

TrafficManager User Guide



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Preface

This guide describes Vantage TrafficManager and its components, explains how to use the Dublist Portal for managing dublists, and presents typical scenarios and workflows you can create using TrafficManager to manage your commercial inventory and syndicated media.

These are the chapters in this guide:

- Preface
- Introduction
- Using Dublist Portal
- Creating Dublist Portal Configurations and Dublist Schemes
- Configuring Catch Server Schemes
- TrafficManager Workflows



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Introduction

This guide describes TrafficManager, a specially-designed Vantage media-processing system that automates the process of receiving, ingesting, analyzing, transcoding, approving, and delivering commercials and syndicated content for broadcast and cable companies.

This chapter provides an overview of TrafficManager and its components, including these topics:

- What Is TrafficManager?
- How TrafficManager Works
- TrafficManager Syndication
- TrafficManager and Related Actions
- Bringing it All Together in Workflows

Note: This guide is written for video professionals who are familiar with Vantage. To use TrafficManager effectively, you should know how to create workflows and submit jobs in Vantage, and you should be familiar with the operation of Workflow Portal. If you aren't familiar with Vantage, we suggest that you read the *Vantage User Guide* and *Vantage Domain Management Guide*. If you aren't familiar with Workflow Portal, please read the Using Workflow Portal chapter in the Vantage User Guide.



What Is TrafficManager?

TrafficManager provides the services, components, workflow actions, and system interfaces needed to automate and streamline commercial and syndicated media handling for television broadcasters and cable television facilities.

Note: TrafficManager is an optional, licensed Vantage feature. For details about licenses, see licensing topics in the Domain Management Guide.

TrafficManager provides a complete solution for managing syndicated and commercial media using rules you specify to find, process, and deliver the media ready to air. TrafficManager workflows can perform each of these steps automatically:

- Ingest media from clients and national delivery systems
- QA inspection and correction (with operator review if required)
- Creating and applying templates to syndicated program files
- Transcoding to broadcast formats
- Dublist reconciliation
- Delivery to ad insertion or broadcast servers
- Automation system notification

TrafficManager handles local, regional, and national ad ingest and processing. For national ads, TrafficManager integrates with common digital media delivery services, such as Javelin, ExtremeReach, and Comcast ADN (Radiance). Commercial media with metadata and trim points are ingested and processed automatically. For local ad submission, a customizable Web Upload Portal provides your clients with their own web page for submitting assets and metadata directly into your Vantage workflows which are triggered when they receive a file.

Dublist monitoring and inventory tools let you quickly verify which commercials have been processed and which are pending and may need your attention.

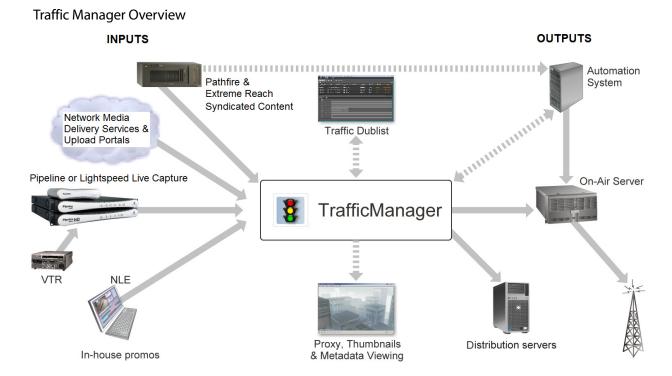
Once submitted to TrafficManager workflows, media can be automatically checked by Vantage Analysis and optionally by third party tools such as Aurora, Baton, and VidChecker to ensure compliance with your audio and video specifications (including CALM act audio loudness), detect and process captions, and streamline the legal compliance review and approval process using web-based review and approval tools and automated content preparation.

Best of all, TrafficManager offers superior flexibility, allowing you to build and modify rules for processing media, and easily replicate those workflows to other operations.



How TrafficManager Works

TrafficManager provides the ability to automatically manage commercials and programs received from various sources including syndicated content providers, media delivery services, local advertisers, and in-house content providers. The flexibility of TrafficManager easily accommodates the functions shown in this figure, and more.



These programs provide the capabilities to handle the functions shown:

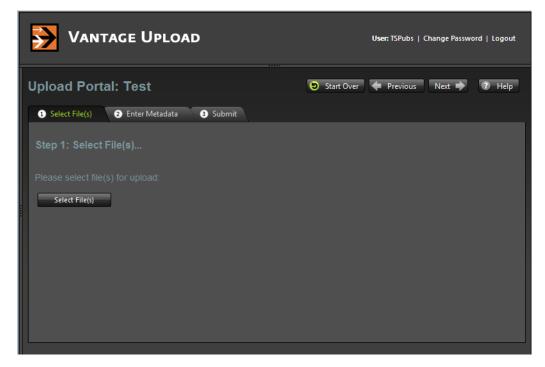
- Web Upload Portal—web app used by advertisers and network media delivery services to upload commercials to your server. The Upload Portal can also be used internally for editors to submit promo content with metadata to TrafficManager.
- Management Console—administrator client program used to create user accounts, catalogs, variables, labels, nicknames, dublist schemes, Dublist Portal and Workflow Portal configurations and access privileges, and syndication templates.
- Dublist Portal—offered as a Windows program and a web application for viewing, monitoring, and managing traffic dublists in real time.
- Workflow Designer—the client program for creating and managing workflows that handle traffic ingest from servers and catch servers, transcoding, and distribution. Media, dublist, and sidecar files can be automatically received and processed, including taped commercials digitized using Telestream Pipeline. Media, dublist information, and sidecar file outputs can be deployed automatically as shown to broadcast and cable automation systems, on-air servers, and distribution servers.
- Workflow Portal—the primary user client program for managing commercial inventory, including preview and approval, adding metadata, and adding trim points, and submitting these assets to workflows to produce media ready for distribution.



Syndication Portal Features—The portal is a user client, based on a configuration of the Workflow Portal, for creating and applying syndicated program templates to ingested files. The UI is automatically populated with segment timing and metadata, and you can easily move, change or delete segments and preview content in the video player. The portal is configured and syndication templates created for it in the Vantage Management Console. Once configured, the user launches the Workflow Portal, and selects File > Change/Reload Application Configuration to select the Syndication Portal configuration.

Web Upload Portal

The Web Upload Portal is a web application that provides you with a customizable web interface to your TrafficManager system through which local and regional advertising clients can submit their ad media. You can create an account and a customized web page for each client.

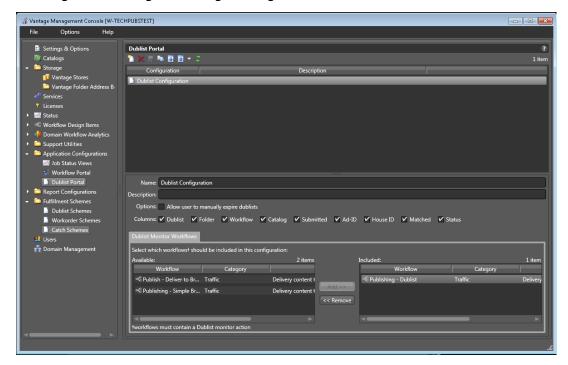


When clients log in, the page outlines a simple three-step process and provides an interactive interface that allows the user to (1) select a file, (2) enter metadata, and (3) submit the file. When submitted, the file goes directly to your TrafficManager ingest workflow specified when you customized the Upload Portal for your client.



Management Console

Administration of the TrafficManager services, users, configurable user interfaces, dublist schemes, and licensing is done using the Vantage Management Console.



The console provides the tools to accomplish these tasks:

- Set up user accounts in the Users panel.
- Make Vantage catalogs for holding different TrafficManager projects.
- Create Job Status Views to allow users access to jobs associated with workflows.
- Create Workflow Portal configurations to allow users to browse the content inventory processed through TrafficManager. The Syndication Portal is a special configuration of the Workflow Portal created and configured in the Management Console.
- Create Dublist Portal configurations to allow users to view the status of dublists. (See the Creating Dublist Portal Configurations and Dublist Schemes chapter later in this guide.)
- Implement dublist schemes containing parsing rules for various dublist types.
- Create catch schemes for the general purpose Catch action if you want to customize a specific type of catch server not not supported specifically. (See Configuring Catch Server Schemes later in this quide.)
- Access many other tools for system administration, performance monitoring and analysis, reporting, etc.

Refer to the *Domain Management Guide* for detailed descriptions of performing these tasks.

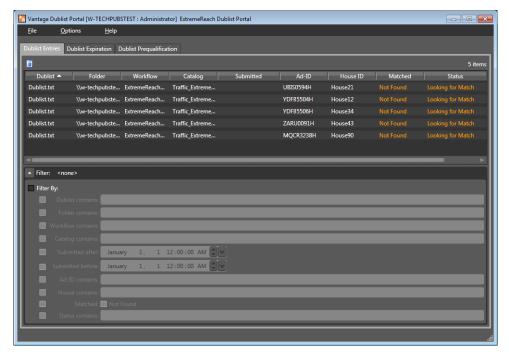


Dublist Portal

The Dublist Portal—offered as a client Windows program and as a web application—allows operators to monitor and manage dublists associated with Dublist monitor workflows. Operators can perform these operations:

- Verify that dublists have been received and processed
- Expire dublists whose processing is complete
- Test new dublists against existing commercial inventory to see what ads are available for processing (desktop portal client only)
- Identify missing commercials

The Dublist Portal presents a list of TrafficManager dublists processed by Dublist workflows. Filters allow you to narrow or widen the list based on various criteria. The Dublist Portal includes a tabbed panel for viewing dublist expirations and expiring dublists immediately. Another tabbed panel allows you to pre-qualify dublists to see what will happen when you submit a dublist to a workflow (desktop portal only).



Before it can be used, the Dublist Portal must be configured by an administrator using the Vantage Management Console (see the *Domain Management Guide* for details). Individual operators or groups of operators can have their own portal configurations created and saved for them, including these features:

- Name and description of the particular portal configuration
- Selection allowing the user to manually expire dublists
- Selections of information columns to include/exclude from the display
- List of permitted users who have access to the configuration
- List of dublist monitor workflows the particular portal configuration can access.



Workflow Designer

Workflow Designer is the design space where you construct ingest workflows as well as media processing workflows of other kinds. A workflow in TrafficManager is a set of connected actions, each performing a specific task. Using the many available actions, you can construct workflows to perform automated media and file processing tasks:

- Ingest media from a catch server or the Upload Portal, transcode it, and send it to a catalog of available assets.
- Monitor a dublist folder, process incoming dublists, reconcile the dublist against the catalog of available assets, prepare the commercial for broadcast, deliver it, and notify an automation system that spots are ready for air.

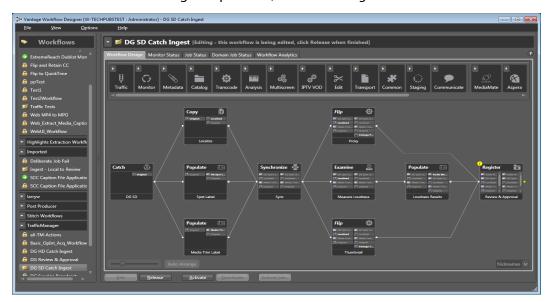
To get you started, pre-made workflows and professional services are available from Telestream, and of course, you can create your own workflows. You construct workflows in the Workflow Design workspace by dragging actions (Catch action, Copy action, Flip action, etc.) from the top menu bar. You then connect the actions to form a logical chain of tasks that are executed by Vantage services. Workflows are saved in the Vantage domain database and are executed by Vantage services.

To start a workflow, you click Activate. Workflows are executed as jobs, which are created and submitted automatically whenever a workflow action discovers a file to process, or when you click Submit Job to manually send a file to the workflow.

To edit a workflow after testing, Deactivate it, and click Edit. Then change the workflow. When you're done, click Release. When you are editing a workflow, others using Workflow Designer can view but not edit the workflow.

Once your workflows are activated, operators manage the running workflows and the files they process. In many cases, no operator intervention is required, but they can optionally view job status using the Vantage web apps, check dublist status using the Dublist Portal, and review commercial inventory using the Workflow Portal.

For details of Workflow Designer operation, see the *Vantage User Guide*.





Workflow Portal

TrafficManager workflows are typically designed to automate commercial or syndicated content processing, but operator intervention and approval may be required during media processing. For example, an operator might examine proxies to verify commercial content, scrub and set trim points, and add missing metadata. The Workflow Portal, which comes in both desktop and web versions, gives operators access to those capabilities. This figure shows how the Workflow Portal is implemented.

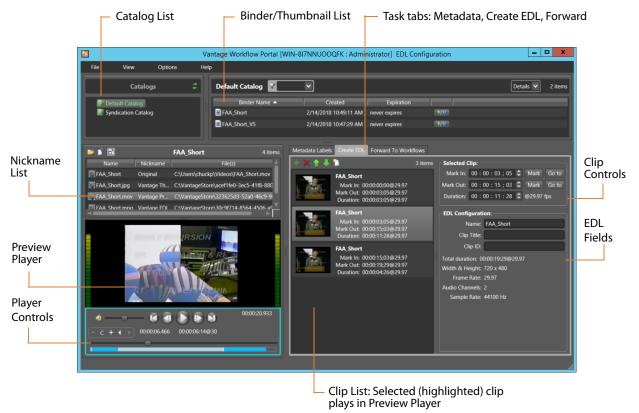


Workflow Portal (shown in the figure below) provides these media processing capabilities:

- Browse Vantage catalogs and network servers for available assets:
 - Preview/scrub media
 - Verify that all required files are present
 - Review associated metadata labels
- Update metadata and submit media to other workflows for further processing:
 - Enter or edit metadata
 - Configure variables for use in the next workflow
 - Mark in/out trim points on an asset's timeline
 - Mark the media as approved or rejected



To implement Workflow Portal, an administrator must first use the Vantage Management Console to create portal configurations for operators based on their assigned responsibilities. See the *Vantage Domain Management Guide* for details.



When using the Workflow Portal desktop application, you can navigate through all the fields and controls by repeatedly pressing the Tab key. Use the Shift + Tab key combination to move through the fields in reverse order.

The following topics describe the components of the Workflow Portal:

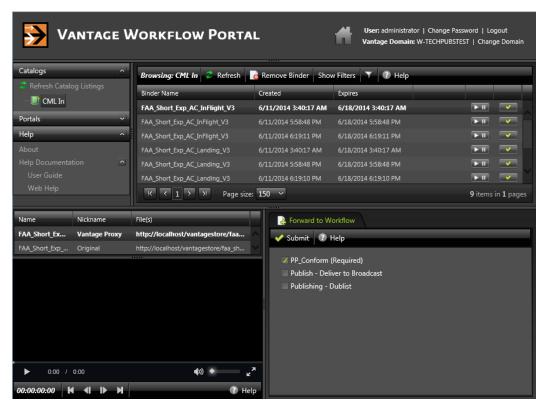
- Catalog list—catalogs contain binders which contain processed media files
- Binder list—binders contain all the files processed by associated workflows
- Program menus—menus for accessing domains, user accounts, help, etc.
- Metadata Labels tab—allows modifying and adding metadata
- Create EDL tab—includes tools for creating an EDL with mark in, out, duration
- Forward to Workflows tab—permits manually submitting binders to a workflow
- Preview Player—allows viewing proxy media files produced by workflows
- Nickname list—lists media file nicknames contained in the binder and clip being previewed

Note that depending upon your Portal configuration, some components may be hidden from operators to streamline their experience. For details of Workflow Portal operation, see the *Using the Workflow Portal* chapter of the *Vantage User Guide*.



The figure below shows the browser-based Web Workflow Portal commonly used by TrafficManager operators. The layout and functionality of the web version is very similar to the desktop version, although not all features are available. Having a web client enables operators to manage workflows and jobs from remote computers without having to install a client application.

To access the portal, enter this address in your web browser's address field: http://[servername]/Vantage/Portal/ where the server name is the Vantage domain server. For details of Web Workflow Portal operation, see the *Using the Workflow Portal* chapter of the *Vantage User Guide*.





TrafficManager Syndication

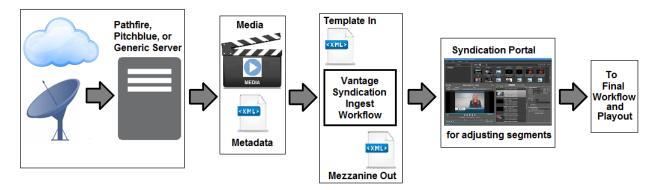
TrafficManager Syndication provides a very efficient means of ingesting and processing long and short-form syndicated broadcast content (multi-segment material). The following topics explain Syndication in detail, enabling you to implement your own system.

- Syndication Overview
- Syndicated Content Processing Workflow Overview
- Syndication Portal Features
- Syndication Processing in Detail
- Commercial Segment Management

Syndication Overview

These are the key features and functions of TrafficManager Syndication:

- Ingest programs and associated metadata from a catch server using the Catch and Syndicate
 actions in Vantage workflows. Files must be copied to a local file location, and the media must be
 assigned the nickname Original.
- Register shows and metadata into catalogs accessible from the Syndication Portal.
 Vantage Syndication includes a system nickname for attachments: Syndication. This nickname is a critical and integral part of Vantage Syndication workflows and is required as both an input to and output from the Syndication Portal.
- Create and manage syndication templates and portal configurations in the Vantage Management Console.
- Use the Syndication Portal to preview and adjust show segments and output to a publishing workflow. The portal produces the nicknames required for Syndication publishing workflows.
- Publish the syndicated content to an automation system using a publishing workflow in the Workflow Designer.





Syndicated Content Processing Workflow Overview

Syndicated programming differs from spots in that an entire show or long-form deliverable is included in the syndicated content. The accompanying metadata provides descriptive elements and information about included segments and breaks. In the ingest stage, files must be copied to a local file location, and the media must be assigned the nickname *Original* in order for workflows to operate successfully.

TrafficManager workflows automate the processing of syndicated media and metadata. Typically, syndicated and spot content and metadata are delivered via satellite or broadband delivery.

You can use the Management Console, to create templates (which describe proper segmentation of media and commercials, etc. that follow standard segmentation patterns) for use with particular shows. The template can be automatically matched with the show metadata to reformat the incoming show metadata into a mezzanine instruction file for the Syndication Portal.

The instructions from the XML metadata are used by the Syndication Portal to create a Segment List, which divides up the media into the multiple segments and variable breaks.

Catalogs containing media nicknamed Original, a proxy, and a syndication metadata attachment nicknamed Syndication are created for each job and accessed for operator processing in the Syndication Portal.

The Syndication Portal enables operators to preview and adjust segments and metadata, then submit the program files to a final Vantage workflow. Depending on the portal Syndication mode (Stitching or Segmenting), the portal outputs include a single media file (Stitching mode) or multiple segment files (Segmenting mode), an XML metadata file, and CML files. A third mode—Pass-Thru—allows operators to leave the program structure unchanged and manipulate only the timing data within the portal. In this mode, the portal outputs the media file and Syndication attachment, but no CML files. Essentially, the original media and attachment are passed through unaltered except for minor timing adjustments.

In the Syndication Portal, when a binder is added to the portal Segment List, if the << No Template >> option is used, the Syndication Portal creates a Segment List based on the original source XML file. With this option, the user can save the Segment List as a new template (if the portal configuration permits it).

Note: Stitching mode requires that all segments to be normalized to the same frame rate. If you add a commercial, its frame rate must match the program.



Certain Vantage actions are heavily used to process syndicated content:

- The Syndicate action transforms sidecar XML files into a format readable by the Syndication Portal and Automate action. If the Syndicate action is able to match the incoming sidecar XML with a Syndication template (via a match pattern), then the template is applied to the sidecar XML when it is transformed. The template may re-order segments or indicate that specific segments are not included in the final output. If a Syndicate action applies a template that specifies the same regrouped number for multiple segments, those segments will be joined.
- Flip actions (including Flip, Multiscreen, IPTV and others) transcode the syndicated media into proxy and thumbnail formats.
- A Register action registers the original media, thumbnail, proxy, and metadata attachment into the desired catalog.

In some cases the final workflow creates a new metadata file to accompany the final media. In other cases, the show segments need to be re-transcoded by Vantage to produce a new version. The output of the final workflow typically goes to a playout server for distribution.

Two simple example workflows are described at the end of this chapter where workflows are discussed *Syndication Workflows*).

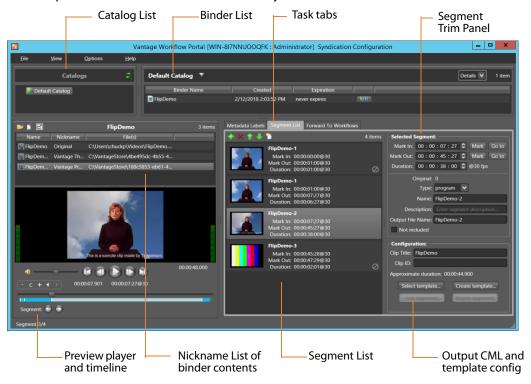
Syndication Portal Features

The Syndication Portal provides these configuration-specific features:

- Binders containing shows and metadata are dragged to the Segment List.
- A template specified in the Management Console portal configuration automatically divides the show into segments.
- Segments can be manually dragged to change order, new segments added and Type specified (black/program/commercial), and existing segments and metadata trimmed using the Selected Segment controls. Segments you want to leave out of the final program can be marked Not included. You can also Ctrl/Shift-select all or a group of segments and mark them Not included.
- Two or more consecutive or non-consecutive segments can be joined together when creating a template or when outputting media. Conversely, previously-joined segments can be selected and unjoined.
- When non-consecutive segments are joined, the lower segments automatically jump over intervening segments and move up directly below the segments being joined to form a contiguous segment group.
- In the portal, you can drag binders or segments into a segment group to insert the binder or segment into the group.
- Segments joined to a group of segments are assigned the same regrouped number. This information is made available to be passed on to downstream automation systems from Vantage. For a complete description of joining segments, see Commercial Segment Management.
- The Preview player allows previewing segments and final output. Typical player controls are included, and a timeline with Segment buttons to jump between segments give you full visibility and control of show contents. Timeline expansion and history controls allow fine adjustment of the timeline, which is especially helpful when working on longer projects.



- Output file name, Clip Title, and Clip ID are automatically supplied from the input metadata file, but you can change them if desired. When the Syndication Portal configuration is set for segmenting mode, the output file name can be set for each individual segment. You can also Ctrl- or Shift-click segments and click Join Segments to combine segments or even the whole show.
- The show and metadata can be submitted to a publishing workflow using the Forward To Workflow tab where the user selects the desired workflow and clicks Submit. This sends the output files to a final workflow for automated processing and distribution to an automation system or server.
- Depending on the Vantage Management Console Syndication Mode configuration setting, the Portal generates new metadata XML and composition (CML) files for the segments (Segmenting mode) or a whole show (Stitching mode), or the original XML attachment with updated timing is passed through (Pass-Thru mode). The publishing workflow performs any required transcoding or other transformations and publishes the files to an automation system.





Syndication Processing in Detail

Use these steps to guide you in processing syndicated content.

- **1.** Create a syndication catalog using Management Console > Catalogs.
- 2. Create a new syndication template using the Vantage Management Console > Syndication folder > Templates feature.

Use the Populate from XML button to import an XML metadata file for the show you're planning to process. The Templates panel displays a list of show segments. You can move, add, and delete segments to adjust the template.

For additional details, see the *Vantage Domain Management Guide*.

3. Create an ingest workflow that includes an origin action capable of ingesting a syndicated media file and accompanying sidecar metadata file. (For workflow details, see Syndication Workflows.)

You can use a Catch action, a Receive, or a Watch/Associate combination to ingest new files, and a Copy action to localize the files. Files on a catch server are not accessible to downstream actions, so they must be localized.

Also include Flip actions to create thumbnail and proxy files.

Include a Syndicate action to apply the template to the sidecar file (or make the file readable by the portal if a matching template is not found), producing a mezzanine file nicknamed Syndication.

The workflow must also include a Register action to register the files (including the XML file using the required nickname Syndication) into a binder for entry into the syndication catalog. The catalog must contain media nicknamed Original, a proxy, and a syndication metadata attachment nicknamed Syndication because these are required inputs to the Syndication Portal. (Note that only XML files for programs require the *Syndication* nickname; commercial files do not.)

The portal can then be used to access the binder and its files from the catalog.

4. Create a publishing workflow suited to your needs. Typically, you'll want to start with a Receive action to accept the files submitted from the portal and an Automate or Conform action to convert the XML or CML files and the syndicated media to the desired formats.

In Automate, you can select BXF or other automation formats for outputting to an automation system.

Note: The Syndication nickname is required for the attachment file in both the Receive and Automate actions, and the CML nickname is also required by the Receive action in Stitching or Segmenting mode.

5. Create a Syndication Portal configuration using the Vantage Management Console > Application Configuration > Workflow Portal. Set the Mode to Syndication, and set the parameters in each tab. In Syndication Settings, specify the template you created as the Default template.



Also select a Syndication mode:

Stitching mode: Submitting from the portal generates a single CML file and a single Syndication XML file for the whole program. Stitching mode requires all segments to be normalized to the same frame rate. For example, if the program is 1080i/29.97 and you add a 720p/59.94 commercial, the ingest workflow must convert the commercial to 29.97 so that its frame rate matches the program.

Segmenting mode: Submitting from the portal creates a separate job for each included segment, and an output file name can be assigned to each segment output. A CML file and a Syndication XML file are created for each job.

Pass-Thru mode: Submitting from the portal does not create a CML. Instead, the Original from the ingest workflow is made available to the publish workflow and a Syndication XML is generated based on the Segment List.

On the Forward To Workflows tab, select (Add) the publishing workflow. This provides a default configuration and template for the portal that operators can modify, depending on permissions. For additional details, see the Vantage Domain Management Guide.

- 6. Open the Workflow Portal and use File > Change/Reload Application Configuration to load the Syndication Portal configuration created earlier.
 - Refresh the catalogs, select the syndication catalog created previously, and drag one or more binders into the Segment List.
 - The portal automatically displays all of the segments identified in the Syndication XML. You can use the portal to preview and adjust segments manually, including joining consecutive and non-consecutive segments (Ctrl-click to select 2 or more segments and click Join Segments or right-click and select Join Segments) to treat them as a single segment in the output. For a complete description of joining segments, see Commercial Segment Management.
- 7. Forward the updated show to the publication workflow by accessing the Forward To Workflows tab, selecting the workflow, and clicking Submit.

Media and metadata files are delivered to your automation system in ready-to-use formats.

Note: After you fine-tune the segments of a show, you can save the template from the portal using the Create Template button to save over the existing template or make a new one.

You also have the option when creating workflows to completely bypass the Syndication Portal, combine ingest and publishing into a contiguous workflow, and process all the files without human intervention.

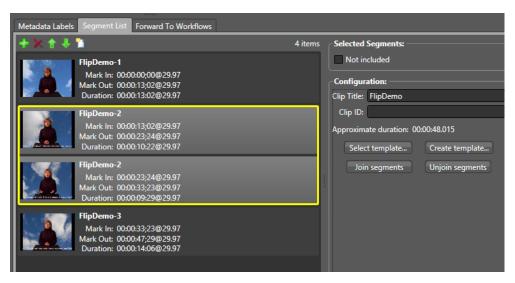
For example workflows, see the last few pages in the TrafficManager Workflows chapter. Examples include ingest workflows, publishing workflows, pass-through workflows, and fully automated workflows that do not use the portal.



Commercial Segment Management

Syndication templates organize programs (the actual program material) into segments and segment groups using an identical structure for every episode. However, commercial segments have potentially different structures for each episode, depending on commercial length and number. You use the Regrouped feature in the template or the *Join segments* button in the Syndication Portal to couple commercial segments as required to accomplish a uniform segment output with varying numbers of sequential commercial segments.

To join segments using the portal, use Ctrl/Shift-click to select multiple segments and use the Join segments button to join them. To join segments using the Syndication Templates Regrouped feature in the Management Console, select each segment, and use the Regrouped button to assign them the same segment number.



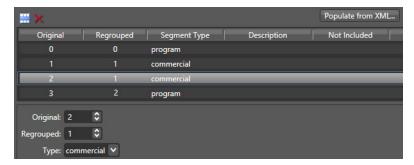
Joined segments are renumbered to share the same segment number, and in the portal they are moved automatically to contiguous positions in the segment list and grouped by a highlighting box (shown above).

The following example shows how segments are joined in a template using Regrouped:

Segment 0 (Program) Original order: 0 Regrouped Order: 0
Segment 1 (Commercial) Original order: 1 Regrouped Order: 1
Segment 2 (Commercial) Original order: 2 Regrouped Order: 1
Segment 3 (Program) Original Order: 3 Regrouped Order: 2



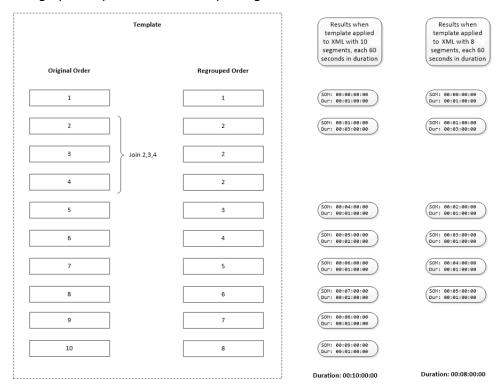
This template specifies that segments 1 and 2 will be joined. This is done using Regrouped to assign the number 1 to both.



When a clip is processed using this template, TrafficManager treats segments 1 and 2 (the commercial segments) logically as if they were a single segment.

For example, you submit a clip with 4 segments—Program > Commercial > Commercial > Program and process it by the template described above, the generated clip has 3 segments—the commercial segments 1 and 2 from the original are joined into a single segment for the output.

This graphic explains how the output segments are formed:



By using the join capability when creating templates for a given type of syndicated media, you can guarantee that a specific structure is always presented to your automation system (ASDB or Syndication).



TrafficManager and Related Actions

Vantage TrafficManager includes special actions adapted specifically to managing commercial traffic, and it also makes use of other Vantage actions to create workflows that automate the entire process of ingesting, processing, and deploying commercials according to received dublists. These are the TrafficManager actions as well as general actions useful in the traffic management process:

- Automate Action
- Catch Action
- Watch Action
- Receive Action
- Dublist Action
- Populate Action
- Copy Action
- Synchronize Action
- IPTV VOD Action
- Flip Action
- Multiscreen Actions
- Notify Action
- Deploy Action
- Syndicate Action
- Pathfire and Pitchblue Integration

Notes on Specific Actions

To learn more about each of the above actions, click the M in the upper right corner of the action inspector to see the manual page. You can also refer to the action descriptions in the Vantage User Guide (click the ? next to the M).

Additional selected details specific to TrafficManager are presented below.

Automate Action

In TrafficManager applications, the Automate action action is useful to notify automation systems that a commercial or program has been processed and is available for air and can also provide associated metadata files formatted for automation systems. For example, an Automate action can create text or CSV dublists, data for ASDB or Sundance databases, or formatted metadata files for Itx, Florical, Pebble Marina or BXF-compatible automation systems. The action can also output a Syndication Restripe file to change the frame rate of the metadata. For example if a media file is converted from 1080i 29.97 to 720p 59.94, the metadata is restriped also.

Each of the features listed above has specific features which are detailed in the manual pages for the Automate action.



Catch Action

A Catch action is a specialized origin action (an action used to start a workflow) for ingesting commercial media assets (including metadata) from catch servers. It uses the Traffic Service to regularly poll the catch server to discover new files in the directory and of the file type it is assigned to find.

When a new file is discovered, the Catch action ingests the file and associated metadata and submits a job to the workflow for processing. The Catch action also harvests all commercial metadata available and makes it available to the workflow. Typically, the workflow is an ingest workflow which localizes the media, populates a metadata label, creates proxies and thumbnails, and registers the asset in a Vantage catalog.

These are some of the catch servers with which TrafficManager integrates: Adstream, Centaur, Comcast, DG, DMDS, Extreme Reach/Mijo, Fotokem, Hula MX, Javelin, On The Spot, Pitchblue, Pathfire, Smartjog, SpotGenie, Spottraffic, Video Express. Additionally, the Catch action includes a General Purpose Catch selection that allows you to implement your own custom catch server using a Catch scheme you define in the Vantage Management Console.

Watch Action

A Watch action is an origin action that uses the Monitor Service to regularly poll a target location, such as a folder or file system. Watch actions typically are not used for local, national, or dublist workflows but may be used for promo ingest workflows or to ingest syndicated content from Pathfire through hot folders.

Dublist Action

A Dublist action is a specialized origin action for ingesting dublist files from a specified hot folder in TrafficManager applications. It uses the Traffic Service to regularly poll the hot folder to discover new dublist files, and will trigger new jobs when a dublist indicates that a commercial in the catalog is needed for air.

When a new dublist file is discovered, it is parsed by the specified scheme (created in the Management Console) and new entries are added to the master dublist maintained by Vantage. The Dublist action simultaneously polls the selected Vantage catalog for any media files which match entries in the master list. When matching files are found, the Dublist action submits a job to its TrafficManager application workflow for processing. Typically, the workflow is an on-air processing workflow which transcodes the media, optionally trims the clip, and alters audio for compliance. Then, it delivers the media to an on-air server and notifies an automation system.

Register Action

A Register action uses the Catalog Service to add a binder to a catalog. In TrafficManager workflows, when a workflow originates from a Catch action, the Register action will automatically set the binder name to the Ad-ID/ISCI code. The Dublist action uses the binder name as the commercial's unique identifier, so the binder name should be set to the Ad-ID/ISCI code. If the workflow does not originate from a Catch action, the media file name (without extension) will be used as the binder name by default. The Register action also allows a variable to be used to set the binder name.



When using the Register action for TrafficManager, consider using either the Overwrite or Rename Old conflict resolution settings. If Rename New is used, then the latest version of a spot will not be submitted by a Dublist action because the name of the binder will not match the Ad-ID/ISCI code.

Notify Action

A Notify action is used to notify automation systems that a commercial is available. For example, a Notify action can create text or CSV dublists and provide them to certain types of automation systems that are capable of receiving dublists in that format. Alternatively, the Notify action may create and deliver a BXF message.

Deploy Action

A Deploy action is executed by the Transport Service to save specified files to a destination outside the Vantage domain. Unlike Delete, Move, or Copy actions, Deploy actions allow multiple files to be operated on simultaneously, and do not maintain a reference to those files in the binder after completion. This action is especially useful to move traffic output files to broadcast servers where they will await broadcast.

Syndicate Action

The Syndicate action processes and can apply a template to metadata accompanying syndicated content from providers like Pitchblue and Pathfire. The Syndicate action is part of TrafficManager, an optional, licensed feature of Vantage.

The Syndicate action rearranges segments according to a template or allows marking specific segments as not included in the final program. Use the Syndicate action in syndicated media ingest workflows to convert sidecar metadata XML files to a mezzanine format for use in downstream actions in the workflow, or for use in Syndication Workflow Portal to automatically display the segments and timing of the syndicated content.

The Syndicate action can also process an Analysis Report from the Analyze action when timing metadata is not otherwise available. To use the Syndicate action to process an Analysis Report for timing metadata, add an Analyze action and configure it to use Slate/Spot Analysis and Black Detection to identify color bars, slate, black, and active segments.

In the Syndicate action, select the Analysis Syndicator. It processes the Analysis Result XML to produce a Syndication XML that can be used by the Syndication Portal. When the Syndication Portal generates a segment list in this scenario, it will automatically create and describe segments for color bars, slate, black and active segments. A selection is also included to omit all black and color bars segments if you want to remove them automatically from your final output.



Pathfire and Pitchblue Integration

Pathfire and Pitchblue integration in Vantage is enabled by the Traffic license policy.

The Catch action includes Pitchblue and Pathfire detectors to discover content on a Pitchblue or Pathfire server. The Catch action must be followed by an action from the Transport service in order to localize the media discovered. A Move action is recommended so that files are removed from the server's cache directory. The Syndicate action is used to ingest side-car metadata and playlist/segment information into Vantage.

In the Pathfire Catch action, the Transfer Location is the place where the media files are to be placed when they are being localized. This location is only temporary staging for the media file. Once FlipLite finishes copying the file out of the Pathfire server to that location, the Vantage Copy Action will open up a stream to the file so it can be used in Vantage. Once the Copy Action is complete, the temporary file should be deleted with a Delete Action. It's preferable to use a Move action instead of Copy and Delete to reduce the number of actions.

The FlipLite Destination is the Factory in FlipLite that is being targeted by the media transfer request. This depends on the user's needs and is set up by Extreme Reach and the user. The FlipLite factory may be used to direct convert, transcode or simply export the media from the Pathfire system to the Pathfire cache directory so that Vantage can access it. Users should exercise caution to prevent filename collisions within the Pathfire cache directory. Additionally, the pathfire_cache directory needs to be configured in Windows Authorizations with a valid Windows admin user with permission to access the directory. Also, note that FlipLite may have a low concurrency limit, such as only 1 job at a time.

The Client ID field of the Pathfire Catch action allows two concurrent sessions on the Pathfire server. For example, if you had two different workflows running at the same time, and they were both talking to the Pathfire server, you would give each one a different Client ID.



Bringing it All Together in Workflows

The flexibility of Vantage TrafficManager enables you to construct workflows that do all of your production tasks: ingest files, analyze them, add metadata, flip formats, notify an operator to approve files, and send them to distribution or broadcast. The following descriptions present typical workflows. For additional details, see the TrafficManager Workflows chapter. During installation, your Telestream representative will likely install workflows for you and may perform customization. As a result, your workflows should already be pre-built. Because your workflows may be different than the workflows in this manual, the following examples are for illustration purposes only.

Local, Regional, and National Ingest Workflows

Publishing workflows can automate ingesting media for local, regional, and national commercials.

- A Watch, Receive, or Catch action detects an incoming media file and passes its location and metadata on to the workflow. Catch is used for national workflows, Receive is used for local and regional workflows, and Watch is used for internal promos.
- A Copy action places the media in the desired commercial inventory location.
- Populate actions label the media and pass on metadata as variables.
- An Analyze action determines file properties and measures loudness.
- Flip actions transcode the media into proxy formats.
- A Register action registers the commercial in the desired catalog.

Review and Approval Workflow

If your process requires a person to review and approve each commercial, you can create a review and approval workflow or incorporate a review stage into a larger workflow. Typically, your workflows will include actions such as these:

- Populate actions to create a label that approves an Approval parameter to indicate whether the media has passed a review or not (true/false).
- A Workflow Portal configuration allowing the operator to review the proxy and metadata, and indicate whether or not the commercial is valid.
- Decide actions to forward the media to a Review catalog or a Ready-to-Air catalog depending on the Approval parameter setting.
- A Notify action, if the commercial does not pass inspection, to send email to the administrator indicating that a commercial did not pass review.
- If valid, the commercial needs to be registered into the inventory catalog so that the Dublist monitor action can publish it for broadcast or cable playout.

Dublist Processing and Publishing Workflow

Dublist processing employs a Dublist action to detect and parse dublists, and trigger jobs when the needed commercials are available in the catalog. Typically a dublist workflow will include these components:

• Dublist Schemes provide dublist parsing rules (set up in the Management Console).



- A Dublist action parses incoming dublists and triggers jobs when the needed commercials are available.
- A Flip action will typically convert the commercial to a broadcast, cable or IPTV format for play-out, correcting audio and trimming at the same time.
- The finished commercial will be delivered to on-air or ad insertion.
- A Notify action notifies an automation system when a spot is sent to the broadcast server for playout.



Syndication Workflows

You can design Syndication into a single workflow that does not use the Syndication Portal for operator intervention, or you can divide it into multiple workflows including manual operator intervention and adjustment using the Syndication Portal.

At a minimum your syndication workflow requires (1) ingest and copy functions that receive and localize media and attachment files, (2) a Syndicate action to apply the syndication template and nickname to the attachment, and (3) a Flip and a Communicate action, such as Automate, to output the media and attachment.

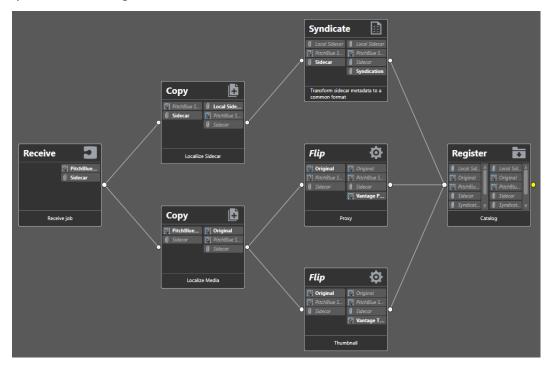
Ingesting Workflow

The ingesting workflow (below) includes an origin action, such as a Catch, Receive, or Watch-Associate combination, to ingest a syndicated media file and accompanying sidecar metada file.

Additionally, the workflow must include Flip actions to create thumbnail (optional) and proxy files, and a Syndicate action to apply the syndicate template to the sidecar file and assign the resulting attachment file the required Syndication nickname.

Note: Using the correct nicknames is essential. *Vantage Thumbnail* and *Vantage Proxy* nicknames are required to produce thumbnail and proxy files. The Syndication nickname produced by the Syndicate action is required by the Syndication Portal. The Original nickname must be used to represent the localized media.

Finally, the workflow must include a Register action to register the files and the template into the syndication catalog.





Publishing Workflow

The publishing workflow (below) must be designed to suit to your needs. You'll need to start with a Receive action to accept the submitted files from the Syndication Portal. The attachment file output of the Receive action must be nicknamed Syndication.

The Automation action is used to convert the Syndicate attachment nickname to a format readable by automation systems.

When using the stitching or segmenting mode of the Syndication Portal, Conform consumes the CML media nickname to output a mezzanine file with the program timeline specified by the Syndication Portal operator. The Conform action output is then direct converted by a Flip action to produce a final broadcast output.



Of course, you can do far more sophisticated things with your workflows. These two workflows simply demonstrate the minimum you'll need when using the Syndication Portal. For more complex examples, refer to the TrafficManager Workflows chapter later in this guide.



Using Dublist Portal

The Dublist Portal is provided as a Windows client program and a web application that enables you to display and manage dublists processed by Dublist monitor workflows. The web client can be used on any computer with a supported web browser (see *Web Application Browser Requirements*) and a network or Internet connection to your Vantage domain.

Note: Both versions offer substantially the same user interface and functionality, except that the web version does not support dublist pre-qualification or display this panel. When a topic applies to only one client, it is noted.

The Dublist Portal is configuration-driven. A Vantage administrator must create one or more Dublist Portal configurations in the Vantage Management Console before the portal can be used.

Filters allow you to narrow the list of dublists displayed based on various criteria. Dublist Portal also includes a panel for viewing and managing dublist expirations, as well as one for pre-qualifying dublists to see the results that will occur when you submit a dublist example to a workflow.

The following topics introduce and describe the Dublist Portal:

- Starting Dublist Portal
- Dublist Portal Overview
- Monitoring Dublist Entries
- Managing Dublist Expiration
- Pre-qualifying Dublists
- Dublist Portal Windows Program Menus
- Troubleshooting Dublist Portal



Starting Dublist Portal

To start the Dublist Portal Windows program, do one of the following:

- Double-click the Vantage Dublist Portal shortcut on your desktop
- Click Start > All Programs > Telestream > Vantage > Dublist Portal.

To start the Dublist Portal web application, do one of the following:

Open your web browser and enter the Vantage web application home page URL:
 http://<IISServerName>/Vantage/
 where <IISServerName> is the DNS name of the IIS server (or its IP address)—by default,
 the same as the Vantage domain server—and click on the Dublist Portal panel.

Note: If you don't know the name of the Vantage IIS server (by default, the same server where the Vantage domain database is hosted), contact your Vantage administrator or IT department.

- If you are prompted, select a domain and log in, then select a configuration.
- If you are prompted, enter your authorized user name and password

Note: For information on managing Vantage Windows clients and web applications, including starting and stopping the program, logging into and changing domains, changing Vantage users and passwords, and selecting configurations, go to the Vantage User Guide > Vantage Client Programs Overview chapter.



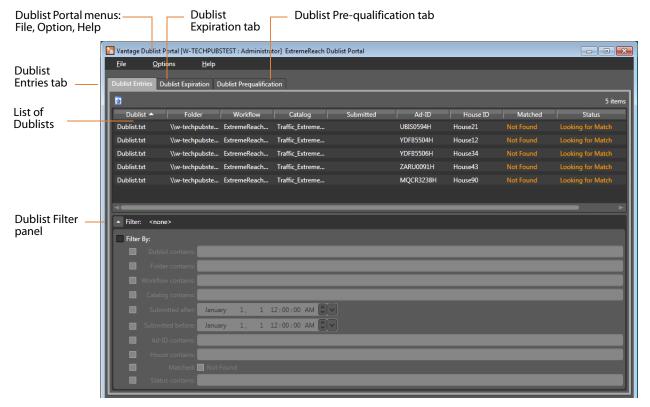
Dublist Portal Overview

Dublist Portal provides a single window for all of its functionality, in both versions—the Windows client and the web application.

- Dublist Portal Windows Program User Interface
- Dublist Portal Web Application User Interface
- Using the Panels

Dublist Portal Windows Program User Interface

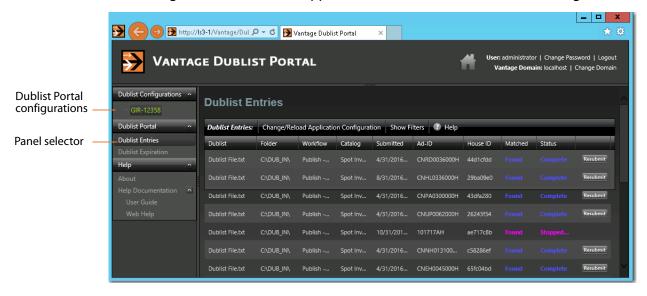
The Dublist Portal Windows program's main window is shown in this figure:





Dublist Portal Web Application User Interface

The Vantage Dublist Portal web application's main window is shown in this figure:



Using the Panels

The Vantage Dublist Portal window consists of these panels:

- Dublist Entries panel—Monitoring Dublist Entries
 - Displays a list of dublist ads corresponding to active Dublist Monitor actions and when enabled, permits resubmitting jobs.
 - Lists folder location, associated workflow and catalog (when submitted), Ad-ID or ISCI, whether a matching media file was found, and status.
 - Filters allow narrowing of dublists shown in the list.
- Dublist Expiration panel—Managing Dublist Expiration
 - Displays active dublist expiration dates and locations and allows dublists to be manually expired.
- Dublist Pre-qualification panel (Windows only)—Pre-qualifying Dublists
 - Displays active Dublist Monitors and allows dublist testing to show the results of submitting a dublist to a dublist monitor—specifically, what spots are in the catalog inventory that would be auto-forwarded by submitting the dublist.
- Dublist Portal Menus (Windows only)—Dublist Portal Windows Program Menus
 - File allows changing domain, user, password, and reloading a configuration.
 - Options lets you add headers to CSV exports and show or hide tool tips.
 - Help offers access to several kinds of built in and online help.



Monitoring Dublist Entries

Display the Dublist Entries panel to monitor your current dublist entries—do one of the following:

- Windows client—Click the Dublist Entries tab.
- Web app—Open the Dublist Portal item in the menu and click on Dublist Entries

The Dublist Entries panel, which is the primarily-used panel, displays a list of dublist ads sorted by dublist, which have been processed or are waiting to be processed by Dublist-action workflows. Using this panel, operators managing the traffic system can monitor t he system in real time, verifying that dublists and their ads are being correctly processed and matched up with associated media files (spots). The Dublist Entries panel provides this information about dublists:

- Dublist—dublist name or identifier
- Folder—location where the dublist is stored
- Workflow—workflow that processed the dublist
- Catalog—catalog containing the dublist and associated binders
- Submitted—date and time the dublist was submitted for workflow processing
- Ad-ID—an ID assigned to the media (spot), often this is an ISCI code
- House ID—an internal name or identifier assigned to the spot
- Matched—an indicator showing whether the dublist is matched with a media file
- Status—current status of the dublist
- Resubmit—When enabled in a dublist configuration, the Resubmit button on completed jobs enables the operator to resubmit a previously-processed ad for re-processing.

To export a given dublist as a CSV file, click a file in the list, click the Export arrow, and browse to save the file.

Resubmitting Jobs

To resubmit a dublist entry—a previously processed ad (or other asset)—click the Resubmit button on its row.

Workflow Designer displays a Status dialog indicating it has been resubmitted. (If the workflow it was submitted to is not active, you'll be advised.)

Filtering Dublists

Open the Filter panel at the bottom of the table to filter your list.

Checking the Filter box and the boxes of any desired filter criteria allows you to narrow the list to display only dublists matching the filter criteria. For example, you can filter by Dublist contains to find a dublist or group of dublists by their names, or you can filter to



find lists processed between a selected pair of dates. Data entry fields are alphanumeric.

These are the dublist filter criteria:

- Dublist contains—select dublists matching all or part of the name
- Folder contains—selects dublists matching all or part of the folder name
- Workflow contains—selects dublists matching all or part of the workflow name
- Catalog contains—selects dublists by matching all or part of the catalog name
- Submitted after—selects dublists submitted after the specified date
- Submitted before—selects dublists submitted before the specified date
- Ad-ID contains—selects dublists by matching all or part of the Ad-ID
- House contains—selects dublists by matching all or part of the House ID
- Matched/Not Found—selects dublists that have been matched to media spots, or if Not Found is checked, selects dublists that have not been matched to spots.
- Status contains—selects dublists by matching all or part of their status

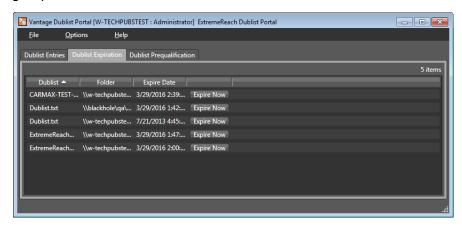


Managing Dublist Expiration

To display the Dublist Expiration panel and view dublist expiration information, do one of the following:

- In Windows—Click the Dublist Expiration tab
- In the web app—Open the Dublist Portal item in the menu panel, and click on Dublist Expiration

Dublist Portal displays a table showing dublists ordered by expiration date and time, as shown below. The list allows you to plan and manage the expiration of each dublist or group of dublists.



Manually Expiring a Dublist

The Expire Now button allows you to expire a list immediately or at some future time (in hours, days, weeks, etc.), which will end all related processing at the specified time. Click Expire Now on a dublist whose expiration you want to adjust. Dublist Portal displays the Set Dublist Expiration dialog:



Click Now to expire the dublist immediately; click In and specify the amount of time to wait before expiring the dublist.

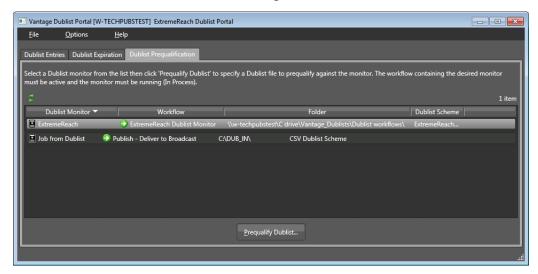


Pre-qualifying Dublists

Note: Dublist pre-qualification is provided only in the Dublist Portal Windows client.

The Pre-qualify Dublist button enables you to verify that dublists of each type and format can be detected and processed correctly by the Dublist action and scheme you've implemented in the workflow.

Click the Dublist Pre-qualification tab to display a list of dublist monitors (each monitor is instantiated by an activated workflow starting with a Dublist action) that are running in workflows accessible in the current configuration.l

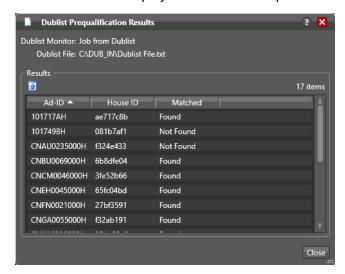


To pre-qualify a dublist against the scheme used in this monitor, follow these steps:

1. Select a monitor from the list.



2. Click the Pre-qualify Dublist button to browse and select a sample dublist to test. Dublist Portal displays the Dublist Pre-qualification Results dialog:



The dialog lists the Ad ID and House ID of each item in the dublist, and whether the asset was found or not, per the scheme you implemented.

Note: If you have already processed one or more ads/other assets in an ingest workflow and registered them in a catalog, you can use the Matched column to determine if your extraction and scheme are working correctly.

Verify that the values are correct and whether the matched information is also correct. If not, modify your scheme definition in the Management Console or adjust the dublist data specification to match the scheme and retry.



Dublist Portal Windows Program Menus

The Dublist Portal menus are File, Option, and Help. These menus are described below:

File Menu

The File menu includes these options:

- Change Vantage Domain—opens a Select Vantage Domain window, allowing you to select the domain you want to connect to. Connection Settings at the bottom allow you to enter a Login and Password for the selected domain database. (The default login and password are auto-filled and may be sufficient unless they have been changed by your administrator.) If your domain isn't listed, click My Vantage Domain isn't listed to open a field for entering the IP address of the domain server.
- Recent Domains—displays a list of recently-connected domains, if any.
- Change Vantage User—opens the Vantage Domain Login dialog. Enter your Vantage domain username and password. (Change Vantage User and Change Password are available only if you check Enable User Administration in the Vantage Management Console Settings & Options menu.)
- Change Password—opens a Set Password dialog, allowing you to change your password. Enter the new password in both fields and click OK. (This feature is available only if User Administration is enabled in the Management Console.)
- Change/Reload Application Configuration—opens the Select Configuration dialog, allowing you to select or reload a Dublist Portal configuration created or changed using the Vantage Management Console. Click the configuration you want, and click OK.

Options Menu

- Restore/Hide Tips & Warnings—select Restore to turn on context-sensitive tool tips; select Hide to turn them off.
- Prompt for Login Next Time Application is Launched—when selected, forces the user to log in each time the program is started; otherwise remembers the last authorized user to log in.
- Add Header to CSV Export Files—when selected, adds a header row to exported CSV files.

Help Menu

- Contents—opens the Vantage built-in documentation to the table of contents.
- Index—opens the Vantage built-in documentation to the index.
- Search—opens the Vantage built-in documentation to the search field.
- Online Help—opens the Vantage online (web-based) help documentation.
- About—opens an About Vantage Dublist Portal dialog showing the version and data; click More to open built-in documentation or OK to close.



Dublist Portal Web App Commands and Menus

The Dublist Portal menus are displayed in two places:

- General commands—upper right-hand corner of the window.
- Menus— in the Menu panel on the left. They include Dublist Configurations, Dublist Portal, and Help.

This table describes the menu selections and commands in the title bar in the web app.

Menu	Selection	Description		
Title bar options	Change Password	Opens a Set Password dialog, allowing you to change your password. Enter the new password in both fields and click OK.		
	Logout	Log out the current Vantage user and displays the Dublist Portal Login dialog, so you can log back in under another user. Enter your Vantage domain username and password.		
	Change Domain	Opens a Select Vantage Domain window, allowing you to select the domain you want to connect to. Connection Settings at the bottom allow you to enter a Login and Password for the selected domain database. (The default login and password are auto-filled and may be sufficient unless they have been changed by your administrator.) If your domain isn't listed, click My Vantage Domain isn't listed to open a field for entering the IP address of the domain server.		
Dublist Configuration> Configurations menu Dublist Dublist Entries Portal menu Configuration> Poublist Entries		Displays the list of configurations, highlighting the name of the current configuration in use. Click to reload any configuration, picking up any changes to the configuration since it was last loaded.		
		Displays the Dublist Entries panel, populated with the table of current dublists.		
	Dublist Expiration	Displays the Dublist Expiration panel, populated with the table of current dublists, which you can select and manually expire.		





Troubleshooting Dublist Portal

When opening Dublist Portal for the first time, depending on the design of your network and the location of your workstation and Vantage server, the Domain login dialog may not display your domain. If this is the case, you can log in by using the name or IP address of the server.

When you change domains or configurations, you may also encounter these problems:

- No Configurations Available...
 - Dublist Portal displays this error when you log in to a domain where no Dublist Portal configurations are defined or where you do not have access to any of the defined configurations.
 - Contact your Vantage domain administrator.
- Problem communicating with database—could not find stored procedure Select-SessionsByExecution...
 - This error displays when Dublist Portal is attempting to display a list of configurations from the selected domain, but the version of the domain is not compatible with your client. Contact your Vantage domain administrator to upgrade the Dublist Portal program on your computer.



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Troubleshooting Dublist Portal



Creating Dublist Portal Configurations and Dublist Schemes

This chapter explains how to create Dublist Portal configurations, and create dublist schemes to use in TrafficManager. Both of these are created and set up in the Vantage Management Console.

Note: Features in products for which you don't have a license are disabled and indicate that you need a license to use them.

The following topics are presented in this chapter:

- Creating Dublist Portal Configurations
- Creating Dublist Schemes



Creating Dublist Portal Configurations

The Dublist Portal provides operators and managers with the ability to view and manage TrafficManager dublists. Using the Vantage Management Console's Dublist Portal configuration panel, you create *configurations*, which define the features and information an operator uses and sees when using the Dublist Portal.

You can create as many configurations as needed to implement your dublist processing. Before you can use the Portal, you must create at least one configuration.

Note: For a comprehensive overview of the Dublist Portal program, see Using Dublist Portal in the Vantage TrafficManager User Guide.

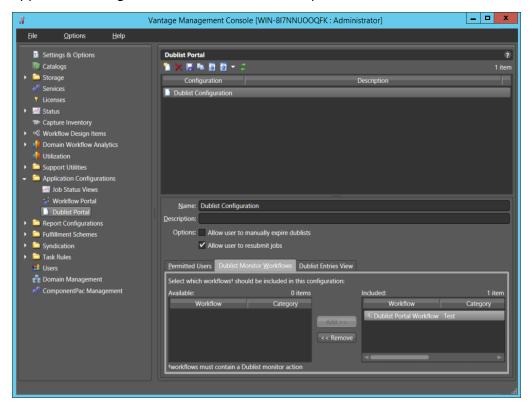
The following topics provide information on Dublist Portal configuration tasks:

- Displaying the Dublist Portal Configuration Panel
- Refreshing the Configuration List
- Creating a New Configuration
- Renaming a Configuration
- Duplicating a Configuration
- Deleting a Configuration
- Setting Options and Choosing Columns
- Configuring Permitted Users
- Specifying Workflows
- **■** Exporting and Importing Configurations



Displaying the Dublist Portal Configuration Panel

To display the Dublist Portal configuration panel in the Management Console, select Application Configurations > Dublist Portal in the panel on th left:



Refreshing the Configuration List

When you select the Dublist Portal configuration panel, the Management Console displays the current configurations list and the current workflows. If another administrator is making changes (such as adding Vantage users), you must refresh the display to see those changes. To refresh the display, click the Refresh button 3.

Creating a New Configuration

To create a new configuration, do the following:

- 1. Click the New Configuration button [7] (or right-click in the empty configuration list space and select New Configuration).
- **2.** Enter a name in the Name field after the new configuration appears in the Configuration list.
- **3.** Optionally, enter a description of the configuration in the Description text box.
- **4.** Click the Save button ...
- 5. Proceed to Setting Options and Choosing Columns to set up the configuration per your requirements.



To rename a configuration, do the following:

- **1.** Select the configuration to rename.
- **2.** In the Name text box, enter a new name for the configuration.
- **3.** Click the Save button ...

Duplicating a Configuration

To duplicate a configuration, do the following:

- **1.** Select the configuration to duplicate.
- **2.** Click the Duplicate button 🐚 (or right-click and select Duplicate).
- **3.** In the Name text box, enter a name for the duplicate configuration.
- **4.** In the Description field, enter a description for the configuration (optional).
- **5.** Click the Save button ...

Deleting a Configuration

To delete a configuration, do the following:

- 1. Select the configuration to delete. (Ctrl-click or Shift-click to select multiple configurations.)
- **2.** Click the Delete button **x** (or right-click and select Delete).
- **3.** When the confirmation dialog appears, click OK.



Setting Options and Choosing Columns

You can set Dublist Portal configuration options and columns below the Name and Description fields.

Setting Your Options

To set these options, do the following:

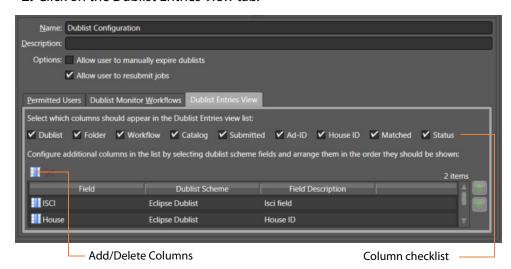
- 1. Select the configuration you want to modify.
- 2. Allow Users to Manually Expire Dublists—Check to enable users to expire a dublist dynamically, as needed. Clear the checkbox to prevent users from ever manually expiring a dublist.
- 3. Allow User to Resubmit Jobs—Check to enable users to resubmit jobs as required. Clear the checkbox to prevent users from resubmitting jobs.

Displaying Selected Columns

The Columns selections enable you to include or exclude these columns: Dublist, Folder, Workflow, Catalog, Submitted, Ad-ID, House ID, Matched, and Status. The columns you select determine which columns and associated information are visible when using this configuration in the Dublist Portal.

To define which columns display in the Dublist Entries view list in a configuration, do the following:

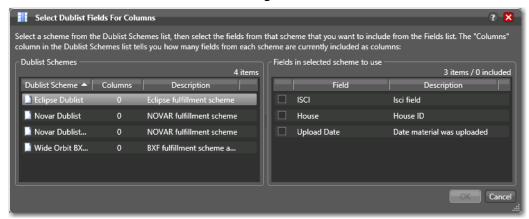
- 1. Select the configuration you want to modify.
- 2. Click on the Dublist Entries View tab.



3. Check the boxes for columns you want to display in this configuration, and uncheck them to hide them. The only current option allows the user to manually expire dublists in addition to any automatic expiration.



4. You can also add other columns, as shown in the previous figure. For each column to add, click the Add/Delete Columns icon. The Management Console displays the Select Dublist Fields for Columns dialog:



- **5.** Select a scheme from the list to display the available fields on the right. Then check the fields that you want to add. (The value in the Columns row of the Dublist Schemes table indicates how many fields are currently included).
- **6.** Click the Save button ...

Configuring Permitted Users

When user administration is enabled, you can set a configuration to be available to individual users or all users (Public).

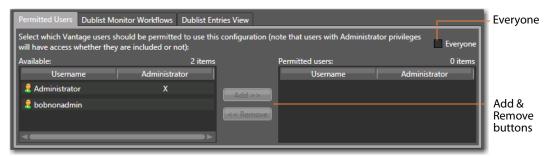
If you plan to use the Dublist Portal web application, you must enable user administration to provide a layer of security for web application usage.

Note: The Permitted Users tab is displayed only if User Administration is enabled in Settings & Options.

Users with administrative privileges always have access to configurations.

To specify which Vantage users can access a configuration, do the following:

- 1. Select the configuration you want to update.
- **2.** Click the Permitted Users tab (see the figure below).





- **3.** To make the selected configuration available to all Vantage users, do the following:
 - a. Check the Everyone check box.
 - **b.** Click the Save button ...
- **4.** To make the configuration available to certain Vantage users, do the following:
 - **a.** Clear the Everyone check box.
 - **b.** In the *Available* panel, select the users who should have access, and click Add.
 - c. In the Permitted Users panel, select the users who should not have access, and click Remove.
 - **d.** Click the Save button ...

Specifying Workflows

Use the Dublist Monitor Workflows tab to specify which workflows are accessible to the Dublist Portal operator. The operator can submit jobs to these workflows directly from **Dublist Portal.**

Note: Only workflows beginning with a Dublist action are usable in Dublist Portal.

To specify which workflows are accessible in a configuration, do the following:

- 1. Select the configuration to modify.
- **2.** Click the Dublist Monitor Workflows tab (as shown in the figure, below).



- 3. Select a workflow in the Available panel and click Add to add it to the configuration. Click a workflow in the Included panel and click Remove to delete it.
- **4.** Click the Save button ...



Exporting and Importing Configurations

Vantage allows you to export configurations to XML files, which you can then use to import the same configurations into another Vantage domain.

To export configurations, do the following:

- 1. Select the configuration(s) to export. (Ctrl-click or Shift-click to select multiple configurations.)
- 2. Click the Export button to export the configurations (or right-click and select Export, or select Export all from the Export button drop down menu).
- **3.** Use the file system dialog to save the exported configurations. The default file name is the configuration name, but you can change the file name.

Note: Changing the name of the XML file does not change the name of the configuration defined by the XML file.

To import configurations, do the following:

- **1.** Click the Import button **.**
- 2. Use the file system dialog to locate and select the configuration file to import, then click Open.

Note: If you try to import a configuration that is already in this Vantage domain, Vantage prompts you to cancel or confirm replacement.



Creating Dublist Schemes

Dublist schemes contain dublist parsing patterns you can create for each type of dublist you plan to use with Vantage TrafficManager or Ingest Manager. Each scheme provides the specification that Dublist actions use in a workflow for extracting the correct data fields from the dublist you used.

The advantage of dublist schemes is that you don't have to set up the parsing pattern for the dublist each time you use a Dublist action in a workflow. Instead, you set it up once as a scheme in the Dublist Schemes panel in the Management Console and then specify that scheme by name in a Dublist action. Different broadcast systems use different dublist formats, so you can create a scheme for each one. The dublist files themselves can consist of comma-separated values (CSV), column-based files, and formats provided by supported dublist databases.

When configuring a Dublist action, you can use one of the default dublist schemes provided in Vantage or create one or more dublist schemes to meet your requirements.

You can set up a scheme to extract any data fields you need so that your workflows can find and process media files and include their metadata. For example, you might extract the Advertiser, Title, Ad-ID/ISCI code, and Duration and pass those along to the traffic workflow for further action.

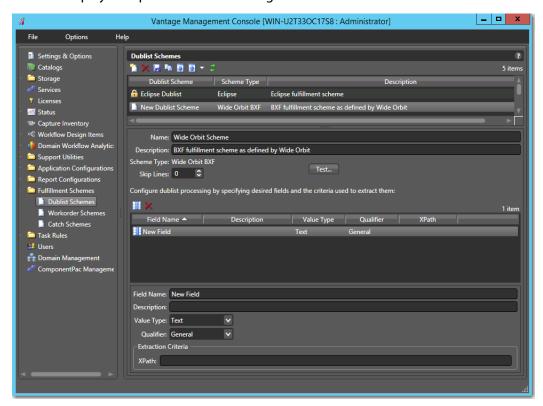
- Displaying the Dublist Schemes Panel
- Creating a New Dublist Scheme
- Renaming a Scheme
- Duplicating a Scheme
- Deleting a Scheme
- Configuring Dublist Scheme Fields

Note: If you are using an XML-based dublist (such as BXF, Eclipse, or Novar), the dublist must be saved with the appropriate encoding relative to the content in the file. For example, If your dublist contains non-ASCII characters (such as German or French), you must save the file with UTF-16 encoding. In XML files, the encoding type is generally indicated in the header line: <?xml version="1.0" encoding="utf-16"?>.



Displaying the Dublist Schemes Panel

To view the Dublist Schemes panel in the Management Console, open Fulfillment Schemes in the side panel and select Dublist Schemes. The Vantage Management Console displays the panel shown in the figure below.



Creating a New Dublist Scheme

To create a new dublist scheme, follow the steps below. At a minimum, each dublist scheme requires an Ad-ID/ISCI qualifier and a house qualifier.

- 1. Click the Create a new dublist scheme button [2] (or right-click in the empty schemes list space and select New Dublist Scheme).
- 2. Choose Column-based | CSV | Eclipse | Wide Orbit BXF in the dialog that appears.
- **3.** Enter a scheme name in the Name field.
 - When naming your dublist schemes, you probably want to use the type of dublist in the name, so a scheme for BXF dublists might be called "BXF Dublist Scheme" to make it easy to identify.
- **4.** Optionally, enter a description of the scheme in the Description text box.
- 5. Skip Lines—Enter the number of header lines to skip at the top of a file before dublist parsing starts.
- **6.** Click the Save button ...



Renaming a Scheme

To rename a scheme, do the following:

- 1. Select the scheme to rename in the scheme list.
- 2. In the Name text box, enter a new name for the scheme.
- **3.** Click the Save button ...

Duplicating a Scheme

To duplicate a dublist scheme, do the following:

- **1.** Select the scheme to duplicate.
- **2.** Click the Duplicate button 🐚 (or right-click and select Duplicate).
- **3.** In the Name text box, enter a name for the duplicate scheme.
- **4.** In the Description field, enter a description for the scheme (optional).
- **5.** Click the Save button ...

Deleting a Scheme

To delete a dublist scheme, do the following:

- **1.** Select the configuration to delete. (Ctrl-click or Shift-click to select multiples.)
- 2. Click the Delete button **x** (or right-click and select Delete).
- **3.** When the confirmation dialog appears, click OK.



Configuring Dublist Scheme Fields

You can set up your dublist scheme fields using the panel below the field Name and Description. These options determine which data columns, lines, and fields in a particular type of dublist are extracted and forwarded for use in TrafficManager workflows and which are ignored. Typical data to extract from a dublist might include the advertiser, the media title, the Ad-ID/ISCI code, the length of the media in hours/ minutes/seconds/frames, and so on.

The following figure shows a typical dublist with data arranged in columns, each of which will be described and extracted by a field in your dublist scheme.

Typical Dublist

Order	Advertiser	Order Compl	ete Date	Туре	Ad-ID	Title	Length
1494696	JCPenney	10/17/2012	21:17:49	Video	PJCP8375	WK39 Sale	00:00:15:00
1495125	FedEx	10/17/2012	23:37:27	Video	FJFX-6383	PREVIOUS	00:00:30:01
1495707	Dodge	10/18/2012	20:45:04	Video	CDA-7006B	ROADTRIP	00:00:30:00
1496038	Mercedes	10/19/2012	21:56:32	Video	DZNA-6347	JCKHAMMER	00:00:30:00
1495935	Advance	10/20/2012	1:47:27	Video	AAPT0751	LOW PRICE	00:00:30:00
1495935	Advance	10/20/2012	1:47:27	Video	AAPT0753	LOW PRICE	00:00:15:00

Creating a Field List

The field list shows the fields you create as part of a scheme. You can add and delete fields as needed. Each field in a scheme is created and configured to extract data from a particular element in the dublist when a dublist is parsed. The data extracted from a dublist is published as a variable in the job.

Note: Given that various types of dublists are in use (column-based | CSV | Eclipse | Wide Orbit BXF), how you define the field varies by type.

Adding New Fields

Click Add Field III to add a new data field to extract from dublists. Specify the following information:

Field Name—Enter a name for the field.

Description—Optionally, enter a description of the field.

Value Type—Enter the type of value to search for and extract from the field. Available values are True/False, Integer Number, Size, Decimal Number, Date, Text, Path, Timecode, and Mail Address. See the following table for descriptions of these values.

The following table presents Value Type descriptions.



Value Type	Description				
True/False	True or false				
Integer Number	Signed 32-bit integer (decimals are rounded)				
Size	Signed 64-bit integer (decimals are rounded)				
Decimal Number	Double-precision floating point decimal number				
Date	Date specified according to local standards: MM/DD/YYYY or DD/MM/YYYY				
Text	Any text string; use when your data does not fit any other value type				
Path	Windows or UNC path. Must follow this pattern: [Drive Letter]:\ Or this pattern: \\Device\path				
Timecode	Timecode value in this pattern: HH:MM:SS:FF@FR HH is hours, MM is minutes, SS is seconds, FF is the frame number, and @FR is the frame rate. Examples: 00:00:30:04 or 01:00:30;00@29.97 or 00:02:30:00@25. A frame rate of 29.97 is assumed if not specified.				
Mail Address	Email address consisting of an @ sign with a string before and after—email@domain. Example: name@telestream.net				

Qualifier—Set to the type of field being extracted: an Ad-ID/ISCI identifier, a House ID, or other General qualifier.

Next, specify extraction criteria. How you set it up depends on the type of dublist you're working with. Proceed to the topic appropriate to your type of scheme.

After entering your selections for each item described previously, click the Save button I to save the field and scheme.

Specifying Column-based Extraction Criteria

Starting Column—Set this to the number of the column in which to start extracting data, starting at column 1. That is, counting from the left margin, how many characters to the right should the parser count before starting to extract data for this field?

Width—Set this to the width of the data to be extracted. That is, counting from the starting column (above) how many characters to the right should the parser count before ending extraction of the field?

Stop at white space—Check this option to stop parsing the Ad-ID/ISCI column at the first space character. That is, if this field contains multiple words or character groups separated by spaces, parsing stops after the first group.



Specifying CSV Extraction Criteria

CSV Index—Specifies the number of the column in which to start extracting data. This value is 1-based; the first column is identified as column 1.

Specifying Eclipse Extraction Criteria

CSV Index—Specifies the number of the column in which to start extracting data. This value is 1-based; the first column is identified as column 1.

Specifying Wide Orbit BXF Extraction Criteria

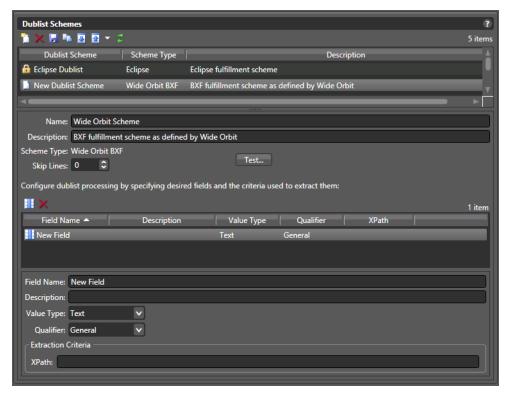
XPath—indicates the field/node position in the hierarchy of the XML file. The XPath begins with the root node, followed by any additional nodes in the hierarchy, leading to the node being defined. For example: /ROOT/Node_Level_1/Node_Level_2.

Deleting Fields

Click Delete Field ■ to delete the highlighted field from the field list.

Testing Dublist Portal Schemes

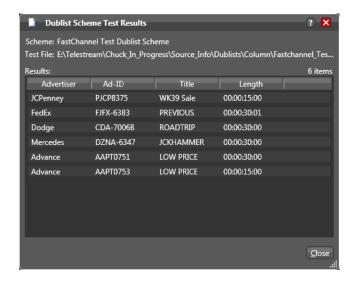
The Test button in the center of the Dublist Schemes panel enables you to test a scheme on actual dublists to verify that the scheme works correctly—that the dublist has been parsed correctly—extracting the metadata that the workflow requires.





To test a scheme, follow these steps:

- 1. Select a dublist scheme in the scheme list.
- 2. Press the Test button.
- 3. Examine the Test Results table for proper extraction: verify that each field contains the correct data, as shown in the figure below.



4. Adjust each field of the scheme until a test produces correct output.



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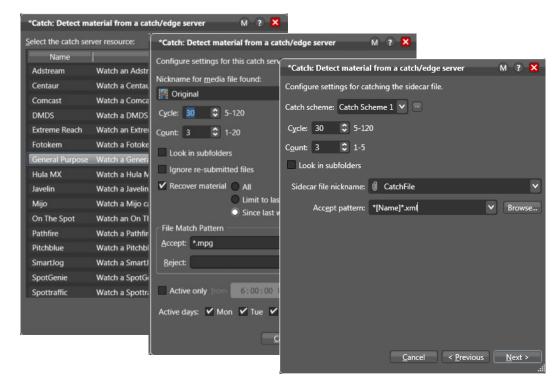
Creating Dublist Schemes



Configuring Catch Server Schemes

This chapter explains how to use the Vantage Management Console Catch Schemes feature. The Catch Schemes feature gives you the flexibility to create your own custom catch server definitions from a general purpose scheme type. Additionally, the Vantage Catch action includes many common catch server definitions, as shown in the figure below.

You implement a scheme in a Catch action (in Workflow Designer) by selecting a specific type (or general purpose) catch server and then selecting the scheme that you want to use.



A catch scheme allows Vantage to parse XML sidecar files accompanying ad media coming into a watched catch server and pass the sidecar metadata along with the media to other actions for processing in a Vantage workflow.



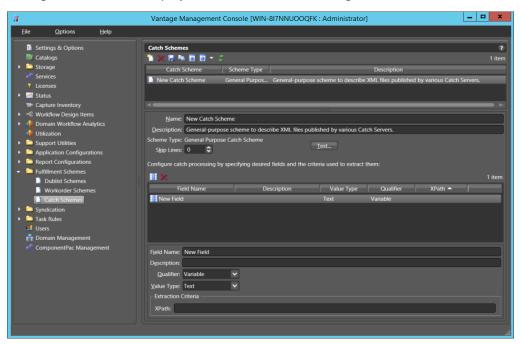
Note: Sidecar XML files must be valid, properly-formatted XML (for example, an embedded ampersand or other reserved/escape sequence characters in a value), otherwise it can not be interpreted and no job will be submitted.

Using the Vantage Management Console Catch Schemes configuration window, you can create *configurations*, which define the information users see when configuring a General Purpose Catch action.

- Displaying the Catch Schemes Configuration Panel
- Creating a New Configuration
- Renaming a Configuration
- Duplicating a Configuration
- Deleting a Configuration
- Setting Options and Defining Fields
- **■** Exporting and Importing Configurations

Displaying the Catch Schemes Configuration Panel

To view the Catch Schemes configuration window in Vantage Management Console, open Fulfillment Schemes in the side panel and select Catch Schemes. The Vantage Management Console displays the Catch Schemes configuration window shown here.





Creating a New Configuration

To create a new configuration, do the following:

- 1. Display the Catch Schemes configuration window.
- 2. Click the Create a New Configuration button [7] (or right-click in the empty configuration list space and select New Configuration).
- **3.** Enter a name in the Name field after the new configuration appears.
- **4.** Enter a description of the configuration in the Description text box (this is optional).
- **5.** Click the Save button ...
- 6. After you create a new configuration, configure it by proceeding to Setting Options and Defining Fields.

Renaming a Configuration

To rename a configuration, do the following:

- **1.** Display the Catch Schemes configuration window.
- **2.** Select the configuration to rename in the Configuration list.
- **3.** In the Name text box, enter a new name for the configuration.
- **4.** Click the Save button ...

Duplicating a Configuration

To duplicate a configuration, do the following:

- 1. Display the Catch Schemes configuration window.
- **2.** Select the configuration to duplicate.
- **3.** Click the Duplicate button [5] (or right-click and select Duplicate).
- **4.** In the Name text box, enter a name for the duplicate configuration.
- **5.** In the Description field, enter a description for the configuration (optional).
- **6.** Click the Save button ...

Deleting a Configuration

To delete a configuration, do the following:

- **1.** Display the Catch Schemes configuration window.
- 2. Select the configuration to delete. (Ctrl-click or Shift-click to select multiple configurations.)
- **3.** Click the Delete button (or right-click and select Delete).
- **4.** When the confirmation dialog appears, click OK.



Setting Options and Defining Fields

You can set Catch Schemes configuration options and define fields for catch processing below the Name and Description. The fields area lets you add a new field for each node in the XML catch server configuration file that you want to include. The XML file and your catch server definition can include any fields you prefer, but these three fields are required for each catch scheme: Ad-ID/ISCI, Start Time, and Play Length.

To define fields in a configuration, do the following:

- **1.** Display the Catch Schemes configuration window.
- **2.** Select the configuration you want to modify from the Configuration list.
- 3. In the fields table toolbar, click the New Field button I to add a field.
- 4. Enter a field name and description, usually the name of a node in the XML file. (A node is text surrounded by pointed brackets, such as <ISCI_CODE>.)
- 5. Select a Qualifier from the drop-down menu to define the function of the field/ node. At a minimum, you must include one Ad-ID/ISCI, one Start Time, and one Play Length field.
- 6. Select a Value Type for the field. This specifies what kind of data the field will contain, such as text, timecode, numbers, paths, etc.
- 7. Enter an XPath, which indicates the field/node's position in the hierarchy of the XML file. The XPath begins with the root node, followed by any additional nodes in the hierarchy, leading to the node being defined. For example: /ROOT/Node_Level_1/Node_Level_2.
- **8.** Click the Save button ...
- 9. Click the Test button above the field area, and browse for the XML file you are using to define your catch server. If you successfully defined the fields, the Test Results window opens and shows the fields as headings with the correct data from the XML file.

Field Options

Each field in a scheme is created and configured to extract data from a particular node in the catch server definition XML file when the file is parsed. The following options are available for defining a field:

Skip Lines—Enter the number of header lines to skip at the top of a file before parsing starts.

Add New Field—Click Add Field III to add a new data field.

Delete Field—Click Delete Field **■** to delete the highlighted field from the field list.

Field Name—Enter a name for the field.

Description—Enter a description of the field.

Qualifier—Set to the type of field being extracted: an Ad-ID/ISCI identifier, Start Time, Play Length, or a Variable.



Value Type—Enter the type of value to search for and extract from the field. Available values are True/False, Integer Number, Size, Decimal Number, Date, Text, Path, Timecode, and Mail Address. See the table below for descriptions of these values.

Extraction Criteria, XPath—Set this to the path leading to the node defined by the field. Start at the root level and descend to desired node: /ROOT/Node1/Node2.

After entering your selections for each item described previously, click the Save button I to save the field and scheme.

Use the Test button to view the Test Results window, showing your catch server definition.

The following table presents Value Type descriptions.

Value Type	Description
True/False	A true or false value
Integer Number	A signed 32-bit integer (decimals are rounded)
Size	A signed 64-bit integer (decimals are rounded)
Decimal Number	A double precision floating point decimal number
Date	A date specified according to local standards: MM/DD/YYYY or DD/MM/YYYY
Text	Any text string; use this when your data does not fit any other value type
Path	A valid Windows or UNC path. Must follow this pattern: [Drive Letter]:\ Or this pattern: \\Device\path
Timecode	A video timecode value in this pattern: HH:MM:SS:FF@FR HH is hours, MM is minutes, SS is seconds, FF is the frame number, and @FR is the frame rate. Examples: 00:00:30:04 or 01:00:30;00@29.97 or 00:02:30:00@25. A frame rate of 29.97 is assumed if not specified.
Mail Address	A valid email address consisting of an @ sign with a string before and after—email@domain. Example: name@telestream.net

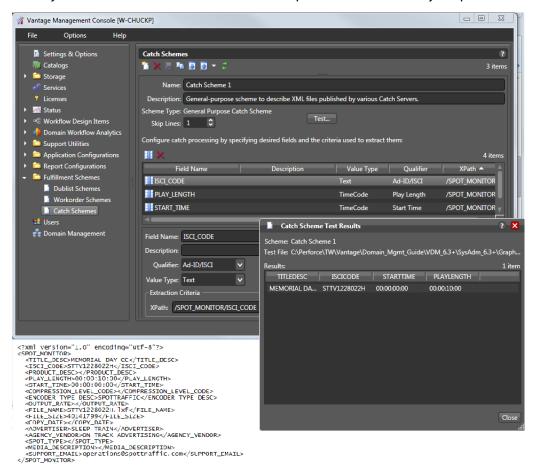


Testing Schemes

The Test button in the center of the Catch Schemes window lets you test your schemes on actual catch server definition files to verify that the scheme works correctly.

To test a scheme, follow these steps:

- **1.** When you finish defining a catch scheme, press the Test button.
- 2. Examine the Test Results display for a clean output as shown in the figure below. The figure shows the defined catch scheme, the XML data to be parsed, and the test results.
- **3.** Adjust each field of the scheme until a test produces a satisfactory output.





Refreshing the Catch Schemes List

In the Catch Schemes window, the Vantage Management Console displays the current list of catch schemes. If another administrator adds or changes schemes, you need to refresh the display to see those changes.

To refresh the display, click the Refresh button.

Exporting and Importing Configurations

Vantage allows you to export catch scheme configurations to XML files, which you can then use to import the same configurations into another Vantage domain.

To export configurations, do the following:

- 1. Select the configurations to export. (Ctrl-click or Shift-click to select multiple views.)
- 2. Click the Export button 1 to export selected configurations (or right-click and select Export, or select Export all from the Export button drop down menu).
- **3.** Use the file system dialog to save the exported configurations. The default file name is the configuration name, but you can change the file name.

Note: Changing the name of the XML file does not change the name of the configuration in the XML file.

To import configurations, do the following:

- **1.** Click the Import button **.**
- 2. Use the file system dialog to locate and select the configuration file to import, then click Open.

Note: If you try to import a configuration that is already in this Vantage domain, Vantage prompts you to cancel or confirm replacement.





TrafficManager Workflows

The purpose of this chapter is to lead you through a series of TrafficManager workflows, starting first with simple building-block workflows and graduating to larger complete production workflows.

These workflows are only examples and will vary considerably according to your specific commercial production requirements and in-house procedures. Where your commercial production practices vary from these examples, you can modify the workflows to meet your needs. These are the workflow topics presented:

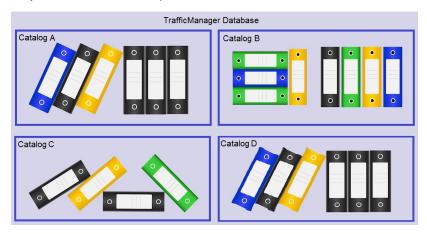
- Catalogs in TrafficManager Workflows
- Simplified Example TrafficManager Workflows
- Example TrafficManager System Workflows

Note: Telestream Professional Services offers complete workflow consulting, system design and implementation solutions for Vantage and our other enterprise products, including TrafficManager systems. For information regarding professional services, contact your Telestream representative.



Catalogs in TrafficManager Workflows

Catalogs are a Vantage feature (as depicted in the figure below) that TrafficManager uses to hold information about media and metadata beyond the time of a job so that they can be reviewed or passed to other workflows.



Each time a workflow executes, it creates a job, and media (or other files associated with the workflow), plus metadata and other information about all the parts of a job are gathered together into a binder. Catalogs are essential as the overall organizing principle for storing binders from a particular workflow or multiple related workflows. Catalogs can also contain folders to provide subcategories for storing binders.

In the context of TrafficManager, commercials are processed and their binder registered into catalogs to create commercial inventories that operators can manage using the Workflow Portal. The binder created when a job registers a particular commercial into a catalog is named using the Ad-ID/ISCI code for that commercial.

Note: In order for the Dublist action to find and process dublists, the binder name in the catalog must match the Ad-ID/ISCI code exactly. If this requirement is not observed in workflow design, the Dublist workflow will not find a matching Ad-ID/ISCI entry in the catalog, a job will not be submitted, and the Dublist Portal will show that a match is not found.

You can review the binder in the Workflow Portal and resubmit the job for processing at any time until it expires. This is useful when a workflow requires a review and approval cycle. In this case, the commercial is received and registered into a catalog during the first run of the job. Then the operator reviews proxies and metadata, makes any desired changes, and approves the commercial. Approval consists of setting a variable in the workflow to "approved" or "passed" and resubmitting the job to mark the commercial ready to air and possibly also move it into an "Approved" catalog.



Simplified Example TrafficManager Workflows

The following simple TrafficManager workflows can be thought of as building blocks for the more complex workflows that follow. In each case, the workflows shown are only examples. Your workflows will vary considerably depending on your processes. These examples are included in this section:

- Example Workflow: Simple Ingest
- Example Workflow: Simple Review and Approval
- Example Workflow: Simple Dublist Processing

Example Workflow: Simple Ingest

A simple ingest workflow is shown in the Simple Acquisition Workflow figure below. This workflow discovers media submitted to a catch server, creates an Inventory Label from metadata to describe the media, and registers the media with a catalog where it can be submitted to another workflow.

Here are the details:

- A Catch action monitors a catch server for incoming media and starts a job when new media arrives. This action also generates traffic variables such as these: ISCI, Agency, Advertiser, Product Name, Product, Category, Available Date, Expire Date, Trim Start, Trim End, Re-submitted.
- A Copy action copies the file to the local server.
- The Analyze action checks audio loudness for CALM Act compliance.
- A Flip action creates a proxy for previewing.
- A Populate action creates an Inventory Label using variables from the Catch action.
- The Register action registers the commercial in the catalog and a binder is created using the Ad-ID/ISCI code as the name. Any existing binders in the catalog with the same Ad-ID/ISCI can be automatically renamed with an appended version number by setting the conflict resolution to Rename Old. The expiration date is set to the Expire Date.

Media remains in the incoming folder and content information is available in the catalog but cannot be previewed in Vantage because no proxies are created. You can still preview by opening the original media in its folder (unless the media is stored on an FTP location, as with DG).

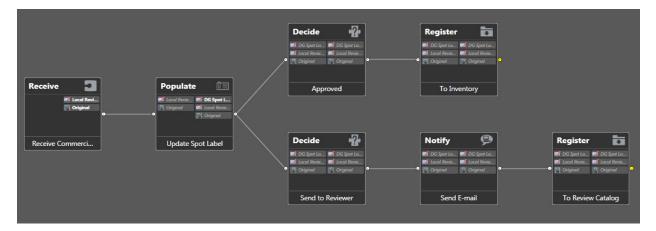




Example Workflow: Simple Review and Approval

Workflows can contain a review and approval stage to ensure a person reviews each commercial before it is aired. One method for doing this is to create two catalogs—a Review Catalog and an Approved Catalog. In the workflow, you use Decide actions to send the commercial to one catalog or the other (see the Review and Approval Workflow figure below). These are the details:

- The workflow starts with a Receive action to accept a previously ingested commercial. A Receive action is used because it accepts jobs submitted from an external program, in this case, the Workflow Portal. The operator uses the Workflow Portal to receive, review, and resubmit a job.
- A Populate action reads from the metadata label and publishes a variable for whether the Workflow Portal operator approved or rejected the spot. The pass/fail variable is used by the downstream Decide actions to determine whether the spot should be registered to inventory or quarantined.
- Decide actions examine the approval variable and send the commercial to two separate Register actions that put it into the Review catalog if it needs to be reviewed (as indicated by the variable), or forward it to the Inventory catalog if it has been approved as ready for use.
- The Review branch includes a Notify action to email the reviewer that a review is required.
- A separate dublist workflow can pick up approved commercials from inventory and schedule them to air.





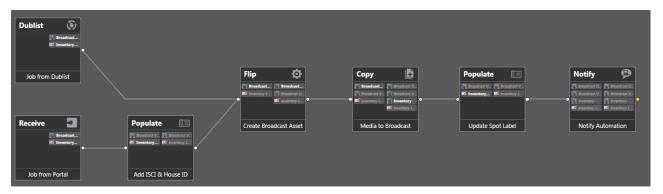
Example Workflow: Simple Dublist Processing

Dublist processing begins with Dublist Schemes that you create in the Management Console for different dublist formats. These schemes are selected in the Dublist action Inspector to parse incoming dublists and extract selected data. Other components you create in the Management Console include variables to hold traffic metadata, and catalogs and binders for receiving jobs spawned by workflows.

Note: You can use one of the default dublist schemes provided in Vantage or create a dublist scheme to meet your requirements before you configure and use the Dublist action. If you are using an XML/HTML-based dublist (such as BXF, Eclipse, or Novar), the dublist must be saved with the appropriate encoding relative to the content which is present in the file. For example, If you are creating an XML file with non-ASCII characters (such as German or French), you must save the XML file with UTF-16 encoding. In XML files, the encoding type is generally indicated in the header line: <?xml version="1.0" encoding="utf-16"?>.

After the components are made, you create a workflow in the Workflow Designer to receive and process the dublists (see the Dublist Processing figure below). Here are the details:

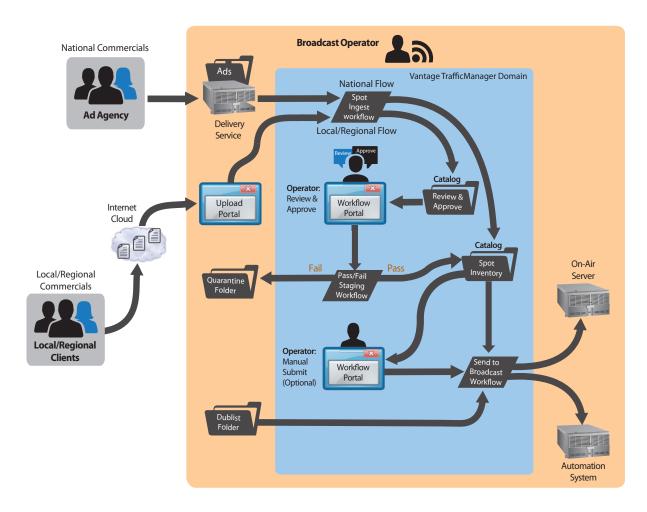
- The workflow starts with a Dublist action, which detects incoming dublists in the location you specify and parses them to extract pertinent data, such as Ad-ID/ISCI, House ID, media titles, durations and so on. The Dublist action correlates the dublist entries with previously ingested media.
- A Receive action allows an operator to forward a job containing previously ingested, previewed, and approved media to this workflow. The operator must supply an Ad-ID/ISCI code to pass to the automation system. (This is typically used for human intervention and bypasses the dublist file/dublist monitoring process.)
- A Flip action transcodes the media to broadcast format.
- A Copy or Deploy action forwards the media to the broadcast server.
- The Populate action updates the metadata label to indicate to Workflow Portal operators that the spot has been sent to broadcast.
- A Notify action forwards selected dublist information to the automation system to notify it that the media is present and ready to air.





Example TrafficManager System Workflows

The following complex workflows present examples of complete TrafficManager systems you can assemble. Your workflows will vary depending on your processes. The illustration below illustrates typical national and local/regional workflows.



The processing flow in a typical national broadcast TrafficManager system begins when an ad agency submits a commercial on behalf of an advertiser to the broadcaster. The media is processed by the workflow to ensure it meets QC standards and gets logged into inventory and assigned to a catalog. A dublist gets parsed and its entries matched up with received media. From inventory, the media is sent to the broadcast server, and dublist information notifies an automation server that the media is ready to air.

Note: You can use one of the default dublist schemes provided in Vantage or create a dublist scheme to meet your requirements before you configure and use the Dublist action.

If you are using an XML/HTML-based dublist (such as BXF, Eclipse, or Novar), the



dublist must be saved with the appropriate encoding relative to the content which is present in the file. For example, If you are creating an XML file with non-ASCII characters (such as German or French), you must save the XML file with UTF-16 encoding. In XML files, the encoding type is generally indicated in the header line: <?xml version="1.0" encoding="utf-16"?>.

A local or regional flow might be similar, but typically the Ad Agency is replaced by a direct advertiser (local/regional clients), and dublist processing may be omitted. As shown, a human operator usually previews and forwards approved commercials for onair processing; this step is typically not included in a national system.

Typical Workflow Organization

TrafficManager commercial workflows generally come in two types:

- Ingest Workflows—ingest media, QC check it, review it (optional), and register it.
- Publishing Workflows—process dublist (optional), flip and deploy the previously ingested media to the broadcast or ad insertion server, and notify the optional automation system.

Essentially, these two workflow types compose the two halves of a complete processing system. That is, the Ingest Workflow usually feeds the Publishing Workflow—input feeds output. The workflows that follow provide two or three examples of each workflow type. Additionally, to cover the Syndication feature, some Syndication workflows are presented.

These examples are included in this section:

- Example Workflow: Local/Regional Ingest to Review
- Example Workflow: Local/Regional Ingest Reviewed
- Example Workflow: Ingest National Spots
- Example Workflow: Ingest In-House Promo
- Example Workflow: Publishing Delivery to Broadcast
- Example Workflow: Syndication Ingest
- Example Workflow: Syndication Publishing



Example Workflow: Local/Regional Ingest to Review

This workflow is a typical example of a local or regional ingest workflow that prepares media for a review and approval cycle. The workflow...

- Receives a media file uploaded via the TrafficManager Web Upload Portal.
- Populates variables with metadata from the Label.
- Localizes the file.
- Gets media information such as filename, framerate, aspect ratio, audio channels, etc.
- Performs QC: file validation, audio format and loudness, and sets trim points.
- Determines video format and transcodes into an appropriate proxy.
- Registers the media into a Review & Approval catalog to await operator review.

After this workflow executes and the operator reviews the commercial, the operator would typically resubmit the job to a publishing workflow such as the *Example* Workflow: Publishing Delivery to Broadcast to deliver the commercial for playout.



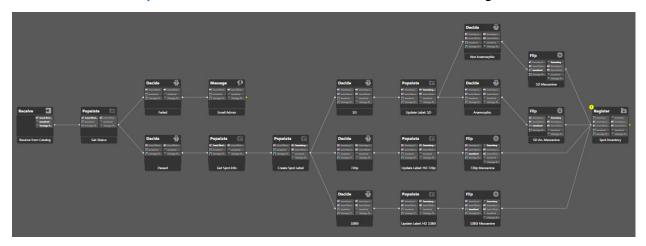


Example Workflow: Local/Regional Ingest Reviewed

This workflow is a typical example of a local or regional ingest workflow in which the media has already been reviewed and is now ready for processing into inventory (or requires notifying an administrator that it failed inspection). The workflow...

- Receives a media file from a Review Catalog.
- Determines whether the media passed review or failed. If failed, an administrator is notified to follow up. If passed, the spot label is updated and the media prepared for inventory.
- Determines the video format and aspect ratio and measures CALM Act loudness.
- Creates a mezzanine intermediate file for previewing before transcoding for broadcast.
- Registers the media into inventory.

After this workflow executes, the operator would typically preview the spot and then resubmit the job to a broadcast workflow such as the Example Workflow: Publishing Delivery to Broadcast to deliver the commercial for broadcasting.



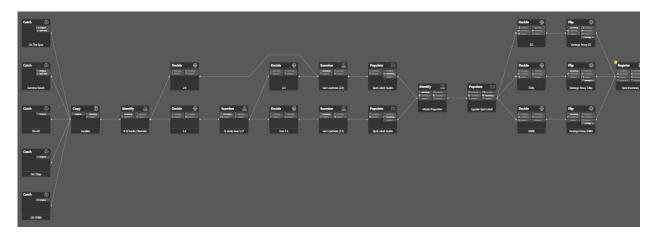


Example Workflow: Ingest National Spots

This workflow is a typical example of a national ingest workflow in which the media is ingested from a catch server, automatically QC checked, adjusted for CALM act loudness, and sent to inventory. The workflow...

- Ingests media from a catch server.
- Localizes the media.
- Determines the audio format and measures CALM Act loudness.
- Updates the spot label.
- Identifies media video format and properties.
- Creates a proxy for preview.
- Registers the commercial into inventory, and automatically sets the binder name in the catalog to the Ad-ID/ISCI code so that the Dublist action can find the media by Ad-ID/ISCI.

After this workflow executes, the operator would typically use the Workflow Portal to forward the asset to a publishing workflow such as the Example Workflow: Publishing Delivery to Broadcast to deliver the commercial for broadcasting. Alternatively, a Dublist action might submit jobs to the publishing workflow automatically based upon schedules in the traffic system.



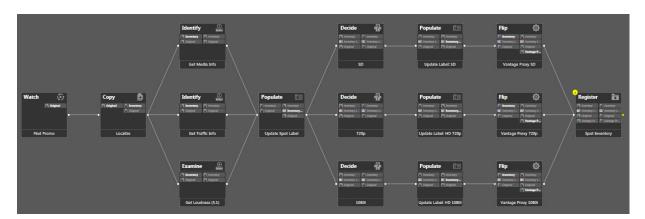


Example Workflow: Ingest In-House Promo

This workflow presents a typical example of an in-house promo, automatically ingested from an in-house server and registered into inventory. This workflow...

- Watches a folder on an in-house server and ingests incoming media.
- Localizes the media, placing it in the Local Store.
- Gets traffic metadata from the file name and creates required variables
- Measures CALM Act loudness.
- Updates the spot label.
- Determines the video format and creates a proxy.
- Registers the media into inventory.

After this workflow executes, the operator would typically resubmit the job to a broadcast workflow such as the Example Workflow: Publishing Delivery to Broadcast to deliver the commercial for broadcasting.

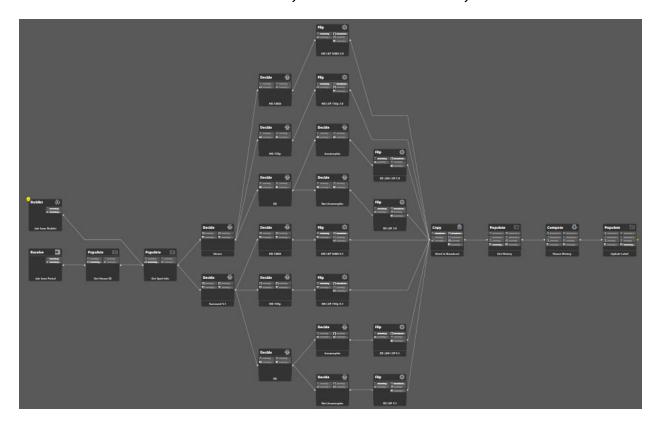




Example Workflow: Publishing Delivery to Broadcast

This workflow presents a typical example of the publishing half of commercial processing. Media entering this workflow has been ingested and registered into inventory by an ingest workflow, and this workflow prepares the media for broadcasting and places it on the on-air server. This workflow...

- Watches a folder for dublists, parses the dublists, and matches dublist entries with received media.
- Receives a submitted job containing ingested and (optionally) approved media.
- Trims, corrects audio, and transcodes the media for air and copies it to the broadcast server.
- Notifies the automation system that the media is ready to air.





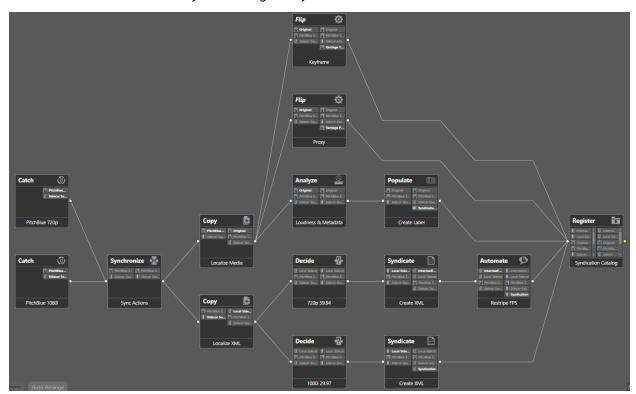
Example Workflow: Syndication Ingest

In the workflow below, two Catch actions monitor a catch server for two different video formats: 1080i/29.97 and 720p/59.94. Copy actions localize the media and XML metadata sidecar files and pass them to multiple branches. (Note that localization and the *Original* nickname are required.)

The XML file branch employs two Decide actions to examine the format and frame rate and pass the file through the branch corresponding to the correct format. Syndicate actions parse the XML attachments into the syndication template's format. The 720p branch includes an Automate action to restripe the XML attachment to the correct frame rate. The Syndication attachment file produced by one of the two branches gets registered into the syndication catalog by a Register action.

The upper three branches process the media file. Two Flip actions make Vantage Thumbnail and Proxy files that are registered into the syndication catalog by the register action. The third branch analyzes media loudness and video property metadata and produces variables that are populated into metadata labels. The original media and labels are then registered into the syndication catalog.

The resulting media, proxy, thumbnail, attachments, and metadata labels can be viewed and adjusted using the Syndication Portal.





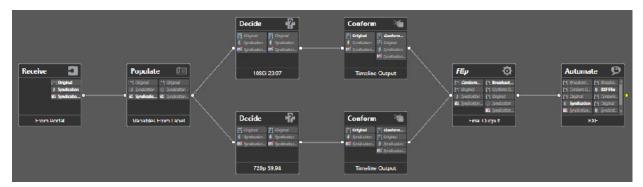
Example Workflow: Syndication Publishing

The syndication publishing workflow receives media, Syndication XML attachment, and Syndication Label metadata from the Syndication Portal. A Populate action produces variables from the metadata labels, and an Automate action converts the Syndication attachment and metadata into a BXF-formatted attachment ready to send to an automation system.

A Conform action produces the media files from the adjusted segments that were updated in the portal, and a Flip action renders the media into the final output format for submitting to the broadcast server.



Here's another more complex version of the same workflow. In this version, two branches of the media, 1080 and 720, are available. Decide actions test the video and forward it to one branch or the other depending on the format.





Example Workflows: Syndication Pass-Thru Mode

For Syndication workflows, the Pass-Thru mode is available for users who want to transcode the original media file (such as the original MPEG transport stream) in its entirety without altering the structure and deliver it to the broadcast server. However, they may wish to manipulate the timing data within the Syndication Portal. The updated timing data (in the Syndication attachment published by the portal) is processed by a standard automation notification plugin (such as BXF) available in the Automate action to prepare the data for use by a specific automation system.

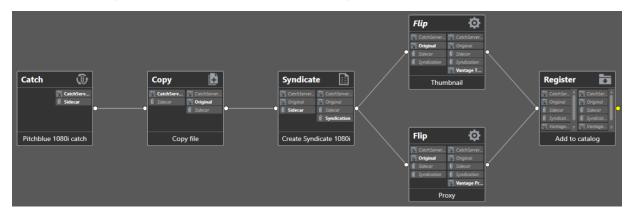
To set up Pass-Thru mode, the Syndication Portal configuration in the Vantage Management Console must have the Template set to << No Template>> and the Syndication Mode set to Pass-Thru.

Syndication Ingest Workflow for Pass-Thru Mode

The Ingest workflow for the Pass-Thru configuration is similar to the ingest workflows for other Syndication scenarios. The source media file is localized from the catch server and a generic Syndication attachment is created. (Note that localization and the Original nickname are required.) A thumbnail and proxy are also generated and finally all information is registered into a Catalog.

The difference appears when the Portal operator submits a job. In this scenario, the portal operator performs the same function that the Syndicate action performs in some workflows—creating a specific set of timing information.

Instead of a Syndicate action applying a template to produce a Syndication attachment with updated segment and timing information, the portal operator does these functions by manipulating the material ingested by the Pass-Thru ingest workflow below.



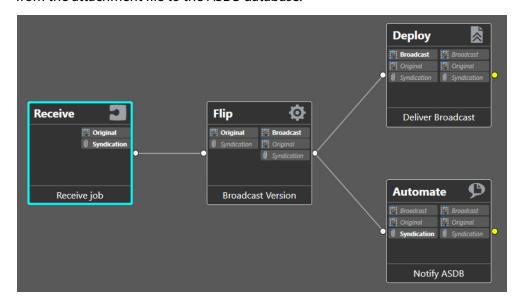


Syndication Publish Workflow for Pass-Thru Mode

The Pass-Thru mode is designed to pass through the timeline and structure of the original media file. The workflow transcodes the original media file (for example, the original Pitchblue MPEG transport stream) in its entirety and delivers it to the broadcast server.

The publish workflow below serves as the target workflow for a Portal in the Pass-Thru mode. The Receive action expects the Original nickname and the updated Syndication attachment from the Portal, but it does NOT expect any CML files (no Conform actions are included) because the portal does not output CML files in Pass-Thru mode.

The original media file and attachment enter a Flip action, which produces the desired media file output format. A Deploy action delivers the media to the broadcast server. Meanwhile, the Automate action supplies the updated Syndication timing metadata from the attachment file to the ASDB database.



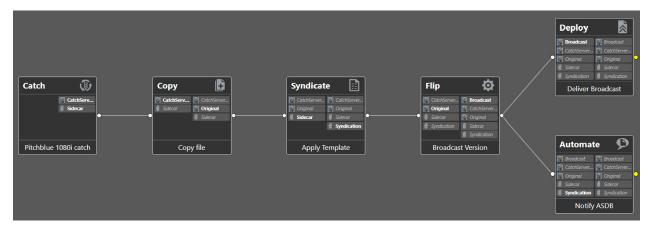


Syndication Fully Automated Workflow

In the workflow shown below, the Syndication process is entirely automated, bypassing the Syndication Portal. Material arrives on the catch server, the Catch action detects the media and sidecar files, and the copy action localizes them.

The Syndicate action applies a specific syndication template (with included/notincluded segment information) and the updated attachment (with new timing information from the template) is produced as the Syndication attachment.

The Flip action creates the desired Broadcast media format, and the Deploy action delivers it. Concurrently, the Automate action accepts the Syndication attachment and (in this case) notifies an ASDB database with the updated timing information from the template applied in the Syndicate action.





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Example TrafficManager System Workflows

