fig. 7-129: Gateway Receiver Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
Mode	Sets the connection mode (Watch Directory or Socket) that is applied to the receipt of XML messages. Select from the options: DirWatcher or Socket. Select the Socket mode to avoid latency when communicating across systems.
Priority	Sets the priority of the tasks created on this element to either: Low, Medium, High, Urgent or Immediate.
Schema	Sets the category of metadata that can be applied to the material (see the Momentum <i>Operator's Guide</i> details).
XML Dir	Sets the path of the folder to be monitored for the arrival of new XML documents.
Recurse Subdirs	Activates the automatic monitoring of the subdirectories of the specified directory.
Delete After Ingest	Automatically deletes the original file once the ingest process is finished, if activated.

Option	Description
Template	A collection of all the XML files stored in the folder C:\Mantrics\XMLGatewayReceiverTemplates. Each file acts as a template which lists the mandatory fields for a successful ingest of the material. The fields specified in a template are checked against title's metadata and key segments' metadata.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Morpheus

The **Morpheus** workflow element is an entry point that enables Momentum to receive content from the Morpheus Automation system through the Morpheus Server application. This element has the following settings:

Note: It is recommended to use the workflow element **BXF Receiver** in preference to the Morpheus element as it is planned to deprecate this element in Momentum version 5.1.

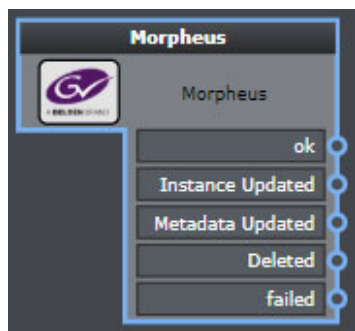


Fig. 7-130: Morpheus Workflow Element

Element Settings Configuration

The Morpheus workflow element resides in the Grass Valley folder of the Ingest group of elements and has the following settings:

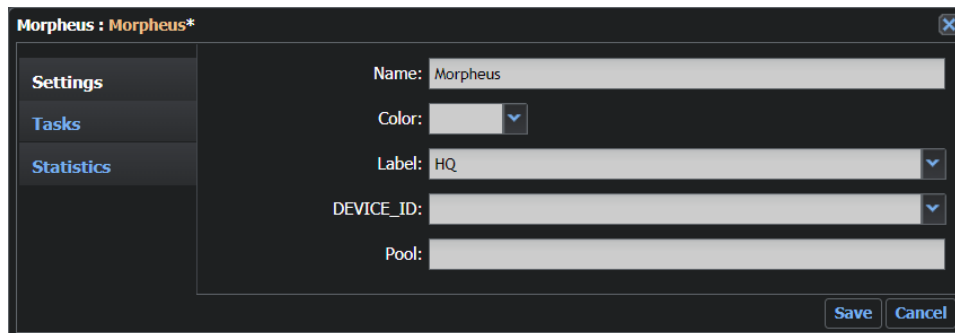


Fig. 7-131: Morpheus Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label of the instance. The available values are contained in the <code>InstanceLabelsConfig.xml</code> file.
DEVICE_ID	Variable to contain the identifier of the Morpheus source system.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Note: To use this element, the file **MorpheusServerConfig.xml** and **ICEconfig.xml** must also be configured, as described in the following sections.

PAM-EVS

The **Pam-EVS** workflow element is an entry point that enables Momentum to ingest files received from an EVS Production Asset Manager (PAM) system.



Fig. 7-132: PAM-EVS Workflow Element

Element Settings Configuration

The PAM-EVS workflow element resides in the Grass Valley folder of the Ingest group of elements and has the following settings:

Fig. 7-133: PAM-EVS Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label of the instance. The available values are contained in the <code>InstanceLabelConfig.xml</code> file.
Priority	Sets the priority of the tasks created on this element to either: Low, Medium, High, Urgent or Immediate.
Mode	Sets the connection mode (Watch Directory or Socket) that is applied to the receipt of files. Select from the options: DirWatcher or Socket. Select the Socket mode to avoid latency when communicating across systems.
Watch Dir	Displayed only when the mode DirWatcher is selected. Sets the path of the folder to be monitored for the arrival of new files.

Option	Description
Extension	Displayed only when the mode DirWatcher is selected. Set an optional filter to select only files with a specific extension. This is set to ingest all files received in the watch folder (*.*) by default.
Timeout (Sec)	Displayed only when the mode DirWatcher is selected. Sets the time elapsed (in seconds) between two attempts to verify whether a media file is available.
Retries Count	Displayed only when the mode DirWatcher is selected. Sets a number of attempts to verify whether a media file is available.
Filter	Displayed only when the mode DirWatcher is selected. Use to filter specific messages based on attributes contained in the filename. Start typing in the filter field to display a list of available keywords. Use a period (.) to separate each keyword in the filter. For example, entering the keyword {MaterialID} results in the application only processing files where the filename contains the MaterialID.
Conversion Script	Specify a target script to convert the ingested EVS PAM file(s) to a suitable XML format for Momentum.
Pool	Sets the name of a pool associated with the element to balance the processing load.

sQ Sync

The **sQ Sync** workflow element provides an interface to an sQ Server environment by enabling Momentum to listen for the sQ events: **ClipCreated**, **ClipModified** and **ClipDeleted** generated from the sQ environment. The detected event then triggers an appropriate workflow.

When a clip is created in the sQ database, the sQ Sync workflow element captures the ClipCreated notification and creates a Momentum TITLE with a TITLE ID taken from the Clip GUID value, contained in the sQ database.

The sQ Sync element is able to manage intra-zone cloning of clips. You can create multiple instances of sQ clips resulting from the sQ cloning mechanism. When both the source sQ clip and its clone the same clipGUID sQ metadata, then two MEDIAASSETS are created in Momentum that are children of the same Momentum TITLE.

With intra-zone cloning, the cloned clip will have the same clipGUID as the source.

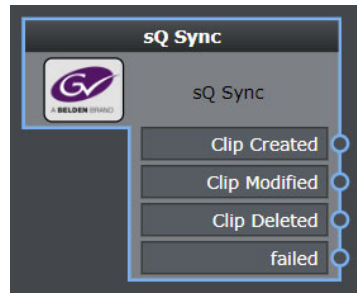


Fig. 7-134: sQ Sync Workflow Element

Element Settings Configuration

The sQ Sync workflow element resides in the Grass Valley folder of the Ingest group of elements and has the following settings:

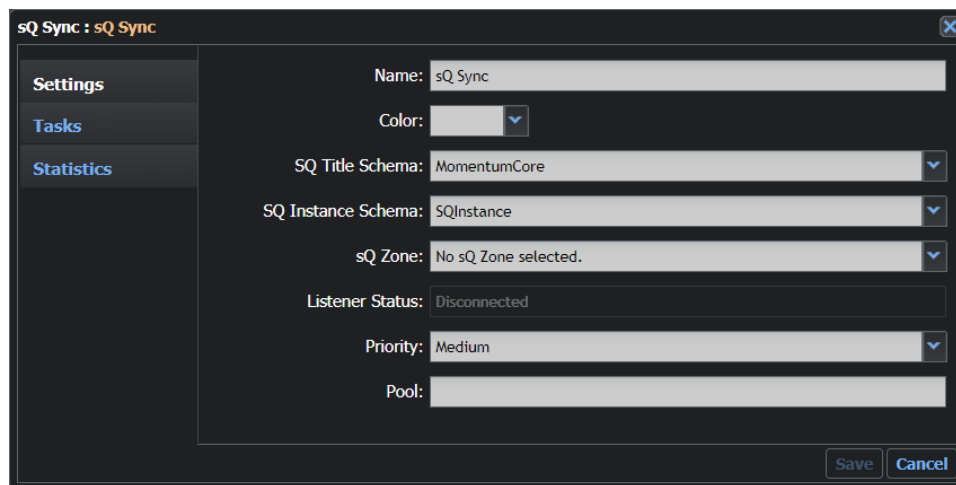


Fig. 7-135: sQ Sync Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
SQ Title Schema	TBA
SQ Instance Schema	TBA
sQ Zone	Target sQ Zone ID targeted by the sQ Sync workflow element.
Listener Status	Shows the current status of the sQ Sync element as to whether it is connected to (listening) or disconnected from (not listening) the sQ ISA Manager.

Option	Description
Priority	Sets the priority of the tasks created by this element to either: Low, Medium, High, Urgent or Immediate.
Pool	Sets the name of a pool associated with the element to balance the processing load.

The sQ Sync workflow element propagates a task, corresponding to an sQ event, through the appropriate output port:

- Clip Created
- Clip Modified
- Clip Deleted
- failed

XCache Receiver

The **XCache Receiver** workflow element manages the ingest of XCache messages. For an overview of how the element works, see the *Momentum Operator's Guide*.

Note: It is planned to deprecate the XCache Receiver workflow element from Momentum version 5.1. It is recommended to use the BXF Receiver functions in preference.

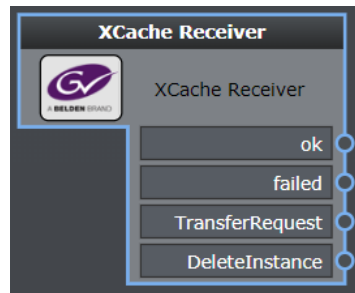


Fig. 7-136: XCache Receiver Workflow Element

Element Settings Configuration

The XCache Receiver workflow element resides in the Grass Valley folder of the Ingest group of elements and has the following settings:

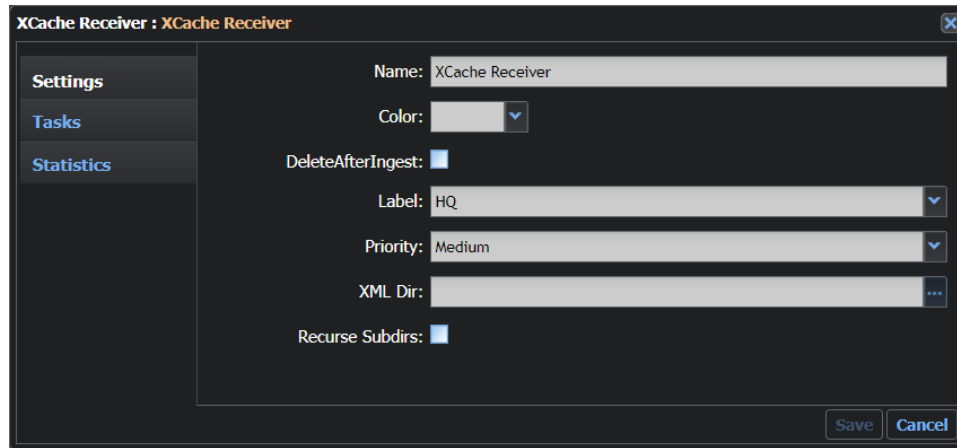


Fig. 7-137: XCache Receiver Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Delete After Ingest	Automatically deletes the original file once the ingest process is finished, if activated.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
Priority	Sets the priority of the tasks created by this element to either: Low, Medium, High, Urgent or Immediate.
XML Dir	Specifies the path of the folder to be monitored for the arrival of new XML messages.
Recurse Subdirs	Activates automatic monitoring of the subdirectories of the specified directory.

In addition to the standard ports, the XCache Receiver element includes the following output ports:

- TransferRequest
- DeleteInstance

Configuring the XCache Receiver

Note: It is planned to deprecate the XCache Receiver workflow element from Momentum version 5.1. It is recommended to use the BXF Receiver functions in preference.

To configure the XCache Receiver, you need to modify the file
C:\Mantrics\XCacheReceiverConfig.xml This file has the following structure:

```
<XCacheReceiverConfig>
  <syncOnStart>false</syncOnStart>
  <timeoutSec>3</timeoutSec>
  <retryCount>5</retryCount>
  <TransferRequestConfig>
    <completedXmlFolder></completedXmlFolder>
    <failedXmlFolder></failedXmlFolder>
    <RequestTypeMapping allow="false">
      <CatId/>
      <TypedefId/>
      <TypeId/>
    </RequestTypeMapping>
  </TransferRequestConfig>
  <DeleteInstanceConfig>
    <DeviceIdIgnore>true</DeviceIdIgnore>
    <completedXmlFolder>\\10.10.0.221\video\UsersArea\user\
    TEST_XML_XCACHE\completed</completedXmlFolder>
    <failedXmlFolder>\\10.10.0.221\video\UsersArea\user\
    TEST_XML_XCACHE\completed\Failed</failedXmlFolder>
  </DeleteInstanceConfig>
</XCacheReceiverConfig>
```

This section contains the following tags:

Option	Description
syncOnStart	Has two possible values: true or false. If set to true, when the service restarts, all the files in the source folder are considered to be new files and are analyzed.
timeoutSec	Set the time elapsed between two consecutive accesses to determine if the XML file is complete or still transferring.
retryCount	Set a number of maximum accesses to determine if the XML file is complete or still transferring.
TransferRequestConfig	Contains all the information required to manage the Transfer Request XML message:
completedXmlFolder	Specifies the folder where the XML files are copied after being processed successfully.
failedXmlFolder	Specifies the folder where the XML files are copied if they cannot be correctly processed.
RequestTypeMapping	The attribute Allow can be set to true or false and when set to true, activates the mapping of the type of the request to a specific item of metadata for the material.
CatId, TypedefId and TypeId	Specify the metadata to be mapped.
DeleteInstanceConfig	Contains the information required to manage the Delete XML message.

Option	Description
DeviceIdIgnore	Can be set to true or false and specifies if the DeviceId can be ignored.
completedXmlFolder	Specifies the directory where the XML files are copied after being processed successfully.
failedXmlFolder	Specifies the directory where the XML files are copied if they cannot be correctly processed.

XMLDB IF Query

The **XMLDB IF Query** workflow element is used to query the Morpheus database to check whether a material with a LONG_FILE_ID is present, using the XML DB IF adapter.

Note: It is recommended to use the workflow element BXF Query in preference to the XMLDB IF Query as it is planned to deprecate this element in Momentum version 5.1.

You can use this element to confirm, at an early point in a workflow, whether a media asset is already present in the Morpheus database, and if so, potentially bypassing the need to transform media.

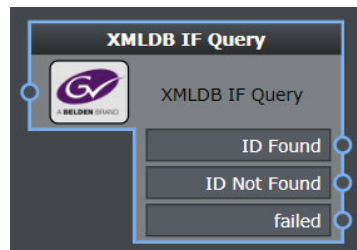


Fig. 7-138: XMLDB IF Query Element

Element Settings Configuration

The XMLDB IF Query workflow element resides in the Grass Valley folder of the Ingest group of elements and has the following settings:

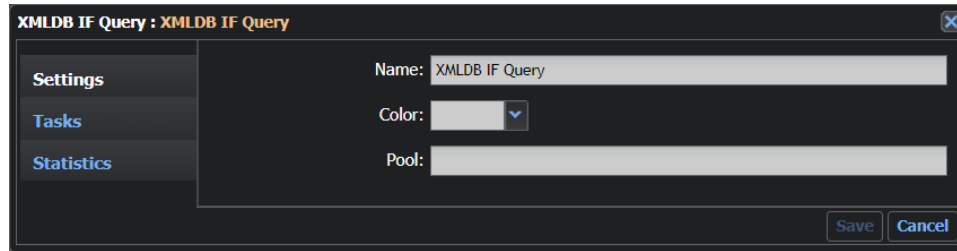


Fig. 7-139: XMLDB IF Query Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Pool	Sets the name of a pool associated with the element to balance the processing load.

The XMLDB IF Query element includes the following output ports:

- ID Found
- ID Not Found
- failed

Configuring XMLDB IF Query

Note: It is planned to deprecate the XMLDB IF Query workflow element from Momentum version 5.1. It is recommended to use the BXF Query functions in preference.

The XMLDB IF Query feature is used to query the MAPP database to check whether a material with a LONG_FILE_ID is present, using the XML DB IF adapter.

To configure the XMLDB IF Query, follow the rules and guidelines described for the Momentum Farm (see Configuring the Momentum Farm), then complete the setup with the specific configuration of the file `MantricsNode.xml` as follows:

Configuring XMLDB IF Query in MantricsNode.xml

The tag `<mldbifquery>` contains the following specific tags:

```
<morpheusIP>10.10.0.100</morpheusIP>
<morpheusPort>8000</morpheusPort>
```

These tags have the following functions:

- **morpheusIP:** Defines the IP address of the Morpheus server.

- **morpheusPort:** Defines the port used to connect to the Morpheus server.

Configuring Communication with Morpheus and Other Devices

The configuration file `ICEConfig.xml` enables Momentum to communicate with a Morpheus Payout Automation system and other devices in the payout environment using the Morpheus API.

To enable communication between Momentum, Morpheus and other devices in the Morpheus payout environment:

- 1 Open the configuration file `C:\Mantrics\IceConfig.xml` in a text editor.
- 2 Locate the section **<Host>** to configure parameter to enable communication with the Morpheus Payout Automation system using the Morpheus API:

```
<IceConfig xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <Host>https://ice-host:8081/</Host>
  <UserName>user</UserName>
  <Password>password</Password>
  <FakeStatus>>false</FakeStatus>
  <UseHTTPEAuthentication>>false</UseHTTPEAuthentication>
  <Devices> </Devices>
  <DualReview/>
</IceConfig>
```

These tags have the following functions:

- **Host:** Defines the Morpheus hostname and port.
- **UserName:** Defines the user name to logon to the Morpheus server.
- **Password:** Defines the password for the above user to logon to the Morpheus server.
- **FakeStatus:** Always set to **false**. Used to define the status of the ICE API.
- **UseHTTPEAuthentication:** Currently Momentum uses authentication by Cookie as default. When set to **true** enables basic HTTP Authentication rather than authentication by cookie (**false**)
- **Devices:** Defines additional devices in the Morpheus environment
- **DualReview:** Defines the media asset label pairs to enable the simultaneous baseband preview from two servers using the Morpheus API.

- 3 Locate the section **<Devices>** to configure additional devices in the Morpheus environment, for example the Harmonic Omneon MediaGrid, etc.

```
<Devices>
  <IceDevice>
    <System>SystemName</System>
    <Device>OMN\DEV</Device>
    <SendMediaFolder>>false</SendMediaFolder>
```

```
<RootFolder>\\storage\some\path</RootFolder>
<RoleName>ROLE_NAME</RoleName>
</IceDevice>
</Devices>
```

These tags have the following functions:

- **Devices:** Groups other devices used in the Morpheus playback environment.
- **IceDevice:** Defines each individual device in the Morpheus environment.
- **System:** Defines the system name used to communicate with the Morpheus API.
- **Device:** Defines the individual device name used to communicate with the Morpheus API.
- **SendMediaFolder:** Optional parameter, set to **true** (default) or **false**. When **true**, the REST API is called by sending the folder path together with the filename of the media to be played.
- **RootFolder:** Optional parameter to hide the device in the Baseband player drop-down if the selected media asset is not under this path, for example, media assets can be located in subfolders.
- **RoleName:** Optional parameter to hide the device in the Baseband player drop-down if the user has not been assigned the specified role.

- 4 Locate the section **<DualReview>** to configure the Media asset label pairs and enable the simultaneous baseband preview from two server ports using the Morpheus API, for example:

```
<DualReview>
  <Labels>
    <Label>HQ</Label>
    <Label>MXF</Label>
  </Labels>
  <Labels>
    <Label>DOM_AIR_A</Label>
    <Label>DOM_AIR_B</Label>
  </Labels>
  <Labels>
    <Label>INT_AIR_A</Label>
    <Label>INT_AIR_B</Label>
  </Labels>
</DualReview>
```

- 5 Save your changes to `ICEConfig.xml`.

Configuring Dual Review Using the Morpheus API

The Momentum dual-review function enables you to perform a frame-to-frame comparison of an MXF media asset on one Omneon server port with an HQ media asset on another Omneon server port in the Momentum **Logger** page.

To activate dual review of material files:

- 1 Open the configuration file `C:\Mantrics\IceConfig.xml` in a text editor.
- 2 Configure the `MediaAsset` label pairs in `C:\Mantrics\IceConfig.xml` in the section **<DualReview>**. For example:

```
<DualReview>
  <Labels>
    <Label>HQ</Label>
    <Label>MXF</Label>
  </Labels>
  <Labels>
    <Label>DOM_AIR_A</Label>
    <Label>DOM_AIR_B</Label>
  </Labels>
  <Labels>
    <Label>INT_AIR_A</Label>
    <Label>INT_AIR_B</Label>
  </Labels>
</DualReview>
```

These tags have the following functions:

- **DualReview:** Groups other devices used in the Morpheus playback environment.
- **Labels:** Defines each individual device in the Morpheus environment.
- **Label:** Defines the system name used to communicate with the Morpheus API.

- 3 Set the name of a **UserAction** workflow element to start with the prefix: **_Dual**
- 4 Save your changes to `ICEConfig.xml`.

When using the dual review function, it is important to note the following points:

- When a user accepts a dual review task in the **ToDo** page, they will be redirected to the **Logger** page.
- When the task has been previously switched to a specific Media Asset, the system will select the other media asset according to the configuration defined in `ICEConfig.xml`
- The user is then presented a dialog to select the specific SDI device for the desired label, see Figure 7-140:

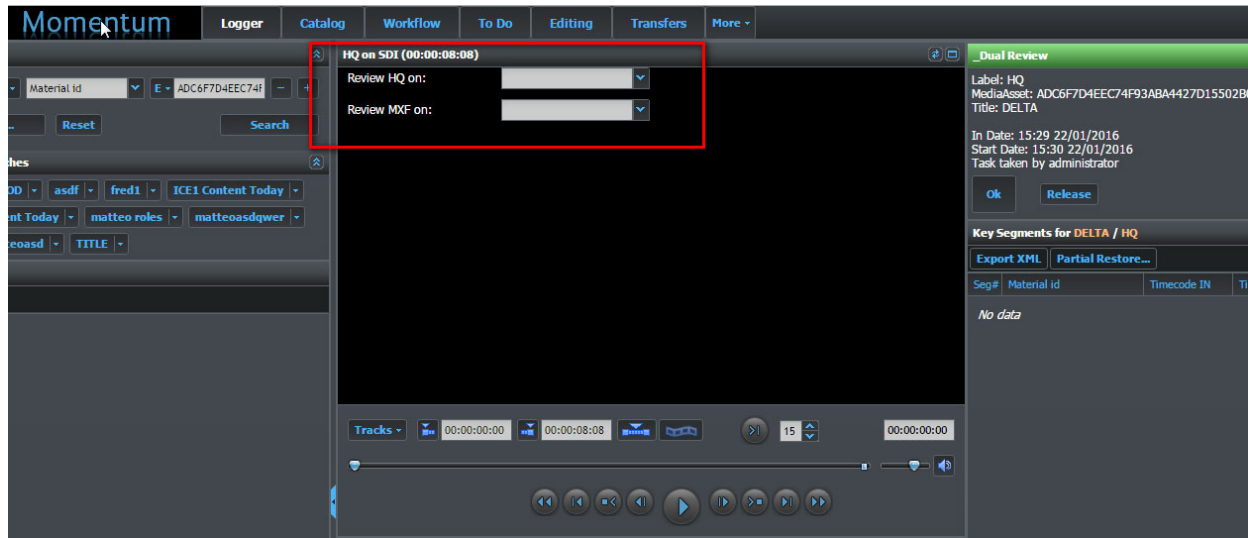


Fig. 7-140: Selecting the SDI Device for Dual Review in the Logger Page

- If the **<DualReview>** section of `ICEconfig.xml` is incorrectly configured, the user is prompted to contact the Momentum administrator:

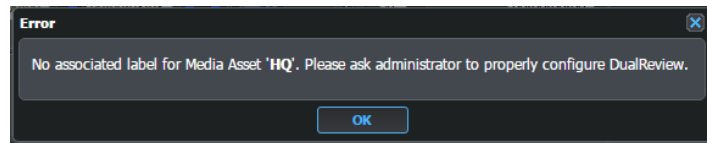


Fig. 7-141: Misconfiguration of the Dual Review Function

- If the current material has no MediaAsset with the label specified in the Labels set, the user is warned that the other MediaAsset could not be found.

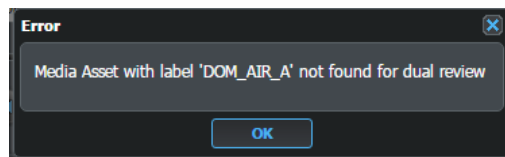


Fig. 7-142: Media Asset Not Found for Dual Review

Wait for File

The **Wait For File** workflow element enables you to insert a watchfolder function into a workflow as an intermediate workflow step so that Momentum pauses the processing of a task until an expected file arrives in the target Watch directory. This enables you to replace a MediaAsset or integrate a new MediaAsset into an existing MediaAsset.

When a Title arrives at a **Wait for file** element, you can configure the element to act in a similar way to a Watchfolder element, by monitoring a folder for a file with a specific naming convention (e.g. **{MATERIALID}-fixed.mxf**). If the Label parameter is the same as the input MediaAsset then it can replace the existing MediaAsset, alternatively, it could add the new MediaAsset to the Title.

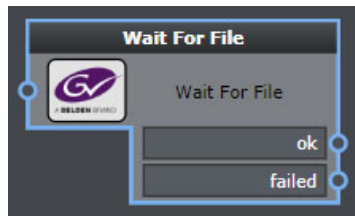


Fig. 7-143: Wait for File Element

Element Settings Configuration

The Wait for File workflow element resides in the Ingest group of elements and has the following settings:

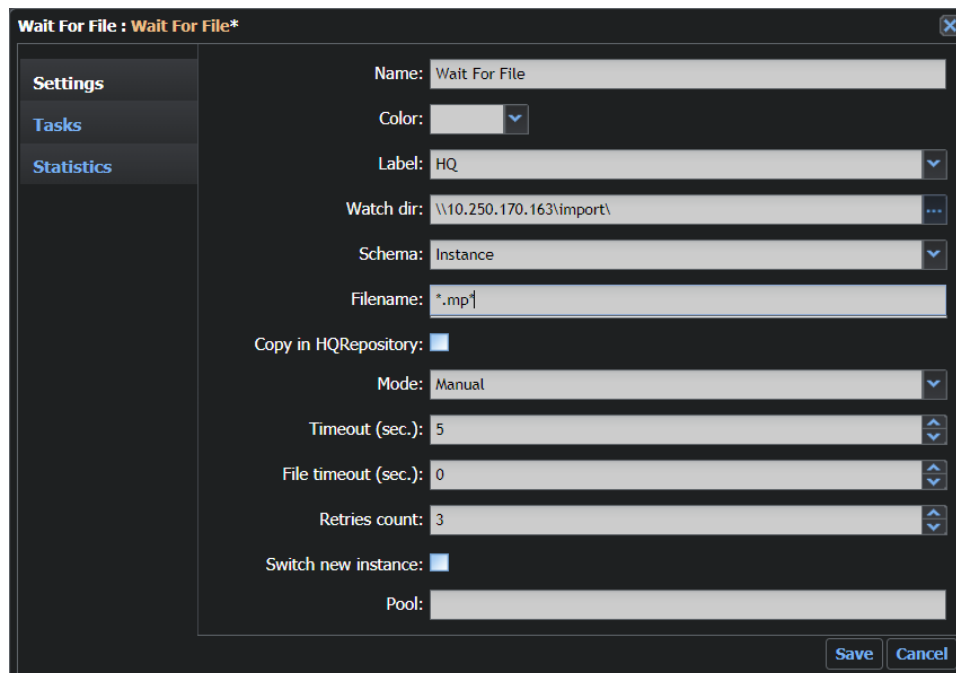


Fig. 7-144: Wait for File Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label of the instance. Available values are contained in the file: InstanceLabelConfig.xml.
Watch dir	Sets the path of the directory to be monitored for the arrival of new files.

Option	Description
Schema	Sets the category of metadata that can be applied to the material from: AudioInstance, DIVAInstance, ImageInstance, Instance, Media, MomentumInstance, SocialInstance, SQLInstance, SubtitleInstance.
Filename	Sets the name of the MediaAsset file (or the name format, if using variables) and the file extension.
Copy in HQ Repository	When enabled, saves a copy of the ingested file to the default directory specified in the HQ Repository field.
HQ Repository	Displayed only when Copy in HQ Repository is selected. Sets the default location to which the received files are copied, identifying them as High Quality.
Mode	Defines how to manage the received files. You can select either Manual to manage the file through a manual process, or FTP to send the received file to another server using FTP.
FTP host	Displayed only when you select Mode FTP . Sets the IP address of the target FTP server.
FTP user	Displayed only when you select Mode FTP . Sets the user name for the FTP process.
FTP password	Displayed only when you select Mode FTP . Sets the password for the FTP process.
FTP polling (sec)	Displayed only when you select Mode FTP . Sets the FTP polling rate in seconds.
Timeout (sec)	The Timeout parameter is linked to the Retries Count parameter and is the time Momentum waits to confirm that the transfer of the monitored file has completed. For example, if you set the Timeout to five seconds and the Retries Count to three, Momentum will check the size of the file three times to confirm that there is no change in size, and the interval between each check will be five seconds. If the file size does not change during these attempts, Momentum concludes that the transfer of the monitored file is complete.
File timeout (sec)	A configurable timeout to set the delay you want to wait for a file to appear in the watchfolder. For example, if set to 60 seconds, when the task progresses to processing status, Momentum waits 60 seconds for the completed file; if this time is exceeded, the task exits through the failed port and generates a timeout overcome message. If the File timeout is set to zero, there is no limit to the length of time that Momentum would wait for the file to appear.
Retries count	Sets a number of attempts to verify whether a media file is available.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).

Option	Description
DeleteAfterIngest	Displayed only when you select Copy in HQ Repository . Deletes the original file automatically on completion of the receipt process, if selected.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Watchfolder Workflow Elements

Overview

The Watchfolder server and its associated workflow elements **Watchfolder** and **Watchfolder FTP** are the major components employed by Momentum to ingest material into the system from external sources.

You will need to complete the following stages to ensure that your watchfolders are configured and running correctly:

- Configure the Momentum Server and Node components to activate the Watchfolder functions in:
 - `MantricsServer.xml`
 - `MantricsNode.xml`
- Define the ingest configuration for media asset and auxiliary files in:
 - `MantricsConfig.xml`
- Configure the Watchfolder templates using the Momentum **Admin** page.
 - Select: **Admin > Watch Folders**
 - Creates Watchfolder templates in `C:\Mantrics\WatchfolderTemplates`
 - Default Watchfolder template: `WatchfolderDefault.xml`
 - Other customized Watchfolder templates saved in this folder under different names.
- Configure the settings of the individual Watchfolder workflow elements and link to the target Watchfolder template.
- Define the output ports of the Watchfolder workflow element and assign the ports for ingest, re-ingest and update in the Watchfolder template.
- Make sure that the Watchfolder service is running on the Windows application server.
 - When the basic configuration is complete, navigate to the window **Control Panel > System and Security > Administrative Tools > Services** and start the following Momentum manual service: **Momentum WatchFolder**

XML Configuration Files with Watchfolder Components

The following Momentum XML files include elements that must be defined for the correct functioning of the Watchfolders. The XML files are available in the default installation folders:

- C:\Mantrics
- C:\Mantrics\WatchfolderTemplates

XML File	Description
Folder: C:\Mantrics	
MantricsNode.xml	Defines the node-side parameters to allow the watchfolder service to communicate with connected Momentum nodes.
MantricsServer.xml	Defines the server-side parameters to allow the watchfolder service to communicate with the Momentum server.
MantricsConfig.xml	Defines the fundamental ingest criteria (paths, file extensions, etc.) for media and auxiliary files.
WatchfolderDefault.xml Or other user-defined name.	Watchfolder template defines the files, processed metadata and output port usage for the watchfolder element to which the template is assigned. In addition, defines the synchronization parameters, and Instance configurations.

Configuring the WatchFolder Server and Node Components

The Watchfolder Server is the key component for the ingest of material files into Momentum.

Before configuring the WatchFolder Server template XML files, you must first configure the WatchFolder Server **<start>** sections in both configuration files: `MantricsServer.xml` and `MantricsNode.xml` used to start the server and node components.

Watchfolder Configuration in MantricsServer.xml

In the file `MantricsServer.xml` file, locate the **<start>** subsection under the **<wfc>** section and set the active tag to **true** as shown below:

```
<start>
  <server port="8136">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <TitleDeletionOnReIngest>false</TitleDeletionOnReIngest>
</start>
```

These elements set the server-side communications for the Watchfolder server.

Watchfolder Configuration in MantricsNode.xml

In the file `MantricsNode.xml`, locate the **<start>** subsection under the **<workflowNodeConfig>** section and set the active tag to **true** as shown below:

```
<start slotCount="50">
  <active>true</active>
  <server port="8136">127.0.0.1</server>
  <node port="8137">127.0.0.1</node>
```

```
<pool />  
</start>
```

These elements set the node-side communications for the Watchfolder server.

Watchfolder

The **Watchfolder** workflow element enables you to define how Momentum monitors for incoming files to ingest. When a Watchfolder element is running, it waits for a period of time (usually a few seconds) to ensure that the incoming file has transferred completely.

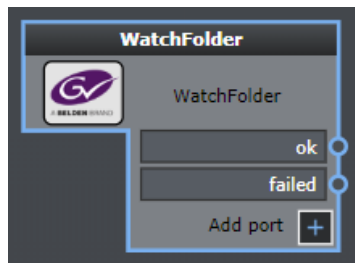


Fig. 7-145: Watchfolder Element

Element Settings Configuration

The Watchfolder workflow element resides in the Ingest group of elements and has the following settings:

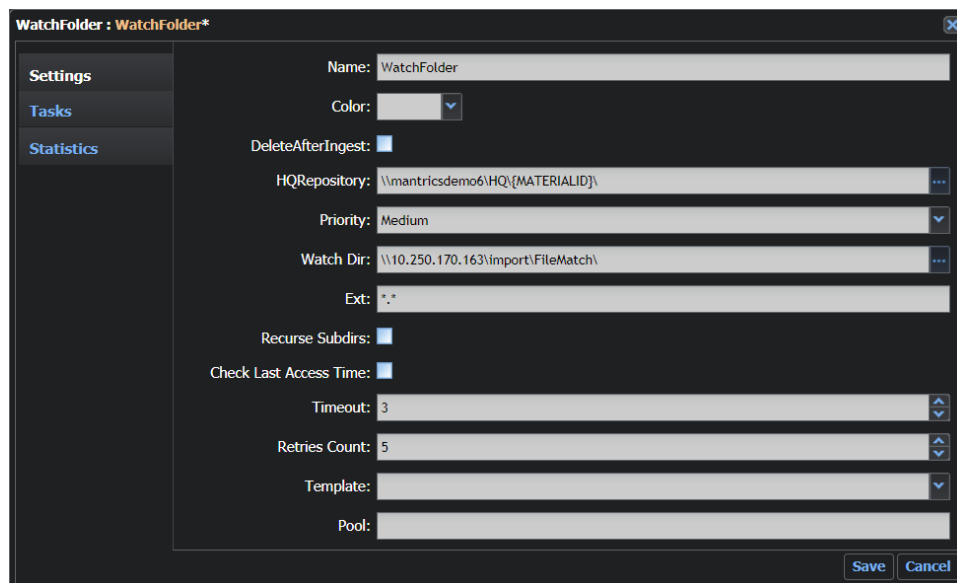


Fig. 7-146: Watchfolder Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Delete After Ingest	Automatically deletes the original file once the ingest process is finished, if activated.
HQ Repository	Sets the default repository to which the ingested files are copied, identifying them as High Quality. This setting is used only when the tag <HQRepository> in the <File> section of the Watchfolder Template is left empty.
Priority	Sets the priority of the tasks created by this element to either: Low, Medium, High, Urgent or Immediate.
Watch Dir	Sets the path of the directory to be monitored for the arrival of new files. You can enter any UNC path into this field. Alternatively, use the browse button to select from a list of pre-configured target watch directories. You can configure the default list of target watch directories in the configuration file: <code>MantricsConfig.xml</code> in the section <IngestRootDirs>
Ext	Sets a filter on the file extension. Special characters are available, for example, *.mov . Multiple values can be typed using a comma to separate them, for example, *.mov,*.avi . Do not leave a space between the commas.
Recurse Subdirs	Activates the automatic monitoring of the subdirectories under the specified directory.
Check Last Access Time	Default option to stop the watchfolder element from checking the time at which the target Samba watchfolder was last accessed for the presence of an inbound file (the default setting is true to check the last access time of the target folder.) Set to false to switch off checking the last access time of a Samba watchfolder.
Timeout	Defines the number of seconds after which a new attempt is made to determine whether the transfer of a file into a watchfolder is finished and ready for ingest.
Retries Count	Sets the number of attempts to verify whether a media file is available in a watchfolder.
Template	Select the target watchfolder template assigned to the element. The templates are stored by default in: <code>C:\Mantrics\WatchfolderTemplates</code>
Pool	Sets the name of a pool associated with the element to balance the processing load.

The output ports of the **Watchfolder** workflow element are configured in the target Watchfolder template.

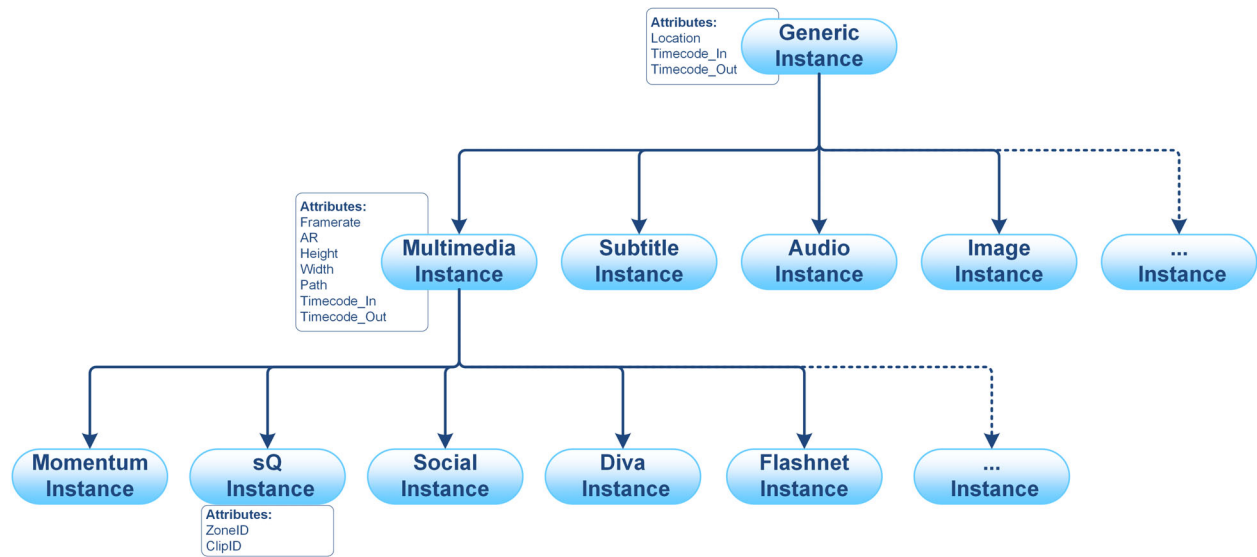


Fig. 7-147: Overview of Instance Metadata Schema

WatchFolder FTP

The **Watchfolder FTP** workflow element enables you to define a directory that Momentum will monitor for incoming files using the FTP protocol.

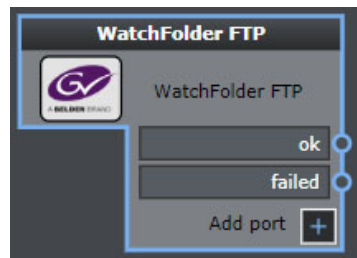


Fig. 7-148: Watchfolder FTP Element

Element Settings Configuration

The Watchfolder FTP workflow element resides in the Ingest group of elements and has the following settings:

Fig. 7-149: Watchfolder FTP Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Delete After Ingest	Automatically deletes the original file once the ingest process is finished, if activated.
HQRepository	Sets the default repository to which the ingested files are copied, identifying them as High Quality. This setting is used only when the tag <HQRepository> in the <File> section of the Watchfolder Template is left empty.
Priority	Sets the priority of the tasks created by this element to either: Low, Medium, High, Urgent or Immediate.
Host	Identifies the FTP host using its IP address.
User	Sets the user name for logging on to the FTP host server.
Password	Sets the password for logging on to the FTP host server.
Watch Dir	Sets the path of the directory to be monitored for the arrival of new files. You can enter any UNC path into this field.
Ext	Sets a filter on the file extension.

Option	Description
Recurse Subdirs	Activates the automatic monitoring of the subdirectories under the specified directory.
Polling Time (ms)	Sets the interval, in milliseconds, between two access attempts when polling a target FTP Watchfolder directory. For example, 180000 (three minutes).
Template	Select the target watchfolder template assigned to the element. The templates are stored by default in: C:\Mantrics\WatchfolderTemplates
Pool	Sets the name of a pool associated with the element to balance the processing load.

The output ports of the **Watchfolder FTP** workflow element are configured in the target Watchfolder template.



Adding Ports to a Watchfolder Element

The standard watchfolder workflow element includes two ports by default **ok** and **failed**, see Figure 7-150.



Fig. 7-150: Watchfolder Workflow Element Ports

Add a new port to the Watchfolder element as follows:

- 1 Click Add port: 
This adds a new port with the default port name **label**.
- 2 Hover the cursor over the new port to change the port label and click: , see Figure 7-151.

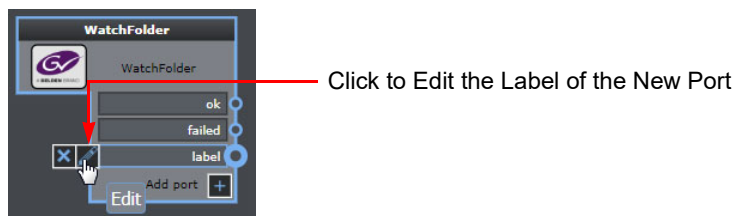


Fig. 7-151: Relabeling a New Watchfolder Port

This opens the **Edit port** dialog, see Figure 7-152.



Fig. 7-152: Watchfolder Port Edit Port Dialog

- 3 Enter an appropriate label, describing the function of the port in the **Label** field.
- 4 If necessary, use the **Scope** drop-down menu to set conditions on the task that can be output by way of the new port.
The drop-down opens a search dialog that enables you to define a query, or use a saved query, to restrict the scope of the new port. For example, you might set the scope of the port to allow only the ingest of individual audio files, or captions, or enable XML sidecar data to update existing metadata.
- 5 Click **Ok** to save your port changes to the Watchfolder workflow element.

Modifying the Security Properties of the Configuration File

Momentum requires that its processes have free access to the configuration files. To avoid any access problems, the Security Properties of each file can be modified as follows:

- 1 At the end of the configuration procedure, navigate to **C:\Mantrics**.
- 2 Right click the following file and open the **Properties** panel:
WatchFolderServerConfig.xml
- 3 Select the **Security** tab.
- 4 From the **Group or User names** list, select **Users**.
- 5 Click **Edit**.
- 6 From the Group or User name list, select **Users**.
- 7 In the Permission for Users section, select the **Full Control Allow** option.
- 8 Click Apply, then **OK** and **OK** again.

Defining the Ingest Configuration in MantricsConfig

The details of the type and source of files that Momentum is able to ingest are defined in the file: MantricsConfig.xml.

To define the Ingest parameters for media asset files, open MantricsConfig.xml in a text editor and locate the section **<IngestConfig>**:

```
<IngestConfig showSystemFiles="false" showHiddenFiles="false">
  <IngestTabs>
    <RemoteFile>true</RemoteFile>
    <RemoteDir>true</RemoteDir>
    <CartMachine>false</CartMachine>
    <Tape>false</Tape>
    <Live>false</Live>
```

Configuring the Ingest Elements

Defining the Ingest Configuration in MantricsConfig

```

        <Delayed>>false</Delayed>
    </IngestTabs>
    <VideoFilePattern>
        <Ext>*. *</Ext>
    </VideoFilePattern>
    <AudioFilePattern>
        <Ext>*. *</Ext>
    </AudioFilePattern>
    <IgnoreFileList>
        <FileName>Thumbs.db</FileName>
    </IgnoreFileList>
    <IngestRootDirs>
        <IngestRootDir>\\ingest_hostname\TestMaterials
    </IngestRootDir>
    </IngestRootDirs>
</IngestConfig>

```

These tags enable you to specify the general behavior of the watchfolder process and have the following functions:

Element	Description
IngestConfig	Groups key parameters for the ingest of media files, including permitted sources, filename patterns, root directories, etc. Includes the attributes: <code>showSystemFiles</code> (true or false) and <code>showHiddenFiles</code> (true or false).
IngestTabs	Groups possible permitted ingest sources.
RemoteFile	Allow/disallow ingest of remote files (true or false).
RemoteDir	Allow/disallow ingest from a remote directory (true or false).
CartMachine	Allow/disallow ingest from Cart (cartridge) Machine (true or false).
Tape	Allow/disallow ingest from Tape (true or false).
Live	Allow/disallow ingest in real-time (true or false).
Delayed	Allow/disallow delayed ingest (true or false).
VideoFilePattern	Defines a filter on video filenames that can be ingested, for example <code><ext>*. *</ext></code> or <code><ext>*.mxf</ext></code> .
AudioFilePattern	Defines a filter on audio filenames that can be ingested, for example <code><ext>*. *</ext></code> .
IgnoreFileList	Groups files to exclude from ingest.
FileName:	Defines each individual file to be excluded from ingest, for example: <code><FileName>Thumbs.db</FileName></code>
IngestRootDirs	Groups root directories to use as a source of media files to ingest into Momentum.
IngestRootDir	Defines a root directory as a source of media files for ingest. You can enter one or more UNC paths as required. For example: <code><IngestRootDir>\\<ingest_hostname>\TestMaterial</ingestRootDir></code> .

To define the Ingest parameters for auxiliary files (non-media files, e.g., TXT, PDF, etc.) open `MantricsConfig.xml` and locate the section **<AuxConfig>**:

```
<AuxConfig showSystemFiles="false" showHiddenFiles="false">
  <IngestRootDirs>
    <IngestRootDir>\\ingest_hostname\TestMaterials
  </IngestRootDir>
</IngestRootDirs>
<IgnoreFileList>
  <FileName>Thumbs.db</FileName>
</IgnoreFileList>
</AuxConfig>
.
.
.
<AuxiliaryFilesRepository>C:\FILES\Auxiliary\input
</AuxiliaryFilesRepository>
```

These tags enable you to specify the general behavior of the watchfolder process and have the following functions:

Element	Description
AuxConfig	Groups key parameters for the ingest of auxiliary (non-media) files, including root directories, etc. Includes the attributes: <code>showSystemFiles</code> (true or false) and <code>showHiddenfiles</code> (true or false).
IngestRootDirs	Groups root directories to use as a source of auxiliary files for ingest.
IngestRootDir	Groups root directories to use as a source of auxiliary files for ingest. Defines a root directory as a source of auxiliary files for ingest. You can enter one or more UNC paths as required. For example: <code><IngestRootDir>\\<ingest_hostname>\TestMaterial</IngestRootDir></code> .
IgnoreFileList	Groups auxiliary files to exclude from ingest.
FileName	Defines each individual file to be excluded from ingest, for example: <code><FileName>Thumbs.db</FileName></code>
AuxiliaryFilesRepository	Defines a target folder in which Momentum saves any uploaded auxiliary files.

Using the Watchfolder Configuration Tool

Each Watchfolder workflow element is associated with a watchfolder template that defines the generic settings, file rules, title and instance parameters and output ports used by the Watchfolder to ingest media asset and auxiliary files. Momentum provides an **Admin** page to configure the Watchfolder templates, removing the need to open and manually edit the default XML watchfolder template directly.

Once you have configured your desired watchfolder templates, you can assign the appropriate template to a Watchfolder workflow element when defining the settings for that element, see [Watchfolder Workflow Elements](#), on page 194.

Creating a New Watchfolder Template

You can configure the Watchfolder template in the **Watch Folders** page of the Momentum **Admin** menu as follows:

- 1 Select: **More > Admin > Watch Folders**

The Watchfolder Configuration page comprises two panes (see Figure 7-153) as follows:

- the **Templates** pane lists all watchfolder templates currently available in the folder:
C:\Mantrics\WatchfolderTemplates
- the **Configuration** pane on the right enables you to modify and save a selected watchfolder template.

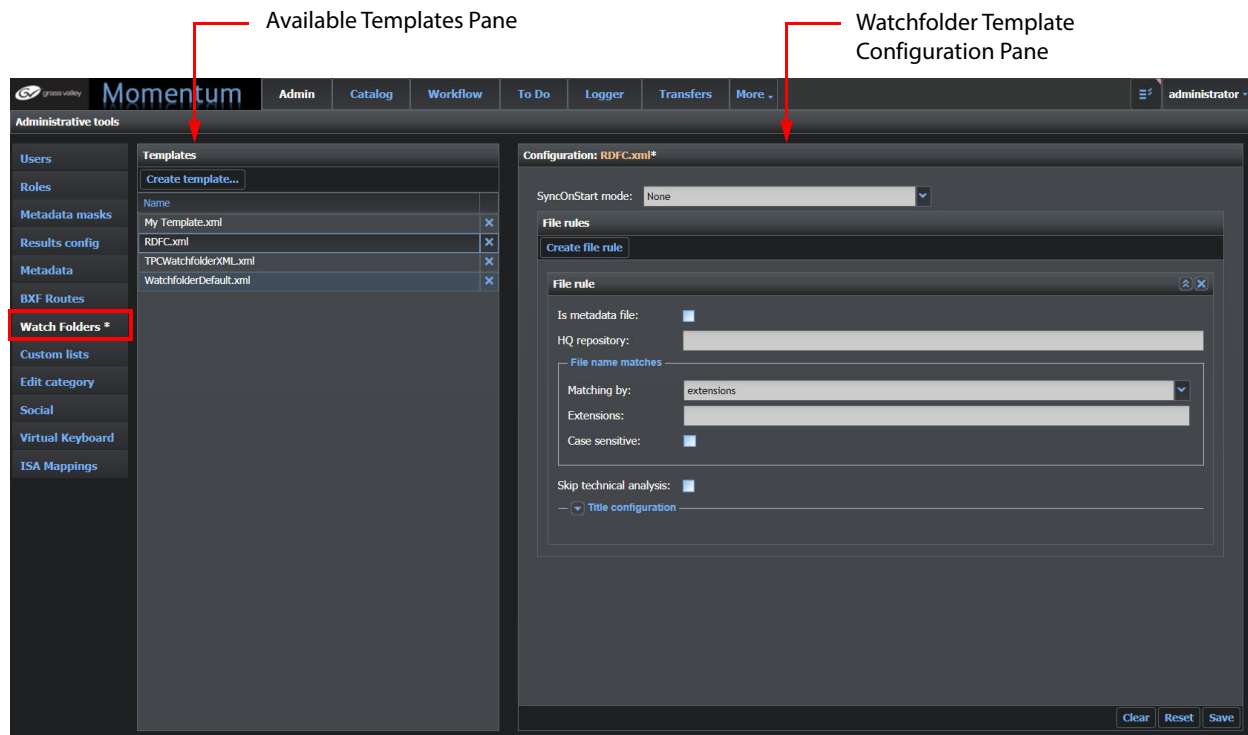


Fig. 7-153: Watchfolder Template Configuration

- 2 Either click one of the existing templates in the **Templates** pane to make changes to the configuration or click **createTemplate...** to create a new watchfolder template.
- 3 If you chose to create a new template, enter a name for the template (without a file extension) in the **Name** field of the **Create template** dialog box, then click **OK**, see Figure 7-154:

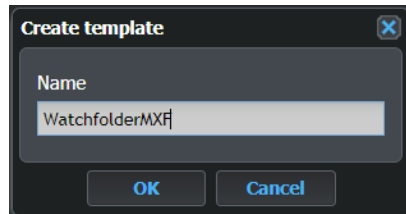


Fig. 7-154: Create Watchfolder Template Dialog

This action creates a minimally configured watchfolder XML template in the folder:

C:\Mantrics\WatchfolderTemplates

The newly created template contains the following basic elements:

```
<?xml version="1.0" encoding="UTF-16"?>
- <WatchfolderTemplate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  - <SyncOnStart>
    <Mode>None</Mode>
    - <Offset>
      <Days>0</Days>
      <Hours>0</Hours>
      <Minutes>0</Minutes>
    </Offset>
  </SyncOnStart>
  <Files/>
</WatchfolderTemplate>
```

Fig. 7-155: XML Content of Basic Watchfolder Template - Watchfolder Template Dialog

- 4 Continue to add the various watchfolder parameters in the **Watch Folders** page of the Momentum **Admin** section.

Continue as you would for modifying an existing template as described in [Modifying an Existing Watchfolder Template](#), on page 205.

- 5 On completion, click **Save** to save your watchfolder settings to the Momentum database.

During the save process, any invalid fields are highlighted in red if they fail the validation checks and your changes are not saved. Momentum will focus on the invalid field or fields, which you will need to correct and then re-save the template.

Modifying an Existing Watchfolder Template

Modify an existing Watchfolder template in the **Watch Folders** page of the Momentum **Admin** menu as follows:

- 1 Select: **More > Admin > Watch Folders**
- 2 Select the template to modify from the list of available templates in the **Templates** pane.

This loads the current configuration of the template into the template **Configuration** pane, see Figure 7-156.

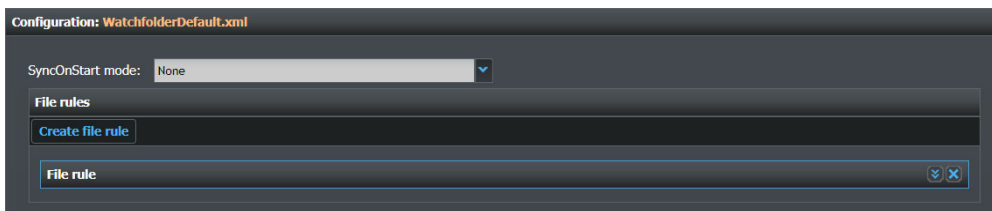


Fig. 7-156: Watchfolder Template Configuration Initial Dialog

- 3 Modify the watchfolder template settings according to the details in the table on the following page.

A schematic overview of the various sections in the configuration dialog is shown in Figure 7-166 on [page 219](#).

Note: The watchfolder mode is pre-configured for Manual checking.

- 4 On completion, click **Save** to save the watchfolder template changes to the Momentum database.
 During the save process, any invalid fields are highlighted in red if they fail the validation checks and your changes are not saved. Momentum will focus on the invalid field or fields, which you will need to correct and then re-save the template.

Parameter	Options	Description
Watchfolder Generic Settings (See Figure 7-157)		
SyncOnStart mode	everything	Synchronizes the content of the watchfolders on starting the watchfolder service to prevent the loss of files that might become available when the watchfolder service is not running. This ensures that any files added to the watchfolder during the period that the service was inactive are considered as new and are re-ingested.
	None	Will not synchronize the watchfolder on start-up or restart.
	specificCheck	Set an offset for how far back in time the SyncOnStart function should check the watchfolder on start-up or re-start (in days, hours or minutes).
Offset	Days, Hours, Minutes	Active when SyncOnStart mode is set to specificCheck . Defines how far back in time the SyncOnStart function checks the source material folder when the watchfolder service is started or restarted.
Watchfolder File Rule > Generic Settings (See Figure 7-158)		

Parameter	Options	Description
File rule section	N/A	Section to define a list of rules, with each file rule defining the type of file or files that can be processed by the watchfolder element to which the template is assigned. Click Create file rule to add more file rules. For example, you might set one file rule to match MOV files, one for MP4 files, another for MXF files and so on.
Is metadata file	True or false (default)	Specifies whether the expected target file is a media asset file (false (unselected)) or is a metadata-only, XML sidecar file (true (selected)). When set to true , displays the xPath field in the Title configuration section, and the Instance Segmentation sections, see below.
HQ repository	Text string UNC Path to HQ repository	Option to override the default HQ Repository if defined in the Settings dialog of a Watchfolder workflow element. In every File rule section of the watchfolder template this field specifies the HQ repository related to the files processed by the specific section of the template. This means that the HQRepository specified in the Settings of the watchfolder element is a default repository and consequently it is used only if the HQ repository field in the template is empty.
File name matches Subsection	N/A	Subsection defining attributes to match the target filename either according to a regular expression or to a file extension / extensions.
• Matching by	extensions (default) regular expression	Match the incoming file by file extension. Match the incoming file by regular expression.
• Regular expression	Regular expression text string	Displayed only when the Matching by field is set to regular expression . Defines a regular expression used to match files to ingest using this template. For example: <code>\.(wmf)\$, \w+_w{2}\.mxf</code> , etc.
• Extensions	Text string	Displayed only when the Matching by field is set to extensions . Defines a list of file extensions, separated by commas, used to match files to ingest using this template. For example: <code>.wmf, .mxf</code> ,
• Case sensitive	True or false (default)	Specifies the case-sensitivity of the regular expression. If set to true , the same result is obtained using the regular expression: <code>'![Mm][Xx][Ff]'</code>

Parameter	Options	Description
Skip technical analysis	True or false (default)	Attribute to ingest generic files but skip the technical analysis. If set to true , the watchfolder will not perform a basic information check on the target file.

Watchfolder File Rule > Title Configuration > Generic Settings (See Figure 7-159)

Schema	Timeline, Keysegment, MaterialInfo, Project, Basicmetadata, Media, AudioTrack, Delivery, MomentumInstance, Sport, MomentumCore, Movie, Promo, Commercial, Junction, Programme, SubtitleInstance, SQInstance, DivalInstance, SocialInstance, AudiolInstance, ImageInstance, FlashnetInstance	Sets the category of metadata that the Watchfolder can apply to the ingested material on Title creation. The default Title schema is Basicmetadata .
Title ID Subsection	N/A	Section to specify or generate an identifier (ID) for the Title created on ingest, using the following attributes:
File name rule	create new GUID (default)	Rule to create a new GUID as the Title ID on ingest.
	equals file name	Rule to create a Title ID that is the same as the ingested file name.
	apply regular expression	Rule to create a Title ID based on a regular expression.
Regular expression	Regular expression text string Default: ([^\+]).w+	Displayed only when the File name rule field is set to apply regular expression . Defines a regular expression to generate the Title ID from the original filename and extension. You can match the regular expression to the Title filename and generate the TitleID using tokens. For example, you might use the expression " (\w+)(\w{2})\mxf " and assign the tokens (\w+) and (\w{2}) to \$1 and \$2 respectively to generate the TitleID.
Replace	Default: \$1	Displayed only when the File name rule field is set to apply regular expression . Specify any variables to which tokens in the regular expression are assigned to replace elements in the Title ID.

Parameter	Options	Description
Case	as original upper case (default) lower case	Displayed only when the File name rule field is set to apply regular expression or equals file name . Defines whether the case of the regular expression is significant. Select as original to ignore the case and use the case in the source string. Alternatively, set to either upper case or lower case as required.
xPath (Metadata Only Files)	Text string; XPath	Displayed only when the Is metadata file checkbox is set to true (checked). Defines the root XPath of the Title metadata. For example: //BaseMetadata/Media/Titles
Delete if reingested	True or false (default)	Deletes a Title if it is re-ingested. If set to false , only the instance and proxy are deleted on a re-ingest. If set to true , the existing Title, all Instances and proxies, thumbs, icons, sidecar XML and key segments are deleted before the new Title is re-ingested.

Watchfolder File Rule > Title Configuration > Title Metadata (See Figure 7-160 and Figure 7-161)

Title metadata Subsection	N/A	Section to define a list of metadata associated with the ingested Title.
Metadata value Subsection	N/A	Click Add metadata value to add list of metadata to the ingested Title. You can add as many items of metadata as required using the available fields.
Metadata ID	Drop-down menu.	Defines a metadata ID to match, for example: "Core.Description" or "XYZ.SOM"
Use XPath (Metadata Only Files)	True or false (default)	Only available when Is metadata file is set to true . Specifies whether to use the XPath of the metadata in the source file. When set to true , uses the XPath of the metadata in the source file
Value	Text string	Defines a value for the metadata. For example: {Instance/Core.Description}
Default (Metadata Only Files)	Text string	Only available when Is metadata file is set to true . Defines a default value for the metadata. For example: HasNoMetadata

Watchfolder File Rule > Title Configuration > Title Segmentation (Metadata Sidecar Files Only)
(see Figure 7-162)

Segmentation Subsection	N/A	Section to define segmentation metadata supplied in metadata-only sidecar files.
Segment XPath	Text string; XPath	Defines the root XPath specifying the keysegment metadata. For example: // metadata/tech/tcodes/segments/segment

Parameter	Options	Description
Id pattern	Text string; expression	Defines the keysegment ID naming pattern, for example: {MATERIALID}-##
Create thumbnail	True or false (default)	When set to true , generates a thumbnail for the keysegment.
SOM XPath	Text string; XPath	Defines the XPath specifying the start of media (SOM) metadata, the timecode at which to start a keysegment. For example: ./segmentSOM
Duration XPath	Text string; XPath	Defines the XPath specifying the duration metadata for the keysegment. For example: ./segmentDuration

Watchfolder File Rule > Title Configuration > Title Segmentation > Segment metadata (Metadata Sidecar Files Only) (see Figure 7-162)

Metadata value	N/A	Click Add metadata value to define a list of segment metadata. You can add as many items of metadata as required using the available fields.
Metadata ID	Drop-down menu. The values are loaded according to the Schema value selected in the Title Configuration section.	Defines a metadata ID to match, for example: Title, Description, Timecode IN, MORPHEUS_ID , etc.
Use XPath	True or false (default)	Specifies whether to use the XPath of the metadata in the target file (set true or false .)
Value	Text string	Defines the metadata value, which can be an XPath.
Default	Text string	Defines a default value for the metadata.

Watchfolder File Rule > Title Configuration > Title Behaviours (See Figure 7-163)

Behaviours Subsection	N/A	Section to define the behavior of the ingested Title.
Allows update	True or false (default)	When set to true (default), allows the existing instance to be updated by the ingested Title.
Allows reingest	True or false (default)	When set to true (default), allows deletion of the existing Title and re-ingest of the file.
Is update if	Text string; expression	Defines an additional search to assess whether the Title is to be updated or re-ingested. For example: Core.Description='HasNoMetadata'

Watchfolder File Rule > Title Configuration > Title Ports (See Figure 7-163)

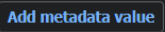
Ports Subsection	N/A	Section to define the watchfolder ports for different ingest results.
Ingest port	Text string	Defines the output port for successful ingest of a Title.
Reingest port	Text string	Defines the output port for re-ingest of a Title.

Parameter	Options	Description
Update port	Text string	Defines the output port for successful update of a Title.
Watchfolder File Rule > Title Configuration > Instance Rules (See Figure 7-164)		
Instance rules Subsection	N/A	This section enables you to define an association between material named using certain rules and specific metadata schema. The process can use one or more regular expressions to identify and select a subgroup of material items and then associate them with a specific metadata schema. You can use a single watchfolder to apply different metadata schemas to the ingested material.
Instance rule Subsection	N/A	Click Create rule to add fields to define instance rules for the ingested Title. You can add as many instance rules as required. Each Instance rule groups parameters to generate an Instance for the target Title, with the following attributes.
Schema	Timeline, Keysegment, MaterialInfo, Project, Basicmetadata, Media, AudioTrack, Delivery, MomentumInstance, Sport, MomentumCore, Movie, Promo, Commercial, Junction, Programme, SubtitleInstance, SQInstance, DivalInstance, SocialInstance, AudiolInstance, ImagelInstance, FlashnetInstance	Defines the metadata template (schema) that the Watchfolder can apply to an Instance, see Figure 7-147 on page 198 for a schematic overview.
File name rule	create new GUID (default)	Rule to create a new GUID as the Instance ID on ingest.
	equals file name	Rule to create an Instance ID that is the same as the ingested file name.
	apply regular expression	Rule to create a Instance ID based on a regular expression.
Regular expression	Regular expression text string Default: <code>([^\+]).w+</code>	Displayed only when the File name rule field is set to apply regular expression . Defines a regular expression to generate the Instance from the original filename and extension. You can match the regular expression to the Title filename and generate the Instance using tokens. For example, you might use the expression <code>"([^\+]).w+"</code> and assign the token <code>(\w+)</code> to \$1 to generate the Instance.

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Parameter	Options	Description
Replace	Default: \$1	Displayed only when the File name rule field is set to apply regular expression . Specify any variables to which tokens in the regular expression are assigned to replace elements in the Instance file name.
Case	as original (default) upper case lower case	Displayed only when the File name rule field is set to apply regular expression or equals file name . Defines whether the case of the regular expression is significant. Select as original to ignore the case and use the case in the source string. Alternatively, set to either upper case or lower case as required.
xPath (Metadata Only Files)	Text string; XPath	Displayed only when the Is metadata file checkbox is set to true (checked). Defines the root XPath of the Title metadata. For example: //BaseMetadata/Media/Titles
Type	undefined (default), AUDIO, DIVA, FLASHNET, GENERIC, IMAGE, SOCIAL, SQ, SUBTITLE, VIDEO	Defines the type of Instance created at ingest.

Watchfolder File Rule > Title Configuration > Instance Rule > Metadata List (See Figure 7-164)

Metadata List Subsection	N/A	Defines a list of optional segmentation metadata that can be recovered as an XPath.
Add metadata value	N/A	Click  to add items of metadata to the Instance. Each added metadata value defines a list of metadata that can match an XPath or regular expression in the target file, or can be taken from other metadata or fixed values.
Metadata value Subsection	N/A	You can add as many items of metadata as required using the Metadata ID and Value fields.
Metadata ID	Drop-down menu. The values are loaded according to the Schema value selected in the Instance Rule section.	Defines a metadata ID to match, for example: "Core.Title" or "XYZ.SOM"
Use XPath (Metadata Only Files)	True or false (default)	Specifies whether to use the XPath of the metadata in the target file.
Value	Text string	Defines the metadata value, which can be an XPath.
Default (Metadata Only Files)	Text string	Defines a default value for the metadata.

Watchfolder File Rule > Title Configuration > Instance Segmentation (Metadata Sidecar Files Only) (See Figure 7-165)

Parameter	Options	Description
Segment XPath	Text string; XPath	Defines the root XPath specifying the keysegment metadata. For example: //metadata/tech/tcodes/segments/segment
Id pattern	Text string; expression	Defines the keysegment ID naming pattern, for example: {MATERIALID}-##
Create thumbnail	True or false (default)	When set to true , generates a thumbnail for the keysegment.
SOM XPath	Text string; XPath	Defines the XPath specifying the start of media (SOM) metadata, the timecode at which to start a keysegment. For example: ./segmentSOM
Duration XPath	Text string; XPath	Defines the XPath specifying the duration metadata for the keysegment. For example: ./segmentDuration

Watchfolder File Rule - Title Configuration - Instance Segmentation - Segment metadata (Metadata Sidecar Files Only) (See Figure 7-165)

Metadata value Subsection	N/A	Click Add metadata value to add items of metadata to the ingested Title. You can add as many items of metadata as required using the Metadata ID and Value fields.
Metadata ID	Drop-down menu. The values are loaded according to the Schema value selected in the Instance Rule section.	Defines a metadata ID to match, for example: "Core.Title" or "XYZ.SOM"
Use XPath	True or false (default)	Specifies whether to use the XPath of the metadata in the target file (set true or false .)
Value	Text string	Defines the metadata value, which can be an XPath.
Default	Text string	Defines a default value for the metadata.

Watchfolder File Rule > Title Configuration > Instance Rule > Behaviors (See Figure 7-164)

Behaviors Subsection	N/A	Section to define the behavior of the ingested Title.
Allows update	True (default) or false	When set to true (selected), allows the existing instance to be updated by the ingested instance.
Allows reingest	True (default) or false	When set to true (selected), allows deletion of the existing instance and re-ingest of the file.
Is update if	Text string; expression	Defines an additional search to assess whether the instance is to be updated or re-ingested. For example: Core.Description='HasNoMetadata'

Watchfolder File Rule > Title Configuration > Instance Rule > Ports (See Figure 7-164)

Ports Subsection	N/A	Section to define the watchfolder ports for different ingest results.
Ingest port	Text string	Defines the output port for successful ingest of the Instance.

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Parameter	Options	Description
Reingest port	Text string	Defines the output port for re-ingest of the Instance.
Update port	Text string	Defines the output port for successful update of the Instance.

Note: You can use the keywords **{WatchPath}** and **{WatchDir}** in the metadata list of a Watchfolder template to use the values of these variables to set metadata for the Title or Instance. These two keywords can be used only in the watchfolder templates.

The following series of figures (Figure 7-157 to Figure 7-165) referred to in the previous table, are included to illustrate the various sections of the Watchfolder template configuration dialog as the complexity of the configuration expands.

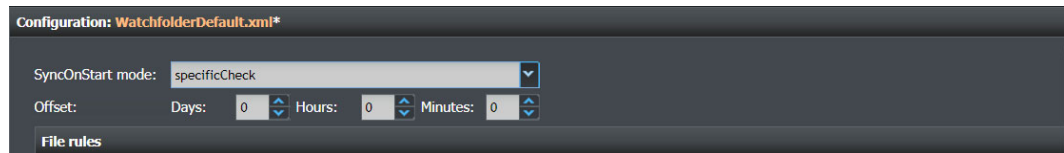


Fig. 7-157: Watchfolder Template Configuration - Generic Settings

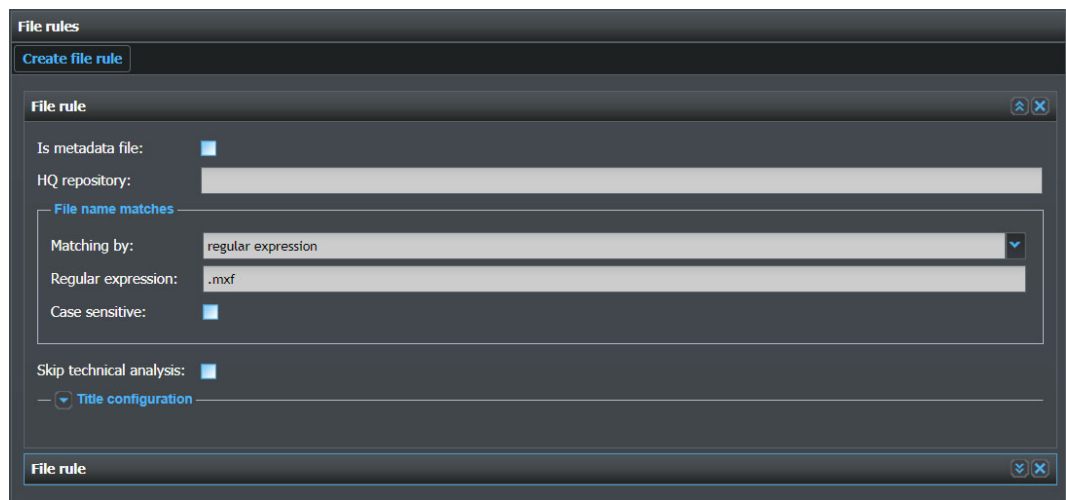


Fig. 7-158: Watchfolder Template Configuration - File Rule Generic Settings

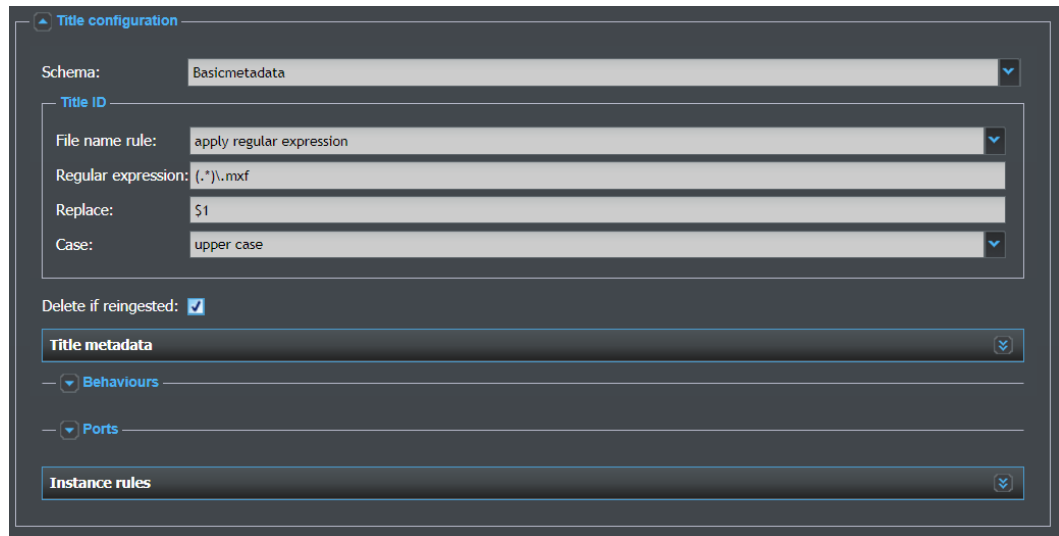
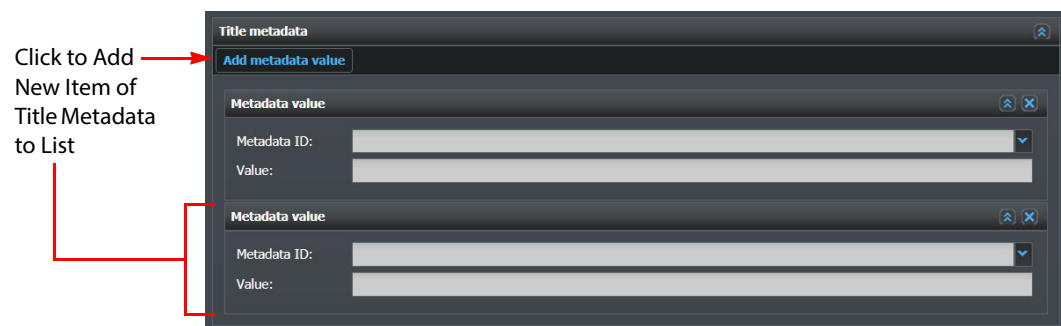


Fig. 7-159: Watchfolder Template Configuration - File Rule Title Generic Settings



7-160: Watchfolder Template Configuration - File Rule Title Metadata (Media Files)

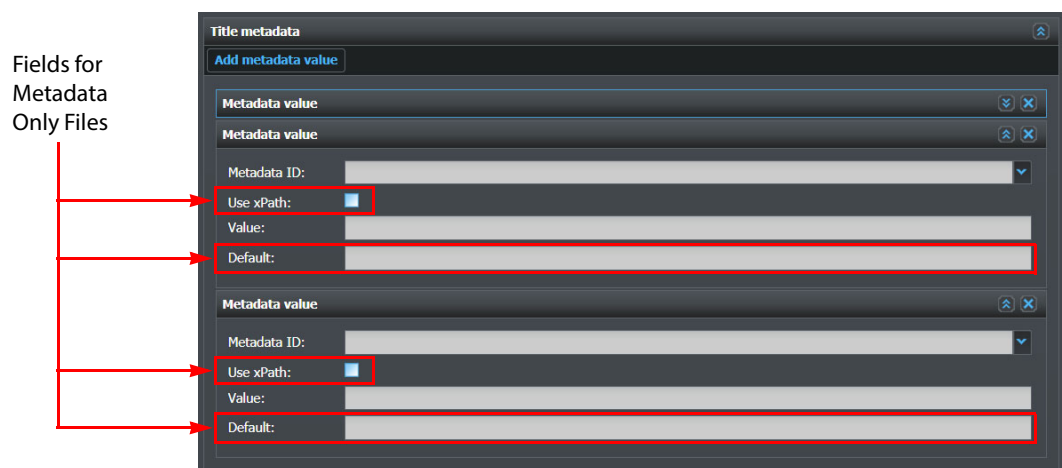


Fig. 7-161: Watchfolder Template Configuration - File Rule Title Metadata (Metadata Only Files)

Configuring the Ingest Elements

Modifying an Existing Watchfolder Template

The screenshot shows the 'Segmentation' configuration panel. It includes fields for 'Segment XPath', 'Id pattern', 'SOM XPath', and 'Duration XPath'. A 'Create thumbnail' checkbox is checked. Below these is a 'Segment metadata' section with an 'Add metadata value' button. A 'Metadata value' dialog box is open, showing a 'Metadata ID' dropdown, a checked 'Use XPath' checkbox, and input fields for 'Value' and 'Default'.

Fig. 7-162: Watchfolder Template Configuration - File Rule Title Segmentation (Metadata Only Files)

The screenshot shows the 'Behaviours' and 'Ports' configuration panels. The 'Behaviours' section has checkboxes for 'Allows update' and 'Allows reingest', both checked, and an 'Is update if:' field. The 'Ports' section has input fields for 'Ingest port', 'Reingest port', and 'Update port'.

Fig. 7-163: Watchfolder Template Configuration - File Rule Title Behaviors and Ports

The screenshot displays the 'Instance rules' configuration window. At the top, there is a 'Create rule' button. Below it, the 'Instance rule' section contains a 'Schema' dropdown set to 'Project'. A sub-section for file name rules includes a 'File name rule' dropdown set to 'apply regular expression', an empty 'Regular expression' field, an empty 'Replace' field, and a 'Case' dropdown set to 'as original'. The 'Type' dropdown is set to 'GENERIC'. The 'Metadata list' section features an 'Add metadata value' button and a 'Metadata value' sub-section with 'Metadata ID' and 'Value' fields. The 'Behaviours' section has checkboxes for 'Allows update' and 'Allows reingest', both checked, and an 'Is update if:' field. The 'Ports' section includes 'Ingest port:', 'Reingest port:', and 'Update port:' fields.

Fig. 7-164: Watchfolder Template Configuration - File Rule Title Instance Rule Settings (Media Files)

Configuring the Ingest Elements

Modifying an Existing Watchfolder Template

Segmentation

Segment XPath:

Id pattern:

Create thumbnail:

SOM XPath:

Duration XPath:

Metadata list

[Add metadata value](#)

Metadata value

Metadata ID:

Use XPath:

Value:

Default:

Fig. 7-165: Watchfolder Template Configuration - File Rule Title Instance Rule Settings (Segmentation for Media Files Only)

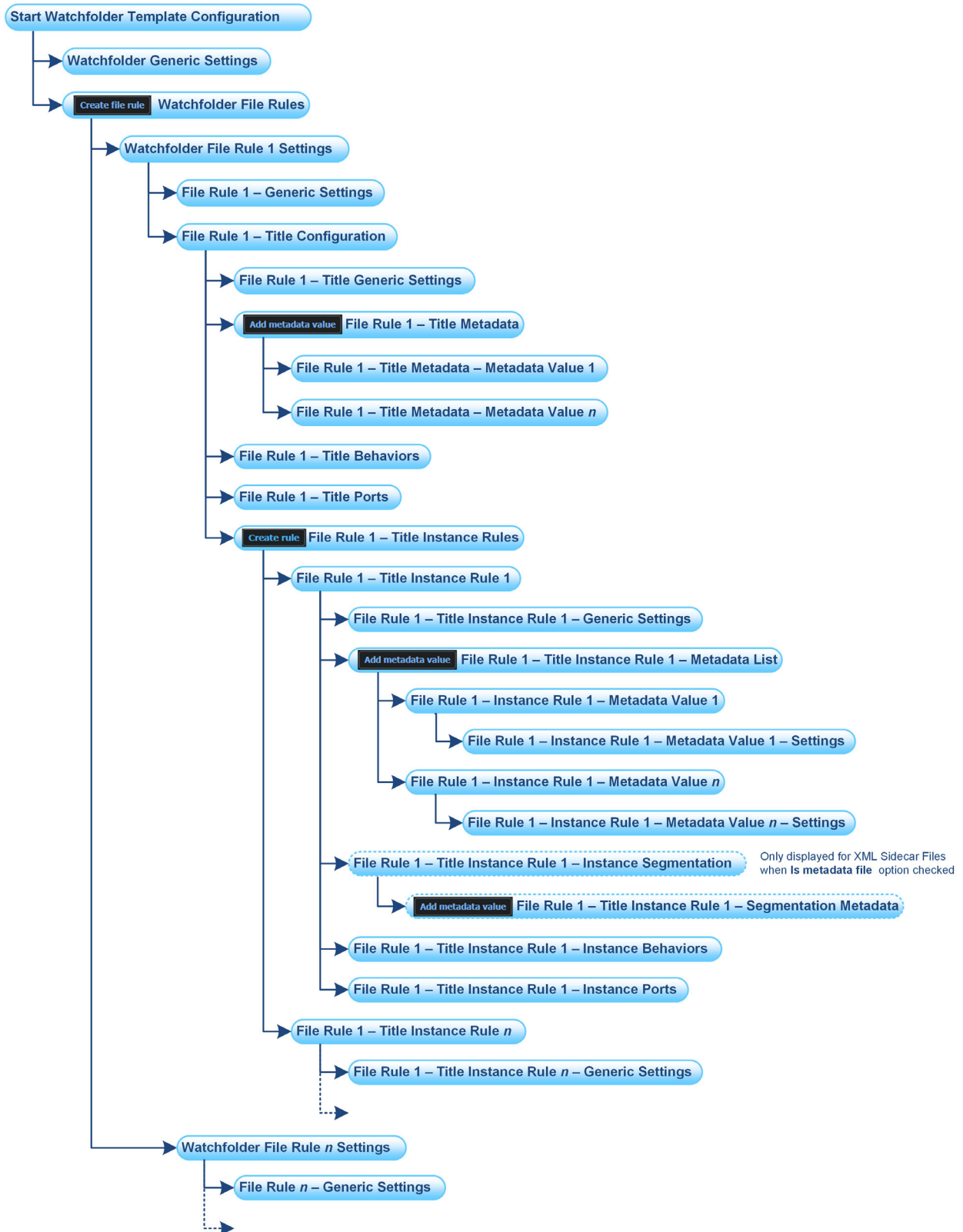


Fig. 7-166: Overview of Watchfolder Template Configuration Components

8

Configuring the Logical Operator Elements

Configuring the Logical Operator Workflow Elements

The Logical Operator workflow elements enable you to insert logic decisional elements into your workflow to act on the tasks passing through your workflow. The following logical operators are available:

- Decisional
- Parallel Gateway
- Search Evaluator

The configuration details for these elements are provided in the following sections.

Decisional

The **Decisional** workflow element enables you to compare a specified condition against a selected type of metadata.

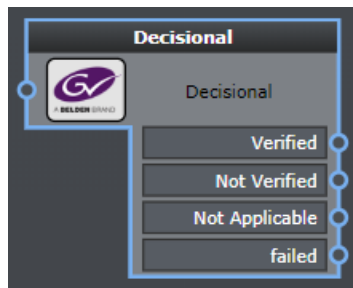


Fig. 8-167: Decisional Workflow Element

Element Settings Configuration

The Decisional element has the following settings:

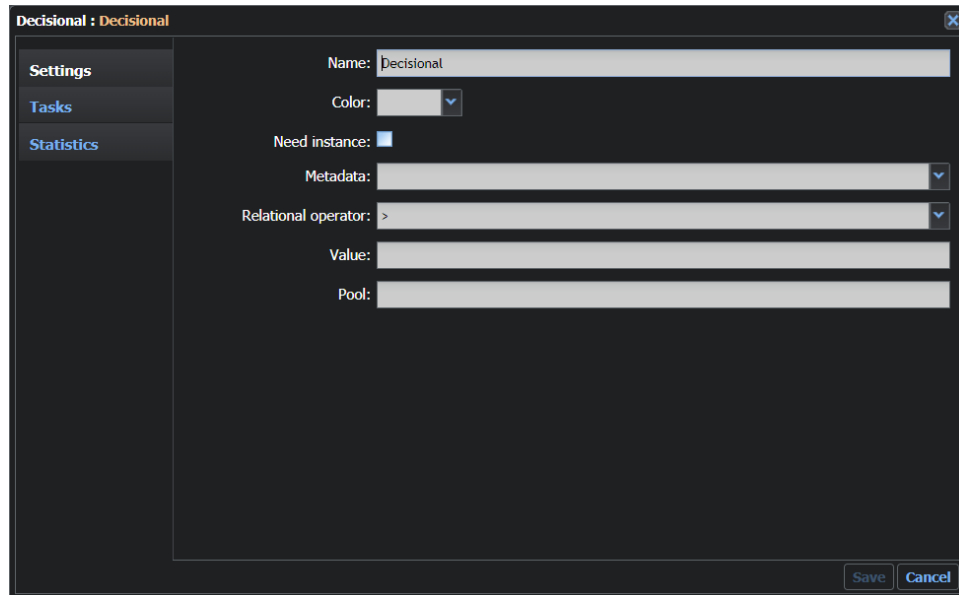


Fig. 8-168: Decisional Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Need instance	If checked, requires the HQ instance of the propagated material to complete the operation and raises an alert if the HQ instance is not available.
Metadata	Sets which type of metadata is compared.
Relational operator	Sets the decisional condition from the options: equal to, greater than, less than or not equal to.
Value	Sets the value against which the metadata is matched using the condition set in the Regional operator field.
Pool	Sets the name of a pool associated with the element to balance the processing load.

The **Decisional** workflow element includes the following specific output ports:

- **Verified:** The metadata matches the defined condition.
- **Not Verified:** The metadata does not match the defined condition.
- **Not Applicable:** The condition is not valid for the specified metadata.

Configuration Files

MantricsServer.xml Configuration

```
<decisional>
  <server port="8142">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</decisional>
```

MantricsNode.xml Configuration

```
<decisional slotCount="4">
  <active>true</active>
  <server port="8142">10.250.170.183</server>
  <node port="8143">10.250.170.183</node>
  <pool/>
</decisional>
```

Parallel Gateway

The **Parallel Gateway** workflow element enables you to compare a specified condition against a selected type of metadata.

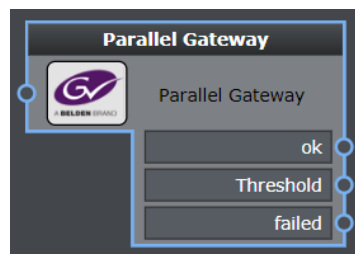


Fig. 8-169: Parallel Gateway Workflow Element

Element Settings Configuration

The Parallel Gateway element has the following settings:

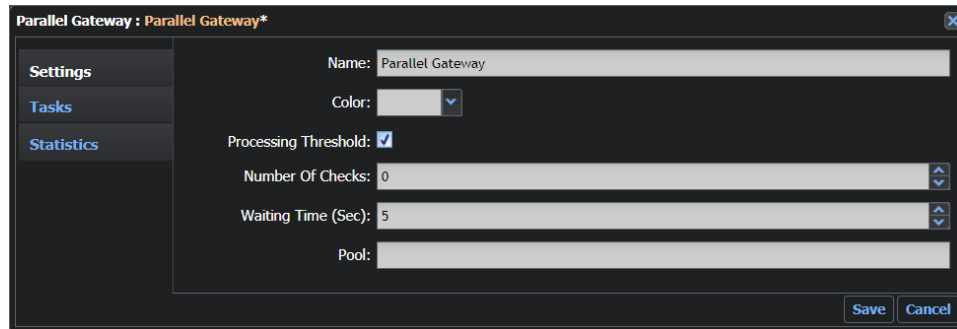


Fig. 8-170: Parallel Gateway Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Processing Threshold	Enables a waiting threshold for a task in processing status.
Number of Checks	Available only if Processing Threshold is selected. Sets how many times to run the check as to whether the task can be moved through the ok port.
Waiting Time (Sec)	Available only if Processing Threshold is selected. Sets the delay (in seconds) between two consecutive checks.
Pool	Sets the name of a pool associated with the element to balance the processing load.

The **Parallel Gateway** workflow element includes the following specific output port:

- **Threshold:** This port is active if the Processing Threshold check box is checked. The processing time threshold is calculated as Number of Checks x Waiting Time. If a time greater than this value elapses, and the processed task cannot be moved through the OK port (because there are still active jobs connected to the input port of the Parallel Gateway involving the material of the task in processing status) then the task moves through the port Threshold, freeing a processing slot on the Gateway.

Configuration Files

MantricsServer.xml Configuration

```
<parallelgateway>
<server port="8144">10.250.170.183</server>
<policy>Weighted</policy>
<retryCount>3</retryCount>
<active>>false</active>
<reconnectRetryCount>1</reconnectRetryCount>
<reconnectTimeout>0</reconnectTimeout>
</parallelgateway>
```

MantricsNode.xml Configuration

```
<parallelgateway slotCount="4">  
  <active>false</active>  
  <server port="8144">10.250.170.183</server>  
  <node port="8145">10.250.170.183</node>  
  <pool/>  
</parallelgateway>
```

Search Evaluator

The **Search Evaluator** workflow element enables you to define a search filter to check whether the task material matches a defined search criteria. This element can be used, for example, to validate the task material. You can define the search filter either for the title only, for the instance only or for both the title and instance.

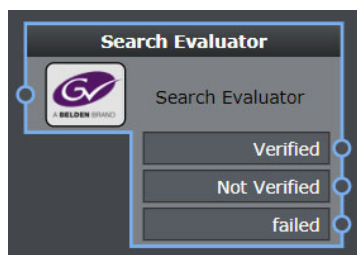


Fig. 8-171: Search Evaluator Workflow Element

Element Settings Configuration

The Search Evaluator element has the following settings:

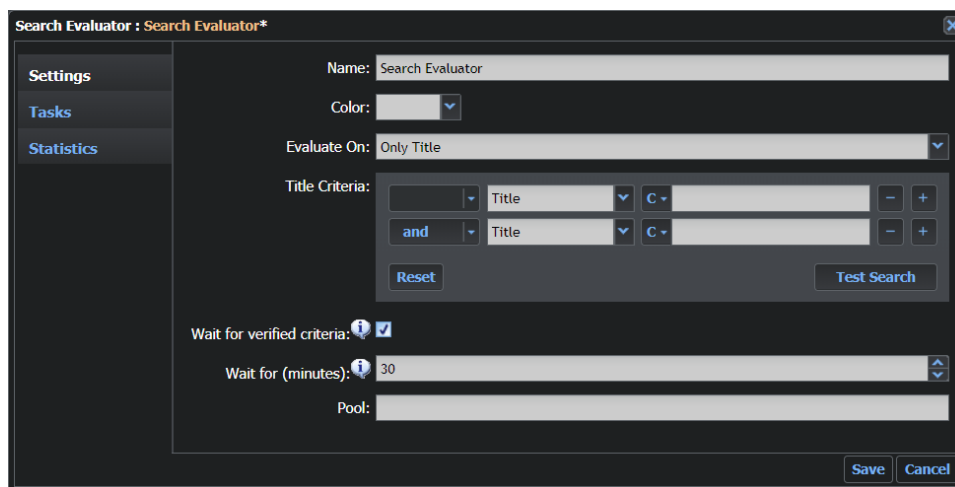


Fig. 8-172: Search Evaluator Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Evaluate On	Specify a search filter for the title only, for the instance only or for both the title and instance.
Title Criteria	Only displayed if Evaluate On is set to Title Only or Title and Instance , see Figure 8-173. Define the search query against which Momentum compares the Title. The Test Search button will display the results of your proposed search query in a pop-up window. For more detailed information, see the <i>Momentum Operator's Guide</i> .
Instance Criteria	Only displayed if Evaluate On set to Instance Only or Title and Instance , see Figure 8-173. Define the search query against which Momentum compares the Instance. The Test Search button will display the results of your proposed search query in a pop-up window. For more detailed information on defining Search Queries, see the <i>Momentum Operator's Guide</i> .
Wait for verified criteria	If selected the task remains in waiting status as long as the selected criteria are not verified.
Wait for (minutes)	Displayed when the checkbox Wait for verified criteria is selected. If greater than zero (0), the status of the task will change from waiting to processing after the waiting period (in minutes) even if the selected search criteria are not verified. The timeout restarts if the Momentum server is restarted.
Pool	Sets the name of a pool associated with the element to balance the processing load.

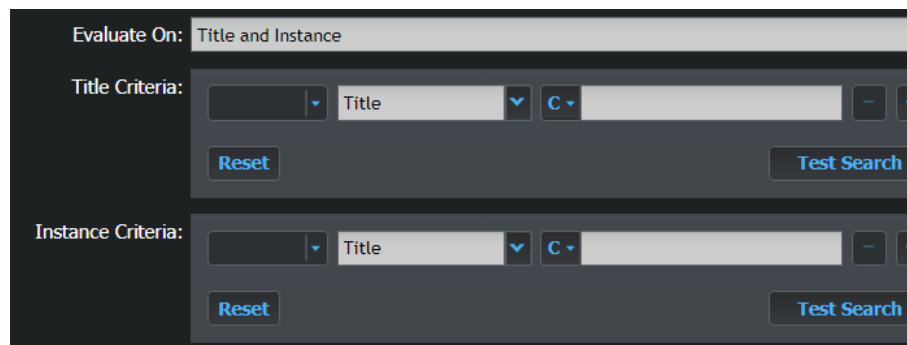


Fig. 8-173: Search Evaluator Query Definition Panel

The match is done not more than once every 30 seconds per task, unless some metadata of the TITLE or INSTANCE materials of the task don't change.

If Wait for (minutes) parameter is greater than zero then the task remains in waiting status for at max the selected minutes since the first time it is evaluated (the timeout restarts in case the Server is restarted).

The **Search Evaluator** element includes the following specific ports:

- **Verified:** Tasks are propagated through this port when the target task material matches the search filter.
- **Not Verified:** Tasks are propagated through this port when the target task material does not match the search filter.

Configuration Files

MantricsServer.xml Configuration

```
<searchevaluator>
  <server port="8216">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</searchevaluator>
```

MantricsNode.xml Configuration

```
<searchevaluator slotCount="4">
  <active>true</active>
  <server port="8216">10.250.170.183</server>
  <node port="8217">10.250.170.183</node>
  <pool/>
</searchevaluator>
```


9

Configuring the Quality Control Elements

Configuring the Quality Control Workflow Elements

The Quality Control workflow elements enable you to insert quality control elements into your workflow to check the quality of media files passing through your workflow. The following QC elements are available:

- Dalet ICR UQC
- Emotion systems Eff
- Internal QC
- Interra Systems Baton
- Tektronix Aurora
- Tektronix Cerify
- Telestream VantageQC
- Telestream VidChecker
- Venera Pulsar

The configuration of quality control devices follows the same rules and guidelines as the Momentum Farm (see [Configuring the Momentum Farm](#), on page 22). The configuration details for these elements are provided in the following sections.

Dalet ICR UQC

The **ICR UQC** workflow element submits video or audio material to the iCR system for quality control.



Fig. 9-174: ICR UQC Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Dalet** folder and has the following settings:

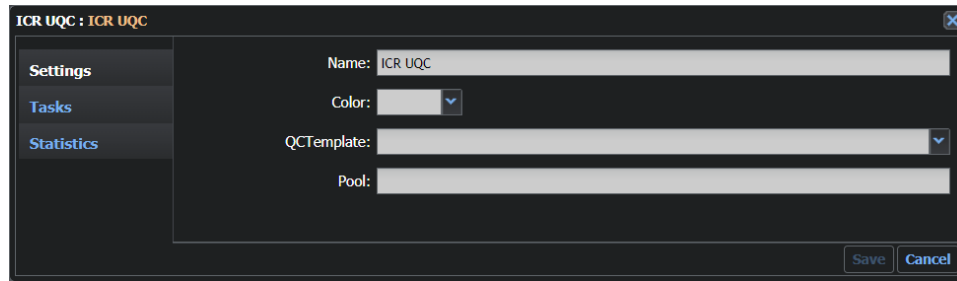


Fig. 9-175: ICR UQC Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
QC Template	Sets the quality control template from the list available in the iCR system.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<icr>` contains the configuration for this application.

MantricsServer.xml Configuration

```
<icr>
  <server port="8132">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</icr>
```

MantricsNode.xml Configuration

```
<icr slotCount="4">
  <active>>false</active>
  <server port="8132">10.250.170.183</server>
  <node port="8133">10.250.170.183</node>
  <pool/>
  <host>http://10.10.0.49:8080</host>
  <host_descr>ICR Address</host_descr>
  <host_tooltip>http://10.10.0.49:8080</host_tooltip>
</icr>
```

Replace the default address of the node tag **<host>** with the HTTP URL of the iCR server. The tag **<host_descr>** contains a label for the host. The tag **<host_tooltip>** contains a tooltip for the host.

Note: Ensure that the option **Web Service Control** is activated under the File Menu of iCR version 5.x.

Emotion Systems Eff

The Eff workflow element submits video or audio material to the Eff system for quality control.



Fig. 9-176: Eff Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Emotion systems** folder and has the following settings:

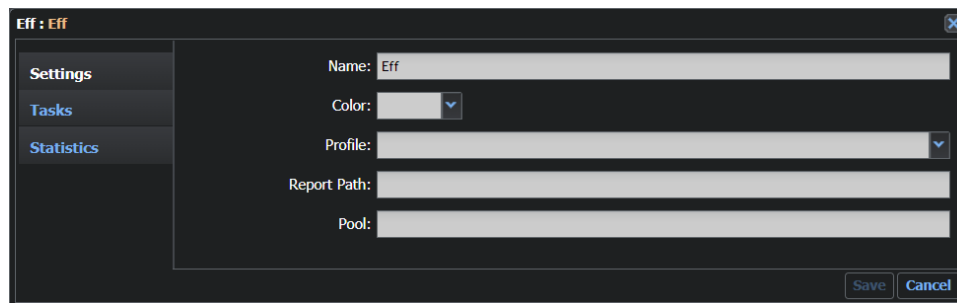


Fig. 9-177: Eff Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Profile	Sets the quality control profile.

Option	Description
Report Path	Sets the location of the Eff QC report.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<eff>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<eff>
  <server port="8180">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</eff>
```

MantricsNode.xml Configuration

```
<eff slotCount="4">
  <active>false</active>
  <server port="8180">10.250.170.183</server>
  <node port="8181">10.250.170.183</node>
  <pool/>
  <host>http://10.10.0.191:44544</host>
  <host_descr>Eff Address</host_descr>
  <host_tooltip>http://eff:44544</host_tooltip>
</eff>
```

Replace the default address of the tag **<host>** with the HTTP URL of the Eff server. The tag **<host_descr>** contains a label for the host. The tag **<host_tooltip>** contains a tooltip for the host.

Note: On the host machine, the Eff application needs to be started manually. On the top left drop-down menu, select the option API.

Internal (Grass Valley) QC

The **Internal (Grass Valley) QC** workflow element is the default media quality checker element provided with Momentum. This element submits video material for quality control, which is able to detect black frames, still frames and blurred frames according to a configurable set of threshold sensitivities.

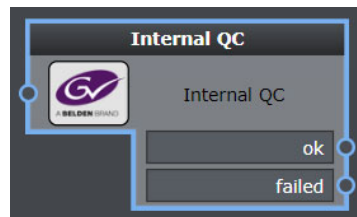


Fig. 9-178: Internal QC Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Internal** folder and has the following settings:

The screenshot shows the 'Internal QC : Internal QC' configuration window. It has a sidebar with 'Settings', 'Tasks', and 'Statistics'. The main area contains the following fields:

- Name: Internal QC
- Color: (dropdown menu)
- Dest Folder: \\mantricsdemo6\LQ\{MATERIALID}\
- Black Detection:
- Black Error Limit: 50
- Black Sensitivity: 14
- Black Threshold: 95
- Blur Detection:
- Blur Error Limit: 50
- Blur Threshold: 50
- Still Detection:
- Still Error Limit: 50
- Still Sensitivity: 2
- Still Threshold: 1
- Block Detection:
- Contour Accuracy: Medium
- Pool: (empty text field)

Buttons for 'Save' and 'Cancel' are at the bottom right.

Fig. 9-179: Internal QC Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Dest Folder	Sets the destination directory. Type in a UNC path or set it by using the browser.
Black Detection	Performs black frames detection, if activated.

Option	Description
Black Error Limit	Sets the maximum number of black frames that can be detected: if the amount of black frames exceeds this value, the material is sent through the Failed port.
Black Sensitivity	Sets the level of gray, detected in frame pixels, that enables Momentum to consider a frame as black. The value is set between 0 and 255; a higher value corresponds to more black frames detected.
Black Threshold	
Blur Detection	
Blur Error Limit	
Blur Threshold	
Still Detection	
Still Error Limit	
Still Sensitivity	
Block Detection	
Contour Accuracy	
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tags **<mantricsQC>** and **<mantricsqc>** contain the configuration for this application.

MantricsServer.xml Configuration

```
<mantricsQC>
  <server port="8152">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</mantricsQC>
```

MantricsNode.xml Configuration

```
<mantricsqc slotCount="4">
  <active>false</active>
  <server port="8152">10.250.170.183</server>
  <node port="8153">10.250.170.183</node>
  <pool/>
</mantricsqc>
```

The node tag **<server port="xxxx">** contains the IP address and port to connect to the internal Momentum QC server.

Interra systems Baton

The **Interra Baton** workflow element submits video or audio material to the Baton system for quality control.



Fig. 9-180: Interra Baton Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Interra systems** folder and has the following settings:

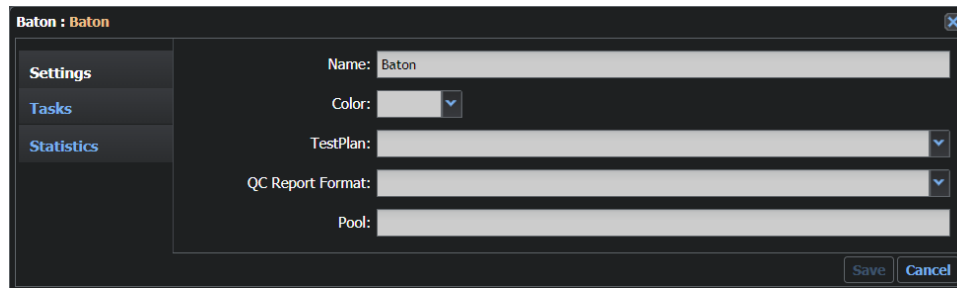


Fig. 9-181: Interra Baton Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
TestPlan	Sets the profile from those available in the Baton system.
QC Report Format	Specifies the format of the QC report file generated at the end of the Baton QC process. Supported formats are: PDF or XML.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<baton>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<baton>
  <server port="8088">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</baton>
```

MantricsNode.xml Configuration

```
<baton slotCount="4">
  <active>>false</active>
  <server port="8088">10.250.170.183</server>
  <node port="8089">10.250.170.183</node>
  <pool/>
  <host>http://10.10.0.85:8080/Baton</host>
  <host_descr>Baton Address</host_descr>
  <host_tooltip>http://hostname:8080/Baton</host_tooltip>
  <user>admin</user>
  <password>admin</password>
  <reportPath/>
  <reportPath_descr>Report Path</reportPath_descr>
</baton>
```

Replace the default address of the node tag **<host>** with the HTTP URL of the Baton server. The tag **<host_descr>** contains a label for the host. The tag **<host_tooltip>** contains a tooltip for the host.

Replace the default text of the node tags **<user>** and **<password>** with the login information used to access the Baton web user interface.

Replace the default path of the node tag **<reportPath>** with the path where you want Momentum to store the QC report files in XML or PDF format.

Tektronix Aurora

The **Tektronix Aurora** workflow element submits video or audio material to the Aurora system for quality control.

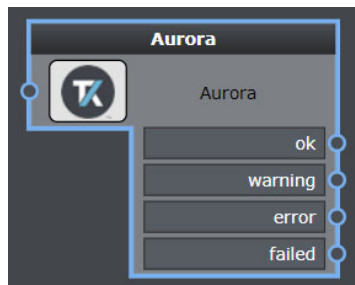


Fig. 9-182: Tektronix Aurora Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Tektronix** folder and has the following settings:

Fig. 9-183: Interra Baton Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Template	Sets the template from the list available in the Aurora system.
Report Folder	Sets the target location of the Aurora QC report.
QC Report Format	Specifies the format of the report file generated at the end of the Aurora QC process. Supported formats are: HTML, PDF or XML.
AnalyzeKeySegment	When enabled, performs a quality check on the key segments.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<aurora>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<aurora>
  <server port="8204">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <AnalyzeErrorCodes>>false</AnalyzeErrorCodes>
  <RootTag>InstanceFault</RootTag>
  <ErrorCodeTag>FaultCode</ErrorCodeTag>
  <TimeCodeTag>Timecode</TimeCodeTag>
  <DescriptionTag>FaultDescription</DescriptionTag>
</aurora>
```

```
<DurationTag>Duration</DurationTag>
<MetadataId>Instance.Generic Instance.AURORA_ERROR_RESUME
  </MetadataId>
<SplitTimecode>>false</SplitTimecode>
<MetadataKind>MEDIAASSET</MetadataKind>
</aurora>
```

MantricsNode.xml Configuration

```
<aurora slotCount="1">
  <active>true</active>
  <server port="8204">10.250.170.183</server>
  <node port="8205">10.250.170.183</node>
  <pool/>
  <host>http://localhost:1001</host>
  <host_descr>Aurora Address</host_descr>
  <host_tooltip>http://aurora</host_tooltip>
</aurora>
```

Replace the default address of the node tag **<host>** with the HTTP URL of the Aurora server. The node tag **<host_descr>** contains a label for the host. The node tag **<host_tooltip>** contains a tooltip for the host.

Tektronix Cerify

The **Tektronix Cerify** workflow element submits video or audio material to the Cerify system for quality control.

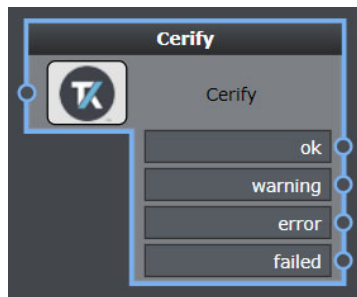


Fig. 9-184: Tektronix Cerify Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Tektronix** folder and has the following settings:

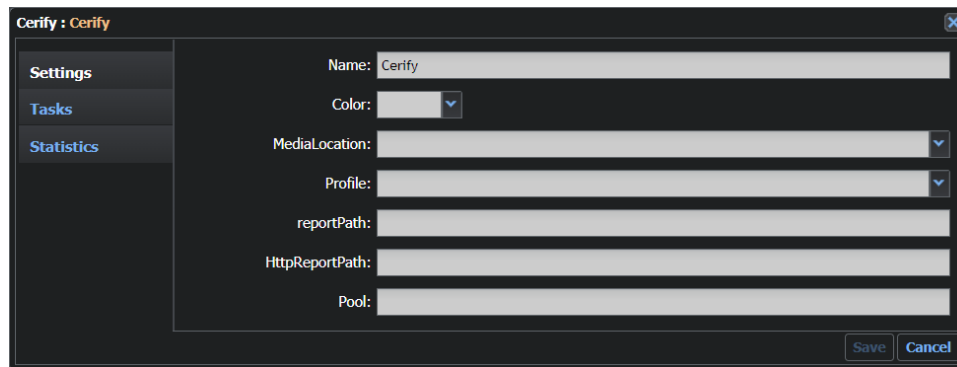


Fig. 9-185: Tektronix Cerify Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Media Location	Sets the media location according to the existing location set in the Cerify system.
Profile	Sets the quality control profile.
reportPath	Sets the path for storing the report.
HttpReportPath	Sets the HTTP path for storing the HTTP report.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<cerify>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<cerify>
  <server port="8114">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</cerify>
```

MantricsNode.xml Configuration

```
<cerify slotCount="4">
  <active>false</active>
  <server port="8114">10.250.170.183</server>
  <node port="8115">10.250.170.183</node>
```

```
<pool>default</pool>
<cerifyNode>http://10.10.0.225:80</cerifyNode>
<cerifyNode_descr>Cerify Address</cerifyNode_descr>
<cerifyNode_tooltip>http://cerify:80</cerifyNode_tooltip>
<userCerifyNode>admin</userCerifyNode>
<userCerifyNode_descr>User</userCerifyNode_descr>
<passwordCerifyNode>admin</passwordCerifyNode>
<passwordCerifyNode_descr>Password</passwordCerifyNode_descr>
<Local_to_UNC_Remap_descr>Remap</Local_to_UNC_Remap_descr>
<Local_to_UNC_Remap/>
</cerify>
```

The node tag **<cerifyNode>** specifies the web address of the Cerify host server. The tag **<cerifyNode_descr>** contains a label for the host. The tag **<cerifyNode_tooltip>** contains a tooltip for the host.

The node tags **<userCerifyNode>** and **<passwordCerifyNode>** specify the User and Password required to login and access the Cerify Web user interface. In addition, the tag **<Local_to_UNC_Remap>** enables you to remap a local path to a specific UNC address.

Telestream VantageQC

The **Telestream VantageQC** workflow element submits video or audio material to the VantageQC system for quality control.

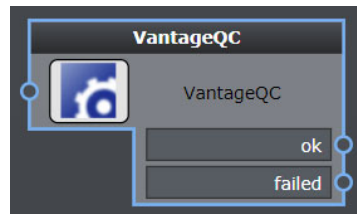


Fig. 9-186: VantageQC Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Telestream** folder and has the following settings:

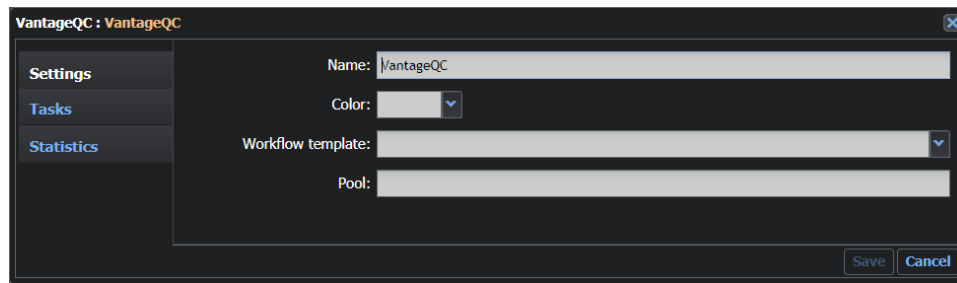


Fig. 9-187: Telestream VantageQC Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Workflow Template	Defines the profile to be applied from a list of profiles retrieved from VantageQC system.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<vantageqc>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<vantageqc>
  <server port="8176">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</vantageqc>
```

MantricsNode.xml Configuration

```
<vantageqc slotCount="4">
  <active>>false</active>
  <server port="8176">10.250.170.183</server>
  <node port="8177">10.250.170.183</node>
  <pool/>
  <ipvantage>http://10.10.0.26:8676</ipvantage>
</vantageqc>
```

The node tag **<ipvantage>** contains the connection details for the Vantage server.

Telestream VidChecker

The **Telestream VidChecker** workflow element submits video or audio material to the VidChecker system for quality control.

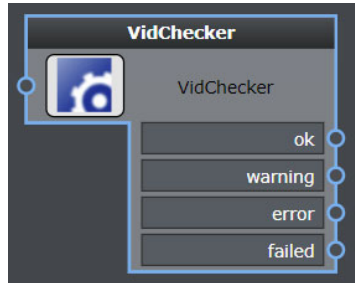


Fig. 9-188: VidChecker Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Telestream** folder and has the following settings:

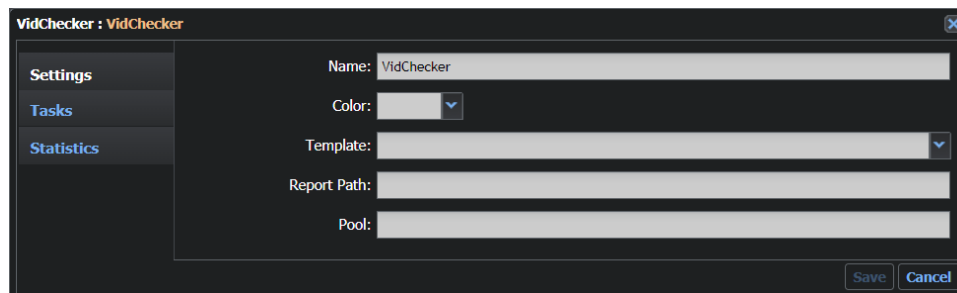


Fig. 9-189: Telestream VidChecker Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Template	Sets a template from those available in the VidCheck system.
Report Path	Sets the location of the report.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag `<vidchecker>` contains the configuration for this application.

MantricsServer.xml Configuration

```
<vidchecker>
  <server port="8174">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</vidchecker>
```

MantricsNode.xml Configuration

```
<vidchecker slotCount="4">
  <active>>false</active>
  <server port="8174">10.250.170.183</server>
  <node port="8175">10.250.170.183</node>
  <pool/>
  <host>http://10.10.0.84:51060</host>
  <host_descr>VidChecker Address</host_descr>
  <host_tooltip>http://vidchecker:51060</host_tooltip>
  <api_version>6</api_version>
  <api_version_tooltip>6 for Vidchecker 6.x</api_version_tooltip>
</vidchecker>
```

Replace the default address of the node tag **<host>** with the HTTP URL of the Vidchecker server. The tag **<host_descr>** contains a label for the host. The tag **<host_tooltip>** contains a tooltip for the host.

Set the API version details in the tags **<api_version>** and **<api_version_tooltip>**.

Venera Pulsar

The **Venera Pulsar** workflow element submits video or audio material to the Pulsar system for quality control.

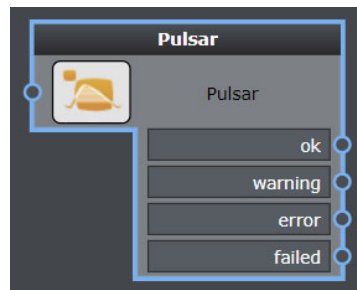


Fig. 9-190: Pulsar Workflow Element

Element Settings Configuration

This element is available in the **Quality Control > Venera** folder and has the following settings:

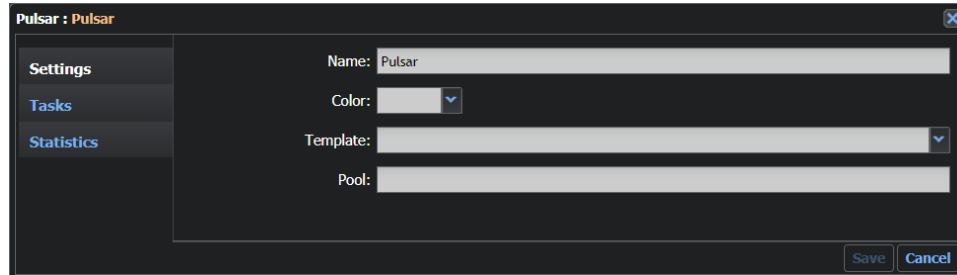


Fig. 9-191: Venera Pulsar Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Template	Sets a template from those available in the Pulsar system.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

The tag **<pulsar>** contains the configuration for this application.

MantricsServer.xml Configuration

```
<pulsar>
  <server port="8148">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</pulsar>
```

MantricsNode.xml Configuration

```
<pulsar slotCount="4">
  <active>false</active>
  <server port="8148">10.250.170.183</server>
  <node port="8149">10.250.170.183</node>
  <pool/>
  <host/>
  <host_descr>Pulsar Address</host_descr>
  <host_tooltip>http://pulsar:8093</host_tooltip>
</pulsar>
```

Replace the default address of the node tag **<host>** with the HTTP URL of the Pulsar server. The tag **<host_descr>** contains a label for the host. The tag **<host_tooltip>** contains a tooltip for the host.

10

Configuring the Script Elements

Configuring the Feature Extraction Workflow Element

The Script workflow elements enable you to develop scripts containing rules and customized functions to manipulate your workflow. The following Script elements are available:

- HD-SD Virtual Router
- Script

The configuration details for these elements are provided in the following sections.

HD-SD Virtual Router

The **HD-SD Virtual Router** element is a Visual Basic script-based element that submits video material to a router, which checks the resolution of the video. By default, the element propagates the video through the HD port if the resolution is 1920 x 1080 and through the SD port if the resolution is lower than 1920 x 1080. This setting can be easily customized by changing the resolution threshold value in the script; any changes become immediately available.

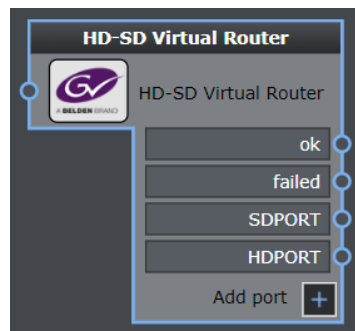


Fig. 10-192: HD-SD Virtual Router Workflow Element

Element Settings Configuration

The HD-SD Virtual Router element has the following settings:

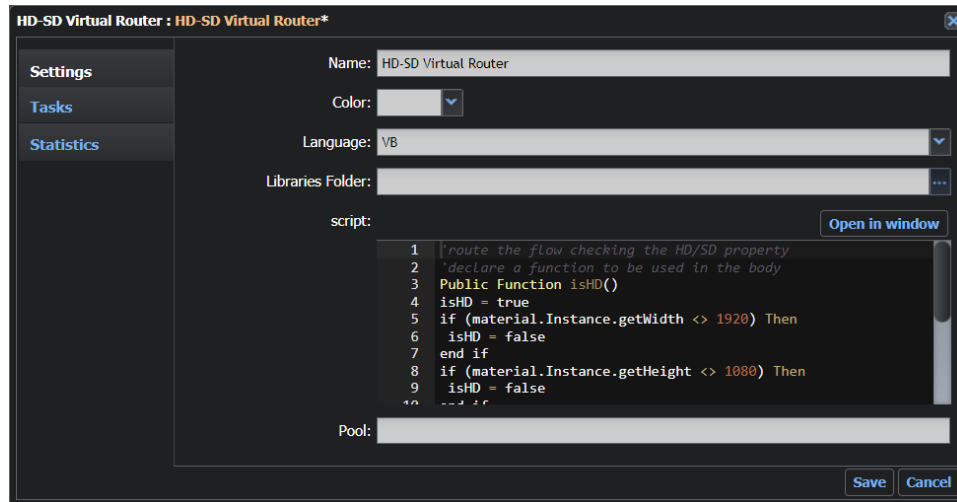


Fig. 10-193: HD-SD Virtual Router Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Language	Sets the programming language of the script; the options are Visual Basic (.NET), C# and Python.
Libraries Folder	Specifies the target folder for the Script Library files and is available for C# and VB.
Script	Opens a script editing window where you can create or edit the script.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Note: Add ports to this element according to the functions assigned by the script to each port.

For a more detailed description of Momentum scripting, see the appendix in the *Momentum Operator's Guide*.

Configuration Files

MantricsServer.xml Configuration

```
<scripting>
  <server port="8112">10.250.170.183</server>
  <policy>Weighted</policy>
```

```

    <retryCount>3</retryCount>
    <active>true</active>
    <reconnectRetryCount>1</reconnectRetryCount>
    <reconnectTimeout>0</reconnectTimeout>
</scripting>

```

MantricsNode.xml Configuration

```

<scripting slotCount="4">
  <active>true</active>
  <server port="8112">10.250.170.183</server>
  <node port="8113">10.250.170.183</node>
  <pool/>
</scripting>

```

Script

The **Script** workflow element enables you to use a script inside the Momentum workflow, in order to create new customized functions. This element supports the programming languages: Visual Basic, Jscript and Python.

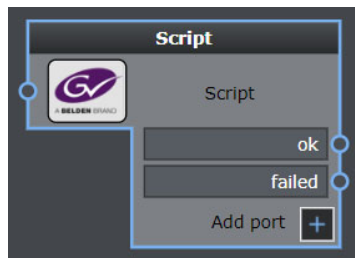


Fig. 10-194: Script Workflow Element

Element Settings Configuration

The Script element has the following settings:

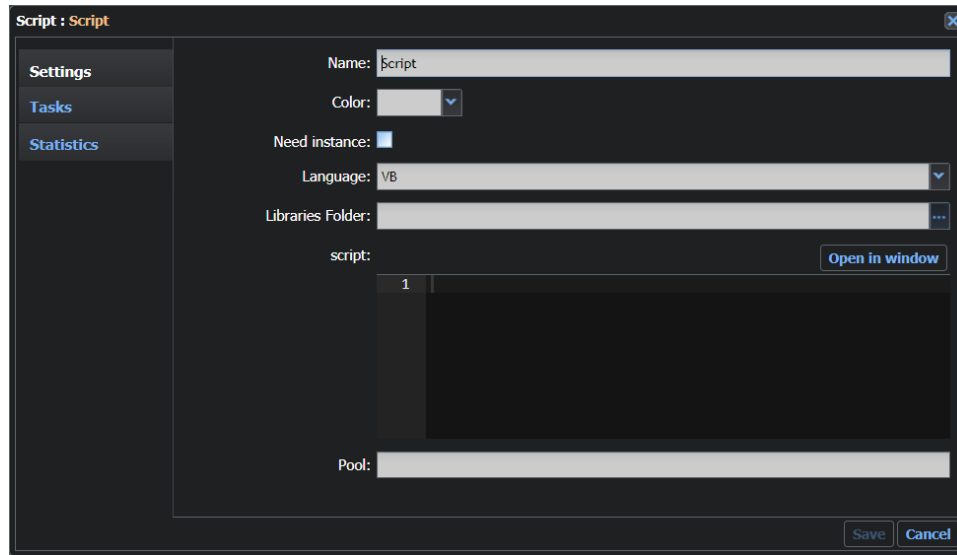


Fig. 10-195: HD-SD Virtual Router Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Need instance	Requires the HQ instance of the material to complete the operation, if selected.
Language	Sets the programming language of the script; the options are C#, Python or Visual Basic (VB).
Libraries Folder	Specifies the target folder for the Script Library files and is available for C# and VB.
Script	Opens a script editing window where you can create or edit the script.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Note: Add ports to this element according to the functions assigned by the script to each port.

For a more detailed description of Momentum scripting, see the appendix in the *Momentum Operator's Guide*.

Configuration Files

MantricsServer.xml Configuration

```
<scripting>
  <server port="8112">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</scripting>
```

MantricsNode.xml Configuration

```
<scripting slotCount="4">
  <active>true</active>
  <server port="8112">10.250.170.183</server>
  <node port="8113">10.250.170.183</node>
  <pool/>
</scripting>
```


11 Configuring the Transcoder Elements

Configuring the Transcoder Workflow Elements

The Transcoder workflow elements enable you insert transcoder elements to transcode media files into different formats, depending on the supported codecs.

The following transcoders are available:

- Capella Systems Cambria
- Dalet iCR Transcoder
- EEG CCPlayFilePro
- FFmpeg Proxy
- FFmpeg Transcoder
- Grass Valley Alchemist XF
- Grass Valley Quasar XF
- Harmonic Rhozet ProMediaCarbon PMC Bumper
- Harmonic Rhozet ProMediaCarbon PMC Transcoder
- Harmonic Rhozet ProMediaCarbon Segments Consolidator
- Harmonic Rhozet WFS EDL Exporter
- Harmonic Rhozet WFS Transcoder
- Telestream FlipFactory
- Telestream Vantage Transcoder
- Audio Morph
- Omneon Consolidator
- Thumb Generator

The configuration details for these elements are provided in the following sections.

Note: All the elements described in this section require configuration of the files `MantricsServer.xml` and `MantricsNode.xml`.

Before Starting

Before configuring transcoding engines, check the following:

- Make sure that the Momentum application is installed on a machine connected on the same network of the third party transcoding device you want to use.
- Check that the Momentum Transcoder Service has the **Log On As** setting that uses the same account of the third party application service you want to use.

- Make sure that the location of the media files is fully accessible by both Momentum and third party applications.
- Make sure that the firewall of third party machines is configured to allow the service to communicate on the appropriate port.

Adding a Transcoding Engine

Transcoding engines are configured by modifying the files `MantricsServer.xml` and `MantricsNode.xml`, where each module has a related section and can be enabled or disabled by setting the value of the related **Active** node to **true** or **false** respectively.

To add a transcoding engine to Momentum:

- 1 Open the **Control Panel > Administrative Tools > Services** window and stop the **Momentum Server** and the **Momentum Node** services.
- 2 Navigate to the directory `C:\Mantrics` and open the files `MantricsServer.xml` and `MantricsNode.xml` using a text editor.
- 3 Find the configuration sections corresponding to the transcoder you want to add, and replace the default settings as described in [Configuring the Momentum Farm](#), on page 22. Some transcoders require additional, non-standard configuration which is described in the following sections.
- 4 Save the files `MantricsServer.xml` and `MantricsNode.xml` to store the new settings.
- 5 Open the **Control Panel > Administrative Tools > Services** window and re-start the **Momentum Server** and the **Momentum Node** services.

Capella Systems Cambria FTC

The Capella Systems **Cambria** workflow element transcodes a wide range of professional digital video formats, including HQX.

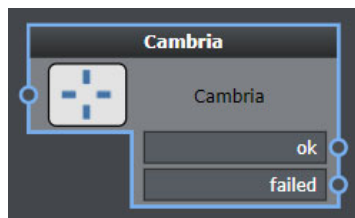


Fig. 11-196: Capella Systems Cambria Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Capella systems** folder and has the following settings:

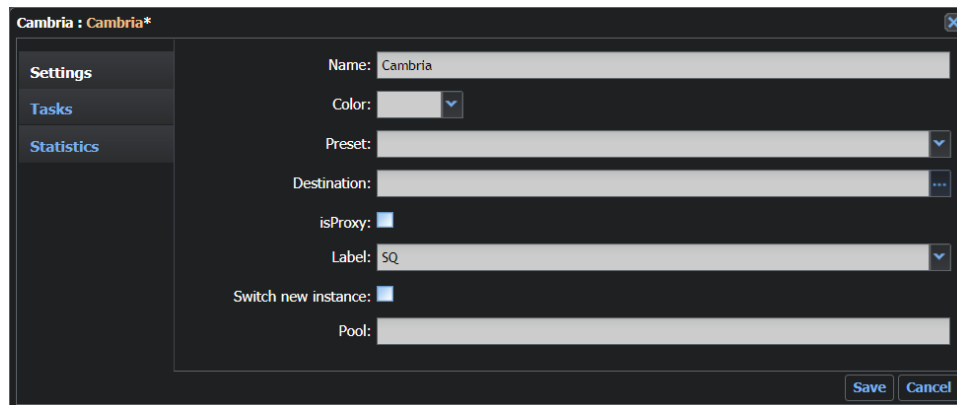


Fig. 11-197: Cambria Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Preset	Sets which preset is to be used for the transcoding.
Destination	Sets the destination directory. Type in the UNC path or set it using the browser.
isProxy	Sets the flag to identify the results of the transcoder element as proxies. These are low quality previews of the related material.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
< cambria >
  < server port="8220">10.250.170.183</ server >
  < policy >Failover</ policy >
  < retryCount >3</ retryCount >
  < active >false</ active >
  < reconnectRetryCount >1</ reconnectRetryCount >
  < reconnectTimeout >0</ reconnectTimeout >
</ cambria >
```

MantricsNode.xml Configuration

```
<cambria slotCount="4">  
  <active>false</active>  
  <server port="8220">10.250.170.183</server>  
  <node port="8221">10.250.170.183</node>  
  <pool/>  
  <ipCambriaServer>http://10.10.5.28:8647</ipCambriaServer>  
  <profilePath/>  
</cambria>
```

The tag **<ipCambriaServer>** contains the configuration details to allow this application to communicate with Momentum.

Replace the default text of the **<ipCambriaServer>** tag with the HTTP URL of the Cambria server.

Dalet iCR Transcoder

The iCR Transcoder workflow element enables you to select a profile from the template available in the iCR system.

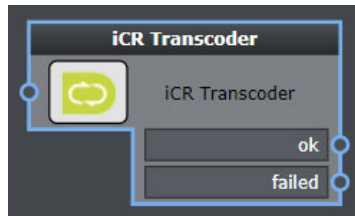


Fig. 11-198: Dalet iCR Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Dalet** folder and has the following settings:

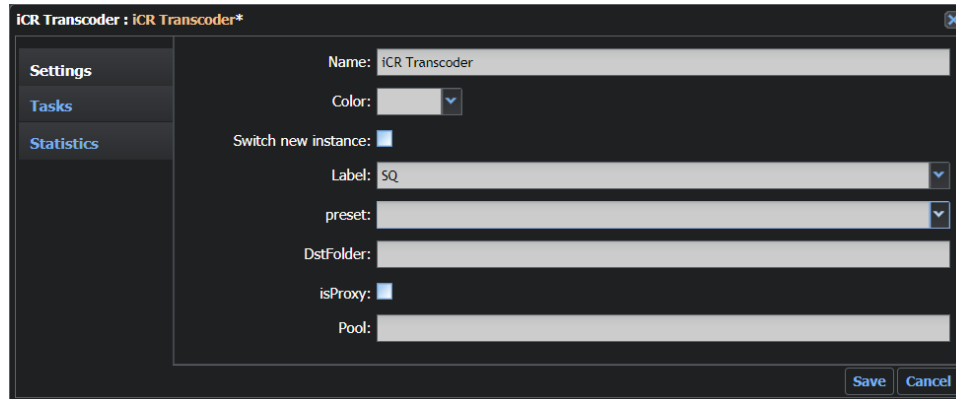


Fig. 11-199: iCR Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Label	Sets the label of the instance generated by the transcoding.
Preset	Sets the transcoding preset for the iCR system.
DstFolder	Sets the destination directory. Type in a UNC path or set it by using the browser.
isProxy	Sets the flag to identify the results of the transcoder element as proxies. These are low quality previews of the related material.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<icrtranscoder>
  <server port="8156">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</icrtranscoder>
```

MantricsNode.xml Configuration

```
<icrtranscoder slotCount="4">  
  <active>false</active>  
  <server port="8156">10.250.170.183</server>  
  <node port="8157">10.250.170.183</node>  
  <pool/>  
  <icrTranscodeNode port="8080">10.10.0.49</icrTranscodeNode>  
</icrtranscoder>
```

The tag **<icrtranscoder>** contains the configuration for this application.

Replace the default text of the node tag **<icrTranscodeNode>** with the HTTP URL of the Dalet iCR machine.

EEG CCPlayFilePro Transcoder

The CCPlayFilePro Transcoder workflow element submits video and caption material to FilePro CCPlay software for the inclusion of closed captions into professional video exchange formats.

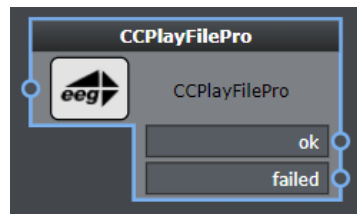


Fig. 11-200: EEG CCPlayFilePro Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > EEG** folder and has the following settings:

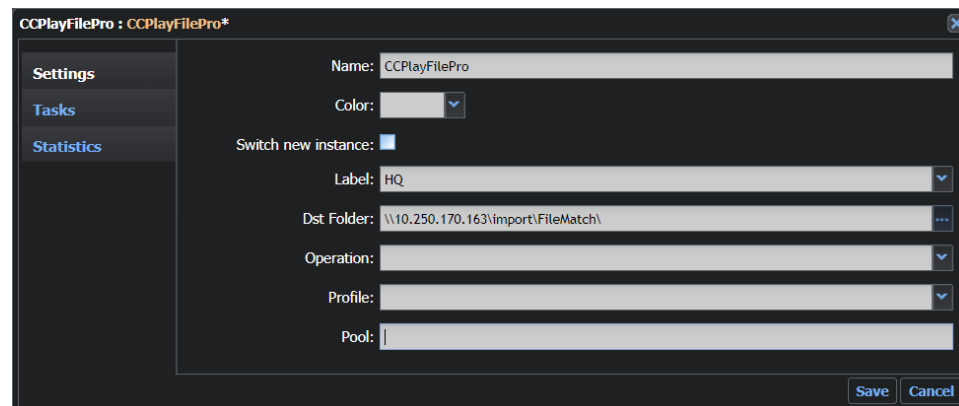


Fig. 11-201: CCPlayFilePro Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
Dst Folder	Sets the destination directory. Type in the UNC path or set it using the browser.
Operation	Specifies the operation to be performed by the transcoder as the following: Legalize - Legalize captions embedded in a video file.
Profile	Defines a profile for the input files to be collected by the transcoder.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<ccplayfilepro>
  <server port="8206">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</ccplayfilepro>
```

MantricsNode.xml Configuration

```
<ccplayfilepro slotCount="4">
  <active>>false</active>
  <server port="8206">10.250.170.183</server>
  <node port="8207">10.250.170.183</node>
  <pool/>
  <host>http://10.10.5.1:8080</host>
  <host_descr>CCPlayFilePro Address</host_descr>
  <host_tooltip>http://CCPlayFilePro:8080</host_tooltip>
</ccplayfilepro>
```

The tag **<ccplayfilepro>** contains the configuration for this application.

Replace the default address of the node tag **<host>** with the HTTP URL of the CCPlayFilePro server and use the port: 8080. The tag **<host_descr>** contains a label for the host. The tag **<host_tooltip>** contains a tooltip for the host.

FFmpeg Proxy Transcoder

The **FFmpeg Proxy** transcoder workflow element contains pre-configured settings that transcode video, audio or image materials to a 25 fps H.264 encoded video file (MPEG-4).



Fig. 11-202: FFmpeg Transcoder Workflow Element

Note: The workflow element **FFmpeg Proxy** is a preconfigured instance of the **FFmpeg** workflow element.

Element Settings Configuration

This element is available in the **Transcoding > FFmpeg** folder and has the following settings:



Fig. 11-203: FFmpeg Proxy Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Dest folder	Sets the destination directory. Type in a UNC path or set it by using the browser.
Select Video params	Checkbox to display settings to transcode video source material. (Default: Unselected)
Select Audio params	Checkbox to display settings to transcode audio source material. (Default: Unselected)
Select Image params	Checkbox to display settings to transcode graphic image source material.(Default: Unselected)
Pool	Sets the name of a pool associated with the element to balance the processing load.
Video Settings (Displayed when the checkbox Select Video params is selected.)	
Video bit rate	Sets the video bit rate (default: 512).
Width	Sets the width of the video output in pixels. (Default: 480)
Height	Sets the height of the video output in pixels. (Default: 270)
Audiotrack bit rate	Sets the audio track bit rate (default: 128 kbps).
Audio Settings (Displayed when the checkbox Select Audio params is selected.)	

Option	Description
Audio bit rate	Sets the audio bit rate (for example, 128000 is 128kbps).
Image Settings (Displayed when the checkbox Select Image params is selected.)	
Image Width	Sets the width of the output file in pixels.
Image Height	Sets the height of the output file in pixels.

Configuration Files

MantricsServer.xml Configuration

```
<ccplayfilepro>
  <server port="8206">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</ccplayfilepro>
```

MantricsNode.xml Configuration

```
<ffmpeg slotCount="4">
  <active>>true</active>
  <server port="8096">10.250.170.183</server>
  <node port="8097">10.250.170.183</node>
  <pool/>
  <ExecutablePath>C:\Mantrics\ffmpeg\bin\ffmpeg.exe</ExecutablePath>
</ffmpeg>
```

The tag **<ffmpeg>** contains the configuration for the default transcoder provided with Momentum.

The node tag **<ExecutablePath>** specifies the path where the executable file `ffmpeg.exe` is located.

FFmpeg Transcoder

The Momentum **FFmpeg Transcoder** element is the default transcoder provided with Momentum

This element transcodes video, audio or image materials in a range of different output formats. This workflow element can also transcode both Audio and Graphic Image instances. In the case of audio files, the FFmpeg transcoder can create MP3 files as proxies from Audio Instance source media files.

Note: The **FFmpeg Transcoder** workflow element will complete the transcoding process even if the file path of the source media file contains special characters in Unicode that are not present in the English alphabet (for example, Cyrillic characters.)

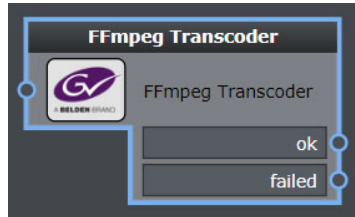


Fig. 11-204: FFmpeg Transcoder Workflow Element

Note: The workflow element **FFmpeg Proxy** is a preconfigured instance of the **FFmpeg Transcoder** workflow element.

Element Settings Configuration

This element is available in the **Transcoding > FFmpeg** folder and has the following settings:

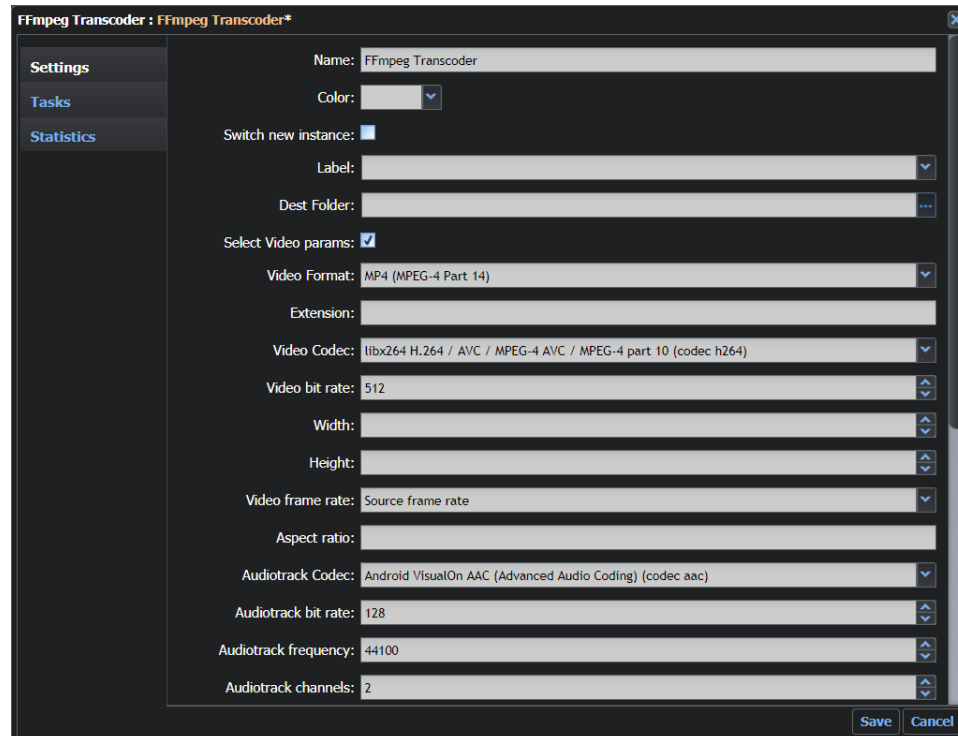


Fig. 11-205: FFmpeg Transcoder Element Configuration Fields - Part 1

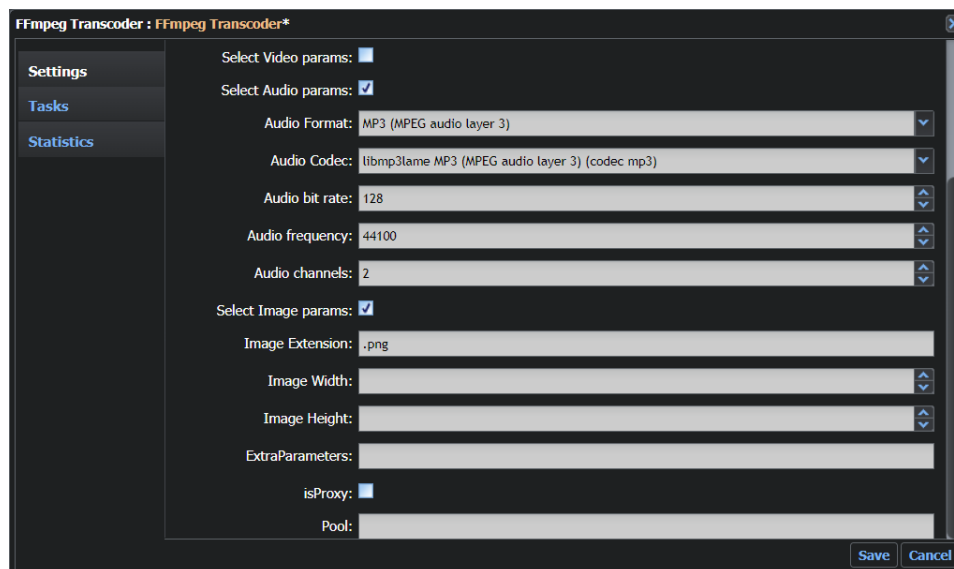


Fig. 11-206: FFmpeg Transcoder Element Configuration Fields - Part 2

Option	Description
Generic Settings	
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Label	Sets the label of the Instance generated by the transcoding process.
Dest Folder	Sets the destination directory. Type in a UNC path or set it by using the browser.
Select Video params	Checkbox to display settings to transcode video source material. (Default: Unselected)
Select Audio params	Checkbox to display settings to transcode audio source material. (Default: Unselected)
Select Image params	Checkbox to display settings to transcode graphic image source material.(Default: Unselected)
isProxy	Sets the flag to identify the results of the transcoder element as proxy. This is a low quality previews of the related material. When it is active, some of the above options become locked to preserve the characteristics of the original file.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Option	Description
Video Settings (Displayed when the checkbox Select Video params is selected.)	
Video Format	Sets the output format of the video file.
Extension	Sets the extension of the output file (for example, mpg, avi, mov etc.)
Video Codec	Sets the video codec to generate the output file. Default: copy .
Video bit rate	Sets the video bit rate (for example, 6000000 is 60Kbps). Also displayed when the isProxy checkbox is selected.
Width	Sets the width of the video output in pixels. Also displayed when the isProxy checkbox is selected.
Height	Sets the height of the video output in pixels. Also displayed when the isProxy checkbox is selected.
Video frame rate	Sets the frame rate of the output file. Default: Source frame rate . Other options are: 23.976, 50, 59.94, NTSC (29.97), NTSC (30), PAL (25), True Cinema
Aspect ratio	Sets the aspect ratio of the output file.
Audiotrack Codec	Sets the audiotrack codec of the output file. Default: copy . Also displayed when the isProxy checkbox is selected.
Audiotrack bit rate	Sets the audio bit rate (for example, 128000 is 128 kbps).
Audiotrack frequency	Sets the sampling rate of the audio track in Hz (for example, 44100, 48000, 96000 etc.)
Audiotrack channels	Sets the number of audio track channels in the output file.
ExtraParameters	Sets other parameters that affect the video output file. For example, the option -movflags faststart enables the generation of MP4 proxy files that can be more easily streamed.
Audio Settings (Displayed when the checkbox Select Audio params is selected.)	
Audio Format	Sets the output format of the audio file.
Audio Codec	Sets the video codec of the output file.
Audio bit rate	Sets the video bit rate (for example, 6000000 is 60Kbps). Also displayed when the isProxy checkbox is checked.
Audio frequency	Sets the sampling rate of the audio in Hz (for example, 44100, 48000, 96000 etc.)
Audio channels	Sets the number of audio track channels in the output audio file.
Extra Parameters	Sets additional parameters that may affect the output audio file.
Image Settings (Displayed when the checkbox Select Image params is selected.)	
Image Extension	Sets the extension of the output file (for example, png, bmp, gif, jpg, tif, tga, icb, vda, vst etc.) Not displayed when the isProxy checkbox is selected but Momentum sets the proxy extension to png .

Option	Description
Image Width	Sets the width of the output file in pixels. Also displayed when the isProxy checkbox is selected.
Image Height	Sets the height of the output file in pixels. Also displayed when the isProxy checkbox is selected.
Extra Parameters	Sets other parameters that affect the output image file.

Configuration Files

MantricsServer.xml Configuration

```
<ffmpeg>
  <server port="8096">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</ffmpeg>
```

MantricsNode.xml Configuration

```
<ffmpeg slotCount="4">
  <active>true</active>
  <server port="8096">10.250.170.183</server>
  <node port="8097">10.250.170.183</node>
  <pool/>
  <ExecutablePath>C:\Mantrics\ffmpeg\bin\ffmpeg.exe</ExecutablePath>
</ffmpeg>
```

The tag **<ffmpeg>** contains the configuration for the default transcoder provided with Momentum.

The node tag **<ExecutablePath>** specifies the path where the executable file `ffmpeg.exe` is located.

FFmpeg Transcoder - Video and Audio Format Options			
3GP (3GPP file format)	ISMV/ISMA (Smooth Streaming)	PCM signed 16-bit little-endian	raw MLP
3GP2 (3GPP2 file format)	JACOsub subtitle format	PCM signed 24-bit big-endian	raw MPEG-1 video
3GPP AMR	Lego Mindstorms RSO	PCM signed 24-bit little-endian	raw MPEG-2 video
a64 - video for Commodore 64	LOAS/LATM	PCM signed 32-bit big-endian	raw MPEG-4 video
Adobe Filmstrip	Loki SDL MJPEG	PCM signed 32-bit little-endian	raw null video
ADTS AAC (Advanced Audio Coding)	Matroska	PCM signed 8-bit	raw TrueHD
Apple CAF (Core Audio Format)	MD5 testing	PCM unsigned 16-bit big-endian	raw VC-1 video
Apple HTTP Live Streaming	MicroDVD subtitle format	PCM unsigned 16-bit little-endian	raw video
ASF (Advanced / Active Streaming Format)	Microsoft Windows ICO	PCM unsigned 24-bit big-endian	raw WavPack
AST (Audio Stream)	MIME multipart JPEG	PCM unsigned 24-bit little-endian	RealMedia
Audio IFF	MP2 (MPEG audio layer 2)	PCM unsigned 32-bit big-endian	RTP output
AVI (Audio Video Interleaved)	MP3 (MPEG audio layer 3)	PCM unsigned 32-bit little-endian	RTSP output
Berkeley/IRCAM/CARL Sound Format	MP4 (MPEG-4 Part 14)	PCM unsigned 8-bit	SAP output
caca (color ASCII art) output device	MPEG-1 Systems / MPEG program stream	Per-frame MD5 testing	SDL output device
CRC testing	MPEG-1 Systems / MPEG program stream (VCD)	piped image2 sequence	Segment
Creative Voice	MPEG-2 PS (DVD VOB)	PSP MP4 (MPEG-4 Part 14)	Smooth Streaming Muxer
CRI ADX	MPEG-2 PS (SVCD)	QuickTime / MOV	Sony OpenMG audio
D-Cinema audio	MPEG-2 PS (VOB)	raw AC-3	Sony Wave64
DV (Digital Video)	MPEG-TS (MPEG-2 Transport Stream)	raw Chinese AVS (Audio Video Standard) video	SoX native
extract pts as timecode v2 format, as defined by mkvtoolnix	Multiple muxer tee	raw data	SSA (SubStation Alpha) subtitle
F4V Adobe Flash Video	MXF (Material eXchange Format)	raw Dirac	streaming segment muxer

Configuring the Transcoder Elements
Configuration Files

FFmpeg Transcoder - Video and Audio Format Options			
FFM (FFserver live feed)	MXF (Material eXchange Format) D-10 Mapping	raw DNxHD (SMPTE VC-3)	SubRip subtitle
FFmpeg metadata in text	NUT	raw DTS	Sun AU
FLV (Flash Video)	Ogg	raw E-AC-3	SWF (ShockWave Flash)
framecrc testing	On2 IVF	raw FLAC	SWF (ShockWave Flash) (AVM2)
G.729 BIT file format	PCM 32-bit floating-point big-endian	raw G.722	VC-1 test bitstream
GIF Animation	PCM 32-bit floating-point little-endian	raw G.723.1	WAV / WAVE (Waveform Audio)
GXF (General eXchange Format)	PCM 64-bit floating-point big-endian	raw H.261	WebM
IEC 61937 (used on S/PDIF - IEC958)	PCM 64-bit floating-point little-endian	raw H.263	WebVTT subtitle
iLBC storage	PCM A-law	raw H.264 video	Windows Television (WTV)
image2 sequence	PCM mu-law	raw id RoQ	Yamaha SMAF
iPod H.264 MP4 (MPEG-4 Part 14)	PCM signed 16-bit big-endian	raw MJPEG video	YUV4MPEG pipe

FFmpeg Transcoder - Video Codec Options			
AJA Kona 10-bit RGB Codec	H.263 / H.263-1996	MPEG-4 part 2	Sun Rasterfile image
AMV Video	H.263+ / H.263-1998 / H.263 version 2	MPEG-4 part 2 Microsoft variant version 2	TIFF Image
Apple ProRes	Huffyuv / HuffYUV	MPEG-4 part 2 Microsoft variant version 3 (codec msmpeg4v3)	Truevision Targa image
Apple (codec prores)	Huffyuv FFmpeg variant	Multicolor charset for Commodore 64 (codec a64_multi)	Uncompressed 4:2:2 10-bit
Apple (iCodec Pro) (codec prores)	id RoQ video (codec roq)	Multicolor charset for Commodore 64, extended with 5th color (colram) (codec a64_multi5)	Uncompressed 4:4:4 10-bit
ASUS V1	JPEG 2000	OpenJPEG JPEG 2000 (codec jpeg2000)	Uncompressed packed 4:2:0
ASUS V2	JPEG-LS	PAM (Portable AnyMap) image	Uncompressed packed 4:4:4
Avid 1:1 10-bit RGB Packer	LCL (LossLess Codec Library) ZLIB	PBM (Portable BitMap) image	Uncompressed packed MS 4:4:4:4
Avid Meridien Uncompressed	libschroedinger Dirac 2.2 (codec dirac)	PC Paintbrush PCX image	Uncompressed packed QT 4:4:4:4
BMP (Windows and OS/2 bitmap)	libtheora Theora (codec theora)	PGM (Portable GrayMap) image	Uncompressed RGB 10-bit
Cirrus Logic AccuPak	libvpx VP8 (codec vp8)	PGMYUV (Portable GrayMap YUV) image	Uncompressed YUV 4:1:1 12-bit
copy	libx264 H.264 / AVC / MPEG-4 AVC / MPEG-4 part 10 (codec h264)	PNG (Portable Network Graphics) image	Ut Video
DPX image	libx264 H.264 / AVC / MPEG-4 AVC / MPEG-4 part 10 RGB (codec h264)	PPM (Portable PixelMap) image	VC3/DNxHD
DV (Digital Video)	libxavs Chinese AVS (Audio Video Standard) (codec cavs)	QuickTime Animation (RLE) video	Windows Media Video 7
FFmpeg video codec #1	libxvidcore MPEG-4 part 2 (codec mpeg4)	Raw video	Windows Media Video 8

Configuring the Transcoder Elements
Configuration Files

FFmpeg Transcoder - Video Codec Options			
Flash Screen Video	Lossless JPEG	RealVideo 1.0	XBM (X BitMap) image
Flash Screen Video Version 2	Microsoft Video-1	RealVideo 2.0	X-face image
FLV / Sorenson Spark / Sorenson H.263 (Flash Video) (codec flv1)	MJPEG (Motion JPEG)	SGI image	XWD (X Window Dump) image
GIF (Graphics Interchange Format)	MPEG-1 Video	Snow	Zip Motion Blocks Video
H.261	MPEG-2 Video	Sorenson Vector Quantizer 1 / Sorenson Video 1 / SVQ1	

FFmpeg Transcoder - Audio Codec Options			
AAC (Advanced Audio Coding)	G.726 ADPCM (codec adpcm_g726)	PCM A-law / G.711 A-law	PCM unsigned 24-bit big-endian
ADPCM IMA QuickTime	id RoQ DPCM	PCM D-Cinema audio signed 24-bit	PCM unsigned 16-bit little-endian
ADPCM IMA WAV	iLBC (Internet Low Bitrate Codec) (codec ilbc)	PCM mu-law / G.711 mu-law	PCM unsigned 32-bit big-endian
ADPCM Microsoft	libgsm GSM (codec gsm)	PCM signed 16-bit big-endian	PCM unsigned 32-bit little-endian
ADPCM Shockwave Flash	libgsm GSM Microsoft variant (codec gsm_ms)	PCM signed 16-bit big-endian planar	PCM unsigned 8-bit
ADPCM Yamaha	libmp3lame MP3 (MPEG audio layer 3) (codec mp3)	PCM signed 16-bit little-endian	RealAudio 1.0 (14.4K) (codec ra_144)
ALAC (Apple Lossless Audio Codec)	libopus Opus (codec opus)	PCM signed 16-bit little-endian planar	RFC 3389 comfort noise generator
Android VisualOn AAC (Advanced Audio Coding) (codec aac)	libspeex Speex (codec speex)	PCM signed 24-bit big-endian	SEGA CRI ADX ADPCM
Android VisualOn AMR-WB (Adaptive Multi-Rate Wide-Band) (codec amr_wb)	libtwolame MP2 (MPEG audio layer 2) (codec mp2)	PCM signed 24-bit little-endian	SMPTE 302M
ATSC A/52 E-AC-3	libvorbis (codec vorbis)	PCM signed 24-bit little-endian planar	Sonic
ATSC A/52A (AC-3)	MP2 (MPEG audio layer 2)	PCM signed 32-bit big-endian	Sonic lossless
ATSC A/52A (AC-3) (codec ac3)	Nellymoser Asao	PCM signed 32-bit little-endian	TTA (True Audio)
Copy (default)	OpenCORE AMR-NB (Adaptive Multi-Rate Narrow-Band) (codec amr_nb)	PCM signed 32-bit little-endian planar	Vorbis
DCA (DTS Coherent Acoustics) (codec dts)	PCM 32-bit floating point big-endian	PCM signed 8-bit	Windows Media Audio 1
FLAC (Free Lossless Audio Codec)	PCM 32-bit floating point little-endian	PCM signed 8-bit planar	Windows Media Audio 2
G.722 ADPCM (codec adpcm_g722)	PCM 64-bit floating point big-endian	PCM unsigned 16-bit big-endian	
G.723.1	PCM 64-bit floating point little-endian	PCM unsigned 16-bit little-endian	

Configuring the FFMpeg Frame Rate

To reduce possible errors while working with the FFMpeg transcoder, the available frame rates are stored in the configuration file `C:\mantrics\FFMpegFramerateConfig.xml`. The content of this file is as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<root xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <node label="Source frame rate" value="" />
  <node label="23.976" value="23.976" />
  <node label="50" value="50" />
  <node label="59.94" value="59.94" />
  <node label="NTSC (29.97)" value="29.97" />
  <node label="NTSC (30)" value="30" />
  <node label="PAL (25)" value="25" />
  <node label="True Cinema" value="24" />
</root>
```

Each `<node label="xxx...">` tag specifies the value of a commonly used frame rate.

You can add new nodes if frame rates have values other than those listed. When running Momentum, the **label** parameters appear as a drop-down list in the **Video frame rate** field of the FFMpeg workflow element, enabling you to select the appropriate frame rate. The **value** parameter is passed to the transcoder.

Grass Valley Alchemist XF Transcoder

The GV **Alchemist XF** transcoder workflow element transcodes content using presets and can also create proxies.



Fig. 11-207: GV Alchemist XF Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Grass Valley** folder and has the following settings:



Fig. 11-208: GV Alchemist XF Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
preset	Sets which preset is to be used for the transcoding.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
destination	Sets the destination directory. Type in the UNC path or set it using the browser.
isProxy	Sets the flag to identify the results of the transcoder element as proxies. These are low quality previews of the related material.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<alchemistOD>
  <server port="8186">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
</alchemistOD>
```

```
<reconnectRetryCount>1</reconnectRetryCount>  
<reconnectTimeout>0</reconnectTimeout>  
</alchemistOD>
```

MantricsNode.xml Configuration

```
<alchemistOD slotCount="4">  
  <active>false</active>  
  <server port="8186">10.250.170.183</server>  
  <node port="8187">10.250.170.183</node>  
  <pool/>  
  <ipAlchemistODServer>http://10.10.5.22:35061</ipAlchemistODServer>  
</alchemistOD>
```

The tag **<alchemistOD>** contains the configuration for the GV Alchemist XF transcoder. In the node tag **<ipAlchemistODServer>**, insert the web address and port number, using the HTTP protocol to identify the host server of the Alchemist application.

Grass Valley Quasar XF Transcoder

The GV **Quasar XF** transcoder workflow element transcodes content using presets and can also create proxies.



Fig. 11-209: GV Quasar XF Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Grass Valley** folder and has the following settings:

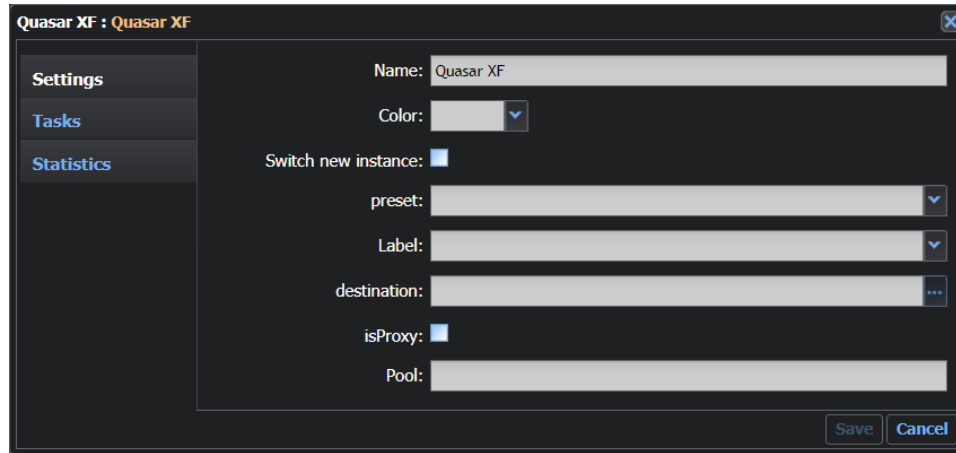


Fig. 11-210: GV Quasar XF Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
preset	Sets which preset is to be used for the transcoding.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
destination	Sets the destination directory. Type in the UNC path or set it using the browser.
isProxy	Sets the flag to identify the results of the transcoder element as proxies. These are low quality previews of the related material.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<quasarOD>
  <server port="8183">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
```

```
<reconnectRetryCount>1</reconnectRetryCount>  
<reconnectTimeout>0</reconnectTimeout>  
</quasarOD>
```

MantricsNode.xml Configuration

```
<quasarOD slotCount="4">  
  <active>false</active>  
  <server port="8183">10.250.170.183</server>  
  <node port="8189">10.250.170.183</node>  
  <pool/>  
  <ipQuasarODServer>http://10.10.5.22:35061</ipQuasarODServer>  
</quasarOD>
```

The tag **<quasarOD>** contains the configuration for the GV Quasar XF transcoder. In the node tag **<ipQuasarODServer>**, insert the web address and port number, using the HTTP protocol to identify the host server of the Quasar application.

Harmonic Rhozet PMC Bumper

The **PMC Bumper** element is not a transcoder but it works on the PMC transcoder and enables you to stitch video to the head and tail of other video material.

Note: To use this element, a Rhozet transcoder engine must be available in your Momentum system.

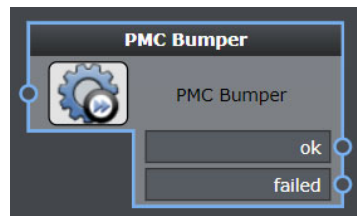


Fig. 11-211: PMC Bumper Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Harmonic Rhozet > ProMediaCarbon** folder and has the following settings:

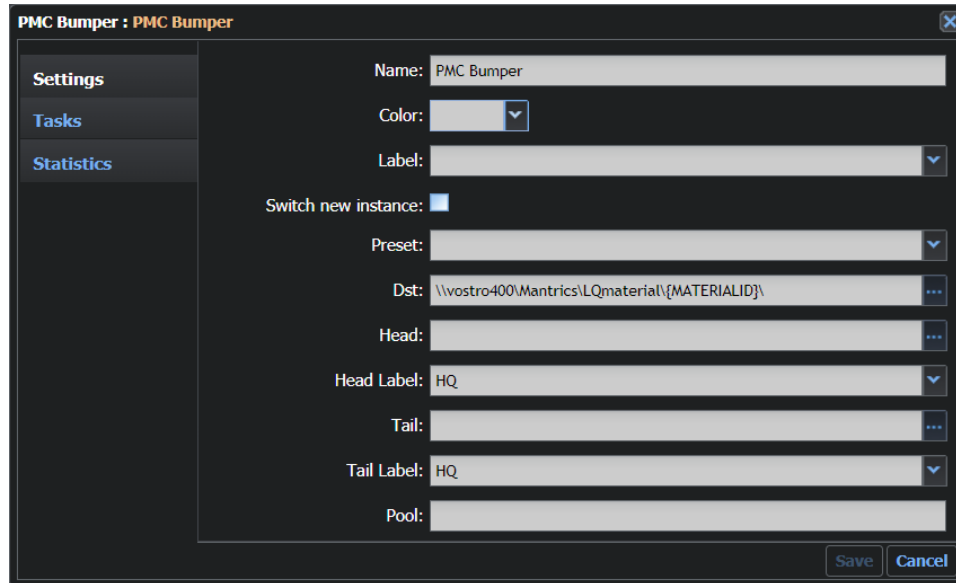


Fig. 11-212: PMC Bumper Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label of the instance generated by the transcoding.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Preset	Sets the output format by selecting a profile from the presets available in the Rhozet system.
Dst	Sets the destination directory. You can type it by using a UNC path or set it by using the browser.
Head	Sets the material from the central repository to be stitched to the head of the destination material. You can set it by typing in a UNC path or by using the browser.
Head Label	Sets the label of the head section generated by the transcoding.
Tail	Sets the material from the central repository to be stitched to the tail of the destination material. You can set it by typing in a UNC path or by using the browser.
Tail Label	Sets the label of the tail section generated by the transcoding.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<headAndTail>
  <server port="8102">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</headAndTail>
```

MantricsNode.xml Configuration

```
<headandtail slotCount="-1">
  <active>false</active>
  <server port="8102">10.250.170.183</server>
  <node port="8103">10.250.170.183</node>
  <pool/>
  <headAndTailNode port="1120">10.10.0.222</headAndTailNode>
  <headAndTailNode_descr>Rhozet Host</headAndTailNode_descr>
</headandtail>
```

The PMC Bumper is not a transcoder element but it works on the PMC transcoder. The server tag **<headAndTail>** contains the configuration for this application.

The node tag **<headAndTailNode port="">** defines the IP address and port number used to send API commands from the third party application. If the PMC Bumper node and the Rhozet node are installed on different machines, include the IP address of the Rhozet machine. The node tag **<headAndTailNode_descr>** contains a label for the server.

Harmonic Rhozet PMC EDL Exporter

The **PMC EDL Exporter** element can be used to export an Edit Decision List (EDL).



Fig. 11-213: PMC EDL Exporter Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Harmonic Rhozet > ProMediaCarbon** folder and has the following settings:

Fig. 11-214: PMC EDL Exporter Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Dst	Sets the destination directory. Type in a UNC path or set it by using the browser.
Label	Sets the label of the instance generated by the transcoding.
Tail	Sets how many seconds are added to the tail of the EDL.
Schema	Sets the metadata schema to be used.
PresetAudio	Sets the audio transcoding profile for the Rhozet system.
Preset	Sets the transcoding profile for the Rhozet system.
Export To	Sets the EDL output format. The values are: Final Cut or Consolidate (see Harmonic Rhozet PMC Bumper , on page 276).
Head	Sets how many seconds are added to the head of the EDL.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<rhozetConsolidate>
  <server port="8100">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <MacMapDirectory/>
</rhozetConsolidate>
```

MantricsNode.xml Configuration

```
<rhozetconsolidate slotCount="-1">
  <active>>false</active>
  <server port="8100">10.250.170.183</server>
  <node port="8101">10.250.170.183</node>
  <pool/>
  <rhozetConsolidateNode port="1120">10.10.0.222
    </rhozetConsolidateNode>
  <rhozetConsolidateNode_descr>Rhozet Host</
rhozetConsolidateNode_descr>
</rhozetconsolidate>
```

The tag **<rhozetConsolidate>** contains the configuration for this application.

The server tag **<MacMapDirectory>** defines the directory in which the exported XML EDLs are saved and maps a Microsoft Windows directory to the corresponding Apple Mac directory. For further details, see [Configuring Additional Momentum Features](#), on page 315.

For example:

```
<MacMapDirectory>
  <MapDir windir="\\mtraining" macdir="/Volumes/" />
</MacMapDirectory>
```

The node tag **<rhozetConsolidateNode port="">** defines the IP address and port number used to send API commands from the third party application. The node tag **<rhozetConsolidateNode_descr>** contains a label for the server.

Note: Ensure that the Nexus Service is running on the host machine.

Harmonic Rhozet PMC Transcoder

The **PMC Transcoder** element enables you to select a profile from the presets available in the Rhozet system. Use it to set the destination directory in which the transcoded file is created.

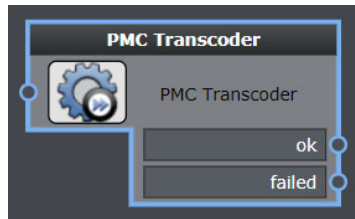


Fig. 11-215: PMC Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Harmonic Rhozet > ProMediaCarbon** folder and has the following settings:

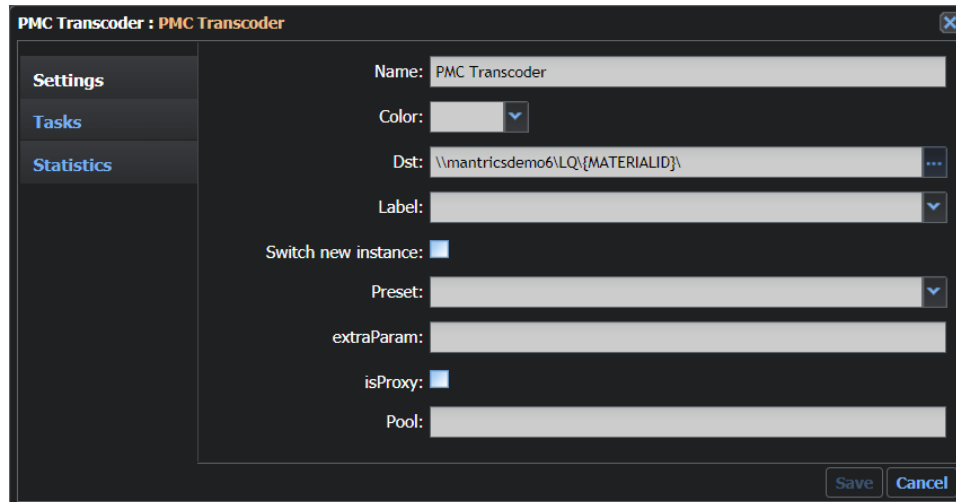


Fig. 11-216: PMC Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Dst	Sets the destination directory. Type in a UNC path or set it by using the browser.
Label	Sets the label of the instance generated by the transcoding.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Preset	Sets the transcoding preset for the Rhozet system.

Option	Description
extraParam	Sets additional parameters for the XML file that is sent to the transcoder node in order to enable specific filters or functionality. For example, it is possible to extract the timecode track from the essence instead of reading the timecode from the wrapper metadata.
isProxy	Sets the flag to identify the results of the transcoder element as proxies. These are low quality previews of the related material.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<rhozet>
  <server port="8084">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <overwriteInstance>>false</overwriteInstance>
</rhozet>
```

MantricsNode.xml Configuration

```
<rhozet slotCount="-1">
  <active>>false</active>
  <server port="8084">10.250.170.183</server>
  <node port="8085">10.250.170.183</node>
  <pool/>
  <rhozetNode port="1120">10.250.170.183</rhozetNode>
  <rhozetNode_descr>Rhozet Host</rhozetNode_descr>
</rhozet>
```

The tag **<rhozet>** contains the configuration for this application.

The server tag **<overwriteInstance>** defines the behavior if an instance of the transcoded material, with the same characteristics, is already present in the database. Set the value to **true** to overwrite or **false** to preserve the existing instance.

For example:

```
<overwriteInstance>>true</overwriteInstance>
```

The node tag **<rhozetNode port="">** defines the IP address and port number used to send API commands from the third party application. The node tag **<rhozetnode_descr>** contains a label for the server.

Note: Ensure that the Nexus Service is running on the host machine.

Harmonic Rhozet PMC Segments Consolidator

The **Segments Consolidator** element uses the key segments associated with a material to create a new Title and, in addition, creates an XML document associated with the new material that is used to publish this content to the Brightcove or FreeWheel video-on-demand (VOD) systems.

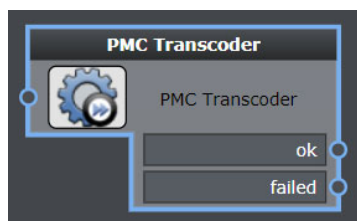


Fig. 11-217: PMC Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Harmonic Rhozet > ProMediaCarbon** folder and has the following settings:

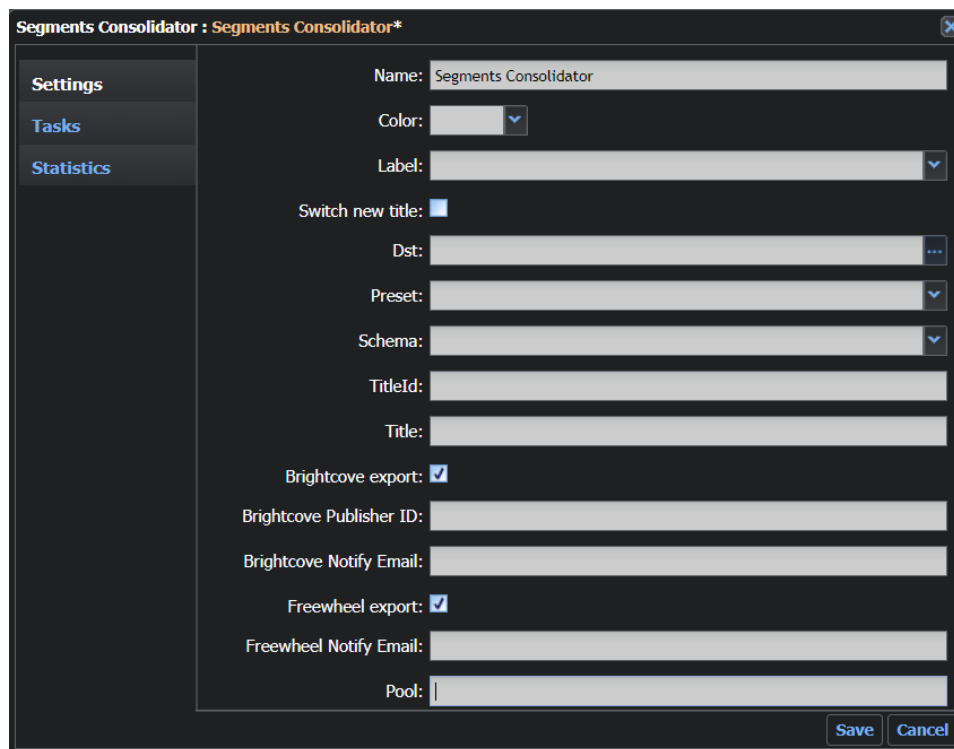


Fig. 11-218: Segments Consolidator Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label of the instance. The available values are contained in the <code>InstanceLabelConfig.xml</code> file.
Switch new title	Passes the new Title to the following steps of the workflow, if active.
Dst	Sets the destination directory. Enter the UNC path or set it using the browser.
Preset	Specifies the Rhozet preset used to consolidate the material.
Schema	Sets the category of metadata that can be applied to the material (see the <i>Momentum Operator's Guide</i> for details).
TitleId	Sets the Material Id value for the material (use of the Momentum system variables is allowed).
Title	Sets the Title value for the material (use of the Momentum system variables is allowed).
Brightcove export	Check to select export of the new title to Brightcove VOD service.
Brightcove Publisher ID	Set to the publisher ID provided by Brightcove to allow the user to publish content.

Option	Description
Brightcove Notify Email	Enter the email address used to confirm a successful export to Brightcove.
Freewheel export	Check to select export of the new title to the FreeWheel VOD service.
Freewheel Notify Email	Enter the email address used to confirm a successful export to Freewheel.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<rhozetSegmentsconsolidator>
  <server port="8078">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</rhozetSegmentsconsolidator>
```

MantricsNode.xml Configuration

```
<rhozetsegmentsconsolidator slotCount="4">
  <active>>false</active>
  <server port="8078">10.250.170.183</server>
  <node port="8079">10.250.170.183</node>
  <pool/>
  <rhozetConsolidateNode port="1120">10.10.0.9</rhozetConsolidateNode>
</rhozetsegmentsconsolidator>
```

The tag **<rhozetSegmentsconsolidator>** contains the configuration for this application.

The node tag **<rhozetConsolidateNode port="">** defines the IP address and port number used to send API commands from the third party application.

For example:

```
<rhozetConsolidateNode port="1120">10.10.0.9</rhozetConsolidateNode>
```

Note: Ensure that the Nexus Service is running on the host machine.

Harmonic Rhozet WFS EDL Exporter

The **WFS EDL Exporter** element can be used to export an Edit Decision List (EDL).



Fig. 11-219: WFS EDL Exporter Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Harmonic Rhozet > WFS** folder and has the following settings:

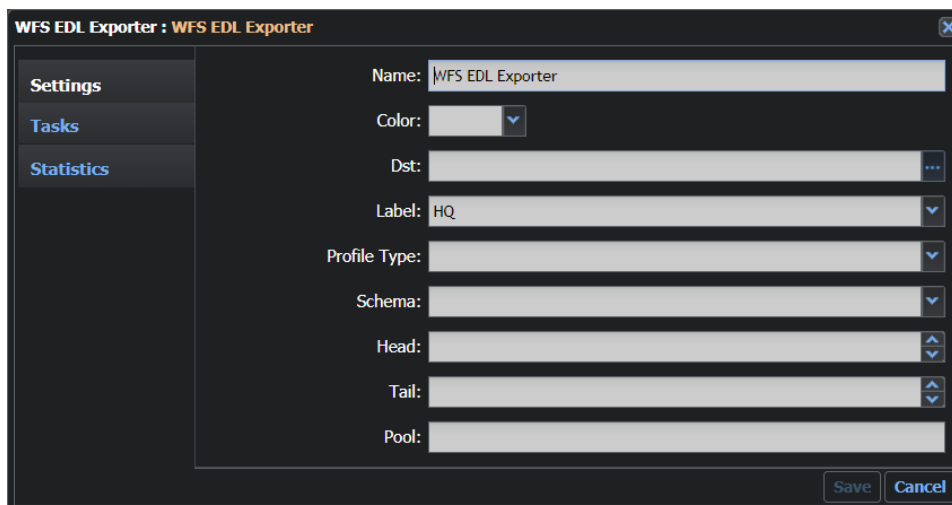


Fig. 11-220: WFS EDL Exporter Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Dst	Sets the destination directory. Type in a UNC path or set it by using the browser.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
Profile Type	Sets the type of profile that is recalled from the device. You can choose from the options: Preset or WTemplate.

Option	Description
Schema	Sets the metadata schema that will be used with the EDL.
Head	Sets how many seconds are added to the head of the EDL.
Tail	Sets how many seconds are added to the tail of the EDL.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<rhozetWFSConsolidate>  
  <server port="8086">10.250.170.183</server>  
  <policy>Failover</policy>  
  <retryCount>3</retryCount>  
  <active>>false</active>  
  <reconnectRetryCount>1</reconnectRetryCount>  
  <reconnectTimeout>0</reconnectTimeout>  
</rhozetWFSConsolidate>
```

MantricsNode.xml Configuration

```
<rhozetwfsconsolidate slotCount="4">  
  <active>>false</active>  
  <server port="8086">10.250.170.183</server>  
  <node port="8087">10.250.170.183</node>  
  <pool/>  
  <rhozetWFSConsolidateNode port="8731">10.10.0.222  
    </rhozetWFSConsolidateNode>  
  <rhozetWFSConsolidateNode_descr>WFS Host  
    </rhozetWFSConsolidateNode_descr>  
</rhozetwfsconsolidate>
```

The tags **<rhozetWFSConsolidate>** and **<rhozetwfsconsolidate>** contain the configuration for this application.

The node tag **<rhozetWFSConsolidateNode port="">** defines the IP address and port number used to send API commands from the third party application. The node tag **<rhozetWFSConsolidateNode_descr>** contains a label for the server.

Note: Ensure that the Nexus Service is running on the host machine.

Harmonic Rhozet WFS Transcoder

The **WFS Transcoder** element enables you to select a profile from those available in the WFS system. You can select from a transcoding preset or workflow template. You can also set the destination directory in which the transcoded file is created.

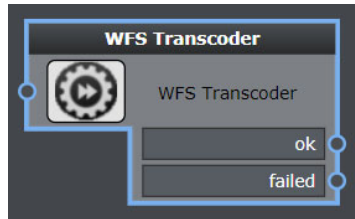


Fig. 11-221: WFS Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Harmonic Rhozet > WFS** folder and has the following settings:

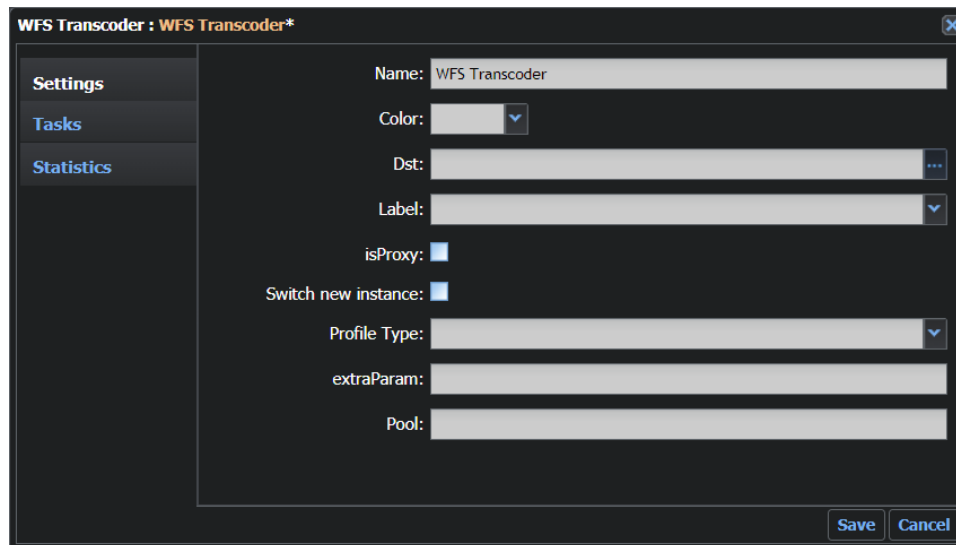


Fig. 11-222: WFS Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Dst	Sets the destination directory. Type in a UNC path or set it by using the browser.

Option	Description
Label	Sets the label of the instance. The available values are contained in the <code>InstanceLabelConfig.xml</code> file.
isProxy	Sets the flag to identify the results of the transcoder element as proxies. These are low quality previews of the related material.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Profile Type	Sets the type of transcoding profile that is recalled from the device. You can choose from the options: Preset or WTemplate.
ExtraParam	Sets additional parameters for the XML file that is sent to the transcoder node in order to enable specific filters or functionality. For example, it is possible to extract the timecode track from the essence instead of reading the timecode from the wrapper metadata.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<rhozetWFS>
  <server port="8092">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <overwriteInstance>>false</overwriteInstance>
</rhozetWFS>
```

MantricsNode.xml Configuration

```
<rhozetwfs slotCount="4">
  <active>>false</active>
  <server port="8092">10.250.170.183</server>
  <node port="8093">10.250.170.183</node>
  <pool/>
  <rhozetWFSNode port="8731">10.10.0.222</rhozetWFSNode>
  <rhozetWFSNode_descr>WFS Host</rhozetWFSNode_descr>
</rhozetwfs>
```

The tags **<rhozetWFS>** and **<rhozetwfs>** contain the configuration for this application.

The server tag `<overwriteInstance>` defines the behavior if an instance of the transcoded material, with the same characteristics, is already present in the database. Set the value to **true** to overwrite or **false** to preserve the existing instance.

For example:

```
<overwriteInstance>>false</overwriteInstance>
```

The node tag `<rhozetWFSNode port="">` defines the IP address and port number used to send API commands from the third party application. The node tag `<rhozetWFSNode_descr>` contains a label for the server.

Note: Ensure that the Nexus Service is running on the host machine.

Telestream FlipFactory Transcoder

The **Flip Factory** transcoder element chooses a preset from the factory settings available in the Flip Factory system. Momentum supports build version 7.4.976 of the Flip Factory API.



Fig. 11-223: FlipFactory Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Telestream** folder and has the following settings:

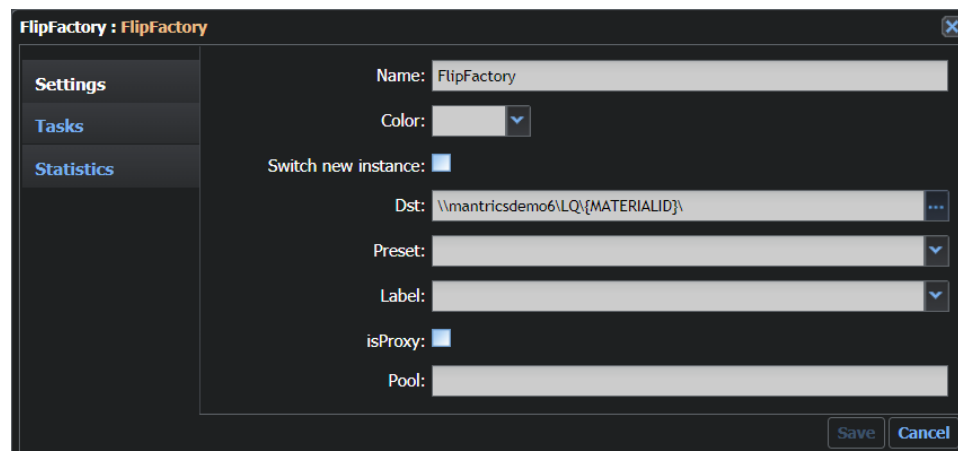


Fig. 11-224: FlipFactory Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Dst	Sets the destination directory. Enter the UNC path or set it using the browser.
Preset	Sets the profile from the available factory settings in the Flip Factory system.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
isProxy	Sets the flag to identify the results of the transcoder element as proxies. These are low quality previews of the related material.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Note: FlipFactory is a product that is not going to be further developed and consequently dismissed by Telestream. The end-of-life plans for the entire family of FlipFactory software products are as follows:
 End of Sale: June 30, 2015
 End of Support: December 31, 2016

Configuration Files

MantricsServer.xml Configuration

```
<flipfactory>
  <server port="8134">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</flipfactory>
```

MantricsNode.xml Configuration

```
<flipfactory slotCount="4">
  <active>>false</active>
  <server port="8134">10.250.170.183</server>
  <node port="8135">10.250.170.183</node>
  <pool/>
  <flipFactoryNode port="9000">10.250.170.183</flipFactoryNode>
```

```
<flipFactoryNode_descr>Flip Factory Host</flipFactoryNode_descr>  
<user>demo</user>  
</flipfactory>
```

The tag **<flipfactory>** contains the configuration for this application.

The node tag **<flipFactoryNode port="">** defines the IP address and port number used to send API commands from the third party application. The node tag **<flipFactoryNode_descr>** contains a label for the server.

Telestream Vantage Transcoder

The **Flip Factory** transcoder element uses its own profile setting to transcode contents and create proxies.

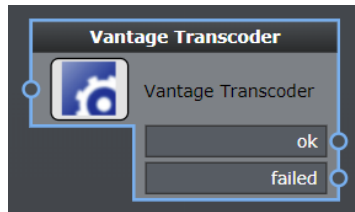


Fig. 11-225: Vantage Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding > Telestream** folder and has the following settings:

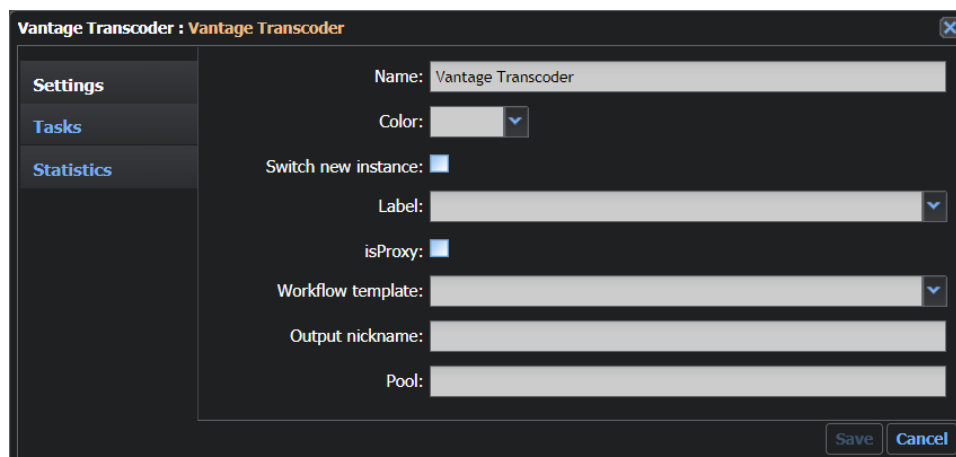


Fig. 11-226: Vantage Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
isProxy	Sets the flag to identify the results of the transcoder element as proxies. These are low quality previews of the related material.
Workflow template	Defines the profile to be applied from a list of profiles retrieved from the Vantage Transcoder.
Output nickname	<p>Used as a filter to process only those files generated by the Vantage profile that are assigned the specified nickname. If this field is left empty, the transcoder accepts all output files generated by the Vantage profile.</p> <p>By restricting the files accepted by the Vantage Transcoder on nickname, you can improve the performance of the transcoder.</p> <p>To specify a nickname in the Vantage profile, you need to edit the bricks in the Vantage interface. In particular, set the parameter Output media file nickname in the Flip brick.</p>
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<vantagetranscoder>
  <server port="8192">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</vantagetranscoder>
```

MantricsNode.xml Configuration

```
<vantagetranscoder slotCount="4">
  <active>>false</active>
  <server port="8192">10.250.170.183</server>
  <node port="8193">10.250.170.183</node>
</pool/>
```

```
<ipvantage>http://10.10.0.26:8676</ipvantage>  
</vantagetranscoder>
```

The tag **<vantagetranscoder>** contains the configuration for this application.

The tag **<ipvantage>** contains the connection details for the Vantage server.

Audio Morph Transcoder

The **Audio Morph** transcoder element enables you to manipulate the audio tracks in a media asset by adding, removing or swapping tracks.

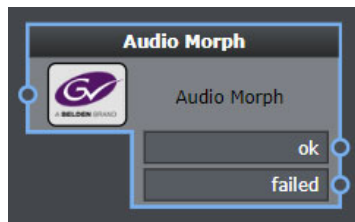


Fig. 11-227: Audio Morph Transcoder Workflow Element

Element Settings Configuration

This element is available in the **Transcoding** folder and has the following settings:

A screenshot of the "Audio Morph : Audio Morph*" configuration dialog box. The dialog has a dark theme and a sidebar on the left with tabs for "Settings", "Tasks", and "Statistics". The main area contains the following fields: "Name:" with the value "Audio Morph"; "Color:" with a dropdown menu; "Output file path:" with a text input field; "Label:" with a dropdown menu; "Tracks count:" with the value "4" and a dropdown menu; "Replace audio:" with a dropdown menu; "Switch new instance:" with a checked checkbox; "Track 1:" through "Track 4:" each with a dropdown menu; and "Pool:" with a text input field. At the bottom right, there are "Save" and "Cancel" buttons.

Fig. 11-228: Audio Morph Transcoder Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Output file path	Sets a specific path as the target location for the files created by the Audio Morph element.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
Tracks count	Contains the total number of tracks in the new media asset.
Replace audio	Specifies replacement content for audio tracks set to an unavailable language. For example, an Audio Morph element may be set for Track1 ENG and Track2 POR , and the Replace audio option set to - Mute -. If one or both of the languages selected for Track1 and Track2 are missing in the source material, one or both will be replaced by a - Mute - content. The Do not replace value forces the failure of the task if the selected language for the track is missing.
Switch new instance	When enabled, activates the newly created Instance and propagates the new Instance to the next step of the workflow. The default setting is False (unchecked).
Track1...n	Provides one field for each unit in the Tracks count field. The value is a language specified in the configuration file AudioTrackLanguages.xml. The order is the one used to add the audio tracks to the new media asset and has the following special keywords: <ul style="list-style-type: none"> • Mute: creates an audio track with the volume set to zero. • Same as source: copies the content of the same audio track as used in the source file into a specific track of the destination file. • Source audio: allows selection of a specific track from those available in the source material, referring to its position instead of using the language label. By default, a maximum of 32 tracks is considered. The order is the same as that used to add the audio tracks to the new media asset.
Pool	Sets the name of the pool associated with the element.

Note: The result of the Audio Morph action is a new media asset with a specific set of audio tracks. A new proxy needs to be created for playback and review in the media player.

Configuration Files

MantricsServer.xml Configuration

```
<AudioMorph>
  <server port="8190">10.250.170.183</server>
  <policy>Weighted</policy>
```

```
<retryCount>3</retryCount>
<active>true</active>
<reconnectRetryCount>1</reconnectRetryCount>
<reconnectTimeout>0</reconnectTimeout>
</AudioMorph>
```

Note: The configuration tags for the Audio Morph element are included in the section `<wfc>` of `MantricsNode.xml`.

MantricsNode.xml Configuration

```
<AudioMorph slotCount="4">
  <active>true</active>
  <server port="8190">10.250.170.183</server>
  <node port="8191">10.250.170.183</node>
  <pool/>
</AudioMorph>
```

Note: The configuration tags for the Audio Morph element are included in the section `<workflowNodeConfig>` of `MantricsNode.xml`.

The tag `<AudioMorph>` contains the configuration for this application.

The node tag `<node port="">` specifies the port and IP address of the AudioMorph server.

Configuring Audio Track Languages

To specify the list of available languages for use with media assets, for example, the Audio Morph element, you can use the following configuration file:

```
C:\Mantrics\AudioTrackLanguages.xml
```

This file contains a list of the languages that are available and the three letter labels for identifying them as follows:

```
<root>
  <node value="SIL" label="- Mute -"/>
  <node value="As source" label="- Same as source -"/>
  <node value="ORI" label="Original"/>
  <node value="ENG" label="English"/>
  <node value="FRE" label="French"/>
  <node value="DEU" label="German"/>
  <node value="ITA" label="Italian"/>
```

Edit the `<node>` tags as required to build a list that matches the audio content ingested with the material in a workflow. The following values are initialized by default:

- The tag `<node value="SIL" label="- Mute -"/>` contains a value that creates a muted audio track, with the volume set to zero.
- The tag `<node value="ORI" label="Original"/>` contains a value that creates an audio track in the original language.
- The tag `<node value="As source" label="- Same as source -"/>` contains a value that copies the content of the same audio track of the source file into a specific track of the destination file.

Omneon Consolidator

The **Omneon Consolidator** element enables you to send key segments to an Omneon Consolidator. The consolidator can then process the key segments to produce a new media file that is the consolidation of the key segments created by the operator and return the new file to Momentum.

In addition, the Omneon Consolidator can also delegate processing and file transfer activities to a remote Omneon server (Spectrum or Mediagrid) if required. When processed remotely, operations such as local file transfers are performed in local storage, freeing-up the network connection between the Momentum Node and Omneon Storage, which no longer needs to transfer the clip essence data.



Fig. 11-229: Omneon Consolidator Workflow Element

Element Settings Configuration

This element is available in the **Transcoding** folder and has the following settings:

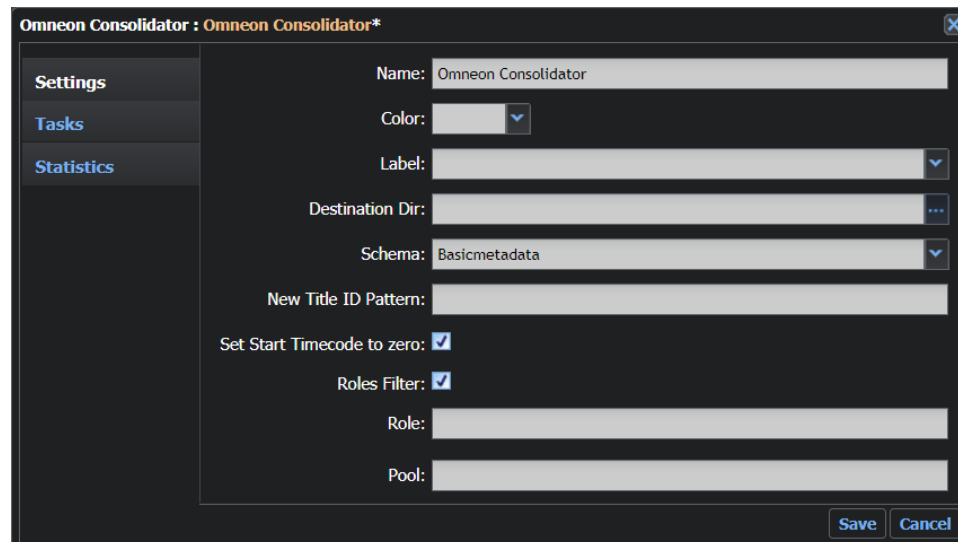


Fig. 11-230: Omneon Consolidator Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Label	Sets the label of the instance. Available values are contained in the InstanceLabelConfig.xml file.
Destination Dir	Sets the destination directory. Type in a UNC path or set it by using the browser.
Schema	Sets the metadata schema to be applied to the new Title.
New Title ID Pattern	Specifies a template for the new Title ID to ensure that the Logger uses this naming convention when exporting XML files to the Omneon system. For example: <code>{material.GetMetadata("Core.Title", db.GetTask().ArgAtIndexAsStringArray(0)[0])}</code>
Set Start Timecode to zero	When checked, Omneon Consolidator creates new sub-clips starting from the key segment and will set the start timecode to 00:00:00:00.
Roles filter	Links the Omneon Consolidator element to a specific role. If not checked, all roles can access the Omneon Consolidator element from the Actions on the Logger page.
Role	Sets the user role that is permitted to access the Omneon Consolidator element and restricts viewing of the element in the Actions on the Logger page.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<omneonConsolidator>
  <server port="8212">10.250.170.183</server>
  <policy>Failover</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
</omneonConsolidator>
```

MantricsNode.xml Configuration

```
<omneonconsolidator slotCount="4">
<active>false</active>
<server port="8212">10.250.170.183</server>
```



```
<node port="8213">10.250.170.183</node>
<pool/>
</omneonconsolidator>
```

The tag **<omneonconsolidator>** contains the configuration for this application.

Replace the default address of the node tag **<server>** with the port and IP address of the Momentum server. Replace the default address of the node tag **<node>** with the port and IP address of the Omneon Consolidator server.

Thumb Generator

The **Thumb Generator** element generates thumbnails for the submitted video material.

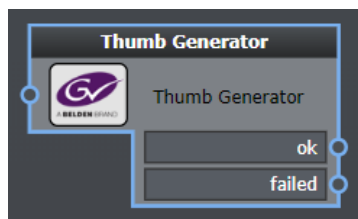


Fig. 11-231: Thumb Generator Workflow Element

Element Settings Configuration

This element is available in the **Transcoding** folder and has the following settings:

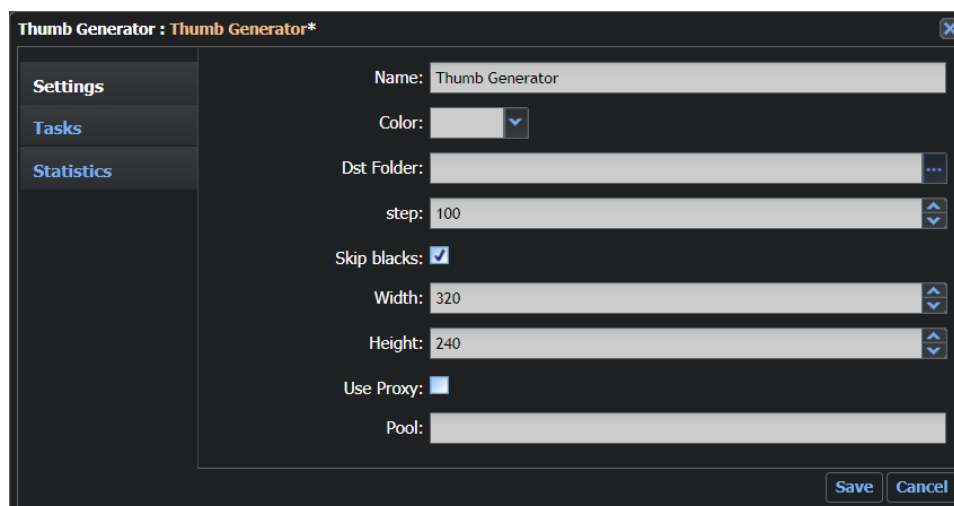


Fig. 11-232: Thumb Generator Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Dst Folder	Sets the target destination path for the generated thumbnails.
step	Sets the frame interval between thumbnails.
Skip blacks	Skips black frames during the thumbnails generation, if activated.
Width	Sets the width of the thumbnail in pixels.
Height	Sets the height of the thumbnail in pixels.
Use Proxy	When checked, the workflow generates thumbnails using the proxy file.
Pool	Sets the name of a pool associated with the element to balance the processing load.

Configuration Files

MantricsServer.xml Configuration

```
<thumbnailGenerator>
  <server port="8104">10.250.170.183</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>true</active>
  <reconnectRetryCount>6</reconnectRetryCount>
  <reconnectTimeout>20</reconnectTimeout>
</thumbnailGenerator>
```

Note: The configuration tags for the Audio Morph element are included in the section `<usc>` of `MantricsNode.xml`.

MantricsNode.xml Configuration

```
<thumbnailgenerator slotCount="4">
  <active>true</active>
  <server port="8104">10.250.170.183</server>
  <node port="8105">10.250.170.183</node>
  <pool/>
</thumbnailgenerator>
```

Note: The configuration tags for the Audio Morph element are included in the section `<utilsNodeConfig>` of `MantricsNode.xml`.

The tag `<thumbnailgenerator>` contains the configuration for this application.

Replace the default address of the node tag **<server>** with the port and IP address of the Momentum server. Replace the default address of the node tag **<node>** with the port and IP address of the Omneon Consolidator server.

12

Configuring the User Action Element

Configuring the User Action Workflow Element

The User workflow element enables you to define a role to complete manual workflow operations built into an automated workflow.

The following element is available:

- User Action

The configuration details for this element are provided in the following section.

User Action

The **User Action** workflow element enables the Administrator to decide when a human interaction is required in a workflow by selecting a role which is permitted to process a specific task. All the assigned processes are displayed on the **To Do** page (see the *Momentum Operator's Guide* for more information).

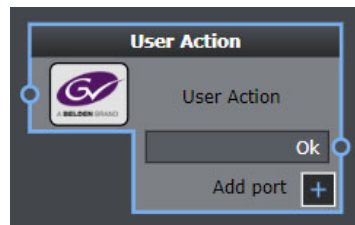


Fig. 12-233: User Action Workflow Element

Element Settings Configuration

The User Action element has the following settings:

Fig. 12-234: Impulsive Recognition Element Configuration Fields

Option	Description
Name	Sets a label for the element.
Color	Enables you to select a color to identify the element easily on the Dashboard page. Black is equivalent to no color.
Need instance	Specifies that the HQ instance of the material is needed in order to complete the operation, if activated.
Role	Sets the role for completing the workflow operation.
To Do	Enables the user to insert a description of the operation for other users.
Show Report Popup	When checked, opens a popup when an action processes a task in the To Do page.
Report Header	Displays this label in the header of the user task report pane, see Figure 12-235.

Option	Description
Report Prompt	Defines a label to specify what information needs to be reported by the operator completing the task, see Figure 12-235.
Task Layout	<p>Certain systems can send Momentum an XML file, by way of a Watchfolder template, which generates a task to create a placeholder for a media file that is expected at some later time (possibly days or weeks later.)</p> <p>When the User Action element receives this task it creates a queue of placeholders, to be presented in the defined Task Layout.</p> <p>The Task Layout field provides a list of metadata (see below), to help the operator to match the placeholder with the target media file.</p> <p>Available metadata elements are:</p> <ul style="list-style-type: none"> • Associate media • Audio QC • AudiotrackTagging • BasebandReview • CNNLoggerLayout • DefaultLayout • DualBasebandReview • LiveLogger • LoggerLayout • Notification • PublishToSocial • QLayout • OnSocial <p>A file picker component in the Task Layout enables the operator to select the file to make Momentum aware of the association. The operator then completes the task.</p> <p>A Wait for File element is generally the next element in the workflow and is used to associate the media file with the placeholder. A Technical Metadata Retriever element can then be used to extract metadata.</p>

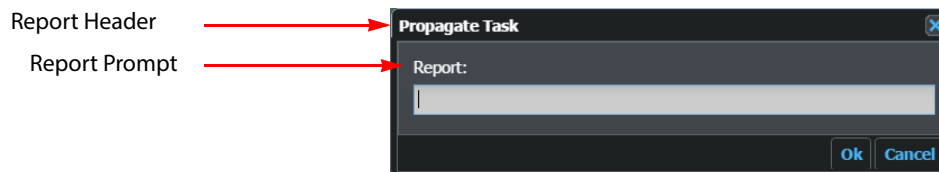


Fig. 12-235: User Action - Report Popup Dialog

In this element, use the **Add Port** button to add one or more ports with a specific label in order to preselect the decisions that can be performed by the user.

Each label becomes a button in the **Actions** pane of the **To Do** page. This enables the user to select the branch of the workflow to which the task needs to be progressed directly from the **To Do** page.

Configuring User Notifications

Whenever a task is created on a User Action workflow element, a **user notification** is triggered to users having the role specified in the element.

A user notification is a popup message appearing for some seconds at the bottom right of the screen, irrespective of the Momentum page that is currently displayed. The notification popup contains the following elements:

- A link to the relevant WorkFlow element.
- A link to the relevant Catalog material.
- Either:
 - A **Take** button, re-directing to the relevant ToDo task, or
 - A list of Ports on the element through which the task could be propagated.

The **Take** option is the default setting. To enable the port listing, select **Notification** from the **Task layout** options in the settings of the UserAction workflow element, see Figure 12-236:

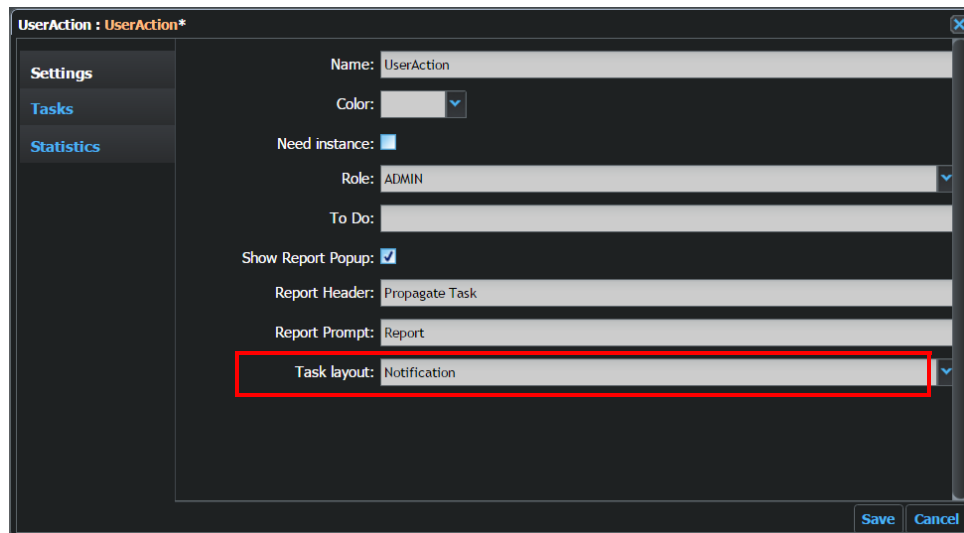



Fig. 12-236: UserAction Settings menu - Selecting the Notification Task Layout

The user can work directly through the notification popup, or open the **Notification Panel** by clicking the notification panel icon  at the top-right of the screen, next to the name of the logged-in user.

The **notification panel** lists all unexpired notifications for all tasks in waiting status at the UserAction workflow elements:

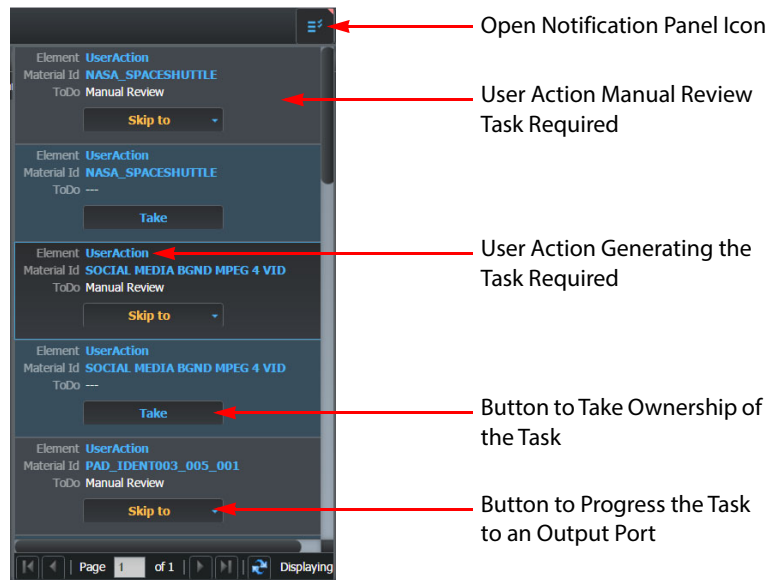


Fig. 12-237: User Action Notification Panel

Configure user notifications as follows:

- 1 Set the tag **<ServerCommands>** to the default values for the ServerCommands host and port used in the configuration file `ServerCommandsConfig.xml` to direct user notifications to the correct web page.
- 2 Set the tag **<ServerHooksRouter>** to the IP address and port of the Hooks Router to enable the Momentum tasks to progress correctly through the workflow and to direct user notifications to the correct web page.

13

Using a Mist Streaming Server

Overview

Momentum supports the Mist Streaming Server.

The Momentum Web installer places the Mist server, by default, in the following directory:

C:\Mantrics\MistServer.

Note: The Mist Server application is portable so that its location can be changed after installation as required.

Starting the Mist Server

To start the Mist server (version 2.13-Pro):

- 1 On the server selected as the streaming server, open the folder containing the Mist Server executables. By default they are located in the directory:
C:\Mantrics\MistServer.
- 2 Locate the file `MistController.exe`.
- 3 Right-click and drag the file to the desktop.
- 4 Select **Create shortcuts here** to create a link on the desktop.
- 5 Right-click on the new link and select **Properties**.
- 6 Include the **-n** flag in the **Target field** as shown below:
- 7 Click the **Apply** button.

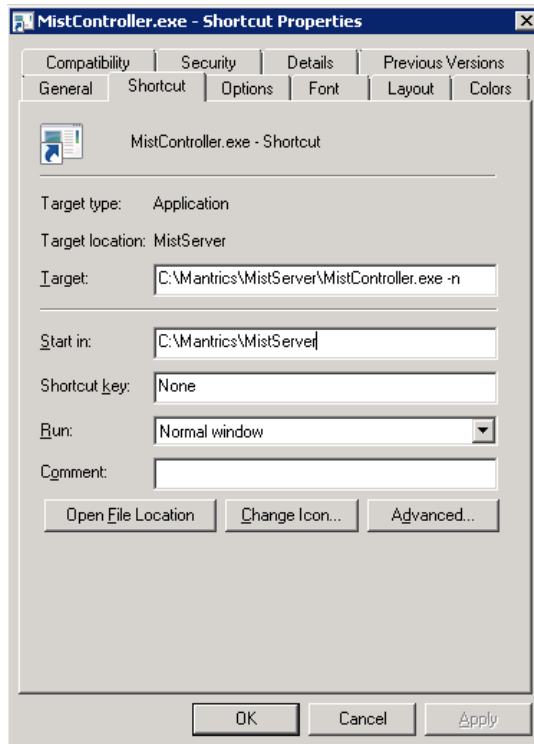


Fig. 13-238: Modifying the Target field

- 8 Double-click the link icon to launch the Mist Server.
- 9 A command shell opens and, if no configuration file is found, you are prompted to create a new account. Type **y** followed by [**Enter**].
- 10 Enter a user name and a password using the format: **username:password**. These are the credentials to use with the configuration files.
- 11 When required, enter **y** followed by **Enter**. The Mist Server starts and the shell reports the logs of the different launched protocols.

Stopping the Mist Server

To shut down the Mist Server application:

- 1 Open the command shell where the Mist server is running.
- 2 Click [**Ctrl**] [**C**].

Closing the Mist Server application in this way, always saves the Mist configuration files. It is, therefore, recommended initially to close the Mist server in this way to preserve the user account details.

Note: Closing the Mist Server application by clicking the standard close button on the command shell does not save the Mist Server configuration files.

Configuring Momentum to use Mist Server

First, initialize the `MantricsConfig.xml` file as follows:

- 1 Navigate to the directory `C:\Mantrics` and open the file `MantricsConfig.xml` in a text editor.
- 2 Locate the `<MistHost>` tag and replace the default IP value with the IP address of the machine currently running the Mist server.

Note: The default value for the port, 8080, can be modified but is preferable to avoid the use of the port 80 if the Mist server is running on the same machine as the IIS server.

- 3 Save the file `MantricsConfig.xml` to store the new settings.

Now modify the `MantricsServer.xml` file as follows:

- 4 Browse the file content and locate the tag `<Generic>`, this contains the parameters needed to create new proxies.
- 5 In the tag `<mistAPIUrl>`, replace the default IP address with IP address of the machine acting as Streaming Server:

```
<mistAPIUrl>http://10.10.0.42:4242/api</mistAPIUrl>
```

Note: This path refers directly to the Mist Server executables stored on the streaming server machine.

- 6 Populate the tags `<mistUsername></mistUsername>` with the username created on the Mist Server.
- 7 Populate the tags `<mistPassword></mistPassword>` with the password associated with the user created on the Mist Server.
- 8 Save the file to store this information.

If the Momentum installation is using the FFMPEG transcoder, then it is necessary to set some parameters in the configuration file `MantricsNode.xml`:

- 9 Locate the tag `<ffmpeg slotCount="X">`.
- 10 If the installation directory of the Mist Server has been modified, change the path in the tag `<mistCmdFolder>C:\Mantrics\MistServer</mistCmdFolder>` to the new location.

Note: This path refers directly to the Mist Server executables stored on the **node** machine.

In this way, the nodes running FFMPEG can locate the correct executables.

Enabling the MP4 Protocol

Mist server can manage the playback of MP4 streams but this is not a default setting and requires activating manually as described below.

Accessing the Mist Server Administrator Page

The Mist Server can be managed using a web interface. This interface can be reached using the following address in a web browser: **http://host-IP:4242**

Where `host-IP` is the IP address of the machine running the Mist Server.

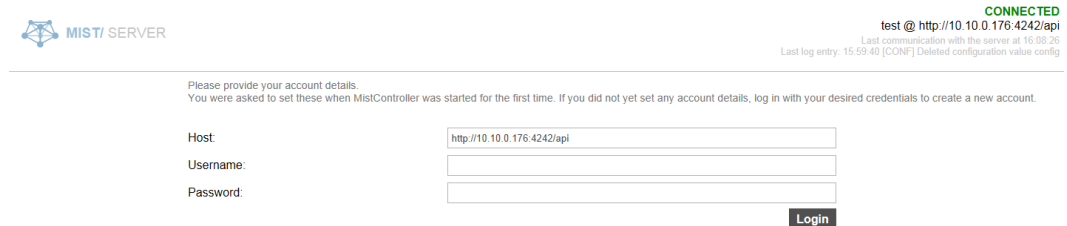


Fig. 13-239: Administrator page login

At the login prompt, enter the user name and password credentials created when the Mist Server was started for the first time. Now access the administrative configuration tools on the Administrator page as shown below:

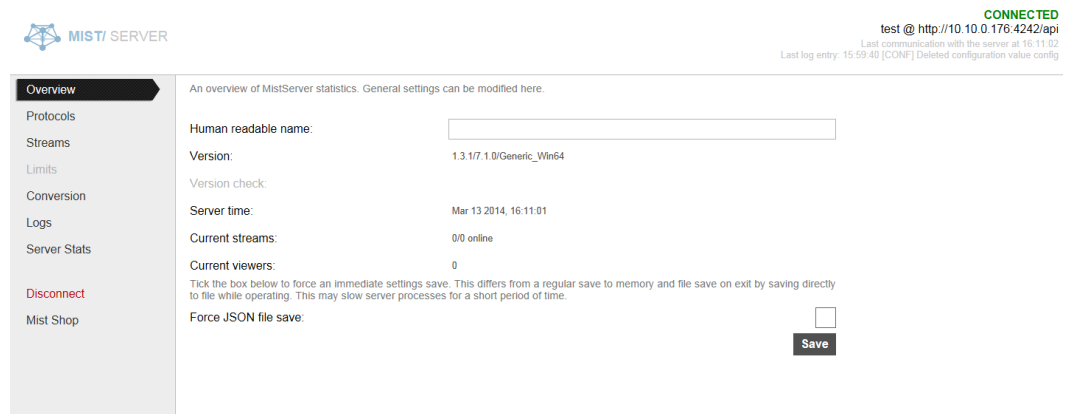


Fig. 13-240: Administrator page

Installing the Mist Server as a Windows Service

By following the previous steps, the MistServer application is installed automatically and then has to be launched manually to create a link to the executable. It may, however, be useful to run the MistServer as a Windows service that starts automatically, or is managed as a cluster service.

Install the Mist Server as a Windows service, as follows:

- 1 Download the latest release of the third party **nssm** tool (nssm 2.24(2014-08-31) at the time of writing.)
- 2 Extract the archive.
- 3 Open a command shell and navigate to the directory where the program was extracted

4 Run the following command:

```
nssm install [Servicename] [Application Path]
```

For example:

```
nssm install MistController C:\Mantrics\MistServer\MistController.exe
```

This statement registers the service as: Startup Type Automatic

Note: Before starting the service you must run the MistController application manually to create the mist user and activate the protocols.

Note: Using the above procedure the service will be created having the nssm application path as its path to the executable, so the nssm will always run to start the created service and will be launched using its original path. It is, therefore, advisable to locate the nssm executable in a Momentum system folder and remember that changing this location requires recreating the MistServer service.

Adding the .mp4 Protocol for Streaming

Add the MP4 protocol as follows:

- 1 Select the option Protocols from the left menu bar to access the Protocols page:



Fig. 13-241: Protocols Page

This page reports all active protocols and enables you to add, edit or delete the protocols.

- 2 Click **New** to access the page for configuring the new protocol:

Using a Mist Streaming Server

Adding the .mp4 Protocol for Streaming

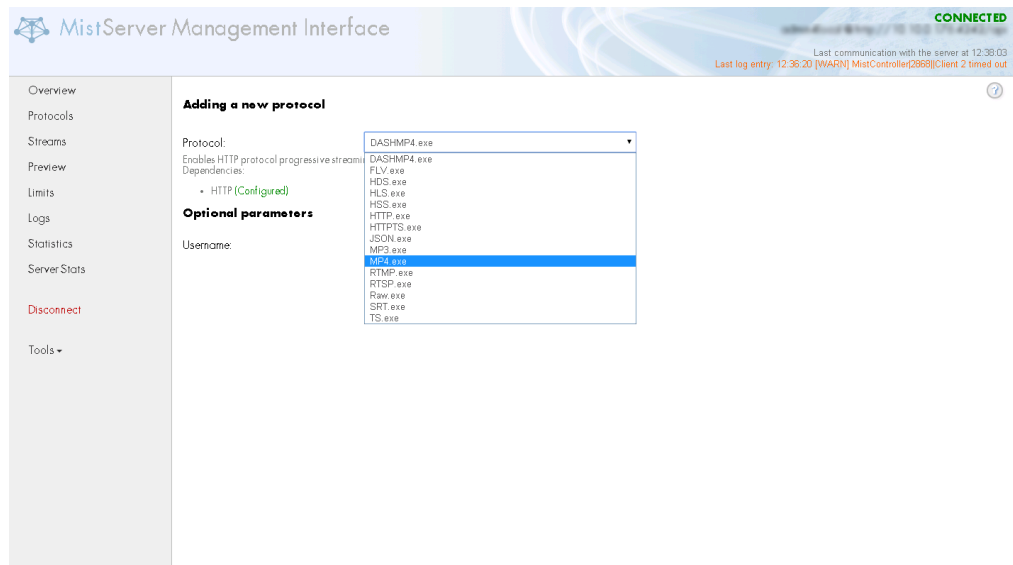


Fig. 13-242: Configure new Protocols Page

- 3 From the Protocols drop-down list, select the option MP4 . exe.

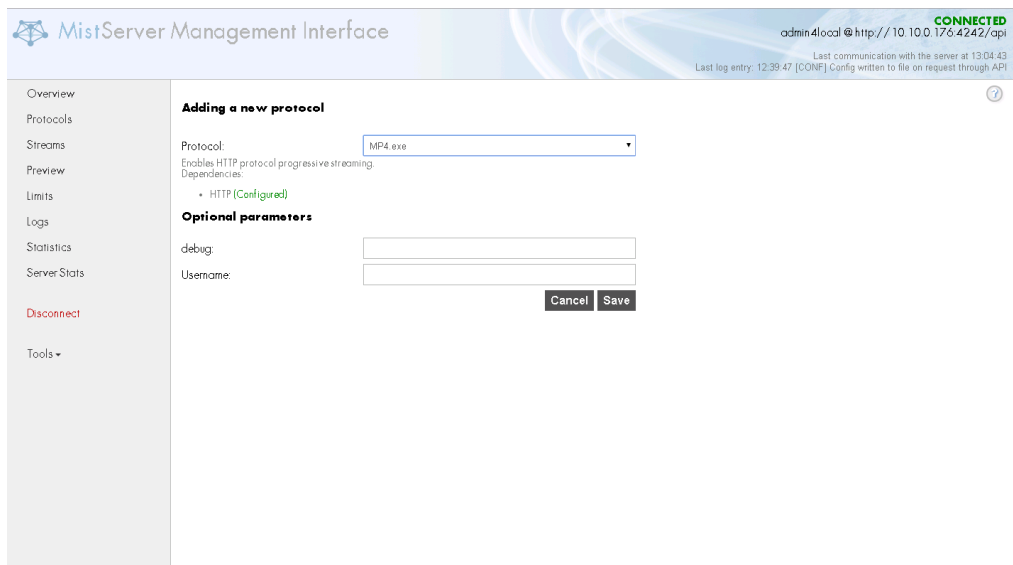


Fig. 13-243: Saving the Configuration of the New Protocols Page

- 4 Click the **Save** button to add the protocol to the active protocols list.
- 5 On the Overview page, activate the **Force JSON file save** option. Select the option and click **Save** to save changes to the configuration file without turning off the Mist Server.

14

Configuring Additional Momentum Features

Overview

Some additional Momentum modules also require configuration. To achieve full use of their Workflow features, configure the following modules and services:

- **SendMail Server:** Enable the automatic mailing service during a workflow.
- **Document Data Repository:** Configure a storage place where all the files connected to the materials of the Catalog are saved.
- **Saving searches:** Configure a storage place for the searches on the Catalog page.
- **Mac path conversion:** Enable exporting of EDL, converting the path from Windows to the Apple Mac OS format.
- **XMLDB Interface:** Enable the exchange of information with the Morpheus XML database. (To be deprecated in Momentum version 5.1)
- **BXF Receiver:** Configure the BXF Receiver module.
- **BXF Message Generators:** Configure the Morpheus BXF Message Generator module.
- **BXF Export:** Configure the templates for exporting in Morpheus BXF format.
- **BXF Query:** Configure the templates for querying the Morpheus database.
- **BXF Tx Metadata Receiver:** Configure the templates for the BXF Transfer Metadata Receiver workflow element to copy values from a Transfer Request to a metadata field.
- **Metadata Change Notifier:** Configure the workflow triggers initiated by the Metadata Change Notifier to replicate metadata or icon changes across to a secondary or back-up system.
- **Schedule Missing Material:** Configure the templates used to import schedule files from a Morpheus Playout Automation system used to generate missing material reports.
- **Metadata Publisher:** Configure template files in order to format the available metadata.
- **XML Gateway Receiver:** Configure ingest using data contained in XML Gateway files. (To be deprecated in Momentum version 5.1)
- **XML Gateway Export:** Configure information exchange with a Morpheus server. (To be deprecated in Momentum version 5.1)

- **Audio Tracks Languages:** Configure the list of available languages for the media assets audio tracks.
- **Sony Juke system:** Configure access to a Sony Juke module.(To be deprecated in Momentum version 5.1)
- **Instance labels:** Configure the list of the available labels to identify specific instances.
- **Telestream DIVArchive:** Configure the interface between the Momentum system and a DIVA archive system.
- **XCache Receiver:** Configure XCache messages. (To be deprecated in Momentum version 5.1)
- **Transfers Page Contents:** Configure the structure of the Transfers page.
- **Material Checker:** Configure a template for the Material Checker utility.
- **Configuring FXP:** Configure the FXP protocol.
- **XMLDB IF Query:** Configure the XMLDB Interface Query. (To be deprecated in Momentum version 5.1)
- **Morpheus Devices:** Configure parameters to enable Momentum to communicate with Morpheus and other Playout devices in C:\Mantrics\IceConfig.xml.
- **Dual Review:** Configure dual review of material on two Omneon server ports by setting the MediaAsset label pairs in C:\Mantrics\IceConfig.xml.

Note: Elements that are not listed above, require only a basic configuration.

When you include any of the following workflow elements in a workflow, see Chapter 8 for information on configuring the element settings.

Configuring Send Mail

Configure Send Mail in the **<wfc>** section **<sendmail>** of the file `MantricsServer.xml` as follows:

```
<SmtpServer>smtp.emailaddress</SmtpServer>
<SmtpServer_descr>SMTP Server</SmtpServer_descr>
<SmtpSSL>>true</SmtpSSL>
<SmtpSSL_descr>SMTP SSL</SmtpSSL_descr>
<SmtpUser>user@emailaddress</SmtpUser>
<SmtpUser_descr>SMTP User</SmtpUser_descr>
<SmtpPwd>passwd4momentum</SmtpPwd>
<SmtpPwd_descr>SMTP Password</SmtpPwd_descr>
<SmtpAuthenticate>>true</SmtpAuthenticate>
<SmtpAuthenticate_descr>SMTP Auth</SmtpAuthenticate_descr>
<Sender>operator@emailaddress</Sender>
<Sender_descr>Mail Sender</Sender_descr>
```

- 1 Replace the default text of the tag `<SmtpServer>` with the SMTP information for the required email server.
- 2 Set the default text in the tag `<SmtpSSL>` to **true** to use secure authentication.
- 3 Replace the default text of the tag `<SmtpUser>` with the user name of the sender email account.
- 4 Replace the default text of the tag `<SmtpPwd>` with the password of the sender email account.
- 5 Set the default text in the tag `<SmtpAuthenticate>` to **true** to enable SMTP authentication.
- 6 Replace the default text of the tag `<Sender>` with the description to appear in the sender field of the email.

Note: The tags using the **descr** word (for example, `<SmtpPwd_descr>`) are optional, descriptive tags used by the system to identify the elements.

Configuring the Document Data Repository

In order to save files of various formats (PDF, JPG, DOC, XLS, etc.) to attach to materials stored in the Catalog, configure the path to the document data repository in the section `<auxiliarydata>` of the file `MantricsServer.xml`:

```
<auxiliarydata>
  <server port="8160">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <path>\\hostname\AuxiliaryData</path>
</auxiliarydata>
```

Configure the default path used as the repository for the files, for example:

```
<path>\\hostname\AuxiliaryData</path>
```

Saving Searches

To allow users to save search queries defined in the Momentum Search Tool:

- 1 Navigate to the directory `C:\Mantrics` and locate the file `queries.xml`.
- 2 Make sure that the file is fully accessible by **Everyone** with read and write permissions.

Note: This file allows users to save the searches in the Catalog and Logger pages and in the Material Browser pane of the Editing page.

Setting Apple Mac Path Conversions

To set the Macintosh path conversion of the XML edit decision list (EDL) export:

- 1 Navigate to the directory `C:\Mantrics` and open the file `MantricsServer.xml` in a text editor.
- 2 In the tag **<MacMapDirectory>**, set the destination path for the generated files as shown in the following example:

```
<MacMapDirectory>  
<MapDir windir="file://server/sharedfolder/" macdir="/"Volumes/  
sharedfolder/" />  
</MacMapDirectory>
```

- 3 Save the file `MantricsServer.xml` to store the new settings.

Note: This operation allows Momentum to export an EDL - converting the path from Windows to the Macintosh OS. When the XML is imported into the editing application on a Macintosh machine, the media file connects successfully.

Setting up an XML DB Interface for a Morpheus Server

The XML DB Interface allows Momentum to exchange information with a Morpheus XML Database Interface.

Note: It is planned to deprecate the XML DB Interface functions from Momentum version 5.1. It is recommended to use the BXF Receiver, BXF Export and BXF Query elements instead.

Configuring the Morpheus Server

To configure the XML DB Interface between Momentum and the Morpheus Server:

- 1 In a text editor, open the file: `C:\Mantrics\MorpheusServerConfig-sample.xml`.
- 2 Go to the section **<videoServers>**:

```
<videoServers>  
  <MorpheusVideoServer>  
    <videoServerName>Name</videoServerName>  
    <uncPath>Path</uncPath>  
    <instanceLabel>Label</instanceLabel>  
  </MorpheusVideoServer>  
</videoServers>
```

The tag **<videoServers>** contains the list of the Morpheus Video Servers that Momentum connects to in order to retrieve data. The `VideoNetworkManager` can manage one or more video servers.

Each Morpheus video server is described by a tag **<MorpheusVideoServer>** which contains the following parameters:

Tag	Description
<code>videoServerName</code>	Sets the name of the server

Tag	Description
uncPath	Identifies the path of the storage folder on the server.
instanceLabel	Defines the label to assign in Momentum to identify content from the specified server. The instance label appears in a workflow in the Instance Switcher for selection in a player. It enables you to track a re-acquisition of the same material.

3 In the **<Filters>** section:

```
<filters>
  <filter>
    <materialType>Type</materialType>
    <materialId isExcluding='true' | 'false'>Materialid</materialId>
  </filter>
</filters>
```

The tag **<filters>** enables you to customize the way that Momentum manages different materials across the XML DB Interface. You can define one or more rules each specified in a different **<filter>** tag. Each filter can refer to the **<materialType>** and/or to the **<materialId>** parameters as follows:

Tag	Description
materialType	The standard list of Morpheus material types (Programme, Commercial, etc.)
materialId	The Material ID of the content and contains the attribute isExcluding (boolean) which can include or exclude a specific Material ID. This tag allows the use of the '%' character as wild-card, for example, use NEW% to select all material containing NEW in their Material ID.

4 Configure the remaining tags in `MorpheusServerConfig-sample.xml` as described in the following table:

Tag	Description
markInstancesDeleted	Configures the behavior of the Morpheus Server when it analyzes a deleted instance message. If the value of the tag is true , the labels of all the instances related to the deleted material are set to DELETE .
retryCount restartTimeInSecond	Number of attempts to try to reconnect and timespan to wait before retrying to connect. These tags manage a temporary network disconnection between Momentum and the XML database interface.
Sender to subject body	When configured, the Morpheus Server sends an email using the parameters contained in these tags when a disconnection occurs.

Tag	Description
connectionMailTo connectionMailSubject connectionMailBody	When configured, the Morpheus Server sends an email to notify the user when a new connection with the XML database Interface is active.
reSyncOnStart numberOfDaysToReSync	Determine if a synchronization process starts when the connection to the XML database interface is established. If <reSyncOnStart> is true , the synchronization operation is active and the tag <numberOfDaysToReSync> determines the number of days before re-synchronizing.
VideoServerConfiguration	Manages temporary network disconnections between Momentum and the videoServer. It is possible to set the parameters <retryCount> (number of attempts to try to reconnect) and <restartTimeInSecond> (timespan to wait before retrying).
MapItem	For each new item of material received from the XML database interface, you can assign a specific Momentum Metadata Category based on rules, with each separate rule defined in a <MapItem> tag Defines a rule for each new item of material received from the XML database interface. You can assign a specific Momentum Metadata Category based on these rules. This tag has the following two parameter tags <regex> and <catId> .
regex	Defines the pattern of the Material ID using a regular expression.
catId	Defines the Category ID in the Momentum database.

- 5 Save the file `MorpheusServerConfig.xml` to store the configuration.

Configuring the Metadata Change Notifier (MCN)

The Metadata Change Notifier is designed to detect manual changes to metadata made on one Momentum system and replicate these changes to a back-up / secondary Momentum or Morpheus Payout Automation system by triggering a synchronization workflow. This helps to ensure that the metadata on both systems is always synchronized.

Note: The Metadata Change Notifier service must not be running on both primary and secondary Momentum systems to prevent the echoing of metadata changes between systems.

The settings of the MCN are configured in the file:

C:\Mantrics\MetadataChangeNotifierConfig.xml.

To configure the **Metadata Change Notifier** utility settings:

- In a text editor, open the file:

C:\Mantrics\MetadataChangeNotifierConfig.xml

The file has the following structure:

```
<?xml version="1.0" encoding="UTF-8"?>
<MetadataChangeNotifierConfig xmlns:xsi="http://www.w3.org/2001/
XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<EntryPoints>
  <EntryPoint genre="MEDIA_ASSET">
    <WFElementID>1D530E0435FA4B00A64D811824689055
    </WFElementID>
    <SearchCriteria>Core.MaterialId = '{Core.MaterialId}'
    and Instance.Archive.RACK = 'test'</SearchCriteria>
  </EntryPoint>
  <EntryPoint genre="TITLE">
    <WFElementID>EEBDF3EB3DE746378F0C9EED98CE9CE3
    </WFElementID>
    <SearchCriteria><SearchCriteria/>
  </EntryPoint>
</EntryPoints>
<WFElementIDForIconUpdate/>
<QuietPeriod>10</QuietPeriod>
<UserId/>
<MetadataIDsToExclude>
  <MetadataID></MetadataID>
  <MetadataID></MetadataID>
</MetadataIDsToExclude>
</MetadataChangeNotifierConfig>
```

These XML tags have the following functions:

Tag	Description
EntryPoints	Groups workflow entry points that can be triggered by the Metadata Change Notifier.
EntryPoint	Defines the information about each workflow entry point that can be triggered by the MCN. Attribute: Genre: Specifies the entry point for the specific material genre (e.g. TITLE, MEDIA_ASSET, etc.)
WFElementID	Defines the ID of the workflow element used to trigger a workflow task when the metadata change concerns that particular material genre. To find the ID of a workflow element, export the workflow to an XML file and copy the ID from the <Element><id> field.
SearchCriteria	Defines a search in pseudo query style to filter the material according to the criteria in the search string. For example: Core.MaterialId = '{Core.MaterialId}' and Instance.Archive.RACK = 'test'

Tag	Description
WFElementIDForIconUpdate	Defines the ID of the workflow element used to trigger a workflow task when an icon is set from the user interface (for example, from the Catalog page.)
QuietPeriod	A quiet period is a period (in seconds) that MCN maintains between the moment the last metadata change is detected and a task is created on the entry-point workflow element.
UserID	Defines a specific User ID to create a task assigned to a specific user.
MetadataIDsToExclude	Groups together a list of metadata to exclude from triggering a synchronization workflow if those items of metadata change.
MetadataID	Defines each item of metadata to skip to prevent changes to that item from triggering the configured workflow. For example: <pre><MetadataID>Core.Description</MetadataID> <MetadataID>Core.Title</MetadataID></pre> When a material is changed for a metadata listed in this tag, Momentum ignores the change(s) and does not trigger a workflow.

Configuring Schedule Missing Material Reports

The **Schedules** page in Momentum provides a view of any scheduled material missing from the database of the Morpheus Payout Automation system. This page enables you to import schedule files (**.SCH**) generated by Morpheus, review missing material and generate missing material reports using predefined XML or CSV templates.

To use the Schedules page functions, you need to configure the following files in the default installation folder: C:\Mantrics:

- SchedulesConfig.xml Defines the channel names and IDs used in the payout schedule.
- SchedulesReceiverConfig.xml Defines the location in which Morpheus saves the schedule files for import into Momentum, parameters for importing the file and rule filters to extract secondary events from the schedule files for inclusion in the Schedules page.

The Schedule configuration file SchedulesConfig.xml has the following structure:

```
<?xml version="1.0" encoding="utf-8"?>
<SchedulesConfig xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<DeadlineHours>10</DeadlineHours>
<Channels>
    <BroadcastChannel>
        <Id>Channel1</Id>
        <Name>MTA 1</Name>
    </BroadcastChannel>
    <BroadcastChannel>
```



```

        <Id>Channel2</Id>
        <Name>MTA 2</Name>
    </BroadcastChannel>
    <BroadcastChannel>
        <Id>Channel3</Id>
        <Name>MTA 3</Name>
    </BroadcastChannel>
    <BroadcastChannel>
        <Id>Channel4</Id>
        <Name>MTA 4</Name>
    </BroadcastChannel>
</MetadataList>
    <Metadata>
        <Id>Core.Title</Id>
    </Metadata>
    <Metadata>
        <Id>Core.Path</Id>
    </Metadata>
</MetadataList>
</Channels>
</SchedulesConfig>

```

The tags have the following functions:

Tag	Description
DeadlineHours	Defines a span of time, in hours, from the current time during which the event is considered as urgent. A zero value means that there is no definition of an urgent span of time.
Channels	Groups the broadcast channels covered by the playout schedule files.
BroadcastChannel	For each channel included in the schedule files, specifies the channel ID and channel name.
Id	Defines each channel ID.
Name	Defines the name of the broadcast channel.
MetadataList	Groups a list of extra metadata (each reported in a <Metadata> tag) that will be rendered as additional columns in the Schedules page.
Metadata	Defines each element of metadata (contained in an <Id> tag) that will be rendered as an additional column in the Schedules page.
Id	Contains the metadata for each column to be added to the Schedules page.

The Schedule configuration file `SchedulesReceiverConfig.xml` has the following structure:

```

<?xml version="1.0" encoding="utf-16"?>
<SchedulesReceiverConfig xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">

    <SchedulesFolder>\\10.10.0.221\video\UsersTestArea\

```

```
    MTA\MORPHEUS_SCHEDULES</SchedulesFolder>
  <RecurseSubdirs>true</RecurseSubdirs>
  <FileFilter>*.sch</FileFilter>
  <WaitMsForCompletedFile>3000</WaitMsForCompletedFile>
  <LastAirDateMetadataId>MomentumCore.MomentumCore.ARCHIVE
</LastAirDateMetadataId>
  <SecondaryEventRules>
    <SecondaryEventRule>
      <Identifier XPath="" CaseSensitive="false">
    </Identifier>
    </SecondaryEventRule>
    <SecondaryEventRule>
      <Identifier XPath="" RegularExpression="">
    </Identifier>
    </SecondaryEventRule>
  </SecondaryEventRules>
</SchedulesReceiverConfig>
```

The tags have the following functions:

Tag	Description
SchedulesFolder	UNC path to the folder containing the schedule files.
RecurseSubdirs	When set to true , activates automatic monitoring of the subdirectories below the specified directory.
FileFilter	Sets a filter on filename to select for schedule files, or schedule files with specific names.
WaitMsForCompletedFile	Sets a number of milliseconds (MS) for Momentum to wait for the arrival of the completed schedule file.
LastAirDateMetadataId	Sets the ID of the last_air_date metadata in Morpheus
SecondaryEventRules	Collects a list of rules to extract secondary events (audio, graphics, subtitle files) so that they have their own record in the Momentum Schedules page.

Tag	Description
SecondaryEventRule	Defines each rule to extract a specific secondary event item for inclusion in the Momentum Schedules page.
Identifier	<p>If specified, the Identifier value is used to transform the XmlNode value taken by the XPath and replace it according to the capturing groups specified in the Regular Expression.</p> <p>Attributes:</p> <ul style="list-style-type: none"> • XPath: Mandatory attribute to be evaluated from the <Event> tag of the SCH file to obtain the Morpheus ID of the secondary event. For example: <code>xpath=".Fields/Parameter[@Name='Subtitles']/@Value"</code> • RegularExpression: Optional attribute to filter out values that do not match the regular expression. For example: <code>RegularExpression=".+\\(\\d{4})\\.tga\$"</code> • CaseSensitive: Optional attribute to specify whether to consider the case of the Regular Expression when matching. (Default = false).

Configuring XML Gateway Receiver

Configuring XML Gateway Export

The tag **<xmlGatewayExport>** in the files `MantricsServer.xml` and `MantricsNode.xml` contains the configuration for this feature. For details of the standard parameters, see [Configuring the Momentum Farm](#), on page 22.

The following server tags are also available:

- **isTitleMandatory:** Specifies whether the Title field in the XMLGateway message is to be initialized. Tasks for messages which do not match this setting automatically fail.
- **momentumCoreMandatoryFields:** Collects all of the tags required to specify mandatory fields using the tag **<momentumCoreMandatoryField>**.
- **momentumCoreMandatoryField:** Specifies a single Momentum Core field to be initialized in the XML message. Tasks for messages which do not match this setting automatically fail.
- **momentumInstanceMandatoryFields:** Collects all of the tags required to specify mandatory fields using the tag **<momentumInstanceMandatoryField>**.
- **momentumInstanceMandatoryField:** Specifies a single Momentum Instance field to initialize in the XML message (use

- **areEmptyFieldsVisible:** one or more tags as needed). Tasks for messages which do not match this setting automatically fail.
Creates an XML message, formatted in a compact way, which hides all empty fields.
- **isKeySegmentTimecodeOutNotEmpty:** Specifies if the Segment Timecode Out field of the XML message needs to be initialized.
- **checkDstFolderCount:** Sets the maximum number of checks done by Momentum to verify if Morpheus has screened the XML message, copying it to one of the directories specified in the related element parameters.
- **retryDstFolderSeconds:** Defines the amount of time elapsed between two consecutive checks.

Example:

```
<areEmptyFieldsVisible>false</areEmptyFieldsVisible>  
<isKeySegmentTimecodeOutNotEmpty>false  
  </isKeySegmentTimecodeOutNotEmpty>  
<checkDstFolderCount>10</checkDstFolderCount>  
<retryDstFolderSeconds>30</retryDstFolderSeconds>
```

Configuring Audio Track Languages

To specify the list of available languages for use with media assets, for example, the Audio Morph element, you can use the following configuration file:

```
C:\Mantrics\AudioTrackLanguages.xml
```

This file contains a simple list of the languages that are available and the three letter labels for identifying them as follows:

```
<root>  
<node value="SIL" label="- Mute -"/>  
<node value="As source" label="- Same as source -"/>  
<node value="ORI" label="Original"/>  
<node value="ENG" label="English"/>  
<node value="FRE" label="French"/>  
<node value="DEU" label="German"/>  
<node value="ITA" label="Italian"/>
```

Edit the **<node>** tags as required to build a list that matches the audio content ingested with the material in a workflow. The following values are initialized by default:

- The tag **<node value="SIL" label="- Mute -"/>** contains a value that creates a muted audio track, with the volume set to zero.
- The tag **<node value="ORI" label="Original"/>** contains a value that creates an audio track in the original language.

- The tag `<node value="As source" label="- Same as source -"/>` contains a value that copies the content of the same audio track of the source file into a specific track of the destination file.

Configuring a Sony Juke System

Note: It is planned to deprecate the Sony Juke functions of Momentum from version 5.1. It is recommended to use the Telestream DIVArchive archiving functions to satisfy your archiving requirements.

To use a Sony Juke library with Momentum, you will need to add the details to the configuration file `MantricsServer.xml`.

To configure a Juke device, open the `MantricsServer.xml` file in a text editor and locate the tag `<juke>` as follows:

```
<juke>
  <server port="8172">0.0.0.0</server>
  <policy>Weighted</policy>
  <retryCount>3</retryCount>
  <active>false</active>
  <reconnectRetryCount>1</reconnectRetryCount>
  <reconnectTimeout>0</reconnectTimeout>
  <basicmetadata_topic>XDCAM</basicmetadata_topic>
  <mappingCat>
    <mapItemList>
      <MapItem>
        <regex>ASF\w*</regex>
        <catId>F91CD674365A41daB1CC273C49816093</catId>
        <!--Film-->
      </MapItem>
    </mapItemList>
  </mappingCat>
  <libraryList>
    <library>
      <name></name>
      <ip></ip>
    </library>
  </libraryList>
  <storageLocationsList>
    <location>
      <UserFTPHomeDir></UserFTPHomeDir>
      <host></host>
      <user></user>
      <pwd></pwd>
      <dir></dir>
    </location>
  </storageLocationsList>
</juke>
```

The tag `<Juke>` is organized into several sections:

- General parameters of the Momentum Server
- An optional section to initialize material metadata
- A list of available libraries
- A list of storage locations.

Setting the General Parameters

This configuration section contains the following tags:

- **server port:** Sets the port for communication between the server and the node. By default, the attribute `port="XXXX"` is the same in the corresponding sections of the configuration files `MantricsServer.xml` and `MantricsNode.xml`. If it is necessary to change this setting, remember to modify both configuration files. The 0.0.0.0 IP configuration is used for monitoring incoming traffic from every valid IP address.
- **policy:** Sets the method for handling the nodes. The options are Failover and Weighted (see Configuring the Basic Server Settings).
- **retryCount:** Sets the number of attempts that the Momentum Server can try to establish whether a node is available.
- **active:** Set to **true** or **false**. True means that the Momentum Server is ready to register a Momentum Juke Node. False means that the Momentum Server ignores all possible Node connection attempts.

Setting the Mapping Parameters

The mapping configuration section enables you to add a category ID to the metadata for an item of material or to all the materials of a particular type which can be specified using a regular expression as shown below:

```
<mappingCat>
  <mapItemList>
    <MapItem>
      <regex>ASF\w*</regex>
      <catId>F91CD674365A41daB1CC273C49816093</catId>
      <!--Film-->
    </MapItem>
  </mapItemList>
</mappingCat>
```

This section contains the following tags:

- **mapItem:** Each **<mapItem>** tag contains a rule for selecting the material and a definition of the category ID which is added to the metadata of the selected material.
- **regex:** Contains the regular expression used to select the material.
- **catID:** Defines the category ID which is added to the material metadata.

Setting the Library Parameters

This configuration section lists all the Juke libraries which are available to Momentum as shown below:

```
<libraryList>
  <library>
    <name></name>
    <ip></ip>
  </library>
</libraryList>
```

This section contains the following tags:

- **library:** Defines one Juke library and contains the name and IP tags.
- **name:** Defines a name which identifies a Juke library. This name becomes the label for the library in the Momentum interface.
- **ip:** Defines the IP address for a specific library.

Setting the Storage Location Parameters

This configuration section defines the storage locations used as a destination when ingesting material from the Juke or as a source when archiving materials from the Juke disks as shown below.

```
<storageLocationsList>
  <location>
    <UserFTPHomeDir></UserFTPHomeDir>
    <host></host>
    <user></user>
    <pwd></pwd>
    <dir></dir>
  </location>
</storageLocationsList>
```

The Juke accesses these directories using FTP so the server containing these directories must have an active FTP server.

This section contains the following tags:

- **location:** Defines a single folder and provides the information required to connect to an FTP server.
- **UserFTPHomeDir:** Reports the home directory for the account used to log onto the FTP server.
- **host:** Contains the IP address of the server which is running the FTP server.
- **user:** Defines the account used to access the FTP server.
- **pwd:** Defines the password for the FTP account.
- **dir:** Specifies a directory below the home directory as the target for Juke operations.

Configuring Instance Labels

To specify the label of an instance, set the label value in the configuration file
C:\Mantrics\InstanceLabelsConfig.xml.

An example of the typical content of the file is as follows:

```
<root xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <node value="HQ" label="High quality master instance" />
  <node value="To-Air" label="Instance to be aired" />
  <node value="SQ" label="SQ"/>
  <node value="Avid" label="Avid"/>
  <node value="SOCIALMEDIA" label="SOCIALMEDIA"/>
  <node value="FACEBOOK" label="FACEBOOK"/>
  <node value="TWITTER" label="TWITTER"/>
  <node value="COPY_TEMP" label="COPY_TEMP"/>
</node>
</root>
```

The tag **<node>** contains the following parameters:

- **Value:** The full label to be inserted into the metadata of an instance.
- **Label:** A short text description of the instance label. It is used in the drop-down menus of an element's parameters for setting a Label parameter.

You can add more node tags as required, in order to identify the instances produced in a workflow.

Configuring the Content of the Transfers Page

The content and layout of the Transfers page is defined in the configuration file
C:\Mantrics\TransferRequestsConfig.xml.

This file defines the structure of the table where transfer requests are reported and the values associated with each column.

When Momentum receives a BXF message, some of the request data is automatically stored in the system database, while other data requires a specific mapping from the BXF file to the database. This is done by mapping the Xpath values of the BXF file to a specific field in the database. The file `TransferRequestsConfig.xml` can retrieve this value, using a **<Field>** tag that points to the same database field specified in one of the **<targetMetadata>** tags of the BXFReceiver template `Default.xml`, and uses it to populate the Transfers page.

The file `TransferRequestsConfig.xml` is structured as follows:

```
<?xml version="1.0" encoding="utf-16"?>
<TransferRequestsConfig xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <DeadlineHours>0</DeadlineHours>
  <Columns>
    <Column>
      <Field>channel</Field>
      <Label>Network</Label>
```



```

        <Type>List</Type>
        <Options>
            <Option>
                <id>Station</id>
                <text>Station - mapped</text>
            </Option>
            <string>Vision</string>
            <string>Line1</string>
            <string>Line2</string>
        </Options>
    </Column>
    <Column>
        <Field>MaterialType</Field>
        <Label>Type</Label>
        <Type>List</Type>
        <Options>
            <string>COMMERCIAL</string>
            <string>JUNCTION</string>
            <string>PROGRAMME</string>
        </Options>
    </Column>
    <Column>
        <Field>requiredDate</Field>
        <Label>First Air Date</Label>
        <Type>Date</Type>
    </Column>
    <Column>
        <Field>morpheusId</Field>
        <Label>Morpheus ID</Label>
        <Type>String</Type>
    </Column>
</Columns>
</TransferRequestsConfig>

```

This section contains the following tags:

- **DeadlineHours:** Defines a span of time, in hours, from the current time during which the request is considered as urgent, and marked with a colored dot on the Transfers page, for example, 4 hours or less to on-air. A zero value, or empty tag, means that there is no definition of an urgent timespan and no highlight marker for urgent transfer requests is displayed.
- **Columns:** Collects all of the column definitions on the Transfers page.
- **Column:** Defines the data for a single column on the Transfers page.
- **Field:** Sets the database field which populates the value of the column. The values for this tag are restricted to the values used to store the transfer request data in the database. See the introduction of this section for more details about how this mapping works.
- **Label:** Defines the label that appears in the column header.
- **Type:** Defines the kind of filter input which is active on the column. The following values are available:

- **String:** A text input field is available for typing strings to filter the column's content, for example Morpheus material types: COMMERCIAL, PROGRAMME, JUNCTION. etc.
- **Date:** A date selector to filter the column's content.
- **List:** A list of checkboxes to filter the column's content.
- **Options:** A collection of all options available in a checkbox filter. It is active only if the tag **<Type>** is set to List.
- **string:** Provides the label for a single list option in the **<Options>** tag. There is no limit to the number of options in a list.

Configuring the Material Checker Template

The Momentum **MaterialChecker** is a utility that enables you to trigger a workflow when specific pre-defined time constraints are exceeded. For example, you might create an archive or delete workflow to be triggered when certain material files have been in a location longer than a configured time limit. You can configure a Windows task schedule on the application server to start and run the **MaterialChecker** periodically (e.g., daily) to check the target files.

You can trigger a workflow either by way of BXF messaging or using a **Send to...** workflow element.

The Momentum server installer includes an executable file for the **MaterialChecker** utility together with a sample of the Material Checker template, which is saved in the default installation location:

```
C:\Mantrics\MaterialCheckerTemplate\MaterialCheckerTemplate.xml
```

The MaterialChecker executable is located in the following folder:

```
C:\Mantrics\Program Files\Mantrics S.r.L\MaterialChecker.exe
```

This file defines the parameters employed by the Material Checker to trigger a workflow based on specific timing parameters.

The file `MaterialCheckerTemplate.xml` is structured as follows:

```
<?xml version="1.0"?>
<MaterialCheckerTemplate>
  <Genre>VIDEO</Genre>
  <DateMetadataList>
    <DateMetadata>
      <Date/>
      <TimeToAddInDays>-30</TimeToAddInDays>
      <DateMetadataId>Core.CreationDate</DateMetadataId>
      <DateOperator>Lesser</DateOperator>
    </DateMetadata>
  </DateMetadataList>
  <AdditionalQuery/>
  <BXFPublisher>
    <Active>>false</Active>
    <BXFRouteLabel>Test</BXFRouteLabel>
    <Origin>Momentum1</Origin>
    <Destination>Momentum2</Destination>
    <BXFAction>remove</BXFAction>
  </BXFPublisher>
</MaterialCheckerTemplate>
```

```

</BXFPublisher>
<SendToPublisher>
  <Active>>false</Active>
  <SendToElementId>68BC5293C0C3457D8283958D5BBFA709
  </SendToElementId>
  <Priority>5</Priority>
  <UserId>60F2B532673749A79246EA6B84E5B1E4</UserId>
</SendToPublisher>
<LogEnable>>false</LogEnable>
<WriteReport>>false</WriteReport>
</MaterialCheckerTemplate>

```

This file contains the following tags:

- **Genre:** Defines the target material for the template to check. Permitted values are: VIDEO (to work on TITLES), MULTIMEDIA (to work on Instances), empty tag (as MULTIMEDIA).
- **DateMetadataList:** Collects one or more date metadata fields to search.
- **DateMetadata:** Defines the date parameters to use as the criteria to trigger a workflow.
- **Date:** Defines a date value; if empty the Material Checker uses the current date.
- **TimeToAddInDays:** Sets the number of days to add to the specified or current date. A negative value specifies a number of days before the specified or current date.
- **DateMetadataId:** Defines the ID of a date metadata to compare against.
- **DateOperator:** Specifies an operator to use in combination with the date field. You can specify either: Lesser, LesserOrEqual, Greater, or GreaterOrEqual.
- **AdditionalQuery:** Contains an optional additional query, if required, to search other metadata (excluding date metadata). You can leave this tag empty.
- **BXFPublisher:** Collects the parameters to trigger a workflow using BXF messages.
- **Active:** When **true**, the workflow is triggered using BXF messages. Default: **false**.
- **BXFRouteLabel:** Specifies the label of the BXF Route to use for BXF messaging.
- **Origin:** Defines the Origin of the BXF message.
- **Destination:** Defines the Destination of the BXF message.
- **BXFAction:** Defines the action required by the BXF message. You can set to: **add**, **remove** or **update**.
- **SendToPublisher:** Collects the parameters to trigger a workflow by way of the **Send to...** workflow element.
- **Active:** When **true**, the workflow is triggered using the **Send to...** workflow element. Default: **false**.

- **SendToElementId:** Defines the ID of the specific **Send to...** workflow element to trigger. Use the Export XML... function to report the IDs of your workflow elements.
- **Priority:** Sets the priority of the task that is triggered by the Material Checker.
- **UserId:** Defines the ID of the user that creates the workflow task.
- **LogEnable:** When **true**, a log is generated to record the result of the search performed by the Material Checker. Default: **false**.
- **WriteReport:** When **true**, a text report is generated to document the results of the search performed by the Material Checker. The report is saved in the same folder as the Material Checker executable.

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Product Support

Providing Information to Grass Valley

If you experience any technical or operational difficulties with a Grass Valley product please do not hesitate to contact us to request assistance.

There is a lot of information you can give us that will enable us to diagnose your problem swiftly. Please read the following guidelines, as these suggestions will help us to help you.

Basic Information

- **For Units:** Provide the exact product Model, unit Serial Number and Software Version information.

Software Application

- **Inputs:** Provide full details of the Input Signals being used including any references, etc., and where they are being generated.
- **Outputs:** Provide full details of the Output Signals required and how they are being monitored.
- **System:** Provide a brief description of the system in which your equipment is currently being used.

Your Contact Details

In addition to the above, remember to provide us with your contact details to enable us to get in touch with you swiftly:

- Name(s)
- Telephone
- E-mail addresses
- Business address
- Contact Details

Customer Support

For details of our Regional Customer Support Offices, please visit the Grass Valley website and navigate to Support/Contacts Support.

<http://www.grassvalley.com/support>

Customers with a support contract should call their personalized number, which can be found in the contract, and be ready to provide their contract number and details.



Grass Valley Technical Support

For details of our Regional Customer Support Offices please visit the Grass Valley web site and navigate to: **Support > Customer Care.**

<https://grassvalley.com/support>

Customers with a support contract should call their personalized number, which can be found in their contract, and be ready to provide their contract number and details.

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