

Vantage 6.0

User's Guide

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Preface

To obtain product information, technical support, or provide comments on this guide, contact us using our Web site, email, or phone number as listed in [Table 1](#).

Table 1. Telestream Contact Information

Resource	Contact Information
Vantage Technical Support	Web Site: http://www.telestream.net/telestream-support/vantage/support.htm Support Email. support@telestream.net Terms and times of support services vary, per the terms of your current service contract with Telestream.
Vantage Information, Assistance, FAQs, Forums, & Upgrades	Web Site: http://www.telestream.net/telestream-support/vantage/support.htm Support Email. support@telestream.net
Telestream, Inc.	Web Site: www.telestream.net Sales and Marketing Email: info@telestream.net Telestream, Inc. 848 Gold Flat Road, Suite 1 Nevada City, CA USA 95959
International Distributor Support	Web Site: www.telestream.net See the Telestream Web site for your regional authorized Telestream distributor.
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Vantage Overview

This guide is intended for those who use Vantage for transcoding and processing digital media. This involves creating, configuring, and executing workflows in Vantage.

The following topics introduce Vantage, and the Vantage programs that you'll utilize in the course of processing your media in Vantage:

- [Introduction to Vantage](#)
- [Vantage Domain Components](#)
- [Vantage Domain Configurations](#)
- [Vantage Programs](#)
- [Lightspeed Server](#)
- [Processing Live and Tape Feeds from Pipeline](#)
- [Topics in this Guide](#)

Note: Vantage licenses enable specific features and programs in Vantage, including optional transcoding capabilities, Lightspeed server, advanced workflow features and system management.

Vantage licenses allow you to download and install Vantage software at your convenience and purchase only those features that you need. If you need additional features later, you can purchase the licenses you require at any time. Features for which you do not have a license may be disabled, or work only in demo mode. Topics which describe a feature that requires a license indicate that you need a license to use them.

You manage licenses in the Vantage Management Console. You can also add or update licenses directly in Workflow Designer. For a full discussion of licensing in Vantage, see the Vantage Management Guide.

Introduction to Vantage

At the simplest level, Vantage is a collection of customizable software programs that automate media processing via workflows. A Vantage [workflow](#) is a collection of [actions](#), designed by you to process media files in a specific manner.

The actions you can utilize in a workflow are controlled by the Vantage licenses you enable. [Table 2](#) lists some typical media processing objectives and the Vantage licenses that support them (these are not the only licenses you can use in Vantage—for a complete list, contact your Telestream representative).

Table 2. Vantage Media Processing Objectives

Workflow Objective (Vantage License)	Description
File-to-file (template-based) transcoding (Vantage Transcode or Transcode Pro Editions)	Transcoding workflows automate the process of converting a video file from one media format to another. Vantage can open most video files, regardless of the encoding and packaging format, and create one or more new video files using one or more selections from an extensive list of encoder and packaging formats.
Commercial processing—local, regional, and national	TrafficManager streamlines commercial and content handling for TV stations and cable facilities. TrafficManager provides a complete solution for local/regional, and nationally syndicated and commercial media workflows, from ingest, review & approval, transcoding, dub list reconciliation, delivery for ad insertion servers or broadcast servers, and automation system notification.
Adaptive streaming encoding	Transcode Multiscreen includes transcoding software specifically designed for adaptive bit rate encoding using both GPUs and CPUs. It simultaneously produces multiple bit-rate variants of H.264 video and containers for deployment to HTTP adaptive streaming players from Adobe, Apple, Microsoft, and players compatible with MPEG DASH.
Automated editing and composition of advertisements	Post Producer automates the repetitive editing of assets for distribution, promotion and cross promotion. Post producer allows you to automatically re-purpose movies and episodic content directly from master format for international and domestic distribution.

Table 2. Vantage Media Processing Objectives

Workflow Objective (Vantage License)	Description
IPTV VOD Transcoding	Vantage Transcode IPTV VOD provides IPTV and Cable VOD transcoding with the highest possible quality at the lowest bit rates, reducing transmission costs. Additionally, Vantage provides sophisticated stream control and can automate the entire production process, including ingest, transcoding, packaging, delivery, and notification.
Moving media between devices (Vantage Transcode Pro Connect)	Media transport workflows use Vantage native connections to move media between a wide variety of broadcast servers, edit systems, and other professional video devices. Using these integrations, Vantage can automate the process of receiving media into, or moving media between, different devices—ensuring the right file format at any of many possible destinations.
Media analysis and media-dependent processing (Vantage Analysis)	Media analysis workflows use Vantage features to analyze media, compare the results to configured values, and make decisions about how media should be routed or processed.
Third-party analysis and specialized media processing (third-party licenses)	Some workflows communicate with third-party products (such as MediaMate Screen and Digimetrics Aurora) to analyze or process media.

With the appropriate licenses, Vantage workflows can incorporate some or all of the objectives listed in [Table 2](#), as well as other workflow design and management features, which include the following:

- *Workflow visualization*—Vantage offers a highly flexible process design interface, with visual components that help you see what the workflow will accomplish
- *Notifications*—Vantage can send emails or notify external systems when media is available
- *Intelligent branching*—Vantage workflows can be configured to evaluate variables, metadata, and the results of other workflow tasks, and select the appropriate workflow branch for further processing.
- *Workflow monitoring and control*—Vantage programs allow you to view the status of [jobs](#) that have been submitted to a workflow, and you can stop, cancel, and restart jobs.
- *Operator control*—Vantage provides tools for enabling operator management. Operators can submit files to workflows, view the results, and submit the results to yet another workflow. Operators can also view the status of workflow jobs and, if granted permission by a Vantage administrator, stop, cancel or restart jobs.

- *Scalability and Redundancy*—Vantage scales to thousands of jobs and dozens of servers in an enterprise environment, to implement high-volume processing.

Vantage also provides many system management features, allowing you to scale a Vantage system to many servers, manage user access, and optimize system performance and reliability. The system management features are described in topics throughout this guide.

Vantage Domain Components

At the simplest level, Vantage is a collection of customizable software programs that automate media processing via workflows. A Vantage [workflow](#) is a collection of [actions](#), designed by you to process media files in a specific manner.

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File-to-file (template-based) transcoding (Vantage Transcode or Transcode Pro Editions)	Transcoding workflows automate the process of converting a video file from one media format to another. Vantage can open most video files, regardless of the encoding and packaging format, and create one or more new video files using one or more selections from an extensive list of encoder and packaging formats.
Commercial processing—local, regional, and national	TrafficManager streamlines commercial and content handling for TV stations and cable facilities. TrafficManager provides a complete solution for syndicated and commercial media workflows, from ingest, review & approval, transcoding, dub list reconciliation, delivery for ad insertion servers or broadcast servers, and automation system notification.
Adaptive streaming encoding (Vantage Multiscreen)	Transcode Multiscreen includes transcoding software specifically designed for adaptive bit rate encoding using both GPUs and CPUs. It simultaneously produces multiple bit-rate variants of H.264 video and containers for deployment to HTTP adaptive streaming players from Adobe, Apple, Microsoft, and players compatible with MPEG DASH.
Automated editing and composition of promos	Post Producer automates the repetitive editing of assets for distribution, promotion and cross promotion. Post producer allows you to automatically re-purpose movies and episodic content directly from master format for international and domestic distribution.
IPTV VOD Transcoding	Vantage Transcode IPTV VOD provides IPTV and Cable VOD transcoding with the highest possible quality at the lowest bit rates, reducing transmission costs. Additionally, Vantage provides sophisticated stream control and can automate the entire production process, including ingest, transcoding, packaging, delivery, and notification.

Table 3. Vantage Media Processing Objectives

Workflow Objective (Vantage License)	Description
Moving media between devices (Vantage Transcode Pro Connect)	Media transport workflows use Vantage native connections to move media between a wide variety of broadcast servers, edit systems, and other professional video devices. Using these integrations, Vantage can automate the process of receiving media into, or moving media between, different devices—ensuring the right file format at any of many possible destinations.
Media analysis and media-dependent processing (Vantage Analysis)	Media analysis workflows use Vantage features to analyze media, compare the results to configured values, and make decisions about how media should be routed or processed.
Third-party analysis and specialized media processing (third-party licenses)	Some workflows communicate with third-party products (such as MediaMate Screen and Digimetrics Aurora) to analyze or process media.

With the appropriate licenses, Vantage workflows can incorporate some or all of the objectives listed in [Table 2](#), as well as other workflow design and management features, which include the following:

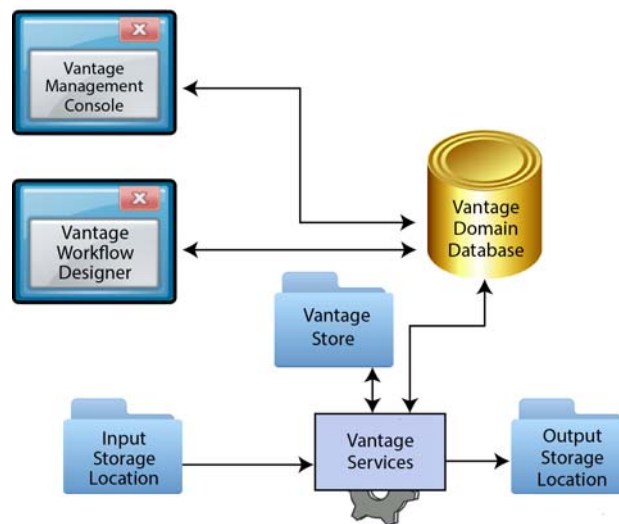
- *Workflow visualization*—Vantage offers a highly flexible process design interface, with visual components that help you see what the workflow will accomplish
- *Notifications*—Vantage can send emails or notify external systems when media is available
- *Intelligent branching*—Vantage workflows can be configured to evaluate variables, metadata, and the results of other workflow tasks, and select the appropriate workflow branch for further processing.
- *Workflow monitoring and control*—Vantage programs allow you to view the status of [jobs](#) that have been submitted to a workflow, and you can stop, cancel, and restart jobs.
- *Operator control*—Vantage provides tools for enabling operator management. Operators can submit files to workflows, view the results, and submit the results to yet another workflow. Operators can also view the status of workflow jobs and, if granted permission by a Vantage administrator, stop, cancel or restart jobs.
- *Scalability and Redundancy*—Vantage scales to thousands of jobs and dozens of servers in an enterprise environment, to implement high-volume processing.

Vantage also provides many system management features, allowing you to scale a Vantage system to many servers, manage user access, and optimize system performance and reliability. The system management features are described in topics throughout this guide.

Vantage Domain Components

Each [Vantage domain](#) is a collection of Vantage software components that are linked together in an independent entity, as a single Vantage installation. You can install and use multiple Vantage domains within a business or other organization. For example, you might install a Vantage domain for the sports department and another for the news department. Domains do not interact with each other or know of others' existence—each Vantage domain maintains its own [database](#), and automates its own workflows, independently of other Vantage domains.

Figure 1. Simplified View of the Basic Vantage Domain Components



The work that you want Vantage to perform is defined in a workflow, which is created using the Vantage [Workflow Designer](#) program. The workflow is made up of individual tasks called [actions](#), which specify what task needs to be performed. A typical workflow contains [actions](#) to do some or all of the following:

- Discover media that is ready for processing at an input storage location
- Analyze and transcode input media into new media files
- Process metadata
- Register media in a Vantage [catalog](#) for further utilization
- Deliver finished media files to an output storage location.

Many other actions are provided in Vantage Workflow Designer. You can create and save many different workflows in a Vantage domain, and you can use them over and over with different files. Automation features allow you to initiate workflow processing whenever a new file appears in a [hot folder](#). For more information on the available actions and workflow design, see the Vantage User's Guide.

Vantage workflows are stored in the [Vantage domain database](#), which is the control center of a Vantage domain. All configuration for the domain is stored in the Vantage domain database, as are statistics and status information about the workflows processed by the domain. Vantage domain administrators configure Vantage using the [Management Console](#).

Working with the Vantage domain database, Vantage services execute workflow actions in a Vantage domain. Each service executes specific action types. For example, the [Transcode Service](#) executes the [Flip action](#), which transcodes an input media file into a new file, based on the encoder and codecs you select.

The input and output storage locations shown in [Figure 1](#) are not Vantage components, although they may reside on Vantage servers. Vantage workflow actions which access input files or publish output files must have read and write access to these storage locations. These locations can be folders that reside on a network server or workstation, a Network-Attached Storage (NAS), or a Storage Area Network (SAN). Or, they may be FTP or HTTP servers, or other media platforms.

A [Vantage store](#) is a specially-designated storage location that stores temporary files that are created during workflow processing, and it can also store output files. Typically, temporary files are deleted after a [job](#) expires or is deleted, however, Vantage controls allow you to change this to retain files for a period of time or indefinitely.

Vantage Domain Configurations

While Vantage supports many different physical configurations, there are only two types of domains—a single node [All-in-one domain](#)—and a [Vantage array](#), where the Vantage services and [Vantage domain database](#) are distributed among two or more servers.

An all-in-one domain is a Vantage domain in which all the basic Vantage components shown in [Figure 1](#) are installed on a single server. An all-in-one domain is simpler to install and manage, but it has performance limitations which are described in *Before You Install*, in the Vantage Domain Management Guide.

A Vantage array (sometimes referred to as a *distributed domain*) is one in which the basic Vantage components are distributed among multiple servers. For example, you might install the Vantage domain database on one server, and install all Vantage services on an additional server, and a second Transcode service on the third server. This three-server Vantage domain separates database processing from Vantage service processing, which increases processing capacity for both the Vantage domain database and the Vantage services.

Having Vantage services on multiple servers also increases capacity and supports load-balancing, which leads to better throughput, and redundancy, which enables failover protection for the Vantage domain.

Vantage Programs

Vantage programs allow you to manage the components in the Vantage domain. [Table 4](#) lists the Vantage programs according to the Vantage management area they serve and the type of program.

Note: Some Vantage programs are available only with particular Vantage product licenses. To ensure you get the programs you want, contact Telestream sales for the latest bundling and licensing information.

Table 4. Vantage Programs

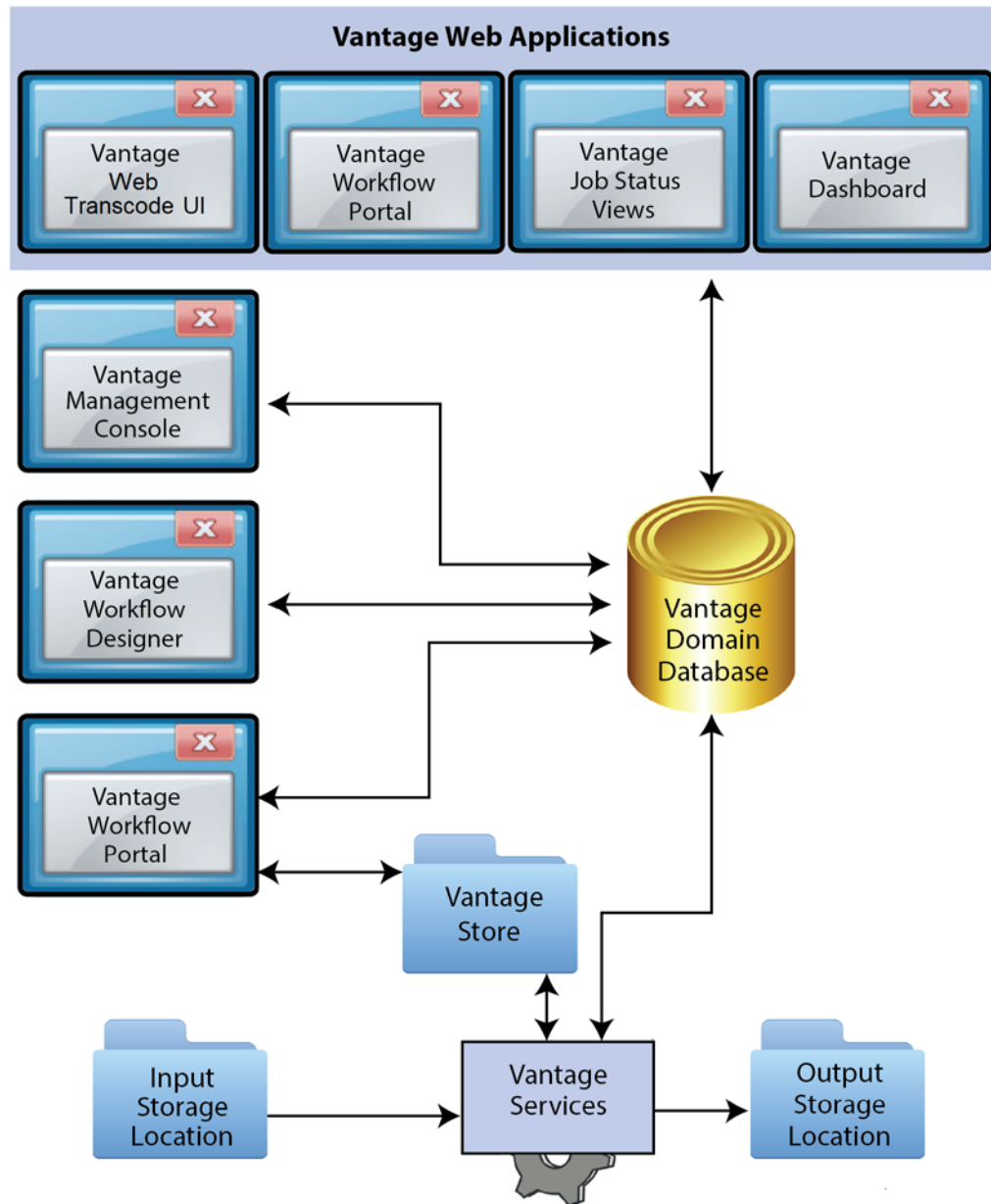
Functional Area	Program Type	
	Client Applications	Web Applications
Workflow Management	Vantage Workflow Designer Vantage Workflow Portal	Vantage Job Status Views Vantage Workflow Portal Vantage Transcode
Transcoding Workflow Management	Vantage Workflow Designer	Vantage Transcode
Domain Management	Vantage Management Console	Vantage Dashboard
TrafficManager Dublist Management	Dublist Portal	Upload Portal

From a management point of view, each Vantage program can be classified as a workflow management program or a domain management program. Workflow management programs allow you to design workflows, evaluate and forward the results of a workflow, and track the status of workflows. Domain management programs allow you to configure the Vantage domain, view status and statistics for the domain, and control domain operation.

Each Vantage program can also be classified by application type, which is either as a client program or a Web application. Client programs run on Microsoft Windows servers and workstations. Web applications are hosted by a Microsoft Internet Information Services (IIS 7) server and can be accessed from any computer with a compatible browser and a network or Internet connection to the IIS 7 server hosting the Web applications.

[Figure 2](#) illustrates how the additional Vantage programs not shown in [Figure 1](#) fit into a Vantage domain.

Figure 2. Vantage Domain Showing All Vantage Programs



The following topics introduce each of the Vantage programs:

- [Vantage Management Console](#)
- [Vantage Workflow Designer](#)
- [Vantage Workflow Portal](#)
- [Vantage Workflow Portal Web Application](#)
- [Vantage Job Status Views Web Application](#)
- [Vantage Dashboard Web Application](#)
- [Vantage Transcode Web Application](#)
- [Vantage Dublist Portal](#)
- [Vantage Web Upload Portal](#)

Vantage Management Console

The Vantage Management Console (VMC) enables domain administrators to configure and manage a Vantage domain, including specifying what features Vantage users can access. The following is a partial list of Vantage features that administrators can control with VMC:

- Vantage stores
- Vantage users
- Vantage licenses
- Load balancing
- Vantage services
- Action and workflow status
- Import and export of Vantage configuration components
- Domain workflow analytics
- Vantage Job Status Views
- Vantage Workflow Portal
- Dublist Portal
- Report configurations
- Dublist schemes
- Vantage domain database backup and restore

Vantage Management Console also allows you to view some domain status information.

For information about using Management Console, see the *Vantage Domain Management Guide*.

Vantage Workflow Designer

Vantage Workflow Designer enables you to design and automate workflows to meet your organization's transcoding and workflow automation requirements. With Workflow Designer, you can design workflows that do the following:

- Detect media files and related files that are ready for processing
- Evaluate the contents of media files and set variables that describe their contents
- Create [actions](#) that execute different workflow branches based on variable values
- Generate email and other messages in response to workflow events
- Incorporate related metadata files or add metadata to the output
- Transcode media files to multi-screen formats, including package formats such as Apple HLS and Adobe HDS
- Transcode media files for use in IPTV/VOD/cable applications
- Perform comprehensive advertisement and syndicated content processing, from catch server to on-air server
- Perform file operations—save media output files and delete source files
- Combine any or all of the above features in hundreds of possible workflows.

A typical workflow design session requires that you pick the actions you want to take, configure the sequence and settings of those actions, and then activate the workflow. When you activate the workflow, the [Vantage domain database](#) and Vantage services work together to process any source material that is submitted to the workflow. Each time source material is submitted, a Vantage [job](#) is started. A job represents a single instance of a workflow. For example, if 10 different media files are submitted to a workflow, 10 new jobs are started.

Vantage Workflow Designer also includes tools that allow you to monitor the status of workflows and jobs in the domain.

For comprehensive information on designing Vantage workflows, see the Vantage User's Guide.

Vantage Workflow Portal

The Vantage [Workflow Portal](#) (a licensed option) allows operators to manually review and update media and manually submit jobs. Workflow designers create the workflows, and workflow operators use Workflow Portal to do the following:

- Review [catalogs](#) and [binders](#) used in workflows
- Scrub media and set in and out points for trimming
- Review and edit metadata labels used in workflows
- Review and edit [variable](#) values used in workflows
- Submit media to workflows for processing
- In TrafficManager, review and submit commercial inventory for processing
- Stitch multiple files together.

The Workflow Portal's user interface can be configured to display only those features, and access only those resources which are necessary to perform certain work. Workflow Portal cannot operate until it is installed on a Windows workstation and configured using the Vantage Management Console. To process media in Workflow Portal, you must also create a workflow to preprocess the media and register it in a Vantage catalog.

For information about creating configurations for the Workflow Portal, see [Vantage Domain Management Guide > Configuring Workflow Portal Operation](#). For information about using the Workflow Portal, refer to the [Vantage User's Guide](#).

Vantage Workflow Portal Web Application

The optional [Workflow Portal Web App](#) is a Web version of the Workflow Portal Windows program, with a subset of Workflow Portal features. After you install Web Apps on a server, you can access the portal at [http://\[server name\]/Vantage/Portal/](http://[server name]/Vantage/Portal/). The login is the same as for other clients. For information on using the Workflow Portal Web app, see the Vantage User's Guide.

Vantage Job Status Views Web Application

The [Job Status Views Web Application](#) provides Vantage operators and managers with detailed [job](#) status information about all jobs in the domain. Using the Vantage Management Console, Vantage administrators can configure custom *views*, which define what information an operator sees when opening a view. When there is a large volume of jobs or when security policies dictate, you might want to create custom views for individual operators or departments.

After you install Web Apps on a server, you can access the Job Status Views at [http://\[server name\]/Vantage/JobStatusViewer/](http://[server name]/Vantage/JobStatusViewer/). The login is the same as for other clients.

For information on using the Vantage Job Status Views, see the *Vantage Domain Management Guide* and the *Vantage User's Guide*.

Vantage Dashboard Web Application

The Vantage Dashboard app is designed to help domain administrators track the status and system health for the entire Vantage domain, as opposed to other tools which enable management of domain components.

The Vantage Dashboard pages are designed to help you quickly assess the health of the domain and progressively dig into deeper detail as needed. For example, the Summary Status page allows you to quickly see the workflow completion success rate and the error rate on domain servers. The information on the Summary Status page can help you determine if it is more appropriate to look for problems in a workflow or in a particular server.

Other Vantage Dashboard pages allow you to view the status of servers, services, and [jobs](#). When troubleshooting, it can be very helpful to determine if problems are system wide or confined to a server, a service, or a particular workflow. Vantage Dashboard provides the Web pages that allow you to quickly assess your domain from any Web client that has connectivity to your domain.

For information on using Vantage Dashboard, see *Monitoring the Domain with Vantage Dashboard* in the *Vantage Domain Management Guide*.

Vantage Transcode Web Application

Vantage Transcode is a browser-based application that allows users to quickly and easily build transcoding workflows in a browser, based on a fixed workflow template using these three simple steps: Watch > Transcode > Deliver.

Vantage Transcode allows users to build workflows that include one or more [hot folders](#) to watch for incoming media, one or more output formats, and can include delivery to one or more destinations. You can also review [job](#) status directly in Vantage Transcode, where jobs can be stopped, restarted and deleted.

Workflows designed in Vantage Transcode are automatically displayed in Workflow Designer as well. However, when a workflow is *edited* in Workflow Designer, it no longer displays in the Vantage Transcode user interface. Workflows originally implemented in Vantage Transcode can be extended to include more advanced features such as Analysis, email notifications, and more, in Workflow Designer.

Note: For performance reasons, Vantage Transcode should be installed on a different server from the Telestream Transcode & Analysis engine. For this reason, Web applications are included only with the array installer and not with the single-node installer.

After you install Vantage Web applications on a server, you can access Vantage Transcode using this URL: [http://\[server name\]/Vantage/Transcode/](http://[server name]/Vantage/Transcode/)

The same login applies as for other clients.

Vantage Dublist Portal

[Dublist Portal](#) is an optional application—a TrafficManager-licensed program which allows users to manage dublist processing. It allows you to 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, and identify commercials that have not yet been processed. For more information on using the Dublist Portal, see the TrafficManager User's Guide.

Vantage Web Upload Portal

The Vantage Web Upload Portal is a TrafficManager web application that allows remote advertisers to upload commercials and associated files to your Vantage traffic workflows. Typically the Web Upload Portal is installed on your public Web server, and utilized by local/regional ad creators.

Your Vantage administrator sets up the portal for the client and specifies the workflow to which the files are uploaded. The application is very easy to use, providing a simple 3-step process for uploading. For more information, see the Upload Portal Administrator's Guide and the Upload Portal User's Guide built into the application's help system.

Lightspeed Server

The Telestream® [Lightspeed Server](#) can be added to a Vantage domain (or used as an [All-in-one domain](#)) to accelerate video processing and x264 transcoding. Lightspeed Server accelerates Vantage video and x264 processing with GPUs and multi-core CPUs to provide the best image quality in the least amount of time. Housed in an efficient 1 RU server, Lightspeed Server reduces rack space, power and cooling requirements while meeting increased output capacity needs.

Lightspeed Server accelerates compute-intensive image processing within Vantage workflows, including scaling, deinterlacing, frame rate conversion, motion vector calculation, and other tasks that require computation and analysis to modify or create new video frames. Faster video preprocessing acceleration benefits the output quality of all video output formats.

Your Lightspeed Server comes pre-configured to your order. You can order Lightspeed configured as an all-in-one server containing a complete Vantage system and licenses, ready to run. You can also order a Lightspeed Server or multiple servers with various Vantage components and licenses installed, ready to network together to create a Vantage distributed domain—an [array](#).

For more information about utilizing Lightspeed Server in Vantage workflows, see [Lightspeed Server](#) on the Telestream Web site.

Processing Live and Tape Feeds from Pipeline

Using a Telestream [Pipeline](#) as part of your Vantage system, Vantage can ingest live or tape feeds into Vantage workflows. Combining Pipeline's baseband capture with a Vantage system, you can create high-quality real-time or near real-time output in any format supported by Vantage.

For example, you can simultaneously create high-res files for storage while creating a low-res proxy, or create any number of additional file formats in real-time or near real-time. File processing begins immediately while ingesting the captured media, saving you time and money. Pipeline also preserves important metadata, such as ancillary data, throughout your transcoding workflow. Pipeline encoder channels allows for a high degree of scalability and flexibility.

For more information about utilizing Pipeline in Vantage workflow see [Using Vantage Publish within Pipeline Control](#) on the Telestream Web site.

Topics in this Guide

The major topics in this guide include:

- [Vantage Client Programs](#) provides background information about Vantage client programs and Web apps, including starting and stopping, and logging onto Vantage domains. In addition, you can learn about Vantage store paths, configuring certain applications, and other basic skills you'll need to utilize Vantage effectively.
- [Vantage Workflow Designer Tours](#) provides several tours, which are designed to help you understand how to create, configure, and manage workflows in Workflow Designer. You'll also learn how to submit media to workflows for processing. As you take these tours, you'll also become familiar with important Vantage concepts and how you can use them to design workflows to meet your processing requirements. As you gain hands-on experience creating workflows and processing media in Vantage—which leads to a working knowledge of Vantage and its components and architecture—you'll gain proficiency in using Vantage to solve your organization's media processing problems.
- [Creating Workflows in Workflow Designer](#) discusses how to design, construct, and configure workflows to perform specific media tasks in your organization. Workflow Designer is the primary client program in Vantage and combines a wide range of workflow design and media processing capabilities into a single program, enabling you to create workflows to solve a broad set of operational media processing problems.
- [Workflow Actions](#) describes each of the [action](#) groups and their actions.
- [Monitoring Workflows and Managing Jobs](#) discusses how to monitor and manage jobs in Vantage. For each new media file submitted to Vantage for processing, a [job](#) is created.
- [Using Workflow Analytics](#) describes how to analyze workflows and job history to identify problems and improve overall system performance.
- [Using Workflow Portal](#) discusses how to use Workflow Portal for browsing video media assets, entering metadata, creating [Edit Decision Lists](#) (EDLs), and processing media via pre-defined workflows. Workflow Portal is an optional, licensed feature in Vantage.
- [Using the Job Status Views Web Application](#) discusses how to use Job Status Views to access job information and manage jobs in your Vantage domain from anywhere on the LAN, or via the Internet when you establish a VPN connection.
- [Using Vantage Transcode](#) discusses how to set up and use template-based transcoding workflows. The Transcode and Transcode Pro license allows you to quickly and easily build hot-folder transcoding workflows. You can also review [job](#) status, and jobs can be stopped, restarted and deleted directly in Vantage Transcode.
- The [Glossary](#) defines terms used in Vantage product documentation.

Vantage Client Programs

The following topics provide general information about using Vantage client programs:

- [Adding or Updating Licenses](#)
- [Windows Client Program Management](#)
- [Web App Management](#)
- [Understanding Paths for Vantage Storage](#)

Note: When using Workflow Designer on Windows Server 2008, you may have problems minimizing windows you've maximized by dragging them to the top of your monitor. To disable the Windows AeroSnap feature, open the Control Panel > Ease of Access Center > Change how your mouse works and check Prevent windows from being automatically arranged when moved to the edge of the monitor. In addition, for Workflow Designer to display as designed, the Windows theme on Server 2008 R2 should be set to Windows 7 Basic. This theme is only available when Desktop Experience is installed. If Remote Desktop Connection is used to connect to the server, then the Remote Desktop Services > Remote Desktop Session Host > Desktop Composition role feature must be installed in order for the Windows 7 Basic theme to be available.

The Themes service must be started and set to the automatic startup type. If the Themes service hasn't been started before, the computer must be restarted for it to take effect and for the Windows 7 Basic theme to be made available.

Adding or Updating Licenses

Typically, you manage licenses in the Management Console. For convenience, you can also add or update [license](#) files in Workflow Designer.

Note: For full details on adding, updating, or activating licenses, see Enabling a Vantage License in the Vantage Domain Management Guide.

Depending on how you purchase Vantage features, Telestream may send you additional license files or send you an updated license file. Follow Telestream Sales or Customer Service instructions for adding or updating license files.

When you receive a license (an XML file), install it using these steps:

1. Store the license file in a location that is accessible to your Vantage domain server.
2. Store a second copy of the license file in a safe place.
3. Select File > Add/Update License to display the Add/Update License dialog.
4. Navigate to and select the license, and click Open.
5. Follow the steps to add or update the license in your domain.
6. Restart Workflow Designer and other client programs.

Windows Client Program Management

Vantage provides the following client Windows programs:

- [Management Console](#)
- [Workflow Designer](#)
- [Workflow Portal](#)
- [Dublist Portal](#)

The following topics describe general Windows client program tasks:

- [Starting and Stopping Vantage Client Programs](#)
- [Logging into or Changing Vantage Domains in Windows Client Programs](#)
- [Changing Vantage Users in Windows Client Programs](#)
- [Changing Passwords in Windows Client Programs](#)
- [Selecting A Configuration in Workflow Portal](#)
- [Accessing Vantage Documentation from Workflow Designer](#)
- [Controlling Tips & Warnings](#)

Starting and Stopping Vantage Client Programs

All Vantage client Windows programs connect directly to the [Vantage domain database](#), and thus—can only be used on a computer that has access to the domain.

Vantage clients provides many features that are managed by your Vantage domain administrator. Before you start Workflow Portal or Dublist Portal for example, you may need to complete additional tasks before you can begin working—for example, creating a configuration for Workflow Portal. If additional tasks are required, Vantage will prompt you to complete those tasks before continuing.

You start and stop Vantage Windows programs like most other Windows programs. After starting Workflow Designer or Workflow Portal, you'll select and log into a Vantage domain so you can begin work.

- [Starting Workflow Designer](#)
- [Starting Workflow Portal](#)
- [Starting Dublist Portal](#)
- [Stopping Vantage Windows Client Programs](#)

Starting Workflow Designer

To start Workflow Designer, use one of these methods:

- Select start > Programs > Telestream > Vantage > Vantage Workflow Designer
- Double-click the Vantage Workflow Designer shortcut on your desktop.

Figure 3. Vantage Workflow Designer Shortcut



Note: If you are launching Workflow Designer for the first time, you may be prompted to select and log into a Vantage domain. See [Logging into or Changing Vantage Domains in Windows Client Programs](#) for details.

Starting Workflow Portal

Workflow Portal is an optional, licensed Vantage client program. When you start Workflow Portal, if no license is available, it advises you, and operates in demo mode. When operating in demo mode, you cannot submit [jobs](#) or edit metadata labels.

You can run multiple instances of Workflow Portal on one computer (and one license), so that you can use multiple configurations at the same time. For example, you may be reviewing and submitting assets in one, and setting trim points in another.

User authentication is used to control user access to Workflow Portal configurations. Administrators can choose which Vantage users can utilize a specific configuration. Administrators can also make certain configurations available to everyone.

To start Workflow Portal, do one of the following:

- Select start > Programs > Telestream > Vantage > Vantage Workflow Portal
- Double-click the Vantage Workflow Portal shortcut on your desktop.

Note: If you encounter an error when launching the Workflow Portal, please see [Troubleshooting Workflow Portal](#) for assistance.

Figure 4. Vantage Workflow Portal Desktop Shortcut



Note: If you are launching Workflow Portal for the first time, you'll be prompted to select and log into a Vantage domain and choose a Workflow Portal configuration. See [Logging into or Changing Vantage Domains in Windows Client Programs](#) for details.

Starting Dublist Portal

Dublist Portal is provided as part of TrafficManager, an optional, licensed feature. Although TrafficManager features do not operate without a license, Dublist Portal itself is not controlled by a license.

You can run multiple instances of Dublist Portal on one computer, so that you can use multiple configurations at the same time.

User authentication is used to control user access to Dublist Portal configurations. Administrators can choose which Vantage users can utilize a specific configuration. Administrators can also make certain configurations available to everyone.

To start Dublist Portal, do one of the following:

- Select start > Programs > Telestream > Vantage > Vantage Dublist Portal
- Double-click the Vantage Dublist Portal shortcut on your desktop.

Note: If you encounter an error when launching the Dublist Portal, please see [Troubleshooting Workflow Portal](#) for assistance.

Figure 5. Vantage Workflow Portal Desktop Shortcut



Note: If you are launching Workflow Portal for the first time, you'll be prompted to select and log into a Vantage domain and choose a Workflow Portal configuration. See [Logging into or Changing Vantage Domains in Windows Client Programs](#) for details.

Stopping Vantage Windows Client Programs

To stop Workflow Designer, Workflow Portal, or Dublist Portal, select File > Exit (Control+Q).

You do not need to save work you have performed, because all information is stored in the [Vantage domain database](#), and updated automatically as you make changes.

Controlling Tips & Warnings

Both Workflow Designer and Workflow Portal provide tips and warnings in tooltips and dialogs. To hide these tips and warnings, Check the hide checkbox on one of the dialogs, or select Options > Hide Tips & Warnings. To reset them to their default behavior, Options > Restore Tips & Warnings.

Logging into or Changing Vantage Domains in Windows Client Programs

These tasks are described in the following topics:

- [Selecting the Domain](#)
- [Logging On](#)
- [Creating a Category in Workflow Designer](#)
- [Selecting a Configuration in Workflow Portal](#)

Selecting the Domain

You may have multiple Vantage domains in your environment. Each [Vantage domain](#) is a separate, stand-alone Vantage system, whose [Vantage domain database](#) and services do not interact. You might create separate Vantage domains for different departments, projects, or geographic locations.

As a Vantage user, you might need to select a domain for the following reasons:

- You are starting [Management Console](#), [Workflow Designer](#) or [Workflow Portal](#) for the first time on a given computer.
- Your work requires that you connect to different Vantage domains.

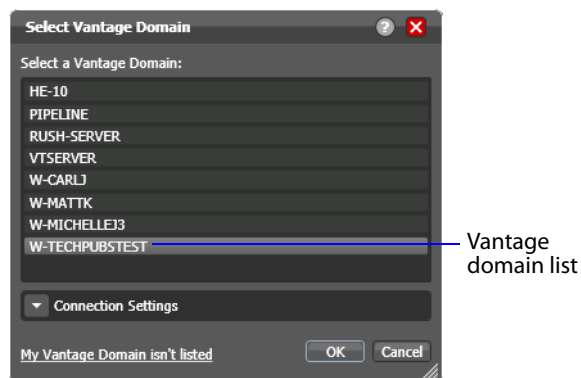
After you select a Vantage domain in Workflow Designer or Workflow Portal, the program remembers the last domain used and connects automatically to that domain each time you restart the program. You can change the selected domain at any time.

To select a domain, do the following:

1. If the program has already started and you want to change Vantage domains, select File > Change Vantage Domain (in Workflow Designer, you can also right-click in the workflows panel away from any buttons).

The program displays the Select Vantage Domain panel.

Figure 6. Select Vantage Domain Dialog



2. To select a listed domain, select a domain in the domain list, and click OK.

When you change domains, your Web application closes its connection to the current domain and connects to the selected domain.

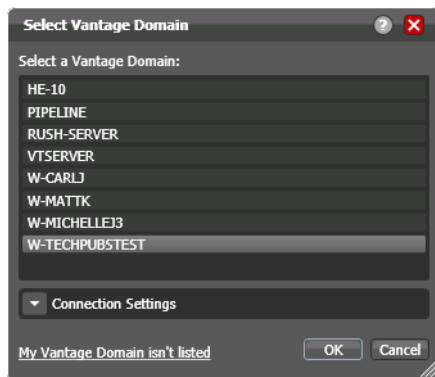
If your domain is not listed, or your connection attempt is unsuccessful, contact your Vantage domain administrator and refer to the following topics:

- [Connecting to an Unlisted Domain](#)
- [Connecting with Custom Login Settings](#)

Connecting to an Unlisted Domain

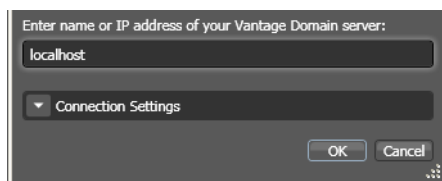
If the domain you want to connect to is not in the list, click *My Vantage Domain isn't Listed*.

Figure 7. Select Vantage Domain Panel



The program displays a dialog in which you can specify the domain using a computer name, host name, or IP address.

Figure 8. Dialog to Select an Unlisted Domain



Enter the Vantage server name (for example, *VantageServer203*) or IP address and click OK to connect. If you do not know what to enter, contact your Vantage domain administrator.

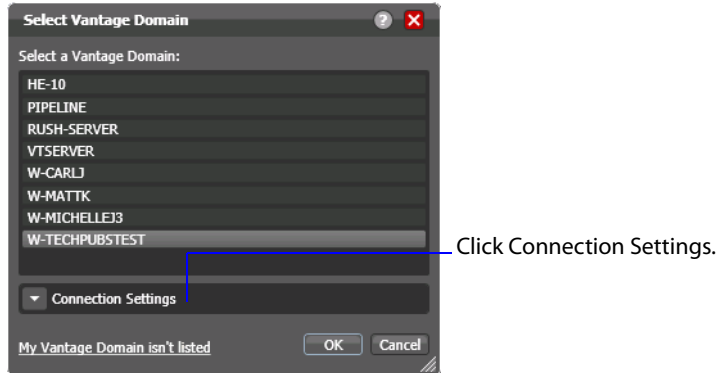
If domain connection is not successful or if your administrator provided custom settings to configure, see [Connecting with Custom Login Settings](#).

If domain connection is successful and you are prompted to enter a user name and password, see [Logging On](#).

Connecting with Custom Login Settings

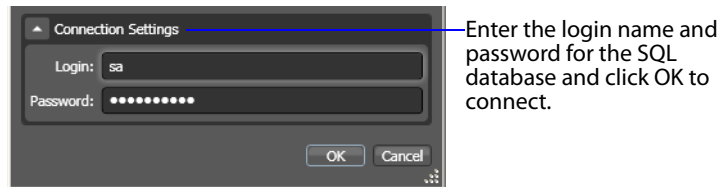
If the Vantage domain is using a SQL database where the default settings for the MS SQL server account were changed during installation, open Connection Settings to display the SQL Server login and password settings.

Figure 9. Select Vantage Domain Panel



The program displays the SQL Server login and password settings.

Figure 10. Changing SQL Server Login Settings



Enter the Vantage database SQL server account username and password (obtained from your Vantage administrator), and click OK to connect.

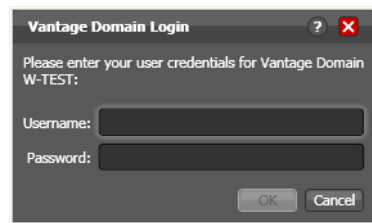
Logging On

When you are accessing a Vantage domain, you need to provide your Vantage user information to log in (unless User Administration is disabled). (The default Vantage username is *Administrator*, with no password assigned).

Note: If you do not have a Vantage user name, ask your Vantage administrator to create one for you.

If Vantage log in is required, the Vantage Domain Login dialog displays.

Figure 11. Vantage Domain Login Dialog



Enter your Vantage user name, and password if required, and click OK to connect.

Creating a Category in Workflow Designer

The first person that accesses a Vantage domain via Workflow Designer—or, unless User Administration is disabled, the first time you log in to your account—you are prompted to create a new workflow category in which to store workflows.

When you log in, the only categories that display are those that your Vantage user name is authorized to access. (If your user name has administrative privileges, all workflows in the domain are displayed.) Access to workflow categories by user is controlled in the Management Console.

If you are prompted to create a new category, click OK to display the Create New Category dialog.

Figure 12. Create New Category Dialog



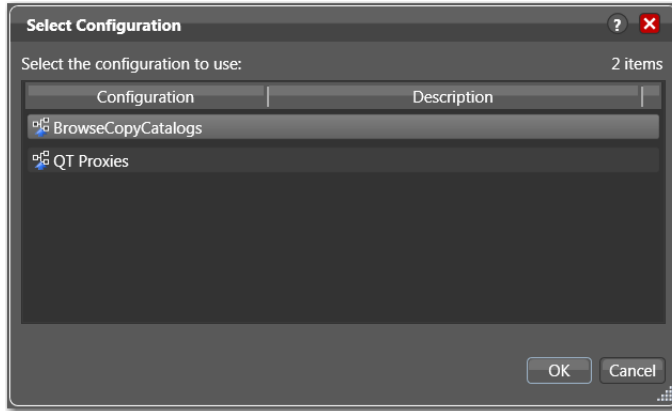
Enter the name for this category, and click OK.

Selecting a Configuration in Workflow Portal

If a Workflow Portal configuration has been previously selected, it is used automatically. Otherwise the Select Configuration window displays, enabling you to select a configuration to use during this session.

Note: The configurations that Workflow Portal displays are public configurations plus those that your Vantage user account is authorized to use. User access to configurations is controlled by the Vantage domain administrator.

Figure 13. Select Configuration Dialog



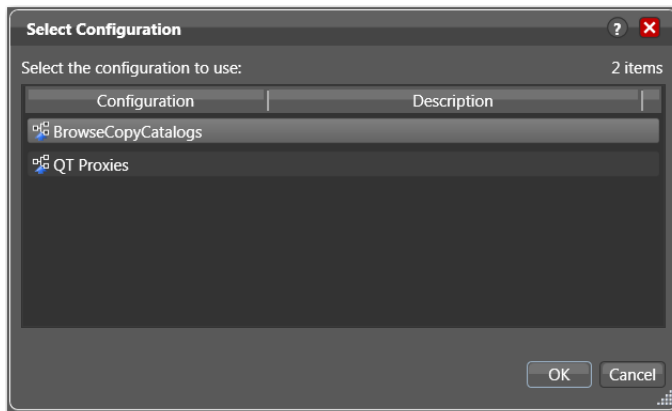
Select a configuration from the list and click OK.

Selecting a Configuration in Dublist Portal

If a Dublist Portal configuration has been previously selected, it is used automatically. Otherwise the Select Configuration window displays, enabling you to select a configuration to use during this session.

Note: The configurations that Dublist Portal displays are public configurations plus those that your Vantage user account is authorized to use. User access to configurations is controlled by the Vantage domain administrator.

Figure 14. Select Configuration Dialog



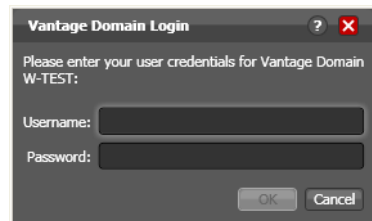
Select a configuration from the list and click OK.

Changing Vantage Users in Windows Client Programs

When you are logged in to a Vantage domain that has User Administration enabled, you can change to another Vantage user name.

Select File > Change Vantage User to display the Vantage Domain Login dialog.

Figure 15. Vantage Domain Login Dialog



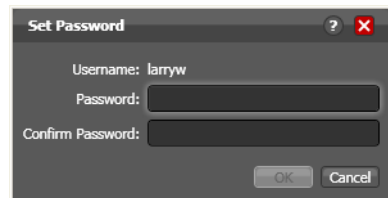
Enter the Vantage user name, and password if required, and click OK to log in with the new Vantage user name.

Changing Passwords in Windows Client Programs

When you are logged in to a Vantage domain that has User Administration enabled, you can change the password of Vantage user name currently logged in.

Select File > Change Password to display the Set Password window.

Figure 16. Set Password



Enter your new Vantage password, confirm the password, and click OK to update the password for this user.

The next time you log in to the Vantage domain with this user, you'll need to use your new password.

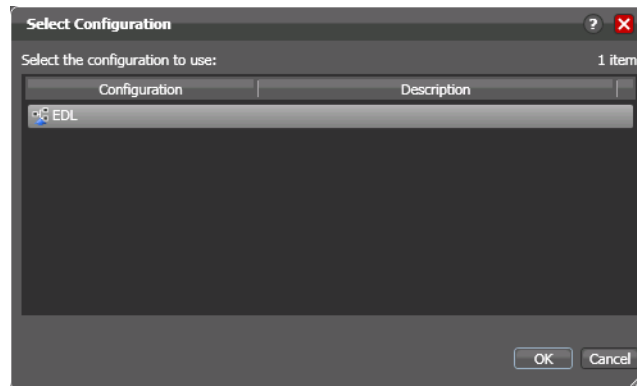
Selecting A Configuration in Workflow Portal

To select another configuration when you need to perform other tasks *in the same domain*, follow these steps:

1. Select File > Change Application Configuration.

Workflow Portal displays a list of configurations for this domain.

Figure 17. List of Workflow Portal Configurations



2. Select the configuration you want to use, and click OK.

Workflow Portal opens the configuration, and displays the appropriate user interface for this configuration.

Accessing Vantage Documentation from Workflow Designer

The following topics describe how to access Vantage documentation while using Workflow Designer:

- [Using the Help Menu to Display Vantage Documentation](#)
- [Displaying Context-Sensitive Help](#)
- [Displaying Man Pages](#)

Using the Help Menu to Display Vantage Documentation

There are multiple ways to access the *Vantage User's Guide* in Workflow Designer:

- Select Help > Getting Started to display the Tours topic in the *Vantage User's Guide*. The tours introduce you to Workflow Designer and describe how to create and configure workflows, submit [jobs](#), and monitor jobs.
- Select Help > Contents to display the *Vantage User's Guide* table of contents.
- Select Help > Index to display the *Vantage User's Guide* index.
- Select Help > Search to display the *Vantage User's Guide* search tab, where you can enter search criteria to locate topics you want to read.
- If you have access to the Internet, select Help > Online Help to display the Vantage Online Help section of the Telestream Web site, where you can access all Vantage documentation.

Displaying Context-Sensitive Help


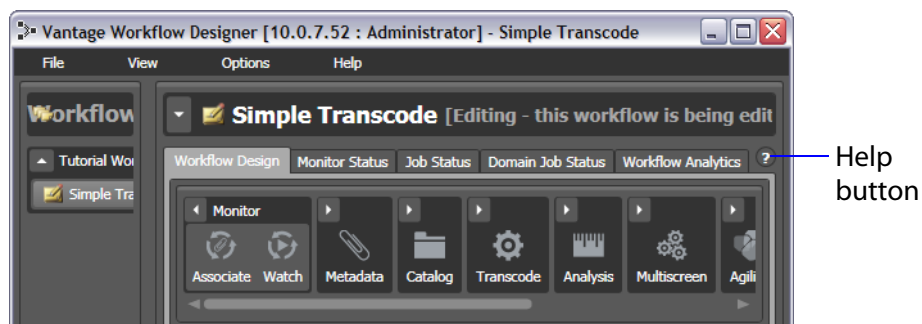
In Workflow Designer, you can click the help button  (see [Figure 18](#)) to display the user guide topic that relates to the active program feature or controls.

Figure 18. Workflow Design Tab, Showing Help Button



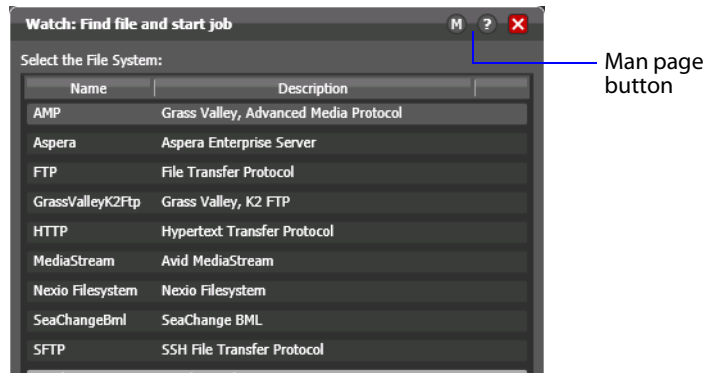
If the topic is not available, you can search the entire User's Guide for information.

Displaying Man Pages

In Workflow Designer, *man pages* are a special kind of context-sensitive help that typically provide detailed information for [action](#) configuration options. This information is more detailed than that provided in this guide.

To open the man page for an action configuration dialog, click the **M** button.

Figure 19. Watch Action Inspector Dialog, Showing Man Page Button



When the man page window is open as you proceed through a series of [Inspector](#) panels, the man page changes as you display each panel.

Web App Management

Vantage provides the following Web apps:

- [Web Dashboard](#)
- [Job Status Views Web Application](#)
- [Workflow Portal Web App](#)
- [Dublist Portal](#)
- [Vantage Transcode](#)

The following topics describe general Web app tasks:

- [Understanding Web App Browser Requirements](#)
- [Starting & Stopping Vantage Web Apps](#)
- [Logging into or Changing Domains from Web Apps](#)
- [Returning to the Vantage Web Apps Menu](#)
- [Logging Out of a Vantage Domain](#)
- [Changing Vantage Users in Web Apps](#)
- [Changing Passwords in Web Apps](#)
- [Displaying Version Information](#)
- [Accessing Vantage Documentation in Web Apps](#)

Understanding Web App Browser Requirements

Vantage Web apps are implemented for execution in Microsoft IIS. JavaScript and cookies must be enabled to use Vantage Web applications properly.

Telestream recommends the following Web browsers for use with Vantage Web apps:

- Internet Explorer 9—32-bit or 64-bit (Windows only)
- Chrome—current version (MacOS X & Windows)
- Firefox—current version (MacOS X & Windows)
- Safari 5—MacOS X only. You cannot use Safari with Silverlight on operating systems other than MacOS X.

Note: To use Vantage Web apps with Internet Explorer, for best results you should disable Compatibility View, as described below.

To configure Internet Explorer for use with Vantage Web apps, do the following:

1. Enable Active Scripting—Open Internet Explorer, select *Tools > Internet options*, select the Security tab, click *Custom level*, scroll down to Scripting, click Enable under *Active scripting*, click OK, and click OK to close the Internet Options dialog.
2. Disable Compatibility View—Open Internet Explorer and:
 - Select *Tools > Compatibility View* and disable
 - Select *Tools > Compatibility View Settings* and uncheck *Display intranet sites in Compatibility View*
 - in the same panel, uncheck *Display all Web sites in Compatibility View*.
3. If you are using Internet Explorer on a Windows Server that does not include IIS, disable Enhanced Security Configuration (ESC) using the Windows Server Manager.
4. If you are using Internet Explorer on a Windows Server that does include IIS, disable Enhanced Security Configuration (ESC) using the Windows Server Manager, or use *localhost* instead of the domain name or IP address (*http://localhost/Vantage/Portal/ConfigSelect.aspx*).

Starting & Stopping Vantage Web Apps

Note: Workflow Portal and Dublist Portal are optional, licensed programs in Vantage. When you start them, if no license is available, it advises you, and operates in demo mode. When operating in demo mode, you cannot submit [jobs](#) or edit metadata labels.

You can run multiple instances of Workflow Portal on a single computer, so that you can use more than one configuration at a time (and each running instance requires its own Workflow license). For example, you may be reviewing and submitting assets in one configuration, and setting trim points in another.

User authentication may be used to control user access to Workflow Portal configurations. Administrators can choose which Vantage users can utilize a specific configuration. Administrators can also make certain configurations available to everyone.

For information on starting and stopping Web applications, see the following topics:

- [Starting Web Apps](#)
- [Stopping Web Apps](#)

Starting Web Apps

To start Vantage Web apps from the Vantage home page, do the following:

1. Open your Web Browser and enter the Vantage Web app home page URL:

http://<ServerName>/Vantage/

where <ServerName> is the name of the IIS server (or its IP address)—by default, the same as the Vantage domain server.

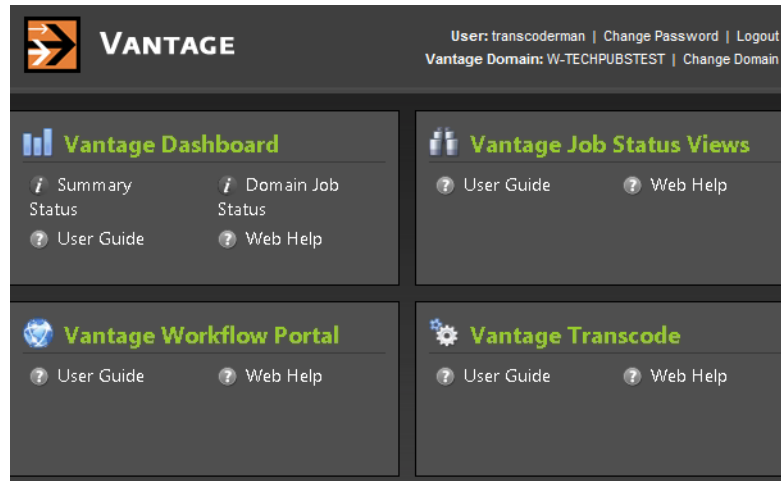
If you are using Web apps directly on the server hosting IIS (for example, in an [All-in-one domain](#)), you can use *localhost* as the server name: *http://localhost/Vantage/*.

Note: If you do not 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.

2. If you are prompted to select a domain, select the domain name, and click OK.
The first time you connect to a Vantage domain from this computer (or you deleted your browser's cookies), select the domain from the list and click OK to continue. Refer to [Logging into or Changing Domains from Web Apps](#) for more information.
3. Enter a Vantage user name and password.

Vantage displays the Vantage Web Apps home page.

Figure 20. Vantage Web Applications Menu—Home Page



Click the Web app you want to run.

You can also launch each Vantage Web app directly, by using its URL:

- *Web Dashboard*—<http://<ServerName>/Vantage/Dashboard/>
- *Job Status Viewer*—<http://<ServerName>/Vantage/JobStatusViewer/>
- *Workflow Portal*—<http://<ServerName>/Vantage/Portal/>
- *Vantage Transcode (for arrays)*—<http://<ServerName>/Vantage/Transcode/>

Stopping Web Apps

To stop a Web application, quit the Web browser or simply go to another Web site.

Logging into or Changing Domains from Web Apps

Vantage provides many features that can be managed by your Vantage domain administrator. When you start Vantage Job Status Views or Workflow Portal, you may need to complete additional tasks before you can begin working. If additional tasks are required, Vantage will prompt you to complete those tasks, which are described in the following topics:

- [Selecting the Domain](#)
- [Logging On](#)

Selecting the Domain

A *Vantage domain* is a separate, independent Vantage system. Your company might create separate Vantage domains for different departments or geographical locations. As a Vantage user, you might need to select a domain for the following reasons:

- You are starting Vantage Job Status Views or Workflow Portal for the first time on a given computer.
- Your work requires that you connect to different Vantage domains.

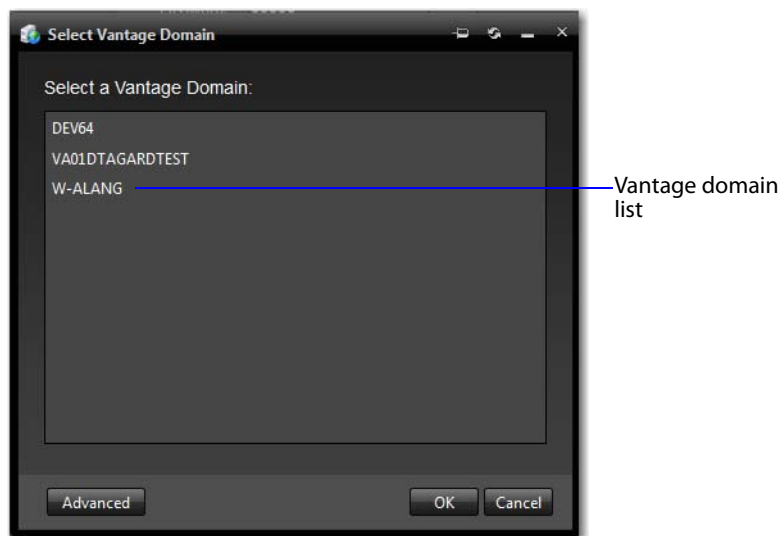
After you select a Vantage domain in a Vantage Web application, the program remembers the last domain used and connects automatically to that domain each time you restart the program. You can change the selected domain at any time.

To select a domain, do the following:

1. If the program has already started and you want to change Vantage domains, select Change Domain in the application title panel.

The program displays the Select Vantage Domain dialog.

Figure 21. Select Vantage Domain Dialog



2. To select a listed domain, select a domain in the domain list, and click OK.

When you change domains, your Web application closes its connection to the current domain and connects to the selected domain.

If your domain is not listed, or your connection attempt is unsuccessful, contact your Vantage domain administrator and refer to the following topics:

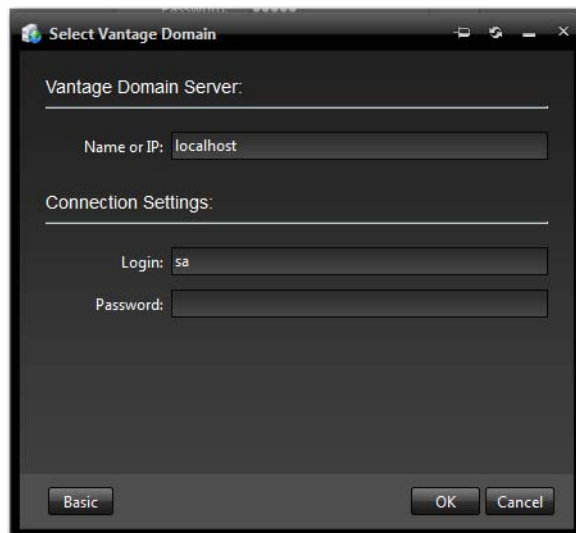
- [Connecting to an Unlisted Domain](#)
- [Connecting with Custom Login Settings](#)

Connecting to an Unlisted Domain

To connect to an unlisted domain, do the following:

1. In the Select Vantage Domain dialog (see [Figure 21](#)), click Advanced.
2. If the domain you want to connect to is not in the list, click *My Vantage Domain is not Listed* to display the Vantage domain server field.
3. In the Select Vantage Domain dialog (see [Figure 22](#)), enter the domain database server's computer name (for example, *VantageServer203*) or its IP address and click OK to connect.

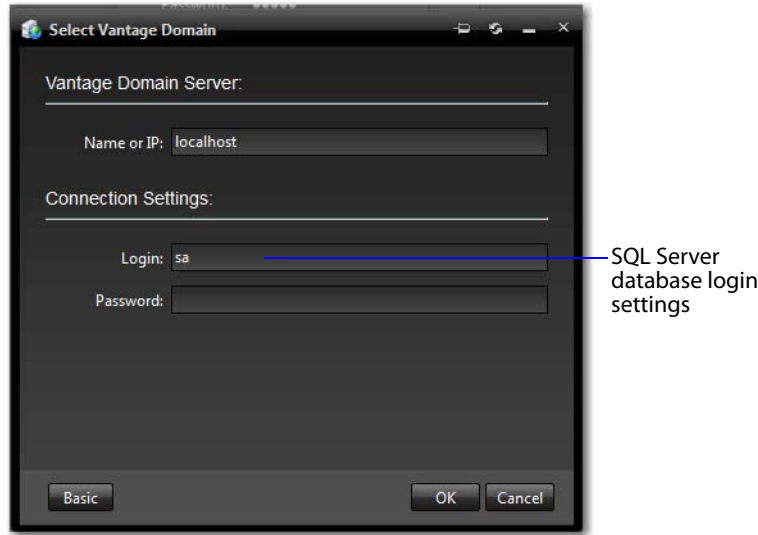
Figure 22. Select Vantage Domain Dialog



Connecting with Custom Login Settings

If the Vantage domain is installed on a SQL database where the default settings for the MS SQL server account were changed during installation, open Connection Settings to display the SQL Server login and password settings.

Figure 23. Manually Entering the Vantage Domain Server Name

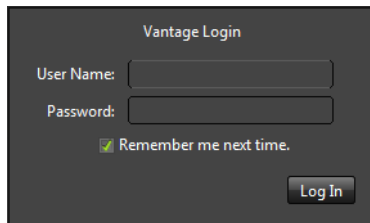


Enter the Vantage database SQL server account username and password (obtained from your Vantage administrator), and click OK to connect.

Logging On

If you are accessing a Vantage domain for which user login is required, Vantage displays the Vantage Login dialog shown in [Figure 24](#).

Figure 24. Vantage Login Dialog



Note: If you do not have a Vantage user name, contact your Vantage domain administrator.

To log in to the Vantage domain, do the following:

1. Enter your Vantage user name and password (if required) and click OK to connect.
2. If you are prompted to select a domain, select the domain name, and click OK.

The first time you connect to a Vantage domain from this computer (or after you delete browser cookies), select a domain from the list, and click OK to continue. Refer to [Logging into or Changing Domains from Web Apps](#) for more information.

3. Enter the Vantage user name and password assigned by your Vantage Administrator, then click Log In.

The default user name and password are:

- User Name: Administrator
- Password: <none> (no characters entered)

Note: All user passwords are encrypted in the [Vantage domain database](#). All users have the option of changing their password (see [Changing Passwords in Web Apps](#)).

4. Check *Remember me next time* to store the authentication token in a persistent cookie in the browser. This keeps you authenticated if you close your browser and reopen it again.

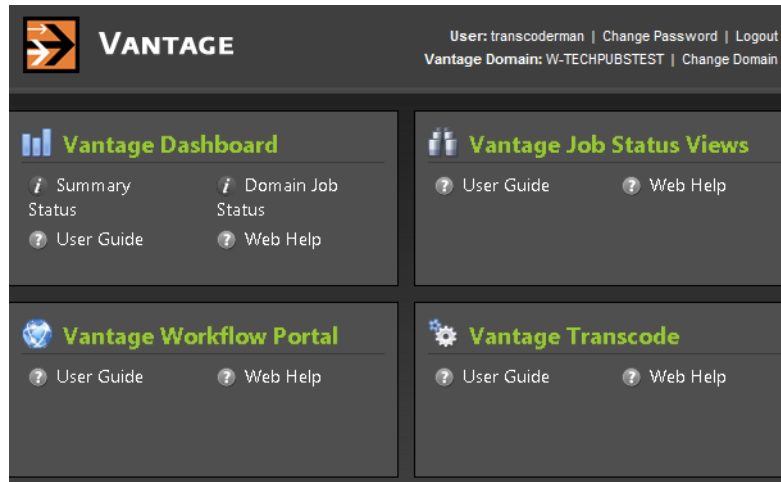
If you entered the Vantage URL, Vantage displays the Vantage Web application home page (see [Figure 25](#)), so you can select any Vantage Web application. Otherwise, your Web application displays.

Returning to the Vantage Web Apps Menu

To return to the main Web applications menu (see [Figure 25](#)) so that you can run another Vantage Web application, click on the home button in the title panel.

If the title panel is hidden, click the show/hide control.

Figure 25. Vantage Web Applications Menu—Home Page



Logging Out of a Vantage Domain

If you are viewing information that is sensitive, or viewing an operational application (vs. a view-only application), you might want to log out when you leave your computer on and unattended. You must log out when you want to change domains.

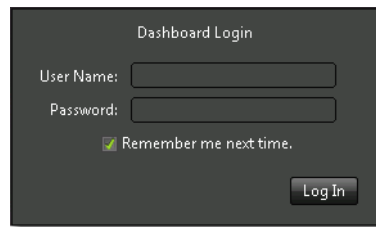
To log out of the Web application, click Logout in the title panel.

Changing Vantage Users in Web Apps

When you are logged in to a Vantage domain and User Administration is enabled, you can change to another Vantage user name. To log in with a different user name, do the following:

1. Select Log Out (upper right corner) to display the Domain Login dialog (see [Figure 26](#)—Dashboard sample).

Figure 26. Vantage Domain Web App Login Dialog



Dashboard Login

User Name:

Password:

Remember me next time.

Log In

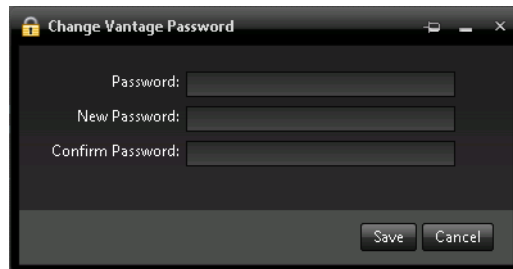
2. Enter the Vantage user name, and password if required, and click OK to log in with the new Vantage user name.

Changing Passwords in Web Apps

When you are logged in to a Vantage domain that has User Administration enabled, you can change the password of Vantage user name currently logged in. To change your password, do the following:

1. Click Change Password (upper right corner) to display the Set Password dialog.

Figure 27. Web App Set Password Dialog



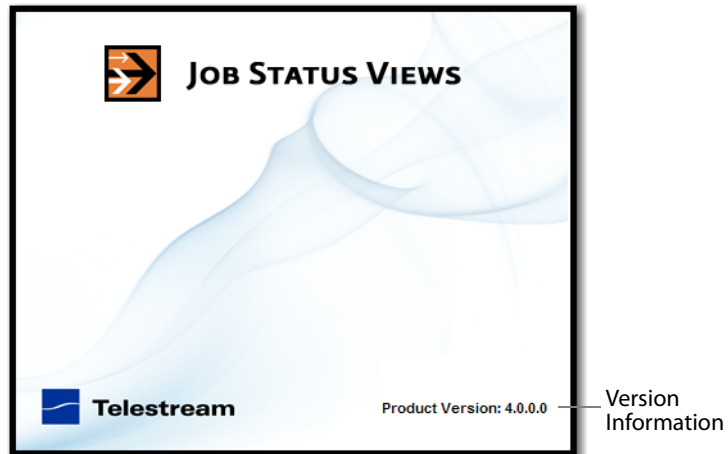
2. Enter your new Vantage password, confirm the password, and click OK to update your password.

The next time you log in to the Vantage domain, use your new password.

Displaying Version Information

To display version information in a Web application, click About in the Help menu.

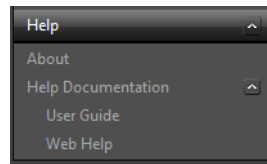
Figure 28. Job Status Views About Dialog



Accessing Vantage Documentation in Web Apps

The Help menus in the Web apps are at the bottom of the left, command column.

Figure 29. Web Applications Help Menu



These menus provide access to the following information and documents:

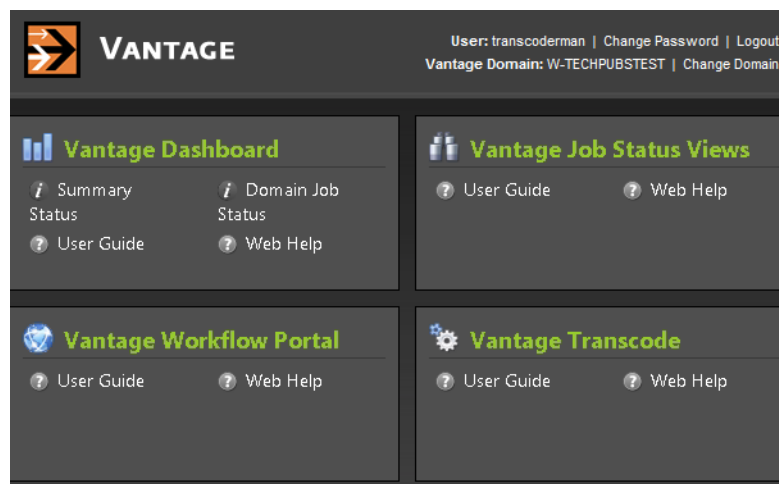
- *About*—Displays the application version number.
- *User Guide*—Displays the *Vantage User's Guide* (this guide) in PDF format. The PDF version contains bookmarks, and you can use the PDF search option to search for one or all occurrences of a term. This is also the best format for printing.
- *Web Help*—Displays the *Vantage User's Guide* (this guide) in HTML format. Web Help features include Contents, Index, Search, and Favorites pages. You can use Favorites to save links, so that you can quickly display an important topic.

To open the User's Guide PDF or the Web library, do the following:

1. Locate the Help menu in the left pane of the Web application.
2. If no entries display under Help, click the control to the right to display the list.
3. To open the PDF version of this guide, click User Guide.
4. To open the Web library, click Web Help.

You can also view help directly on the home page.

Figure 30. Vantage Web Applications Menu—Home Page



For each application, you can click on the User Guide, or click Web Help for the specific application you're interested in.

Understanding Paths for Vantage Storage

Vantage stores and locations on Windows platforms can be specified using the following path forms:

- UNC form: `\\ComputerName\Sharename`
- Drive-letter form: `C:\folder\folder`

If all your Vantage services, clients, Vantage stores and folders are on the same server, you can use either path form. However, Telestream recommends that you always use the UNC path form. It is a requirement when you are operating in a Vantage array.

The problem with the drive-letter path form is that the drive letter is defined on the local machine, and the drive letter does not identify the computer that hosts the drive.

For example, if you specify a Vantage store on drive C using the drive-letter path form and a Workflow Portal operator on a different computer tries to view files in that store, Workflow Portal will search for those files on drive C on the operator's computer, not on the Vantage server.

In another example, you create a workflow in Workflow Designer running on Computer A. It includes a Watch action, which will be executed by a Monitor Service, running on Computer B. You specify a [hot folder](#) on drive C (because you have created it on your computer). Now, when the service runs the Watch action, it attempts to locate the hot folder on the C drive of Computer B, which does not exist.

When any Vantage service or client program needs to access and use Vantage storage or a directory on a different computer, you must specify the path using the UNC form. You should also use the UNC form if you think you might ever support Vantage services or clients on another computer—a Vantage array. You can change the path form later, but it is easier to use the UNC path form now, and it can prevent troubleshooting issues in the future.

Note: When services or clients will access Vantage storage from another computer, the Vantage storage location or directory must be published as a share, and access must be granted to the appropriate Windows users. For more information, see Windows Authentication Guidelines in the *Vantage Domain Management Guide*.

When you want to use a SAN system, be aware that some SAN systems expose the shared drive as a letter (mapped) drive (for example, X:) that is visible on any client of the SAN. You can utilize SAN drives via a letter drive reference, provided that each Vantage server is a client of the SAN and that all mount points use the same letter.

Note: If you are creating a store to hold proxy files viewed in Workflow Portal, be sure to reference the store with a UNC path. Some SAN clients do not allow frame-accurate representation of proxies when using shared drives.

Vantage Workflow Designer Tours

These tours are designed to help you learn how to create and configure workflows in [Workflow Designer](#), and you'll also learn how to submit media for processing. As you gain hands-on experience creating workflows and processing media in Vantage, you'll become familiar with important Vantage concepts and develop a working knowledge of Vantage and its components. You'll also gain proficiency in using Vantage to meet your organization's media processing requirements.

Because each tour builds on the skills and knowledge you learn in the previous tours, we recommend that you take the tours in succession.

Note: In all-in-one Vantage domains, sample video files are provided for use in these tours: <Install_Drive>:/Program Files (x86)/Telestream/Vantage/Store. Files: *FlipDemo.wmv* (48 seconds), *FlipDemo_short.wmv* (15 seconds), and *FlipDemo.mss*.

Tours

- [Tour 1: Creating and Configuring Workflows](#)
- [Tour 2: Processing Media in a Workflow](#)
- [Tour 3: Using the Workflow Design Space Effectively](#)
- [Tour 4: Transcoding Files Using Settings You Want](#)
- [Tour 5: Using Nicknames to Identify Files](#)
- [Tour 6: Processing Attachments in Workflows](#)
- [Tour 7: Using Binders and Catalogs](#)
- [Tour 8: Controlling Workflow Execution with Variables](#)
- [Tour 9: Decision Making in Workflows](#)
- [Tour 10: Analyzing and Modifying Media Files](#)

Note: You can take tours 1 through 4 without installing and activating a Vantage license. For tours 5 and beyond, you'll need a trial license to execute the workflows. Also, without a license, you can only submit WMV files and transcode them. For a trial license, contact sales@telestream.net.

Tour 1: Creating and Configuring Workflows

This tour takes about 15 minutes and provides a hands-on introduction to the concept and process of creating a typical Vantage transcoding [workflow](#). In the following tour, you'll submit some media to [transcode](#), monitor your [job](#) as it executes, and then play the new media that Vantage produced using the workflow.

Vantage Workflow Designer is an intuitive, flexible, visual workflow design tool for creating and configuring workflows—the workhorses of Vantage. With visual workflow design and [job](#) status views, Workflow Designer provides a powerful, simple way to build an automatic video transcoding process from ingest to transcoding to output and distribution.

A workflow in Vantage is a series of connected [actions](#) arranged in a specific order to automate a specific media-related task: transcoding a file from one format to another, for example. In addition, metadata processing, analysis and data extraction, and other workflow functions can all be performed in the same workflow.

Vantage provides many types of actions (the smallest amount of work you can specify in Vantage) which you can use to implement a specific media processing solution. For example, a [Watch action](#) continually polls a [hot folder](#) (such as a media server directory or a local or network folder) for incoming media to process—which Vantage performs by automatically submitting a job to the workflow you've created. Likewise, a [Flip action](#) transcodes media, and a [Copy action](#) replicates a file to another location.

The task specified by each type of action (Watch, Flip, Copy, etc.) is actually executed by a [Vantage services](#)—for example, the Watch action is executed by the Vantage Monitor service.

In this tour, you'll log on to your Vantage domain using Workflow Designer, and create and configure a workflow to encode a QuickTime file.

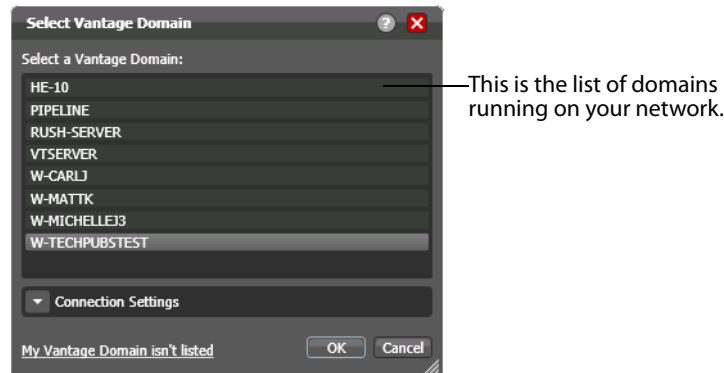
Starting Workflow Designer and Logging In

You can run Workflow Designer directly on your Vantage server, or you can install and run it on another Windows workstation on the LAN.

1. Double-click the Vantage Workflow Designer shortcut on your desktop or select start > Programs > Telestream > Vantage > Vantage Workflow Designer.
2. *First Time*—Select a [Vantage domain](#). If this is the first time you've started Workflow Designer on this computer, you select the domain. (A Vantage domain is identified by the computer that hosts the [Vantage domain database](#)—you are actually connecting Workflow Designer to the domain [database](#). For example, if your Vantage domain database is on a server named *Vantage_01*, then you select that name to connect.) After connecting the first time, Workflow Designer remembers the last domain you used, and connects automatically.



Figure 31. Using the Select Vantage Domain Panel to Connect to a Vantage Domain



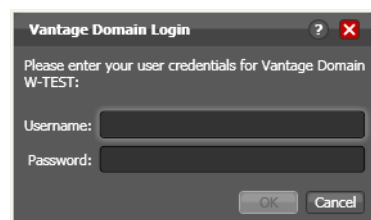
3. Select the domain you want to use, and click OK.

If you are having problems connecting to the domain, see [Connecting to an Unlisted Domain](#) or [Connecting with Custom Login Settings](#), or contact your IT department or Vantage administrator for assistance.

4. If the Vantage Domain Login dialog is displayed, enter your Vantage username and password in the login dialog to proceed.

Note: By default, user administration is enabled in Vantage. Unless you have disabled it (using the Vantage [Management Console](#)), Vantage user accounts should be established, typically by the Vantage administrator. If you need a user account, obtain it from the administrator or create one yourself in the Management Console. For assistance, run the console and select Help > Online Help. The default Vantage username is *Administrator*, with no password assigned.

Figure 32. Vantage Domain Login Dialog



The Vantage Domain Login dialog identifies the name of the domain you're logging in to. If Workflow Designer cannot locate the domain or the domain name is not correct, contact your Vantage administrator or your IT organization for assistance.

Once you're logged in, Workflow Designer displays the main window.

Creating a Workflow Category

When Vantage is installed, there are no categories or workflows stored in the [Vantage domain database](#). So, the first user that logs in first is prompted to create a new category and workflow.

Note: Even if categories are present, you should make a category for your Vantage user, so that your practice workflows do not interfere with the work of others or that they remain separate from production workflows.

If you're prompted to create a new category, click OK. Otherwise, select File > Create New Category to display the Create New Category dialog.

Figure 33. Create New Category Dialog



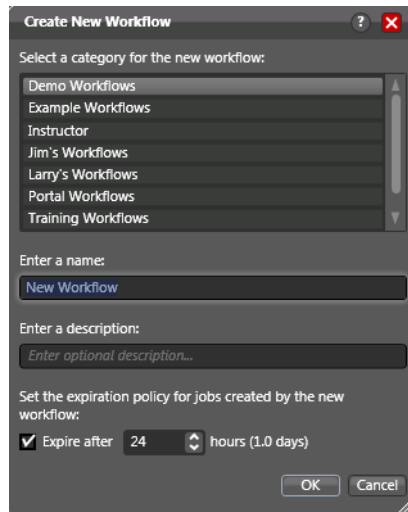
Note: Enter <Your Name> Tutorial Workflows and click OK. For these tours, the category is referenced simply as *Tutorial Workflows*. Workflow Designer displays help tips as you use it, to help you become familiar with its features. If you don't want Workflow Designer to display them, check *Don't show me this again*.

Creating a Workflow

Now, let's create your first workflow to convert files to a small-frame (proxy) QuickTime file for preview purposes.

1. If you're prompted to create a new workflow, click OK. Otherwise, select File > Create New Workflow. Workflow Designer displays the Create New Workflow dialog.

Figure 34. Create New Workflow Dialog



2. Select the category you just created, from the list at the top of the dialog.
3. Enter the name `Simple Transcode` (in your *Tutorial Workflows* category), and click OK. (There's no need to change the expiration policy settings now.)

Your new workflow is automatically added to the list in the workflows panel under the category you created earlier.

When you create a workflow, it is automatically placed in edit mode, so you can begin adding actions.

You do not need to explicitly save workflows you create or modify. The changes you make as you create (or update) a workflow are saved automatically in the database.

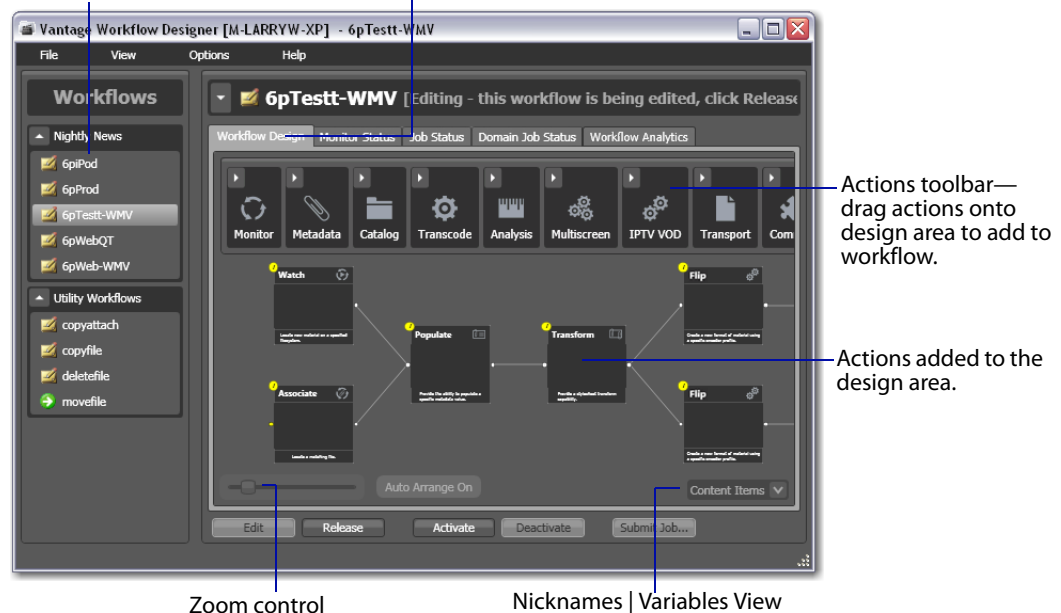
A Quick Look at the Workflow Designer Window

Now that you have a category and workflow created, you can take a minute to familiarize yourself with Workflow Designer's window.

Figure 35. Workflow Designer Window, with Typical Workflow

Workflows panel—displays your workflows by category.

Use the Workflow Design tab to construct and configure workflows.



Workflow Designer, like most applications, has a comprehensive set of menus and menu items.

On the left is the workflow panel, with its workflows organized by category. To the right are 4 tabs—the Workflow Design, Monitor Status, Job Status and Domain Job Status tabs. In this tour, you'll be working in the Workflow Design tab, where you create and configure your workflows.

Adding Actions to Your Workflow

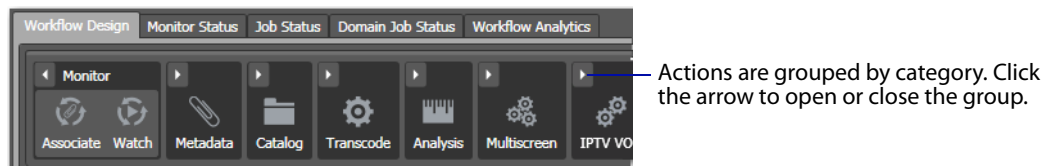
You add **actions** and connect them together to form a workflow. Every workflow starts from an **origin action** (such as a Watch action monitoring a **hot folder** for new media to process) and continues execution of all other connected actions, each of which execute in left-to-right order when a **job** is submitted by the origin action.

All of the actions in Workflow Designer are arranged in functional groups in the Actions toolbar at the top of the Workflow Design tab. The list you have may vary from the actions depicted here—some actions are licensed, and may be disabled.

Note: To re-arrange the groups in the actions toolbar, right-click in the toolbar and select Sort by Name or Sort by Behavior.

1. Open the Monitor group in the actions toolbar by clicking the arrow in the upper left corner of the group to display the actions in this group—the **Watch action** and **Associate action**.

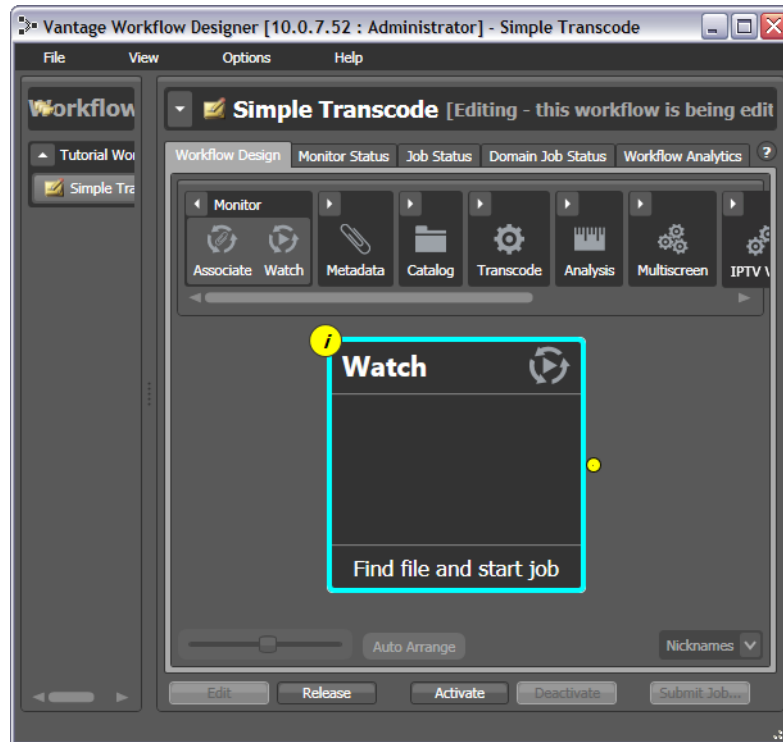
Figure 36. Action Toolbar, Showing Monitor Group Open



2. Click and drag a Watch action down onto the workflow design workspace to add your first action to the workflow. (Notice that it automatically centers itself—Workflow Designer visually optimizes workflow actions automatically.) A Watch action polls a **hot folder** (which you need to specify) for new media files placed in the folder, and starts a **job** to execute the workflow using that file.

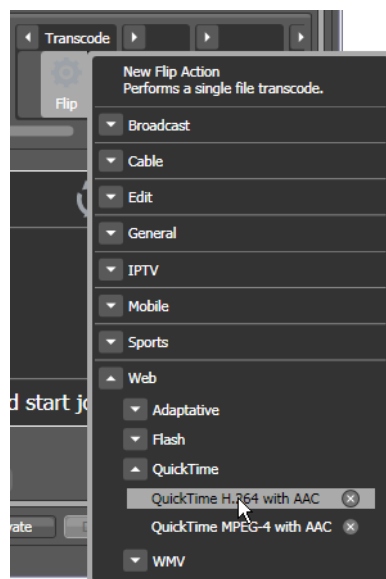
Note: You can also copy and paste actions to duplicate them—the Copy and Paste commands are in the context menu. Right-click an action and select Copy, then right-click in an empty area on the canvas and select Paste.

Figure 37. Workflow Designer Window, Showing Watch Action



3. Open the Transcode group and—rather than dragging an un-configured Flip action onto to the workflow—click the Flip action one time to display a comprehensive list of pre-set Flip actions. (You can either use an un-configured action, or select a pre-configured action, which may make configuration easier.)

Figure 38. Flip Action Templates



4. Select Web > QuickTime > QuickTime H.264 with AAC. The (pre-configured) action is added to the workflow and is arranged just to the right of the Watch action.

Connecting Your Actions Together

To create a chain of actions which execute in sequence, you connect them together. Here are ways you can connect [actions](#) together:

- Click and drag a connecting line from one connector pin to another
- Click and drag an action (either from the actions toolbar or one already in the work area) and bump it into the edge of the action you want to connect it to—until a pale blue vertical line displays. (You must drag your mouse pointer up to the edge of the action you’re connecting to).
- Copy an action, and right-click on a connector line and select Paste to add the copied action between the two actions. Or, drag an action onto a connector line until it displays as a larger line. Then, drop it to connect it between the two actions.

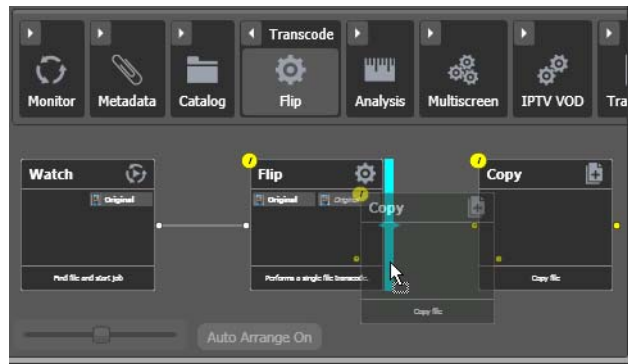
There are also two ways to disconnect actions:

- Hover over the center of the connecting line until a red X displays; click the red X to delete the line.
- Hover over the connecting line until a red X displays, then right-click and select Delete.

Try connecting your actions now:

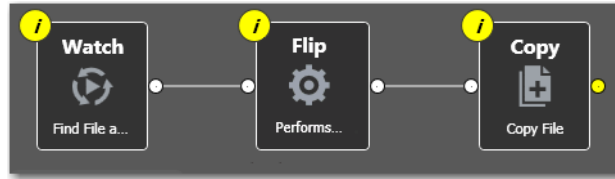
1. Click and drag a connector line from the yellow connector pin on the right side of the Watch action to the yellow connector pin on the left side of the [Flip action](#). (Connector pins display in yellow until they’re connected.)
2. Next, open the Transport action group and drag the [Copy action](#) out onto the canvas.
3. Now, click and drag the Copy action so that your mouse is directly over the right side of the Flip action (a connector bar displays in pale blue, as shown below).

Figure 39. Workflow Design Area, Showing Bumping to Connect Actions



4. When the pale blue bar displays, release the mouse—the Copy action automatically connects to the Flip action.

Figure 40. Workflow Design Area, Showing Complete Connections




5. Now, delete the Copy action, because it is not required for this workflow. Select it and press Delete—or click the X button in the upper right corner—and confirm the Delete dialog.

Note: Workflow Designer automatically saves your workflow in the database as you modify it. You do not have to save workflows manually.

Configuring the Watch Action

Each [action](#) in a workflow performs a specific task or function (copy a file, for example)—and must be configured to perform the function specifically the way you want for a given workflow.

You configure actions using the [Inspector](#). The Inspector is one or more panels with configuration options—and the Inspector for each action varies, according to requirement of the action. For example, you configure a Watch action very differently than a [Flip action](#).

Each action displays an *i* (for *Inspector*) button  in the top left corner; the color yellow indicates that it has not yet been configured (or configured correctly)—it displays blue when properly configured).

Vantage can process a broad array of media types and formats, and access all major file systems. In addition to standard file systems including Windows and FTP, Vantage intelligently works with several complex media types such as Avid reference movies, and P2 cameras, for example.

You'll configure this Watch action to poll for any type of media file placed in a specified folder on a Windows server.


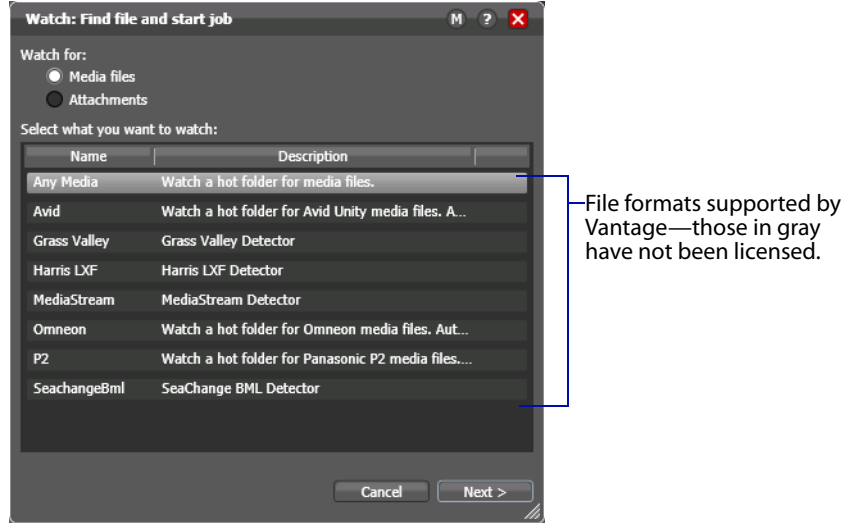
1. Click on the  button of the Watch action (or, just double-click the action) to open the [Inspector](#), and display the first panel.

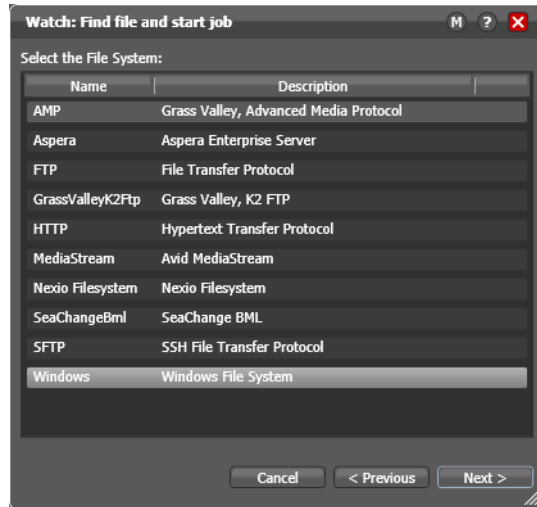
Figure 41. Watch Action—File Type Panel



2. Select *Any Media* to poll for any type of new media and click Next. (Media files is checked by default.) Workflow Designer displays the next panel in the [Inspector](#).

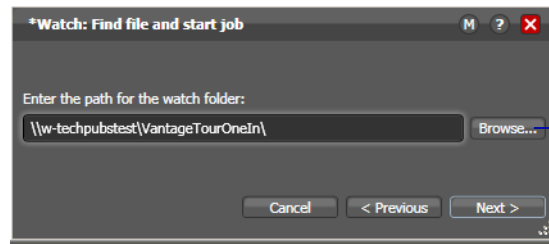
Note: Entries in these lists that are disabled have not been licensed, and thus, are not available to use.

Figure 42. Watch Action—File System Panel



3. Select *Windows* as the type of file system to monitor, and click Next to display the next panel in the [Inspector](#).

Figure 43. Watch Action—Watch Folder Panel

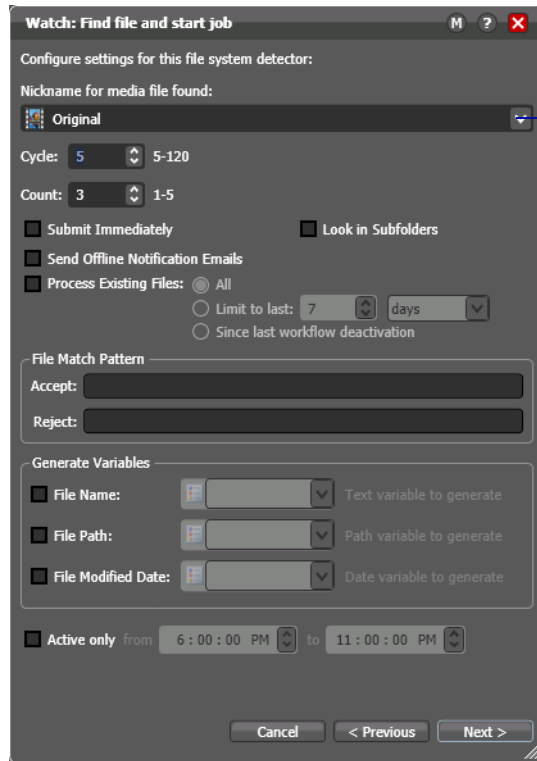


Click Browse to navigate to and select your hot folder or manually enter the path.

Note: If you're using a Vantage [array](#), where Vantage services and clients are distributed among several servers and workstations—or you access or deliver media on network servers—you must use UNC paths to identify media locations. The path must be a share with proper permissions (for example, `\\MyDomainServer\HotFolder`). Otherwise, your workflows will not function because it can't find the path. Be sure to read [Understanding Paths for Vantage Storage](#) for guidance.

4. Open Windows Explorer and create a folder directly on the Vantage domain server for this workflow and name it *VantageTourOneIn*. If you plan to reference it as a share, display Properties and enable sharing.
5. Return to Workflow Designer and click Browse to navigate and select the fully-qualified path in this field. Or, enter the share path manually. This is now the [hot folder](#) for this workflow.
6. Click Next. Workflow Designer displays the configuration panel.

Figure 44. Watch Action Inspector—Watch Configuration Panel



You must select or enter a nickname in every action that acts on or creates a file, to uniquely identify and track this file instance throughout the workflow.

7. Take a moment to review these settings. (You can place your mouse cursor over the controls to display tooltips which describe each setting.) You don't need to make any changes to this panel.
8. Select a nickname for the incoming file—in this case, *Original* is already selected, so you don't need to change it. (You'll learn more about nicknames in Tour 5.)
9. Click the **M** button at the top right of the panel to open context-sensitive help (a *man* page) with detailed information about configuring this [Inspector](#). Wherever you see the context-sensitive help button, you can click it to display details about the part of Workflow Designer you're focused on. (Click the ? to display the User's Guide—the document you're reading.)
10. Click Next and then click Finish to save this configuration of the Watch action.

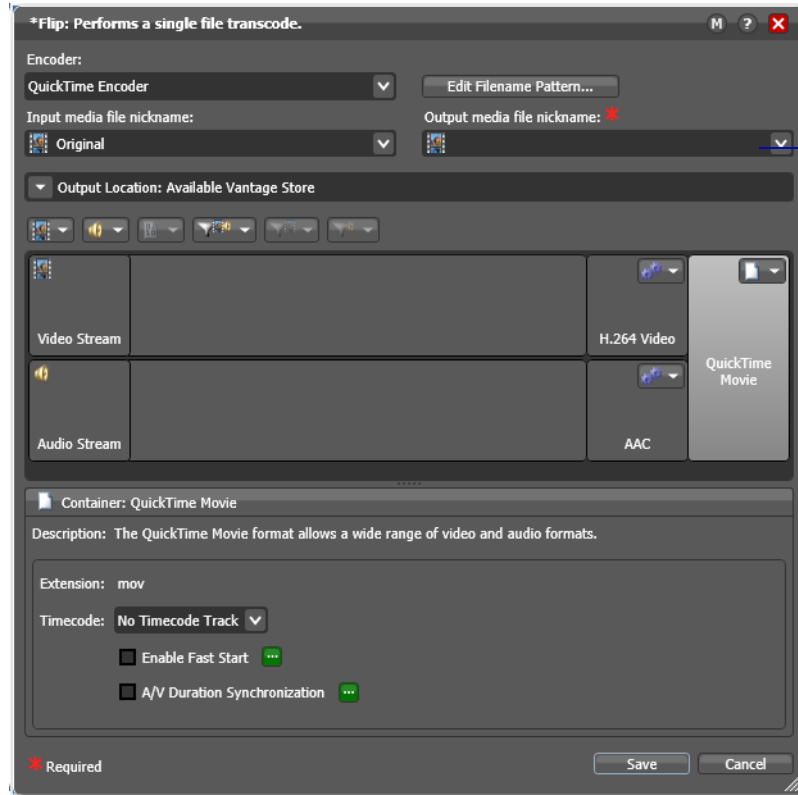
Now that you've configured the action, notice that the Inspector button is hidden to let you know that it has been configured. Move your mouse back over the action—Workflow Designer displays the Inspector button again—in blue. You can always re-open the Inspector to review or change its settings.

Configuring the Flip Action

The [Inspector](#) button on the Flip [action](#) is yellow as well—meaning, it must be configured. Why does it need to be configured, given that you selected a pre-configured action? Because the output file's nickname hasn't been specified.

1. Double-click the action to open the Flip Inspector, and note the red asterisk by the Output media file nickname field, indicating that a nickname is required.

Figure 45. Flip Action Inspector



You must select or enter a nickname in every action that acts on or creates a file, to uniquely identify and track this file through the workflow during execution of the job.

2. Click the menu to view the list of nicknames for output files. Enter *QuickTime H264 AAC* as the nickname for the file this action creates. Now, all subsequent actions in the workflow can reference the output from this Flip action, simply by referring to the nickname *QuickTime H264 AAC*.

Many (all, if you haven't added any) of the nicknames in the list are key Vantage nicknames, each of which enable certain Vantage features. When you create your own nicknames, they should be meaningful in the context of your workflow.

Note: The nickname you assign a file has no effect on the output file name (which by default, will be the same as the input filename, except for the extension). For example, if you submit *test.mpg*, this Flip action will create *test.mov*. The input file in this workflow is always referenced by the nickname *Original* and the output file is always referenced by the nickname *QuickTime H264 AAC*.

3. Take a moment to click on each of the video stream, audio stream, and H.264 and AAC codec components, as well as the QuickTime Movie container component in turn, and review the details panel for each component (the details panel displays below the building blocks). Also note the toolbar directly above the building

blocks. This is the comprehensive user interface for configuring Flip (transcoding) actions in Workflow Designer.

4. Click Save to save this configuration of the Flip action, and note that the yellow Inspector button no longer displays. Now, when you hover over the action, the Inspector button displays in gray, and when you hover over the Inspector button itself to select it, it displays in blue.

Conclusion

Congratulations! You've just learned how to create a workflow, and learned the basics of configuring actions using Workflow Designer's [Inspector](#). You've created a complete workflow which can detect new media files placed in a [hot folder](#), and convert them to QuickTime format.

In the next tour, you'll learn how to activate workflows, submit jobs, and monitor them.

Tour 2: Processing Media in a Workflow

This tour takes about 15 minutes, and shows you how to process media in your workflow—which involves activating workflow, submitting media to [transcode](#), monitoring the [job](#) as it executes, and viewing the new media it generated.

You can start a job in various ways:

- Place a media file in a [hot folder](#) to submit a job automatically
- In the Watch action [Inspector](#), check Process Existing Media. Then, select a hot folder which already has one or more media files, and activate the workflow—this causes Vantage to process all existing media in the directory, rather than ignore it.
- Click the Submit Job button (at the bottom of the window) and select the file to submit a job manually. Just follow the steps in each panel.

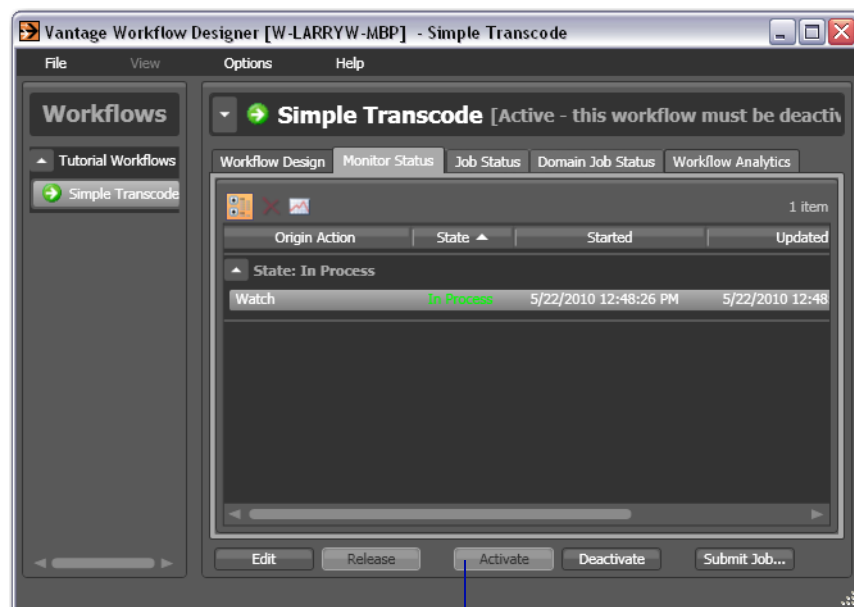
In this tour, we'll media file in a hot folder to start a job automatically.

Activating a Workflow

To activate a workflow, follow these steps:

1. If you closed Workflow Designer, open it again.
2. Select your *Simple Transcode* workflow in the Workflow Design tab on the left.
3. Click the Activate button at the bottom of the window.

Figure 46. Activating a Workflow to Process Jobs



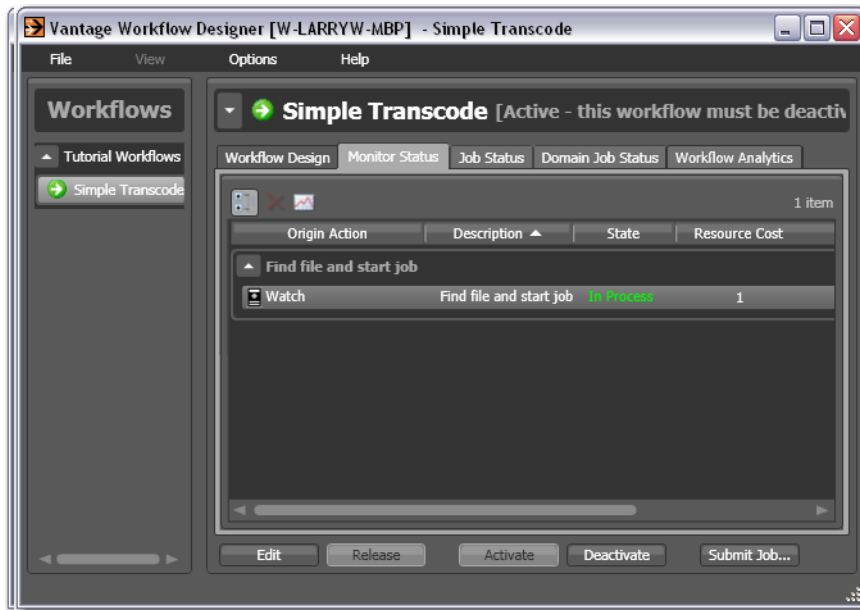
Click Activate to release the workflow from editing, save it, and activate it to start the Watch action.

Workflow Designer releases it from edit mode and the Vantage [Monitor Service](#) starts the *Watch action* in your workflow, polling the hot folder you specified, searching for new media files to process. A job is started for each new file placed in this folder.

Monitoring your Workflow Status

When you activate a workflow, Workflow Designer automatically displays the Monitor Status tab to display the status of the Watch action. (You can always select any workflow and view its monitor (or job) status, including a record of past jobs.)

Figure 47. Monitor Status Tab

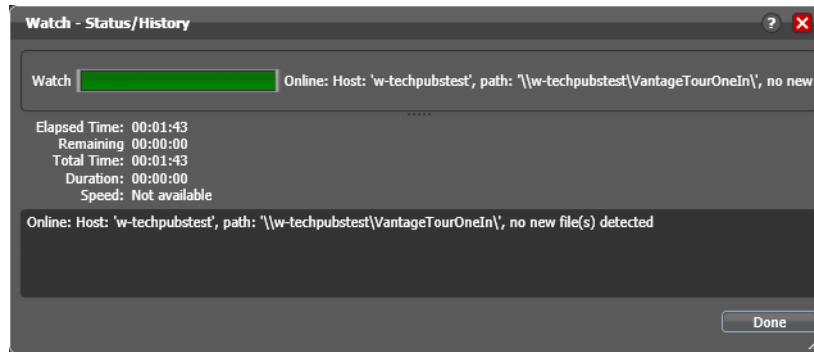


Notice that the Watch's [action state](#) is listed as *In Process*, which indicates it has started executing, and it is polling for new files. When a new file is discovered, a [job](#) is created that executes the *Simple Transcode* workflow. Actions may also be *Waiting*—the state that the transaction enters while Vantage is determining which service should process it. A transaction remains in *Waiting* state until it is accepted by a service for processing.

If you deactivate the workflow, the Watch service stops monitoring the [hot folder](#), and the record is saved in the [database](#) for history. When you re-activate the workflow, a new record is added to the list.

You can double-click the Watch action entry in the table to display more detailed information. You can confirm that it is polling the directory that you specified, and that no new files are detected—or that you've made an error in the file path that needs to be fixed, for example.

Figure 48. Monitor Status/History Dialog

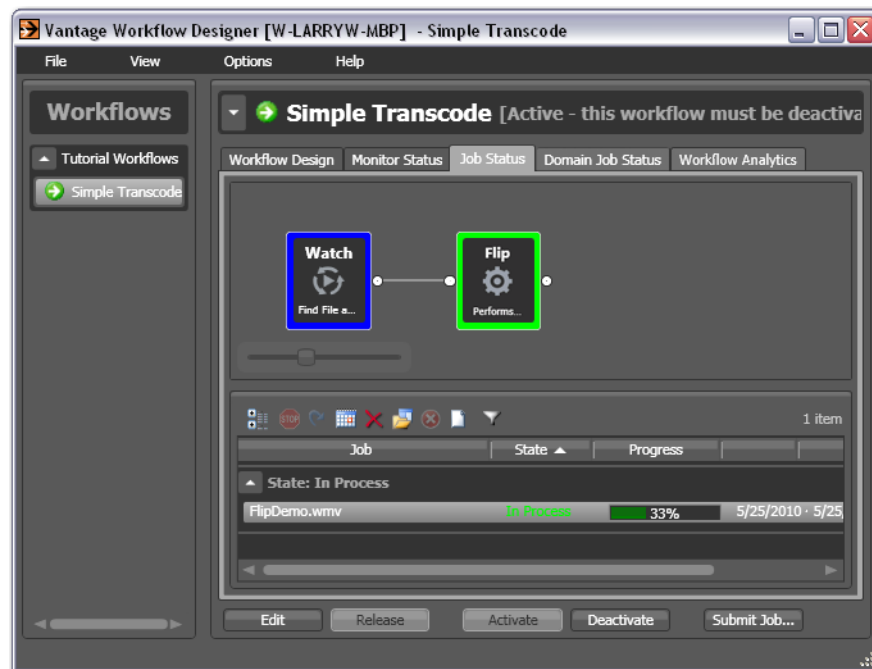


When jobs are started, each action is executed by a corresponding Vantage service, and can be optimized for execution if multiple services (for example, multiple Transcode services) are in your domain.

Now, submit a job by following these steps:

1. Drag a file to your [hot folder](#) to submit a job. We suggest that you use one of the sample WMV media files provided, which are located at `<InstallDrive>:\Program Files (x86)\Telestream\Vantage\Store\` in an [All-in-one domain](#).
2. Click the Job Status tab to display the status of running jobs.

Figure 49. Job Status Tab—Each Action Displays a Color-coded Status



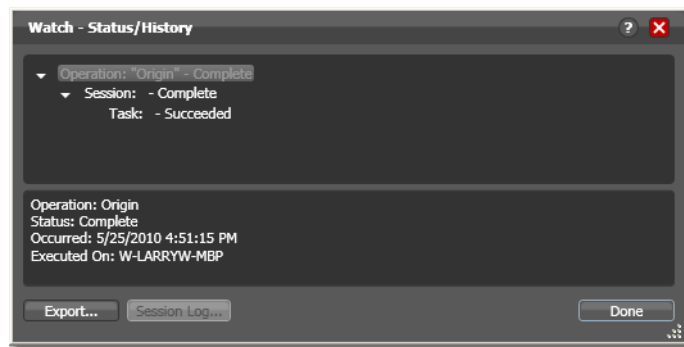
3. Click on the new job entry in the table, and observe each action change color as the entire job executes each task specified by the actions in the workflow.

Actions display specific border colors to identify each action's state. A blue border indicates the action has completed without errors, and yellow indicates the action hasn't started executing yet. For a complete list, see [Using the Jobs Table](#).

Note: Completing without errors does NOT mean that the action performed the task—an action may be configured to execute ONLY when a previous action succeeded or when a previous action failed—thus, an action may complete without errors, and perform *no task at all*.

4. Move your mouse over actions in the Monitor Status tab to display the *i* (Inspector) button in the top left corner.
5. Click the Inspector button to display runtime information about the action in the Status/History window.

Figure 50. Status/History Window Displays Action Execution Details



6. Click on each succeeding status line in the Status/History window to display details about the action. Close this window when you're done.

When all actions are outlined in blue, the job has completed successfully.

Playing Your New File

Now that the [job](#) has completed, Vantage has encoded a new QuickTime file.

Note: You did not configure the [Flip action](#) to tell it where to save new files. So, where are the new files saved? The short answer: unless otherwise specified, new files are written to a local store—a pre-defined Vantage directory created for storing files.

1. In the Job Status tab, make sure your job entry is selected in the Jobs table at the bottom.


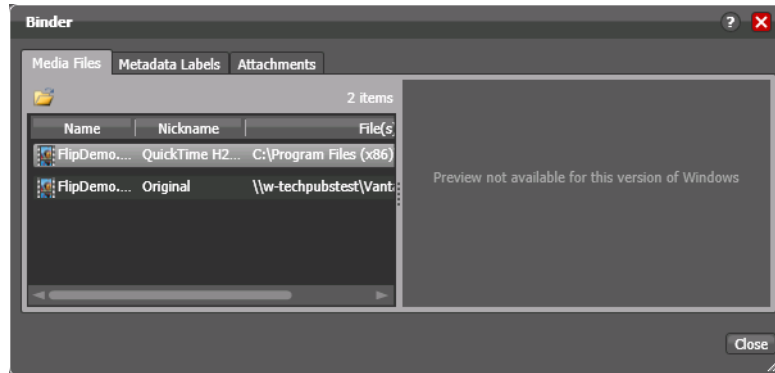
- Click on the Binders  button to display the binder for this job.
 A binder in Vantage is a virtual folder, which keeps track of the location of media files associated with a job, plus metadata labels and other attachments (files).

Figure 51. Binder Window Displays Assets—Media, Metadata, and Attachments



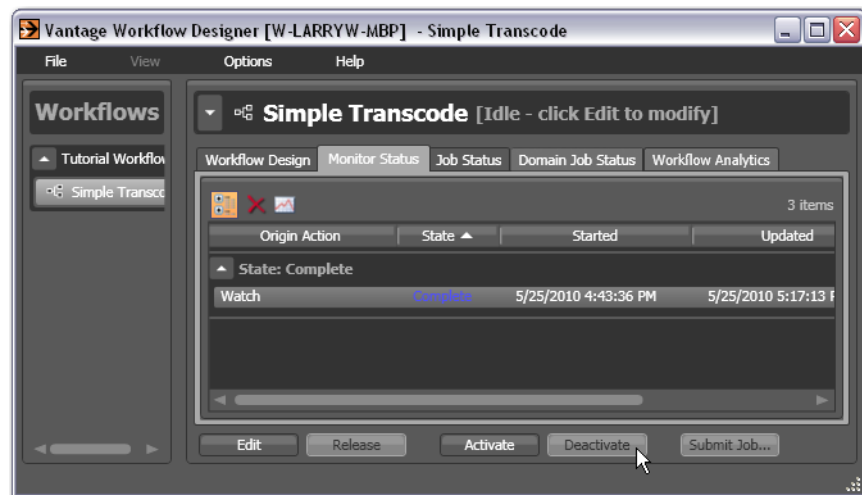
- Right-click the output file which your workflow transcoded into QuickTime to open the containing Windows folder, then double-click it to play it!

Deactivating a Workflow

In an upcoming tour, you'll use a copy of this same workflow. You should deactivate this workflow so that you can use the same hot folder in the next workflow, without the *Simple Transcode* workflow ingesting new media you add to the hot folder.

Select the *Simple Transcode* workflow in the workflows panel, and click Deactivate at the bottom of the window.

Figure 52. Workflow Designer Window, Showing Deactivate Button



If you want to edit the workflow again, select File > Edit Workflow or click Edit at the bottom of the window. When you're done editing a workflow, you should click Release so that it can be edited or executed by others in the organization.

Conclusion

Congratulations! You've just learned how to automatically submit media to a workflow, monitor its execution, and view the transcoded media file.

In the next tour, you will explore how to use Workflow Designer's design space effectively.

Tour 3: Using the Workflow Design Space Effectively

Now that you know how to create workflows and submit media, let's take a moment to learn some techniques for using the workflow design space effectively. This tour takes about 10 minutes.

Some workflows—like *Simple Transcode*—have only a few actions in them; others may have dozens of actions. Sometimes you're working on the big picture of a workflow—laying out actions and connecting them together. Other times, you're working on action details—configuring the details of a transcode task, for example.

In each case, you may want to zoom in or out, scroll around, or center the work area, to help you focus directly on the work you're performing at the moment.

Types of Workflow Actions

There are many different types of actions you can use in your workflows, each designed to help you create comprehensive, powerful media processing tools. Here's an overview of major groups and actions.

Monitor—includes Watch and Associate, for ingesting files and starting jobs for the workflow. These monitor directories on a wide variety of computers and media-centric file systems and platforms.

Metadata—includes actions ([Populate action](#) and [Transform action](#)) which allow you to automatically edit and update metadata labels, and transform labels and [attachments](#).

Catalog—includes actions ([Register action](#) and [Exist action](#)) which allow you to register media in Vantage's [catalog](#) for safekeeping and further processing and analysis by other workflows.

Transcode|Multiscreen|IPTV VOD—the [IPTV Flip action](#) allows you to encode media on a file-by-file basis, to encode media packages for playback primarily on desktop and mobile computers and phones, using Adobe HDS, Apple HLS, Microsoft HSS, and other multirate encoders, and IPTV VOD for building packages for use in set-top box and other VOD applications.

Analysis—includes actions which allow you to examine video and audio tracks for specific characteristics and metrics, and extract the results for use in building intelligent, adaptable workflows.

Transport and Deploy—includes actions which allow you to copy, move, and delete files, and deploy them to external systems.

Traffic—for processing local and regional, and national commercials to on-air or broadcast. Actions include [Catch action](#) and [Dublist action](#).

Take time to browse through all of the groups—open them up, and drag their actions onto the design space and review their [Inspectors](#) to gain a solid understanding of

Workflow Designer’s comprehensive workflow building blocks, including third-party and Web services actions.

Zooming In and Out on a Workflow

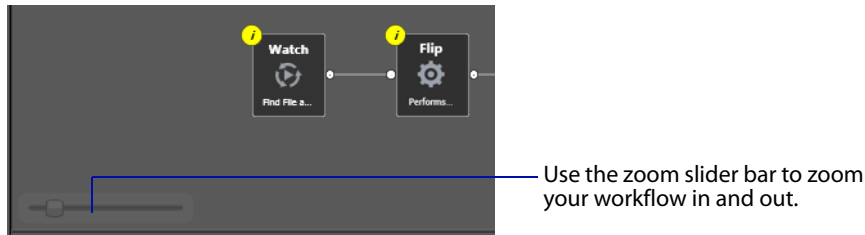
There are three ways to zoom in and out on a workflow:

- Drag the zoom slider bar at the bottom left of the workflow
- Repeatedly press Control-+/- (the plus and minus keys)
- Use the scroll wheel on your mouse while pressing the control key.

To zoom a workflow, do the following:

1. If you closed Workflow Designer, open it again, and select the Simple Transcoding workflow from your category in the workflows panel on the left.
2. With your Simple Transcode workflow selected and displayed in your Workflow Design tab, click Edit at the bottom of the window.
3. Use the zoom slider bar at the bottom left corner to zoom in and out to suit your viewing and editing needs.

Figure 53. Workflow Designer Zoom Control



Moving the Workflow Around in the Design Space

A workflow with many actions may be larger than you can view effectively in your workspace, when viewed at the zoom level you’re currently using.

To move the workflow around in the workspace, click and hold anywhere on the workflow canvas itself (do not click on an action). When the cursor changes to a compass, continue to hold down the mouse button and drag the workflow in the appropriate direction.

Centering the Workflow

To center the workflow in your workspace, right-click in the workspace and select Recenter Workflow from the context menu. Alternatively, you can press Control-R on the keyboard.

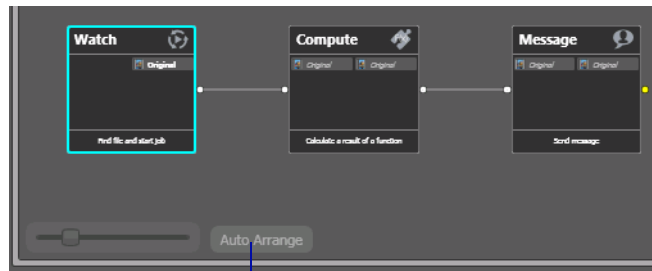
Before you continue, take a few moments to practice zooming, moving, and centering the workflow—you’ll use these features frequently, especially as you create larger and

more complex workflows. Becoming familiar with them now will make it easier to focus on the design process.

Using Auto Arrange

Use the Auto Arrange feature to assist you in visually optimizing and organizing the layout of actions in your workflow.

Figure 54. Enabling Auto Arrange



Enable or disable Auto Arrange to suit your construction style.

To disable automatic arrangement of actions while you're adjusting actions in a workflow (especially a large one—30 actions or more), click the Auto Arrange button, located at the bottom of the Workflow Design tab, to toggle it off. While Auto Arrange is off, the Auto Arrange button displays Auto Arrange SUSPENDED in yellow.

Click the button again to toggle auto arrangement back into effect.

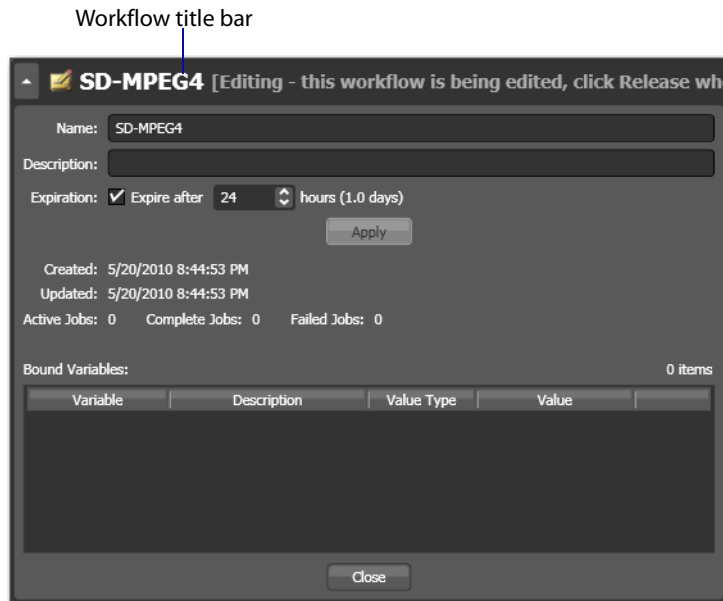
Displaying Workflow Details

To display or hide a workflow's details panel, do one of the following:

- Select File > Workflow Details Panel
- Click in the Workflow Design title bar

When you display the workflow details panel, Workflow Designer obscures the tabbed panels and displays details about the workflow.

Figure 55. Workflow Details Panel, Showing Workflow Title Bar



When the workflow details panel displays, use the following controls to manage the workflow information:

- *Name text box*—Edit the workflow name.
- *Description text box*—Edit an optional description for the workflow.
- *Expiration controls*—Modify to configure the [job](#) expiration time.
- *Apply*—Click Apply to save your configuration changes.
- *Close*—Click Close to hide the workflow details panel.

The information that displays below the Apply button is informational and cannot be changed. The Expected Variables list indicates which [variables](#) are being utilized by actions in this workflow. If an [action](#) parameter in the workflow binds to a variable, it displays here.

Conclusion

Congratulations! You’ve just learned how to use some of the features in the Workflow Design canvas. In the next tour, you will learn how to set up a workflow’s transcoding actions to use the settings that you want.

Tour 4: Transcoding Files Using Settings You Want

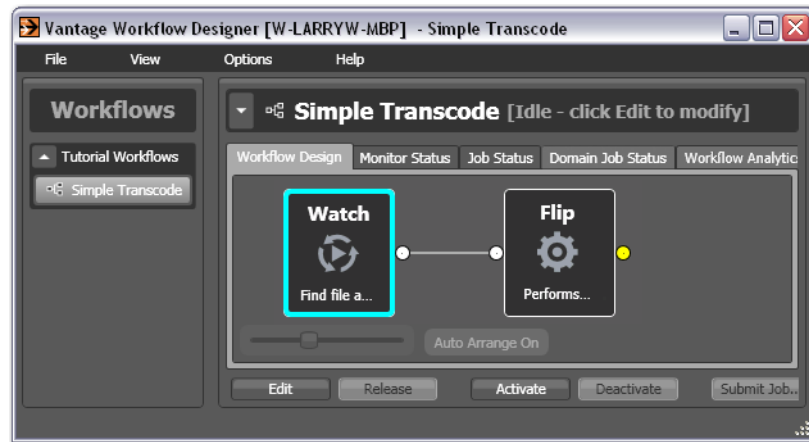
This 20 minute tour adds to your workflow design and configuration skills—it’s an in-depth look at how effectively Vantage deals with the complexities of media transcoding.

Duplicating Your Workflow

It’s often easier to duplicate a workflow and make minor modifications to it, rather than starting over with a new one. To duplicate a workflow, do the following:

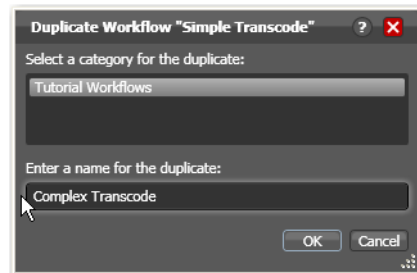
1. If you quit Workflow Designer after the last tour, start it again. In the workflows panel (left), open your Tutorial Workflows category.

Figure 56. Workflow Designer Window, Showing Workflows Panel



2. Select the *Simple Transcode* workflow.
3. Select File > Duplicate Workflow (or right-click and select Duplicate Workflow). Workflow Designer displays the Duplicate Workflow dialog.

Figure 57. Duplicate Workflow Dialog (Shown Completed)



4. Name the new workflow *Complex Transcode*. Click OK to create the new workflow and close the dialog.

Workflow Designer automatically selects the new workflow, places it in edit mode and displays it in the Workflow Design tab.

Adding a Branch to the Workflow

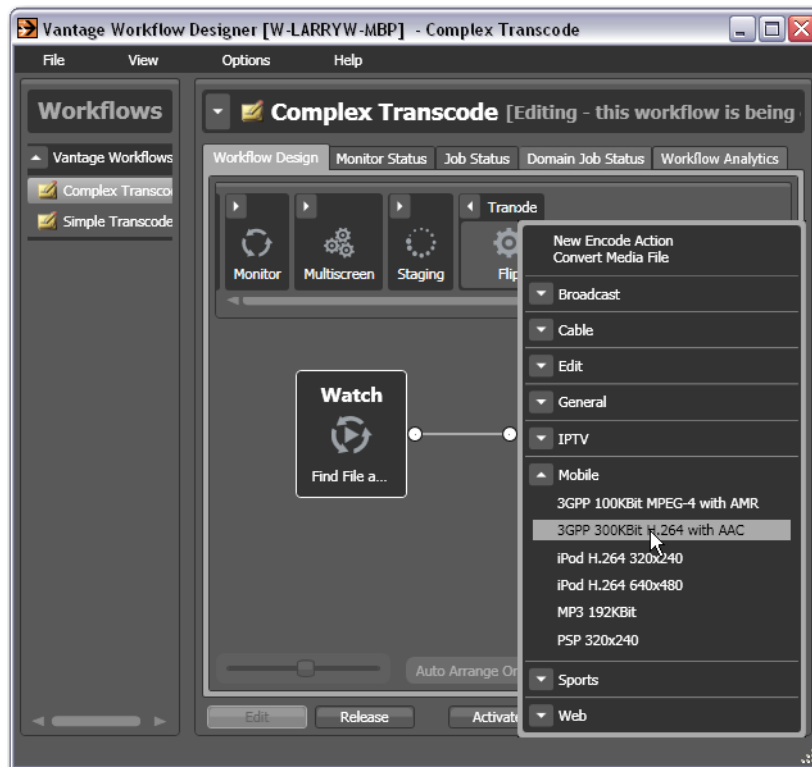
Now, let's add a second, *pre-configured* Flip action to your new workflow. Recall that Workflow Designer provides many pre-configured actions, to make it easier to build custom workflows.

Let's add the second Flip action in a manner that enables Vantage to encode two separate output files simultaneously, in a single workflow. By creating a branch, with parallel Flip actions, each Flip is executed independently of each other, as soon as the Watch action completes (making the Flip resources available). This design is more time-efficient than if one Flip action followed the other in a single flow.

Creating branches for multiple, parallel encoding is an important part of Vantage scalability and high-volume transcoding. To add a branch, do the following:

1. Open the transcode action group on the action toolbar.
2. Click on the Flip action and select Mobile > 3GPP 300KB H.264 with AAC preset from the menu to add it to the workflow (see [Figure 58](#)).

Figure 58. Selecting a Pre-configured Action to Add



3. Connect the new Flip action to the Watch action—click and drag a connector line from the out connect pin on the right side of the Watch action to the in connect pin (left side) to connect the new Flip action—creating a new branch in the workflow.
4. Open the new Flip action's [Inspector](#) and specify an output file nickname to identify the new file you're encoding—*Mobile 3GPP*.

5. Click Save to update the workflow in the [database](#) and close the Inspector.

Writing Output Files to Specific Locations

As this workflow is currently designed, newly-encoded media is saved in a local Vantage store, because you have not explicitly configured the workflow to place the media in a specific folder. In order to use the file after the workflow has completed—for example, on a broadcast server or QA server—you need to explicitly move it to a known location on your network.

Let's add a [Move action](#) to each branch, so that the workflow places the new media in a specific folder. Move actions are part of the Transport group, and are file system actions. A Move action actually copies the file to the new location, then delete the original.

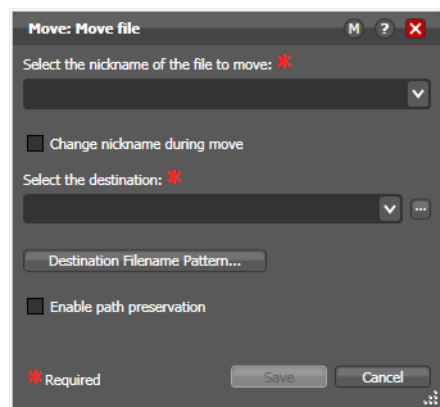
Move actions (and other file system actions) utilize a special feature called the Vantage folder address book, which enables you to create a fully-qualified path (server and directory) and name it, making it easier to specify destination paths for files.

For a detailed discussion of using UNC paths, see [Understanding Paths for Vantage Storage](#).

To move the new files:

1. Open the Transport action group on the action toolbar. Drag a Move action onto the QuickTime branch, and another onto the 3GPP branch, connecting each to the Flip action, so that each Move executes after the Flip action.
2. Open the QuickTime branch's Move action [Inspector](#).

Figure 59. Move Action Inspector (Prior to Configuration)




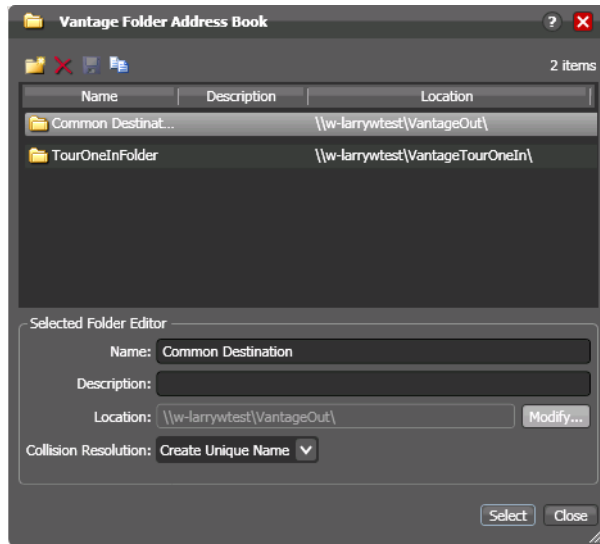
3. Select the *QuickTime H264 AAC* file by nickname, to identify the file to move.
4. Click on the browse  button to the right of the Destination field. Workflow Designer displays the Vantage Folder Address Book.

Figure 60. Vantage Folder Address Book

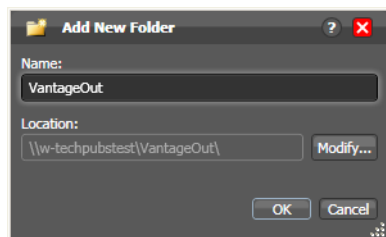


Vantage folders are similar to addresses, which you create (and name) to identify specific paths you use frequently. Vantage folders simplify directory referencing by allowing you to specify a fully-qualified path by a simple name. They also allow you to update a path or credentials centrally, and automatically update all actions using that Vantage folder.

For example, you might have a folder on a given server for HD MPEG2 content: `\\Voyager\SunupCampaign\Darwin\WaitingApproval\HDMPEG2`. You can create a Vantage folder in the address book for this path, and name it *SunupHDWaitingApproval*. If you need to change the path or any password associated with the address later, you can simply change it in the address book and all actions will automatically be updated.

5. Create a new Vantage folder—click the Add Folder button in the toolbar (the new folder button at far left):

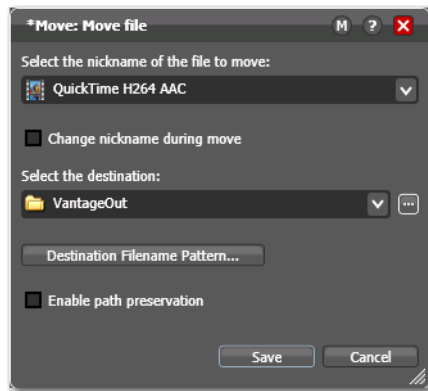
Figure 61. Add New Folder Dialog



6. Enter the folder name in the Name text box: `VantageOut`.
7. Click Modify to specify the directory that this [Vantage folder address](#) points to. Workflow Designer displays the Folder Location Editor.
8. Choose Windows File System and click Next. (Vantage folders can be defined for any supported file system.)

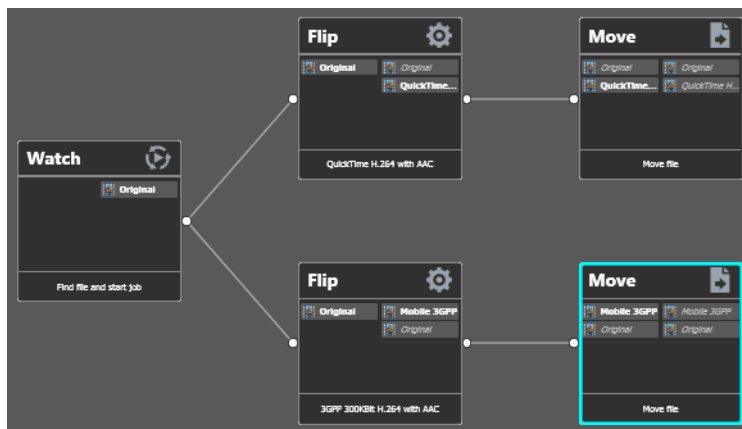
9. Click Browse to select a directory (for example, in Windows Explorer make a folder named *C:\VantageOut*) where you want the output media file copied, and click OK. (Don't use drive letters on a Vantage array or distributed clients—they won't work.)
10. Click Finish to close the Folder Location Editor dialog. (You may have to click OK on the local folder warning dialog.)
11. Click OK to add this new Vantage folder and close the Add New Folder dialog.
12. Click Select to specify this new folder as the destination for the Move action.

Figure 62. Move Action Inspector—After Configuration



13. Click Save to save this configuration and close the [Inspector](#).
14. Repeat these steps for the 3GPP Move action—select the *Mobile 3GPP* nickname for the file you're moving, and select the same destination—*VantageOut*.
 When you're done, your workflow should look like this:

Figure 63. Completed *Complex Transcode Workflow*



15. Activate this workflow.
16. Automatically submit a media file to this workflow, using one of the sample media files in *<InstallDrive>:\Program Files\Telestream\Vantage\Store*. If you don't

remember how to submit a [job](#) by dropping the file in a hot folder, refer to [Tour 2: Processing Media in a Workflow](#).

As the job executes, notice in the Job Status window the simultaneous execution of both Flip actions, resulting in two new media files.

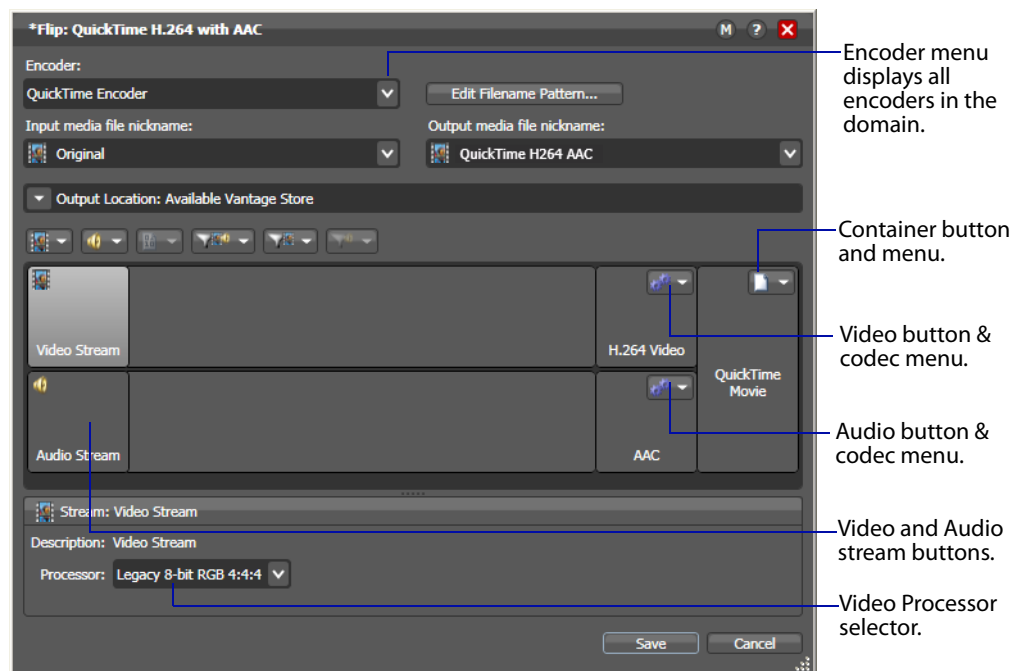
Configuring a Flip Action

Now, let's look at the original QuickTime [Flip action](#) that you added in Tour 2 in more detail, and learn how to change Flip action settings (which are among the most comprehensive of any action).

To change settings in this action, do the following:

1. Click Edit to deactivate the workflow and enter editing mode.
2. Display the [Inspector](#) of the QuickTime Flip action.

Figure 64. Flip Action Inspector Dialog



3. Click the Encoder menu to display the list of codecs you can use in the Flip action.
4. Click on the Video Stream component to display the Processor menu in the details panel below, where you select which video processor to use: Legacy 8-bit RGB, 4:4:4, Multi-core 16-bit YCbCr 4:4:4:4, or Lightspeed Accelerated 16-bit YCbCr 4:4:4:4, and others.
5. At the right of the video stream, click the Video Codec menu to display the video codecs that are available. (Click the gear icon to cycle through the selection.)
6. To the right of the audio stream, click the Audio Codec menu to display the audio codecs that are available.

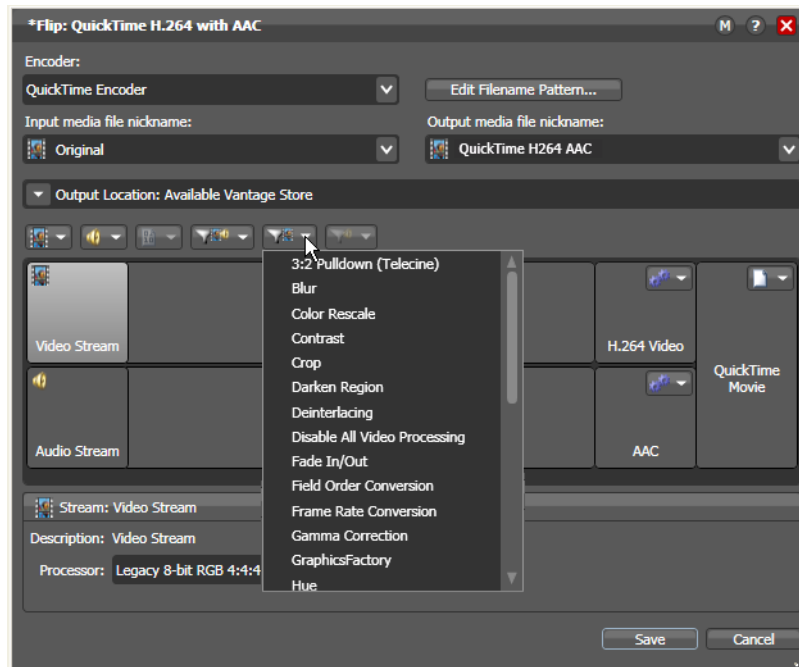
7. At the far right of the Video and Audio Stream components, click the Container menu to display the containers that are available (notice that the QuickTime encoder only provides a QuickTime container).

Note: As you click on the video codec, audio codec, and container buttons to select them, configuration details display in the configuration panel at the bottom of the window. For example, the Video Codec configuration panel enables you to set frame width, height, and bitrate for the video in the QuickTime file.

When you select a stream (by clicking the audio or video stream buttons, far left), you can also add processing filters.

8. Select the Video Stream button in the toolbar and then click on the Video Filter menu to display a list of video filters.

Figure 65. Flip Action Inspector Dialog, Showing Video Filters



9. Select the Contrast filter.
Workflow Designer adds it to the video stream, as shown below.

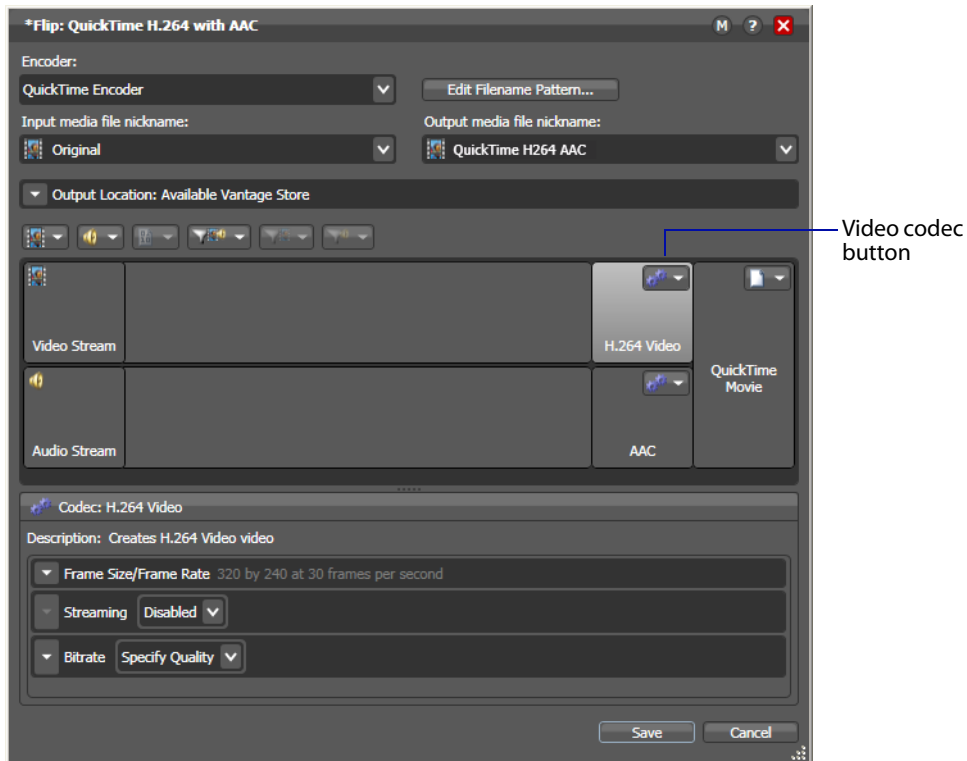
Figure 66. Video Stream Configuration, Showing Contrast Filter



These filters are applied during a transcode, and provide you a great deal of control over how the transcode functions.

10. Click on the Video Codec at the far right to display the codec settings at the bottom of the window:

Figure 67. Flip Action Inspector Dialog, Showing the Video Codec Button



11. Open Frame Size/Frame Rate and change the frame size to 640x360.
12. Finally, click the Encoder menu at the top to display the encoders that you can select. (Recall that you can configure a Flip from scratch, or you can select a template—which you did earlier when you added the 3GPP Flip action).
13. Click Cancel to close the Inspector without making any changes.

Note: By default, Flip actions name the files they create using the same root name as the original media file's name, with an appropriate extension, based on the encoder. For example, a new QuickTime movie from *FlipDemo.mss* is named *FlipDemo.mov*.

Conclusion

In this tour, you've learned how to duplicate an existing workflow, how Vantage performs multiple simultaneous encodes, and how to create and use Vantage folder addresses. You've also been introduced to the basics of configuring Flip actions to perform encoding tasks the way you want them to.

Tour 5: Using Nicknames to Identify Files

This 10 minute tour provides rounds out your knowledge of nicknames, and how you use them to easily track and process multiple files action by action in a [workflow](#).

Nickname Backgrounder

A key feature of Vantage workflows is the notion of *nicknames*. A nickname in Vantage is a convenient means of referencing a file, using only a word or logical phrase—such as *Original* or *QuickTimeH264AAC*.

In the context of a workflow, all files are referenced by a nickname which you assign as you either ingest (usually with a Watch or [Associate action](#)) or create a file (for example, with a [Flip action](#)).

Nicknames are used in every action that creates, accesses, or operates on a file—performs analysis, or performs a file operation—copying or deleting the file, for example. Nicknames provide an easy way to tell an action which logical file (for example, the media file ingested by a Watch action) it should use. Vantage automatically associates the file being processed to the nickname (tracking its location by a fully-qualified path), each time a [job](#) is run.

Vantage provides a set of default nicknames which can be used in certain types of workflows or to enable certain Vantage features. You can assign your own nicknames which are meaningful in the context of your workflow. Nicknames can be used over and over again in multiple workflows—they only have *scope*, or relevance, during the execution of the workflow, and have no context outside the workflow itself.

Note: For some complex media types—such as Omneon reference files or P2 camera files—media is actually a collection of files, all of which are necessary to make the media work. In this case, the nickname refers to the entire collection of media files; Vantage tracks all the video and audio files which comprise the media automatically.

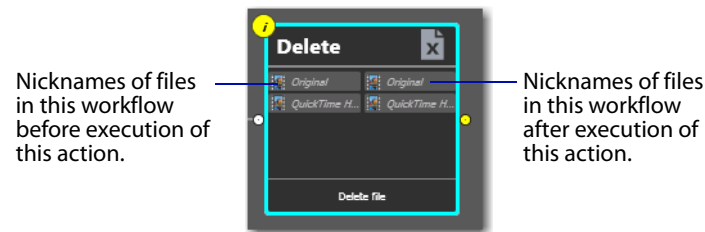
Deleting a File Using its Nickname

To reinforce the notion of using nicknames, let's make one more change to the Complex Transcode workflow. The [Delete action](#) is a file system action which you use to delete a file that is no longer needed, using the nickname of the file. Let's use it to delete the original file that was ingested by the Watch action, at the end of the workflow.

1. Select the *Complex Transcode* workflow—duplicate it as *Complex Transcode Delete*.
2. Open the transport action group, and click and drag a Delete action into the new workflow, without connecting it to any action. Notice that no nicknames display on this action.
3. Connect the Delete action to the top Move action so that it executes when the Move action is complete.

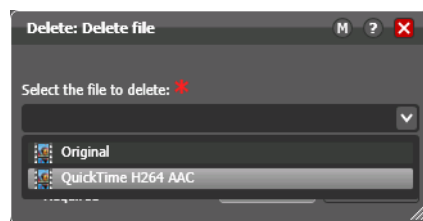
Note: Notice that the nicknames now display on this action. The list on the left are files available before execution; the list on the right are files available after execution. (After configuration, the files used in this action are highlighted.)

Figure 68. Nicknames Display Directly on an Action



4. Open the Delete action [Inspector](#) (click the yellow *i* in the top left corner).

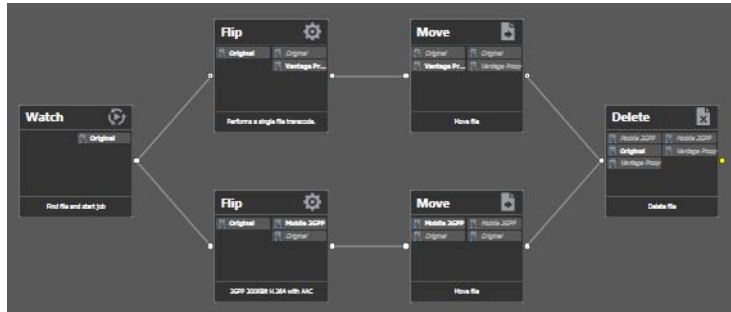
Figure 69. Delete Action Inspector Lists Files by Nickname



The [Delete action](#) accepts one parameter: The nickname of the file that you want to delete. This list displays the nicknames of all files in the workflow that it knows of at the moment, base on its connection—*Original* (from Watch) and *QuickTime H264 AAC* (from the connected Flip action).

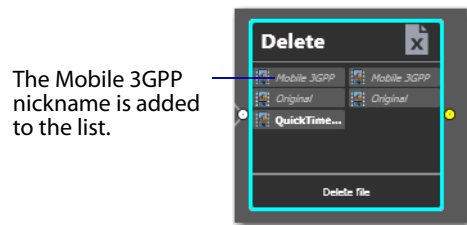
5. Select *Original* (which identifies the input file) and click Save to close the Inspector. Workflow Designer immediately highlights the other Flip action's *Original* nickname in red, indicating an error—in this case, you're attempting to delete a file while it is simultaneously being transcoded by a peer Flip action in the other branch! By using nicknames, Workflow Designer can help you discover many workflow design issues automatically.
6. Connect the Move action to the Delete action to merge the branches, (see below).

Figure 70. Merged Branches Synchronize Actions



When the workflow branches are merged, the **Flip actions** are *synchronized*. As designed, the workflow waits for all upstream workflow branches to complete before executing the first action in the merged branch. Thus, the Delete action will not execute until both Flip actions have completed. If it executed right after the top Flip action, it might delete the file (or attempt to and fail) before the 2nd Flip had completed.

Figure 71. Nicknames are Updated When you Connect to Another Branch



Also notice that the nicknames on the Delete action have been updated to include the file from the second Flip—Mobile 3GPP.

Tour 6: Processing Attachments in Workflows

This 15-minute tour shows you how you can add files other than media files to a workflow, and process them.

Note: The workflow for this tour is called *SCC Caption File Application*. This workflow, along with others, is available on the Telestream Web site at <http://www.telestream.net/telestream-support/vantage/workflow-examples.htm>. You can also find it in your Telestream installation folder at C:\Program Files (x86)\Telestream\Vantage\Samples. Locate and have this workflow available before taking this tour. The tour explains how to use it.

Overview

In addition to creating and processing media files, workflows can also process non-media files, called **attachments**. An attachment might be an XML file, an SCC caption file, or an STL subtitle file. It might even be a PDF or other type of file which does not contain video or audio media, and just needs to be stored with the media file as part of a **job** requirement.

The key concept of the tour is this: You use an **Associate action** in your workflow to watch **hot folders** for attachment files, just like you use Watch actions to watch for media files. The Associate action discovers the attachment and pairs it with the media file so they can be processed together.

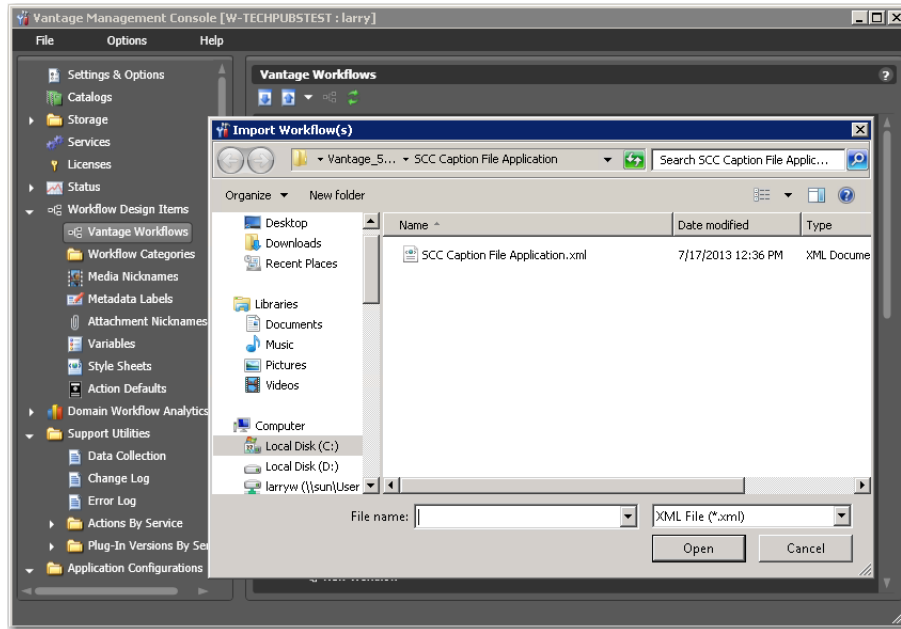
Importing the Sample Workflow



The Vantage Management Console (often referred to as the VMC or simply *console*) is the program you use to configure and administer your Vantage domain—including Vantage services, licenses, and workflow design items. You can also import many items, such as stylesheets, workflows, etc. To begin this tour, import the *SCC Caption File Application.xml* workflow file into Vantage as follows:

1. Double-click the Vantage Management Console shortcut on your desktop to launch it.
2. Display Workflow Design Items > Vantage Workflows.
3. Click the Import button, then browse and select the *SCC Caption File Application.xml* workflow file for importing.

Figure 72. Importing a Workflow using the Management Console



The imported workflow appears in the list of workflows under the category you specified when you imported it.

Note: You can also import workflows directly in Workflow Designer by using the File > Import Workflow menu. For this tour we used the VMC so you can become familiar with using it.

Understanding Attachment Workflows

Suppose you have a set of media files and associated SCC caption files that need to be matched and applied during a transcode so that captions get inserted into the video. You could set up one Watch action to wait for incoming media files, and you could set up another watch action to wait for incoming SCC files, but how would you associate them together?

The answer lies in the [Associate action](#), which is used instead of a Watch action to allow cause the [job](#) to wait for an incoming [attachment](#) file and then add the file to a [binder](#) already created by a media Watch action. The Associate action accomplishes this by matching the attachment file name to the media file name that already exists in the binder, based on a pattern you configure in the [Inspector](#). Now both files are in the binder, and they can be used in the workflow.

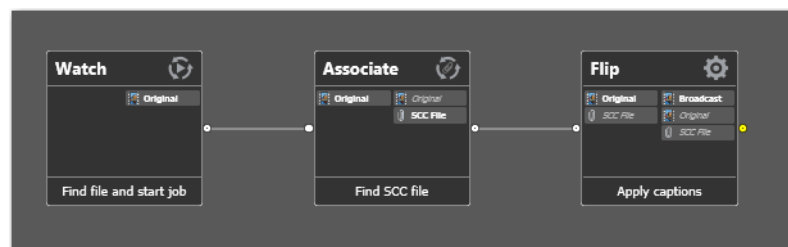
The *SCC Caption File Application* workflow works in exactly that way. It watches a folder for media, associates a caption file that it has also watched for, and then transcodes the media file while also applying the caption file to the output.

Attachment Workflow Description

Follow these steps to learn the details about how the *SCC Caption File Application* workflow operates:

1. Launch Workflow Designer.
2. Locate and click the *SCC Caption File Application* workflow in the left column. The workflow opens. If necessary, click the Workflow Design tab to see it.

Figure 73. Importing a Workflow



3. Click the *i* symbol on the [Associate action](#) to open the [Inspector](#). The Inspector opens in read only mode because you imported the workflow.

On the first panel, note that Attachments is selected. (You can select other media files, but you can not transcode them when ingested by an Associate action.)

4. Click Next two more times to view the second and third Inspector panels.

As in the Watch Inspector, these panels allow you to select the file system (Windows in this case) and specify the folder to watch for attachment files. Note that this is the same folder being watched for media files.

5. Click Next to view the fourth Inspector panel.

In this panel the incoming attachment file is assigned the nickname *SCC File*. Notice also that the File Match Pattern is set to accept only files with names matching the pattern *[NAME]*.scc*. Additionally, the Match file name is set to *Original*—the nickname of the media file ingested by the Watch action that started the [job](#). These settings ensure that only SCC caption attachment files with a root name that matches the media file name will be accepted. Finally, notice that a File Path variable (Caption File) to create a file path variable and passed downstream to specify the associated caption file location.

6. Click Next and Cancel to close the Associate Inspector.

7. If necessary, click Release at the bottom of the Workflow Design window and click Edit to allow you to modify the workflow.

8. Click the *i* symbol on the [Flip action](#) to open the Inspector.

On the open panel, note that the selected Encoder is an MPEG-2 Program Stream, the Input media file is nicknamed *Original*, and the output media file is nicknamed *Broadcast*. The specified output location is the default Vantage Store.

In the middle of the panel, the video and audio streams are shown and the Add Movie Filter is set to SCC Caption Insertion. This filter inserts the SCC captions into the transcoded video stream.

Click on each of the selections in the middle area to see the many transcoding and filtering options available, and also notice the additional parameters at the bottom of the panel that change with each selection in the middle area.

If you click on the Add Movie Filter menu, for example, you'll notice that there are many other filters you can apply to a video stream to add blanking, modify time-code, output an SCC file from 608 captions already present in the video (the reverse of what this workflow is doing), and so on.

Click on the SCC Caption Insertion filter, and click the General menu. Notice that the SCC File field is green, indicating that the SCC file name and location are bound to (originate from) the Caption File variable defined in the [Associate action](#). If you click the green button at the far right of the SCC File field, you will see how this is set up.

Running the Attachment Workflow

Now it's time to test the [attachment](#) workflow:

1. Locate or create an MPEG media file and a matching SCC caption file. Ensure that they are named identically except for the three-letter extension. Note that the files must be a properly paired media and SCC file, and they must use the same frame rate, such as 29.97; if they are mismatched, the workflow will not caption the output.
2. Create a folder on your C drive and name it *Vantageln*.
3. Drop the MPG media and SCC caption file into the C:\Vantageln folder.
4. Activate the workflow. The workflow will detect the MPG media file and start a [job](#).
5. Click on the Job Status tab and watch the job process.
6. To locate the file, select the job in the table and click on the Binder icon in the toolbar to open the [binder](#).
7. Right-click on the Broadcast file and select Open Containing Folder.

Note: You can also add another [Flip action](#) to the workflow, and configure it to encode the Broadcast file into either a WMV or QuickTime proxy so you can preview it.

8. Deactivate the workflow when you're finished.

Conclusion

In this tour, you learned about using the [Associate action](#) to match files, such as SCC caption files, with media files. Using these same principles, you can associate any file with a media file and keep them together throughout the workflow.

Tour 7: Using Binders and Catalogs

Catalogs and [binders](#) simplify workflow design, and organize all of the assets for a given version of media in a centrally-accessible manner. This tour introduces you to the concept of [catalogs](#) and binders in Vantage and how they enable you to easily track media and related assets as they are being processed, and access media for processing in operator-intervention, multi-workflow processes.

In this tour, we'll examine a typical multi-workflow system that extracts highlights from media files, for building a highlights clip for a news or sports broadcast.

Background

A *binder* is a collection of file and metadata information, created for each job that Vantage executes. Each binder contains media and [attachment](#) file references and metadata labels that were ingested or created during the [job](#). While a binder is created for every job, many binders are never used. Therefore, only media processing scenarios which require operator intervention should use the Register action in ingest workflows to identify the binders in a user-accessible catalog.

Binders are not file folders—and are not part of the Windows file system—they are records in the [database](#). Thus, binders do not contain media or attachment files; they only have the paths to these files, which are stored on a Windows file system.

You use the Register action to add binder entries to a catalog, and you use Exist to determine if a binder of a certain name has already been added to a catalog. Binders are usually named by some permutation of the name of the file that started the job. Binders that are not explicitly registered are accessible to users only in Workflow Designer, in the Job Status tabs.

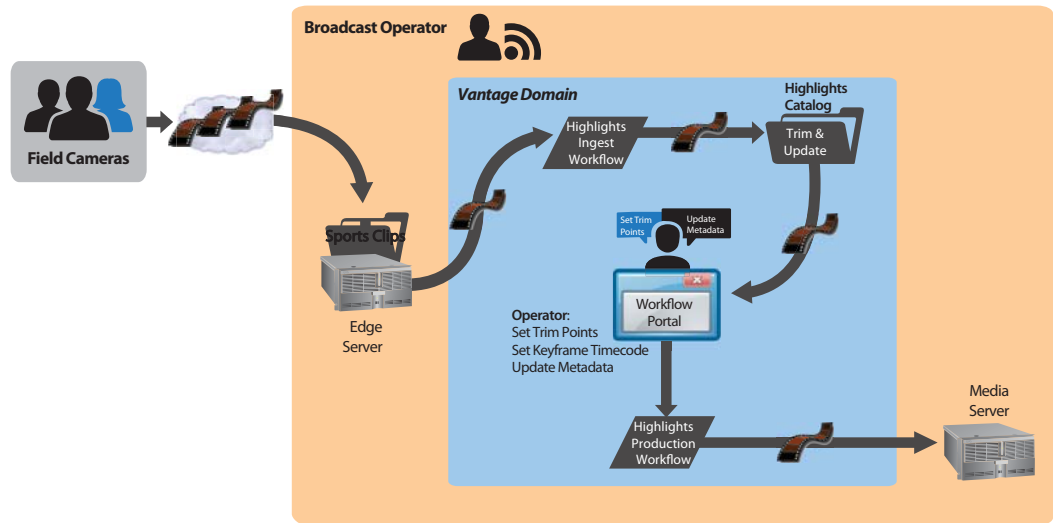
Binders that have been registered in a catalog are accessible in Workflow Portal. The binders remain in the catalog until deleted manually or by job expiration policies.

Note: For management purposes, you can also view binders in the Vantage Management Console, and manually create them there—or delete them. The console should not be used for production purposes.

The Highlights Extraction Process

For the purpose of this tour, let's examine a typical application of Vantage: highlights extraction: as newsroom personnel accumulate sports clips, they need to review it, and pass it on to operators who are responsible for extracting highlights for broadcast.

Figure 74. Highlights Extraction Process in Vantage



To implement this process in Vantage, it requires the following components:

Highlights Catalog—this [catalog](#) is intended to store binders from a highlights file ingest workflow. This catalog is created using the Management Console.

Highlight Ingest Workflow—ingests highlights files, processes the media, and registers it in the Highlights Staging catalog.

Highlights Workflow Portal Configuration—this configuration provides access to the Highlights Staging catalog, where operators will review a proxy, set in and out points, and submit the media for trimming, and save the highlight in another catalog.

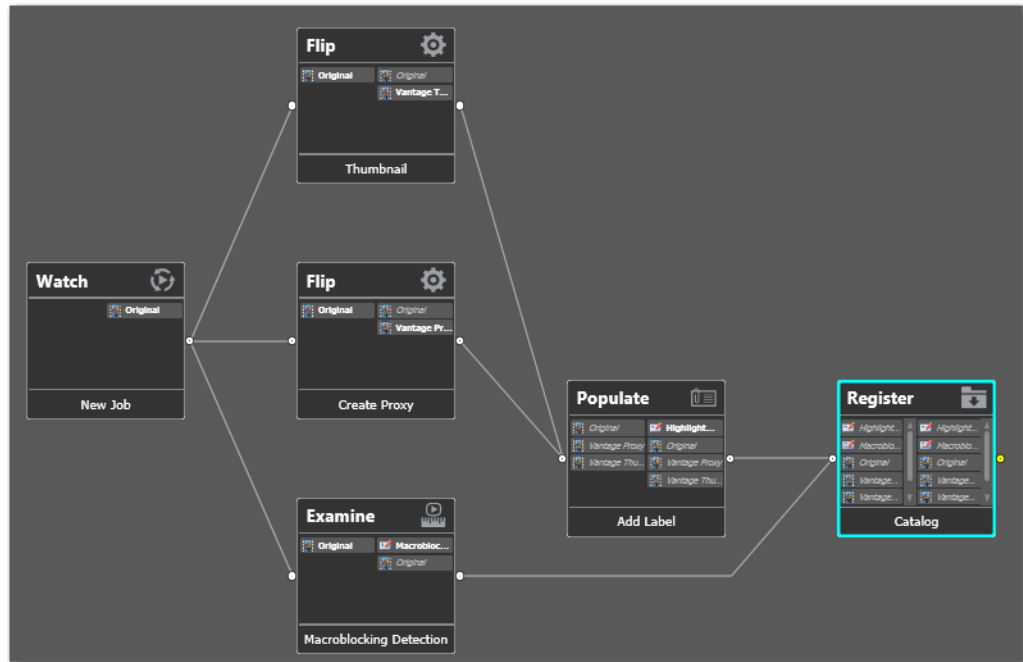
Highlights Production Workflow—encodes media in up to three formats, as dictated by the operator via a metadata field.

Note: This process does not include a workflow that stitches all of the extracted clips together. For detailed implementation information, read the [Stitching Files in Vantage app note](#), on telestream.net/telestream-support/vantage/support.

The Highlights Ingest Workflow

In this typical highlights ingest workflow, a [hot folder](#) watched for incoming clips, as usual.

Figure 75. Highlights Ingest Workflow



A thumbnail is created in the first **Flip action** (using the Keyframe encoder). In the second Flip action, a proxy is created for scrubbing and setting in and out points for trimming. This is a 720 x 480, 29.97 QuickTime movie, with the required nickname of Vantage Proxy to automatically trigger the preview in Workflow Portal.

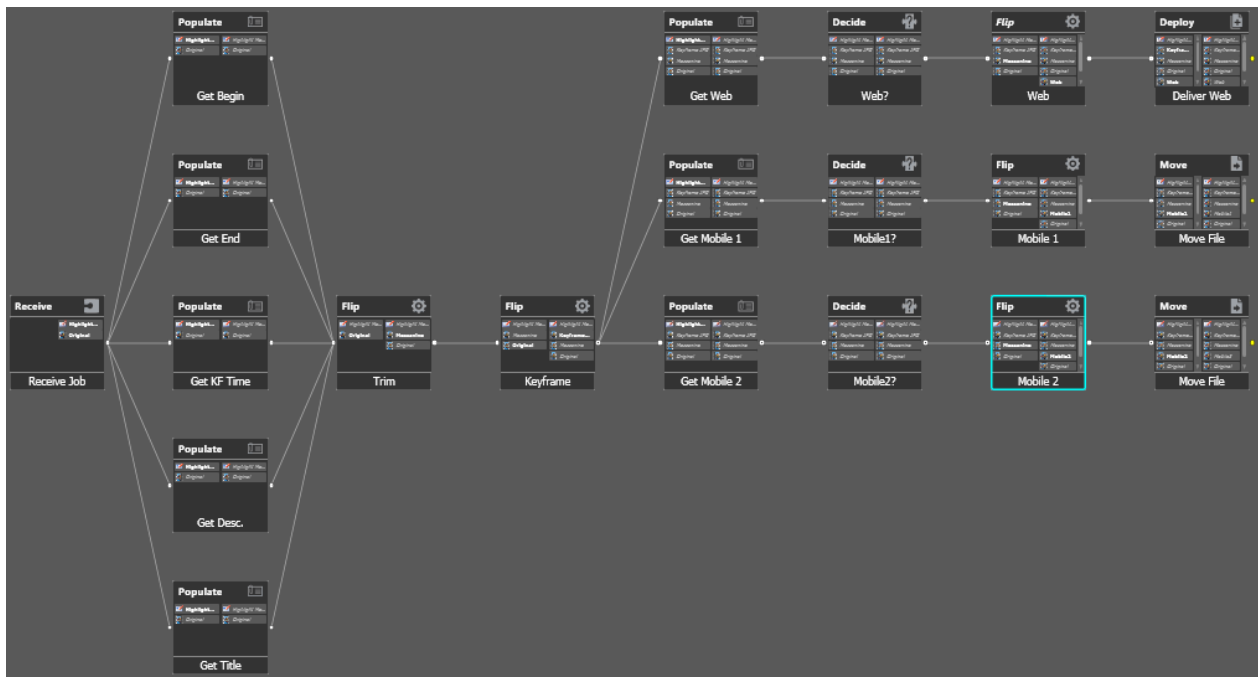
The **Examine action** performs a video quality check—for macroblocking. The Populate creates a Highlights label, with begin and end timecodes, Send to Web | Mobile 1 | Mobile 2 fields, plus a key frame field, and a title, description and keywords field.

Note: Finally, the Register action registers the **binder** in the Highlights catalog, so that the assets can be accessed by an operator using Workflow Portal.

The Highlights Production Workflow

In this example highlights production workflow, the Watch action is replaced by a Receive action, because this workflow only executes when media is submitted to it by an operator using Workflow Portal.

Figure 76. Highlights Production Workflow



In the first set of parallel Populate actions, all of the metadata label fields are converted into variables for use in the workflow.

Next, two **Flip actions** execute—the first one is the trim process. This action operates on the Original media, and uses the Media Trim movie filter and the begin and end timecode variables to trim the clip, and convert it into an H.264 QuickTime movie, as a Mezzanine file. The second Flip action makes another keyframe, based on the keyframe time, again set in Workflow Portal by the operator. In a distributed domain, these could be run in parallel (but grabbing a keyframe is not a long process.)

Next are three parallel processes: Populate > Decide > Flip > Deploy | Move.

In each, a template field is converted to a variable—Web, Mobile 1 and Mobile 2—which has been set in Workflow Portal to determine if a given type of media should be produced (either TRUE or FALSE). If TRUE (as determined by the **Decide action**), then the media is flipped and moved or deployed.

The Highlights Workflow Portal Configuration

Now that we understand the functionality of both workflows, let’s briefly review the Workflow Portal configuration required to tie the two together.

Backgrounder

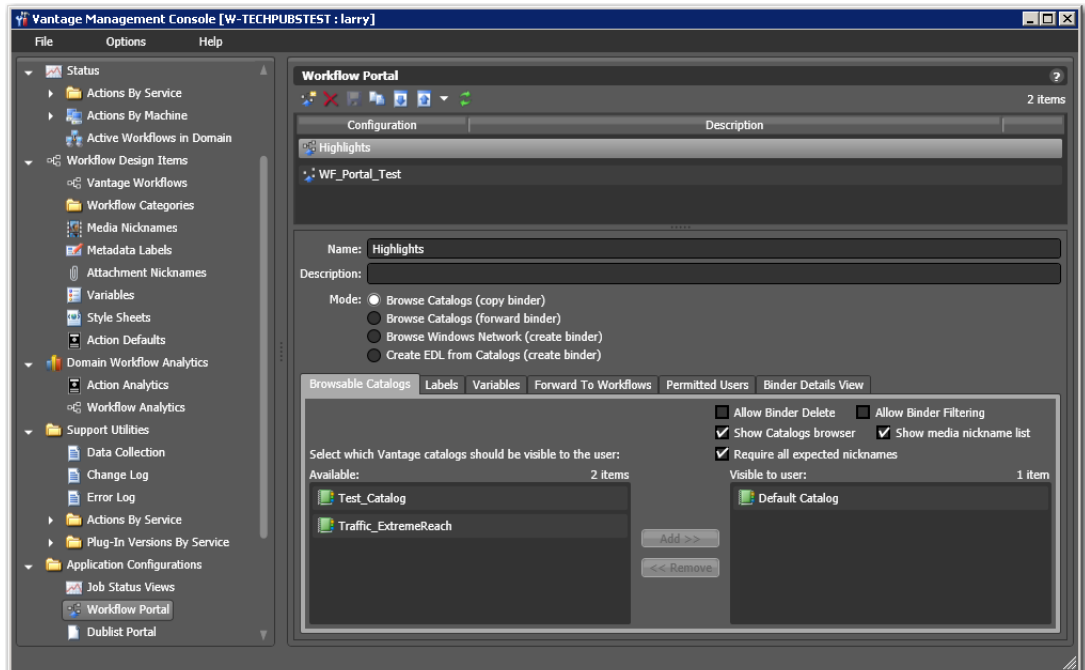
Workflow Portal is a client program that features a customizable set of functionality to support various operator-related tasks: selecting media and submitting **jobs**, updating variables and metadata, forwarding jobs, creating EDL-based jobs, etc.

Customization is implemented in the Vantage Management Console, when Vantage administrators construct the user interface and functionality they want for a given task, then save it—as a Workflow Portal configuration. When operators launch Workflow Portal, they select the configuration appropriate to the task at hand, and Workflow Portal dynamically implements the appropriate user interface from the configuration file, as well as providing access to the specified workflows, categories, and functions—all part of the configuration.

The Highlights Workflow Portal Configuration

The Highlights Workflow Portal configuration is shown below.

Figure 77. Highlights Workflow Portal Configuration



The mode is set to Browse Catalogs (Copy Binder). In this mode, when the operator browses a [catalog](#), selects a [binder](#) to work on, and submits the job, the binder he is working with is duplicated for submittal—thus leaving the original binder intact in the catalog for future use. If you need to use the copied version later, you should register the new binder in a catalog (using the Register action). If Forward Binder had been chosen, the original binder is used in its current catalog. If you no longer need the binder, you can elect to automatically or manually delete it, or just set expiration rules.

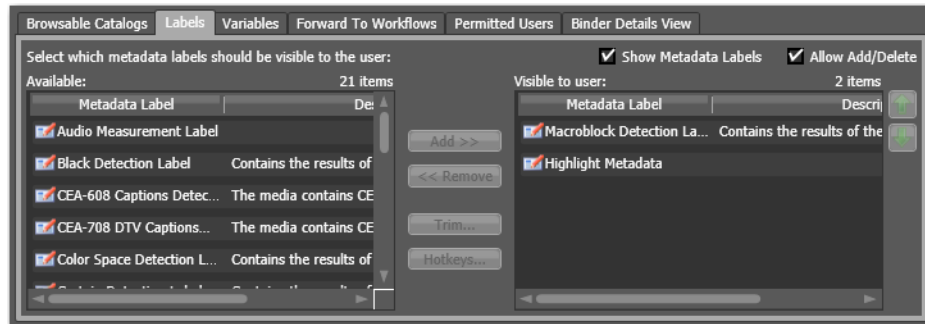
Specifying the Catalog to Use

At the bottom of the configuration panel, note that (in the Browsable Catalogs tab) the [catalog](#) selected is Default Catalog—not Highlights Catalog as mentioned earlier. The catalog you specify here must be the same as the catalog where media is being registered in the Highlights Ingest workflow to work correctly, of course.

Specifying the Labels to Use

As shown below, in the Labels tab, two labels are accessible to the operator: the Macroblock Detection label, and the Highlight Metadata label.

Figure 78. Selecting Labels



The Macroblock Detection label is set in the Ingest workflow, so that the operator can determine if video quality is high enough on this clip to proceed to production. The Highlight Metadata label contains all of the required settings: the trim points, general metadata, and whether to produce Web and Mobile clips as well.

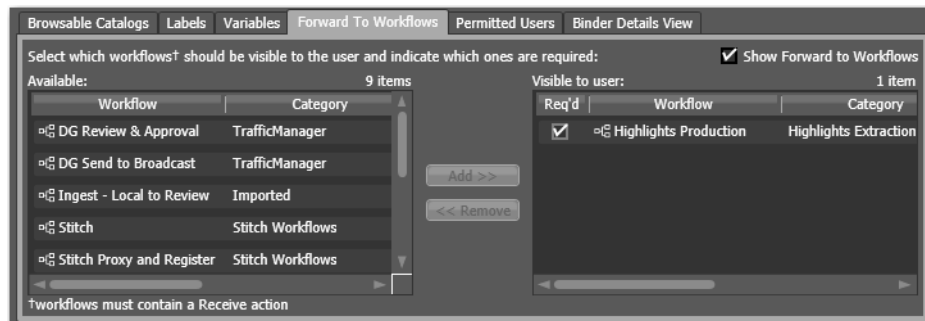
Specifying the Variables to Use

No variables are required, because the workflows were designed to store the job values in a label instead, and convert them as necessary. You could pass some variables through and have the operator work directly with them if you chose to.

Specifying the Workflow to Use

As shown below, in the Workflows tab, the operator can submit workflows to the Highlights Production workflow, and it is required.

Figure 79. Specifying Workflows the Operator Can Use

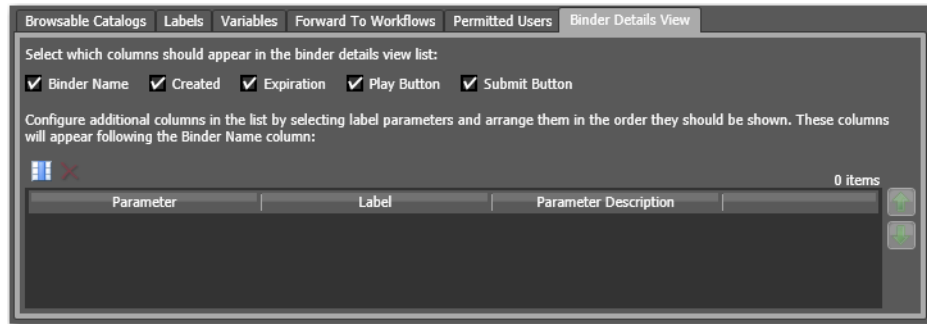


Of course, this workflow must be activated in Workflow Designer in order to receive jobs after the operator has submitted them.

Specifying the Binder Details to Use

As shown below, in the Binder Details View tab, the operator can view certain information and Workflow Portal controls.

Figure 80. Specifying Binders and Controls in Workflow Portal



All of the [binder](#) columns are displayed for the operator, plus the video Play button—so that the operator can scrub the video for in and out points and the keyframe timecode. The Submit button enables the operator to submit the media to the Highlights Production workflow after updating all of the metadata.

Conclusion

In this tour, you learned that catalogs are used to register [binders](#)—media versions and related file and metadata, for processing in operator-intervention media processing systems.

Tour 8: Controlling Workflow Execution with Variables

This 30 minute tour introduces you to one use of [variables](#) in workflows. This tour also provides you a first look at the Vantage Management Console. This tour focuses on the role that variables play in Vantage workflows: passing important [job](#) information between actions, controlling execution flow, changing action priority, and controlling job routing.

Variable Background

Before you start using variables, some background information is helpful. In Vantage, a variable is a container for temporary job information—a symbolic name (or identifier) which contains some known or unknown quantity or element of information; a value—which varies from job to job. You use a variable name to reference its current value; this separation of name from content allows the name to be used independently of the exact information it represents at the moment.

You can create and define variables in the Management Console, or you can define them directly in Workflow Designer, as you are configuring an action.

A variable can be bound to (assigned) a default value (that is, you can set a variable to a given value) during run time, and the value of the variable may also change during the course of workflow execution. You can also use the current value of a variable without changing it—for example, determining if a numeric value (in the variable *Frame Width*) is 720.

Each variable has a name (such as *Number of Audio Channels*), a type (such as *Integer Number*), and a default value (such as *50*), all of which are defined when the variable is created. You can change variable values in a variety of ways. For example, a variable value can be changed in actions that are designed to use variables, such as the Analysis, Populate, Watch and [Associate actions](#). Variable values can also be changed when adding a variable to an action in a workflow or when manually submitting a job.

Variables are passed from action to action according to the action connections. When an action create (or sets) a variable, all downstream actions that use variables can access the variable and its current value. If an action creates a variable but doesn't explicitly set its value, the variable's default value (which is set in the Management Console) is used. For example, in the Complex Transcode workflow, you could set the *Priority* variable to 100 (higher priority) in one of the [Flip actions](#); the other could use the default value of 0 (lower priority).

Finally, variables are temporary; the information only lasts as long as the job is executing—and is known only in the context of the running job.

Variables can be used in several ways:

- To dynamically control settings or change configurations in actions
- For routing tasks for execution on specialized platforms

- For decision-making to determine which branch of actions execute
- To determine the priority of a particular action.

The *File Modified Date* variable is a special variable—it's value is available to all subsequent actions. In contrast, setting a variable in an action on one branch of a workflow does not affect the value of a variable with the same name on the other—because these are actually two different copies of the variable, in different branches.

If workflow branches merge, variables with the same name collide in the first merged action. The value from the branch which completes *last* is updated last—and it's the value that is passed on. Because the branch which finishes last can not be known when you're creating the workflow, Telestream recommends that merged branches have actions which explicitly reset colliding variables, before using them again downstream. If you need both variable values past the merge, you should start with 2 different variables; one on each branch.

Starting the Vantage Management Console

The Vantage Management Console is the program you use to configure and administer your Vantage domain—including Vantage services, licenses, and workflow design items, including variables. Vantage user accounts are also created in the console.

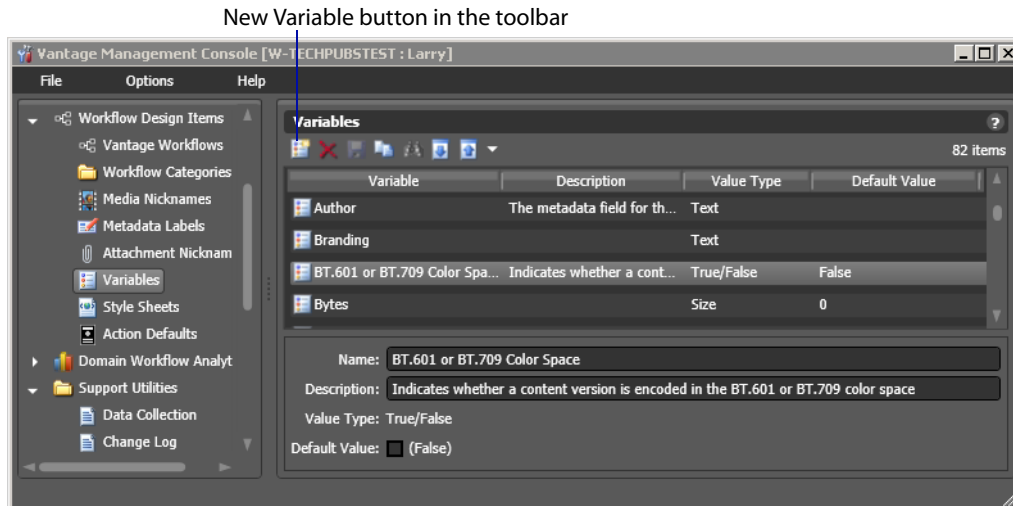


1. Double-click the Vantage Management Console shortcut to launch it.
2. If you haven't previously launched the console, you're prompted to select a domain. You'll log in using a Vantage user with administrative privileges (default: Administrator, no password), unless User Administration is disabled.

Creating Variables

1. Select Workflow Design Items > Variables to display the Variables panel.

Figure 81. Creating and Configuring Variables in the Management Console



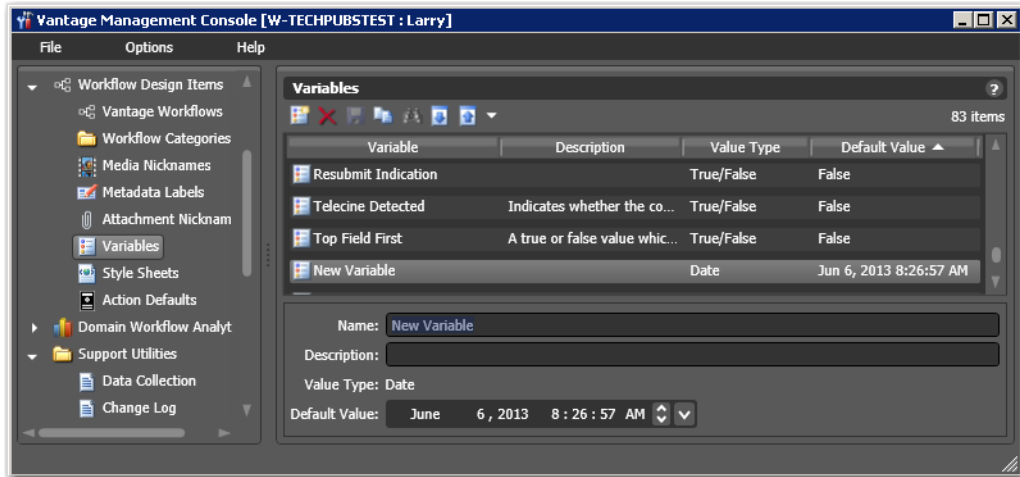
The Variables panel displays a list of variables, which includes default variables plus those created by Vantage users in this domain. You can use the default variables in workflows as-is, and you can create your own.


2. Select the *Curtained* variable to display its details (which you can configure) at the bottom of the panel. (When focus is on the table, you can use keyboard keys to go to given variable by name—for example, press R to go to the first variable in the list that starts with R.)

Rather than using a default variable, let's create a new one now.

3. Click the New Variable button in the toolbar (far left button).
4. Vantage displays the Create New Variable dialog. Select the type of variable you want to create—Date.

Figure 82. Creating a New Variable



5. In the details panel, enter the name `File Modification Date`, and leave the default value unchanged.
6. Click the Save button  to save your variable.

Note: There is nothing special about the name *File Modification Date*—you can create variables with any name that is not already in use. In this workflow, we will use this specific variable to store the modification date of the file, so we'll name it descriptively.

Using the Priority Variable

There is one special variable that cannot be changed—*Priority*. This variable has special meaning in Vantage, because it sets the priority of any actions that receive it when determining job load balancing.

However, aside from this special meaning, *Priority* acts like any other variable. Its value can be set just like other variables, and it can be used for all the same purposes.

Setting Variable Values in a Workflow

The power of variables is that their value can change dynamically during execution of a workflow. There are several ways that a value changes:

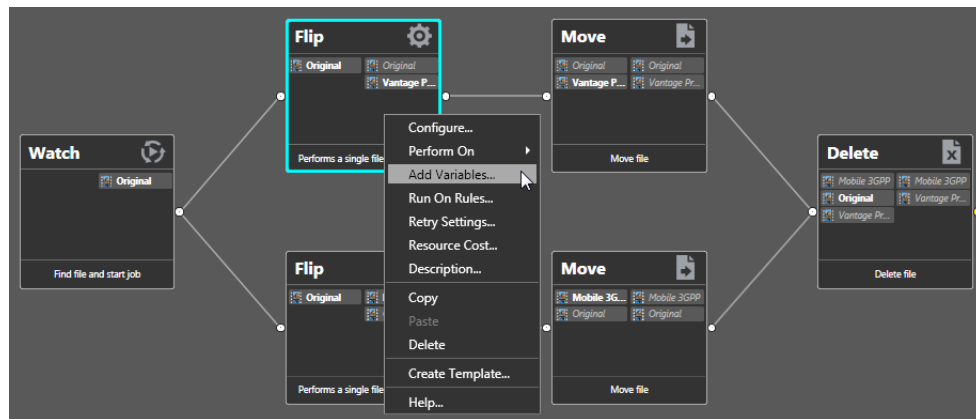
- As the result of an action executing. For example, analysis (and many other) actions can publish their results as variables—such as determining the number of pixels that compose a letterbox. Similarly, Watch and [Associate actions](#) can publish information about files that they detect, using variables.
- From external metadata. Specifically, the Populate action can set variables based upon metadata label values found in external files

- From a **Compute action**, which can create variables from other variables. For example, Compute can add two number variables to create a new variable.
- As a pre-step to an action executing; any action can set the value of any variable prior to execution.
- As a pre-step to a server executing an action; any service on any server can be configured to set a variable before executing an action.

Let's experiment with two of these. First, let's modify one **Flip action** in the Complex Transcode workflow, so that Vantage processes it with a higher priority than the other.

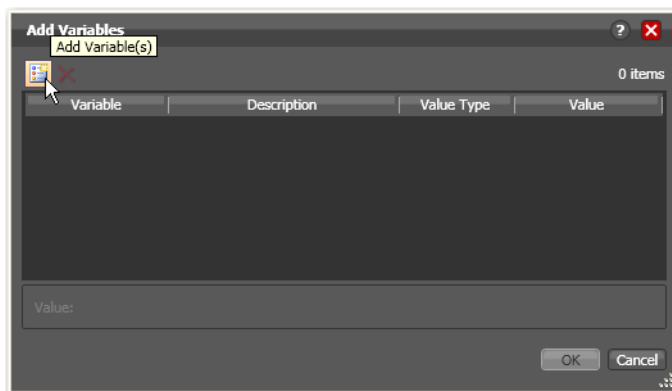
1. Open Workflow Designer, and duplicate *Complex Transcode Tour 5* as *Complex Transcode Tour 6*.

Figure 83. Adding Variables to an Action in a Workflow



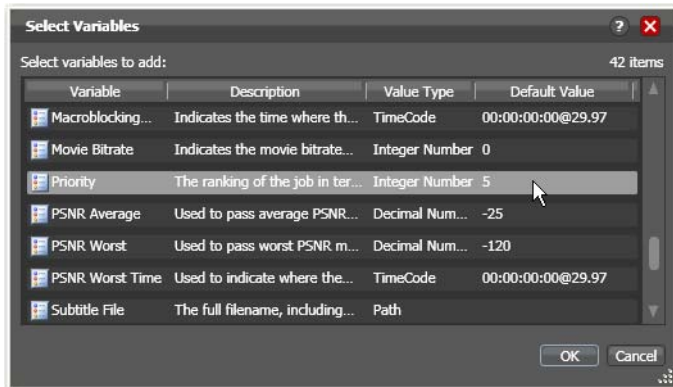
2. Right-click the QuickTime Flip action and select Add Variables from the context menu to display the Add Variables dialog.

Figure 84. Add Variables Dialog



3. Click the Add Variable(s) button in the toolbar to display the Select Variables dialog.

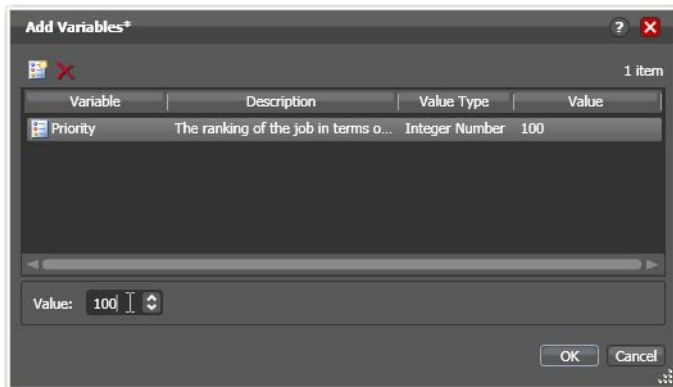
Figure 85. Selecting Variables Dialog



4. Scroll through the list (or press the first letter of the variable—in this case *P*) and select the Priority variable—click OK to add it to this action.

Now, the Priority variable is attached to the workflow and its default value is 5. You can change the value of the variable at the bottom of the panel—higher numbers indicate higher priority, lower numbers indicate lower priority.

Figure 86. Add Variable Dialog

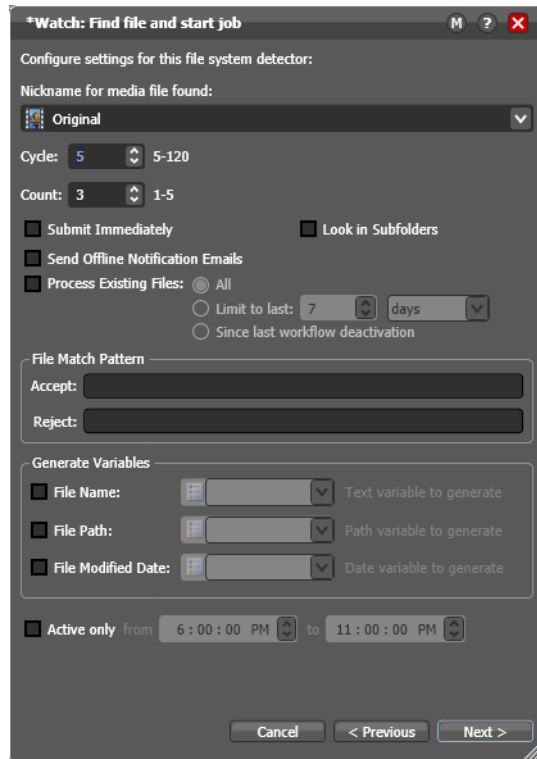


5. Enter a large number (for example, 100) and click OK to make this variable setting permanent.

Next, let's configure the Watch action to set the value of the *File Modification Date* variable that you created earlier, each time it picks up a file and submits a job.

6. Open the Watch action Inspector and click Next three times to display the Configure Settings panel.

Figure 87. Watch Action Inspector Dialog



7. Under Generate Variables, check the File Modified Date checkbox.
8. Use the menu to the right to select *File Modification Date*, the variable that you created in the Management Console earlier in the tour. Note that you could also add the new variable right here in the dialog.
9. Click Next, then click Finish.

Now, your Watch action will assign the file modified date value of each file that it submits for processing to the *File Modification Date* variable. You'll see how we can use this variable in the next tour.

Conclusion

In this tour, you learned about managing and creating variables, as well as how to set variable values in a workflow. In the next two tours, you'll learn about how to use variables for decision-making, and how to use them to pass information between actions in a workflow.

Tour 9: Decision Making in Workflows

This hands-on tour takes about 20 to 30 minutes and introduces you to the concept of *decision-making* using variables to control the logical flow of media through a workflow.

Action States

As actions execute, they are passed the [job's action state](#) from the previous action. If the action executes, they also set the action state before passing it on. Monitor actions represent an exception—as an origin action, they do not inherit an action state. Actions set one of three [action states](#): Success, Ignore, or Fail. Some actions (Decide, Examine, Compare, and Identify, for example), allow you to configure a state. However, most actions' state is set automatically—by the service that executes it.

The action state is automatically passed from one action to the next so that each action may determine whether or not to execute, based upon the incoming state. This execute-set-pass-test pattern repeats throughout the execution of the entire workflow.

Action states enable decision-making—causing actions (or entire branches of the workflow) to not execute.

To understand how to implement and utilize action states for decision-making and logic, it's important to understand their precedence, whether an action receives states from one or multiple incoming actions (a merge of multiple branches):

- If at least one incoming action state is Fail, regardless of other incoming states, the action inherits Fail and must pass it on whether the action executes or not—Fail has precedence over all action states. Most actions will not execute if they inherit Fail. If one action fails, the entire job fails.
- If there is no Fail state, but at least one Success state, then the action inherits Success—which has precedence over Ignore. Usually, actions execute when they inherit Success. After execution, the action may emit Success, Fail, or Ignore.
- If all incoming states are Ignore, the action inherits Ignore. Ignore has lowest precedence of the three states. An action may or may not execute when inheriting an Ignore, based on its state execution setting. If an action receives an Ignore state and does not explicitly fail, then it emits a Success state. Otherwise, it emits a Fail state *unless* it is an action which can emit Ignore, and you have configured it to do so.

Generally speaking, actions only execute if (1) none of their predecessors set the Fail state, and (2) at least one of the predecessors set the Success or Ignore state. Most actions allow you to set the execution state.

Similarly, if an action sets Ignore, the next action will also likely not execute. Most actions, excluding Watch and Receive (since they are origin actions), can be configured to perform on certain states—this allows workflows to send an email for example, if they detect a failure.

Note: Actions can be configured to execute upon Fail or Ignore—for example, to send an email when an action failure is detected. To configure an action's execution based on the incoming action state, right-click and select Perform On. You can also set an action to execute regardless of the state: Right-click and select Perform On > Any.

The Decide Action

The Decide action analyzes selected incoming variables and sets the action state based upon the result of its analysis. Decide effectively acts as a gatekeeper to control branching by setting a Success, Ignore, or Fail state, which is passed on to the next actions, which can be set to conditionally execute, based on the incoming action state.

Because variable values are usually determined at run-time, Decide allows you to perform the analysis, and set its state at run-time as well—and may behave differently for every job through run through the workflow. Decide is a powerful action allowing you to build complex decision-making into a workflow.

Note that if you want to have multiple branches in a workflow, and only execute specific branches for each job, then you'll need multiple decides—one acting as a gatekeeper for each branch in the workflow.

Processing New Files

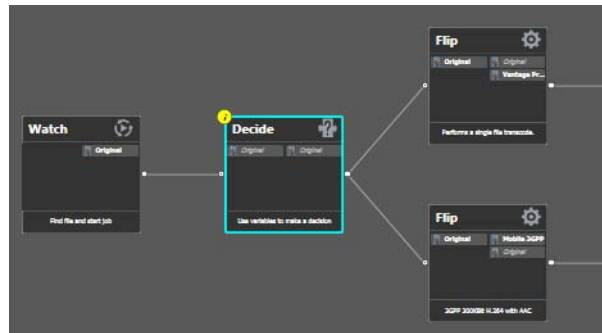
Let's look at an example (start Workflow Designer if it isn't already open).

1. Open the *Complex Transcode Tour 6* workflow and duplicate it as *Complex Transcode Tour 7*. We'll update this workflow to process only new files that are in the [hot folder](#).

Recall that the Watch action was configured to publish a variable named *File Modification Date*. We'll use this variable to process only those files created or modified after January 1st, 2010.

2. In the actions toolbar, open the Common category and drag a [Decide action](#) onto the workflow.
3. Modify the workflow so that the Decide action follows Watch, and all remaining actions follow the Decide action, as shown in the following figure.

Figure 88. Workflow Design Space, Showing Decide Action



4. To break action connections, roll over the connector between them and click the red X button. In this case, delete the connectors between the Watch and both Flip actions. Then, reconnect the actions the way you want them to execute.
5. Open the Decide action Inspector.
6. The Decide action is designed to perform evaluations upon variables, and set a state if they meet *all* the conditions that you specify.
7. In the top left, click Select Variables and add the *File Modification Date* variable.
8. Select the > (Greater) operator and set the test value to *January 1, 2010, 12:00:00 AM*.
9. Verify that the state selection is Success—meaning that if the date is later than January 1st, this action will emit a Success—and that the Otherwise state is Ignore.
10. Click Finish to close the Inspector and update the workflow.

Now—because actions by default operate only when the incoming action state is *Success*, your workflow will process files created after January 1st, but will not process files created on or before this date.

Filtering Old Files

But what if you wanted to simply delete old files?

Let's modify the workflow to delete old files. To do that, you'll create a new branch off of Watch, with a Decide action and Delete action (shown in Figure 89).

Figure 89. Delete Actions in a Workflow—Example



1. Add the Decide action, connected to the Watch on a separate branch.
2. Now, open the Decide action Inspector, and configure similarly to the previous one—add the *File Modification Date* variable, select the reverse operator \leq (Less Than or Equal), and set the date to *January 1, 2010 AM*. If this is true, Success is set; if false, Ignore is set.
3. Click Finish to close the Inspector.
4. After the Decide action, add a Delete action and configure it to delete the *Original* file. It executes by default only on Success states.

This workflow now has two branches, each controlled by a Decide action—one will process only new files, the other will process only old files. Because of the way we configured the Decide actions, each file submitted will only be processed in one branch in this workflow.

Conclusion

In this tour, you've learned how to assign values to variables, to test those values, set action states, and use the Decide action to make run-time decisions—all features designed to enable you to add control to your workflows, based on information you've gleaned from your input file.

Tour 10: Analyzing and Modifying Media Files

This hands-on tour takes about 15 minutes and introduces you to the concept of dynamic parameters in Vantage, and how they can be used to pass information between actions in a workflow.

Note: To execute workflows you create in this tour, you'll need a license—certain features (the [Examine action](#), for example) will not execute without one. For a trial license, contact sales@telestream.net.

Thus far, when we have configured our actions in a workflow, parameters have been set at a fixed value. For example, the frame size of a transcode output is 320x240. Obviously, by using fixed values the action performs the task the same way each time—creating an output file that is 320x240—every time this action executes.

How would workflow processing improve, if we could change these settings and parameters job-by-job, on the basis of the media being processed?

Vantage supports this capability to dynamically change the value of parameters and settings by binding parameters to variables. Recall that variables are metadata that is only known at run-time, and this metadata may be different for every single file. In Vantage workflows, you can configure almost any parameter, in almost any action, to use a variable (and its current value) as its input.

Automatically Detecting and Cropping Curtains

Let's build a real-world example. In this example, we know that some of our content has black on the left and right—*curtains*—that we want to crop. However, the amount of black is likely to be slightly different for every file being processed in Vantage. Instead of creating many workflows to deal with each situation—and manually measuring the black before processing, we'll build a workflow to crop the curtains automatically, as appropriate for each incoming media file, by combining an [Examine action](#) with a transcode with filters implemented.

1. Open the *Complex Transcode Tour 4* workflow again, and duplicate it as *Complex Transcode Tour 6*.
2. Open the Analysis group and add an Examine action—connect it between the Watch action and the QuickTime H.264/AAC Flip action. (You can place the action directly on the connector line and it will automatically connect to both, replacing the line.)
3. Open the Examine action Inspector.
4. Click the Analyzer menu and select Curtain Detection. Workflow Designer displays the configuration setting for this analysis tool.
5. Open Generate Variables and configure this action to publish two variables (by checking them): Suggested Crop Left (select the Curtained Left Pixels variable) and Suggested Crop Right (select Curtained Right Pixels).

Note: Vantage provides many predefined variables for use in your actions. While this is convenient, you're certainly free—and often will need to—create your own variables—they behave just like the ones Vantage provides.

6. Under Input Media File Nickname, select *Original* as the file to analyze.
7. Click Save to update the action and close the Inspector.
8. Open the [Inspector](#) of the Flip action immediately after Examine.
9. Click on the Video Stream button, then click the triangle in the Video Filter button (2nd from the right) to display the video filters you can use. Add a Crop video filter to the transcode.
10. Select the Crop filter to display its parameters at the bottom of the window.
11. On the Left value, click the green bind variable button to display a list of available variables, and select the Left parameter to bind to the *Curtained Left Pixels* variable.
12. Perform these steps to do the same for the Right parameter and the *Curtained Right Pixels* variable.
13. Click Save when you're done.

You've now created a dynamic transcode, which will automatically adjust crop settings based upon incoming curtain data from the curtain detection Examine action. Every media file that is processed will have its own, custom transcode setting appropriate for that file!

Take a moment to explore the rest of the transcode settings in this Inspector, and notice the bind buttons on many parameters. You'll find the bind button in other actions as well—for example, the Web Service notification action allows you to send variables to external Web Services, and the Email Message action allows you to include variables as part of an email.

If you have curtained material, submit a [job](#) for processing and view the results.

Conclusion

In this tour, you learned how to create dynamic parameters that use variables as their inputs. This feature enables you to create powerful, dynamic workflows that adaptively change what they do based upon the metrics of the media being processed.

Creating Workflows in Workflow Designer

Vantage Workflow Designer is the primary client program in Vantage: you use it to design and configure workflows to meet your media transcoding requirements. Workflow Designer combines a wide range of workflow design and media processing capabilities into a single program, enabling you to create workflows to solve a broad set of operational media processing problems.

Workflow Designer allows you to activate and deactivate workflows, and allows you to submit media, and monitor the [jobs](#) that are created as workflows perform transactions on media you've submitted for processing.

Use this chapter to learn how to design, construct, and configure workflows to perform specific media tasks in your organization.

Note: For basic information on starting and stopping Workflow Designer, and changing domains, user names and passwords, see relevant topics in [Vantage Client Programs](#).

Telestream recommends that you also take the [Vantage Workflow Designer Tours](#) to help you become familiar with creating and configuring a wide variety of workflows.

- [Starting Workflow Designer](#)
- [Understanding Workflows](#)
- [Using the Workflow Design Tab](#)
- [Managing Workflow Categories](#)
- [Managing Workflows](#)
- [Constructing Workflows](#)
- [Creating Action Templates](#)
- [Configuring Actions](#)
- [Managing Vantage Folders](#)
- [Troubleshooting Workflow Designer](#)

Note: Vantage Transcode (a licensed option), can also be used to create simple transcoding workflows.

Starting Workflow Designer

To start Workflow Designer, do one of the following:

- Double-click its shortcut on your desktop
- If the shortcut has been deleted, click Start > All Programs > Telestream > Vantage > Workflow Designer.

Next, select a domain and log in.

Note: For complete information on managing Windows clients, including starting and stopping the program, logging into and changing domains, changing Vantage users and passwords, and selecting configurations, go to the Vantage User's Guide > Managing Windows clients.

Understanding Workflows

These topics provide information about workflows you'll find helpful before starting the construction and configuration process.

- [Workflow Basics](#)
- [Typical Workflow Construction and Configuration Process](#)
- [Viewing and Specifying Workflow Details](#)
- [Controlling Workflow Status](#)

Workflow Basics

A *workflow* in Vantage is a set of connected **actions** (each of which performs a specific task). Vantage provides over two dozen different actions, which you use as the building blocks of workflows. Workflows can be designed and configured to perform a controlled, automated media processing application. Workflow Designer organizes its actions by category (and incidentally, by the service which executes them), for ease of use.

You construct and configure workflows in Workflow Designer using the workspace in the Workflow Design tab, by adding various types of actions (**Watch action**, **Flip action**, **Copy action**, etc.) and connecting them together to form a logical chain of successive tasks. Workflows are stored in the **Vantage domain database**, and actions in the workflow are executed by Vantage **services**.

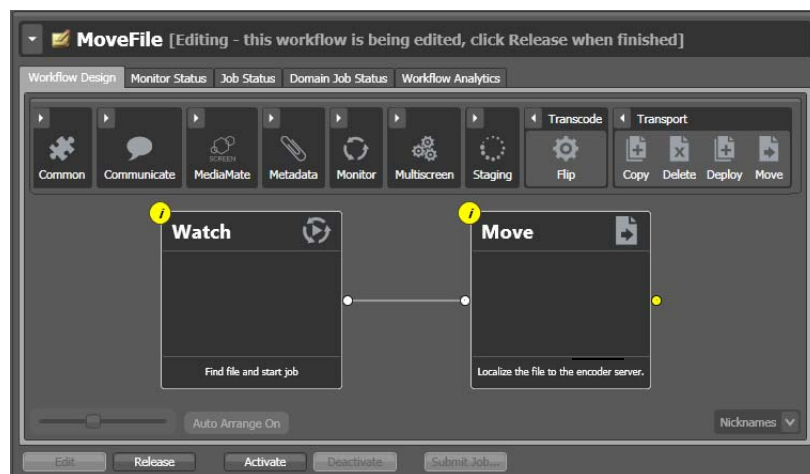
A valid workflow must start with an **origin action** (for example, a **Watch action** or **Receive action**), and consists of at least two actions, which must be connected. Actions that are not connected to another action do not execute—a single, disconnected action invalidates a workflow, which prevents it from being activated for use.

Workflows may have more than one origin action, but each origin action will function independently of the others, and is not a common design model. Each origin action must have its own workflow branch with following actions that are unique to that origin action.

Workflows are not required to end with a terminating action—an action without an output pin. The only terminating action is the **Forward action**. The Forward action permits you to pass control directly to another workflow, which must have a corresponding Receive origin action. This enables you to create simpler, general purpose workflows, and chain them together to provide more automation.

Workflows are executed by **jobs**, which are created and submitted automatically, whenever a new file is discovered by the workflow's Watch action, or when you submit a **job** manually.

Figure 90. Workflow Design Tab



Generally, you construct a workflow in stages: first, conceptualize and design the workflow and then add the actions, connecting them together to control execution. Finally, you configure each action in the workflow to perform exactly the way you want. Now, you can test your workflow, and fine tune it as necessary.

Once you have constructed and configured a workflow, you click Activate so it can be utilized. To edit it again—or just disable it—you just deactivate it. Then, click Edit, and when you're done, you click Release. When you are editing a workflow, others using Workflow Designer can view—but not edit—the workflow. These buttons are all displayed at the bottom of the main window.

Typical Workflow Construction and Configuration Process

Before constructing a workflow, it is helpful to have a solid understanding of its objective or application—what you want to accomplish with it. You'll have to determine what **actions** (tasks or steps) are necessary to implement the objective; where the media (and optionally, metadata and associated files) originate; what transcoding and metadata processing is required; where any new copies of media, metadata, and associated files should be stored or deployed, etc.

You should also know in advance what external systems these **jobs** will interact with, and whether you want to register and track the output files and related metadata in a Vantage catalog for future use.

Armed with these details, you can construct the workflow, and configure each action to correctly perform its assigned task. Of course, if you don't have all this information at the start, you can configure the workflow later.

Once you have tested a workflow, you have to click **Activate** so it can be utilized. To edit it again—or just disable it—you just deactivate it. Then, click **Edit**, and when you're done, you click **Release**. These buttons are all displayed at the bottom of the main window.

Using the Workflow Design Tab

This topic provides general information about using the Workflow Design tab.

- [Design Panel Overview](#)
- [Viewing and Specifying Workflow Details](#)
- [Displaying Nicknames or Variables on Actions](#)
- [Displaying Action Summary Information](#)
- [Showing and Hiding Grid Lines](#)
- [Moving the Workflow Around in the Design Space](#)
- [Centering a Workflow](#)
- [Zooming In and Out on a Workflow](#)
- [Automatically Arranging Workflow Actions](#)
- [Automatically Validating Workflows](#)
- [Action Toolbar Display Options](#)
- [Using Context Menus in the Workflows Pane](#)
- [Controlling Workflow Status](#)

Design Panel Overview

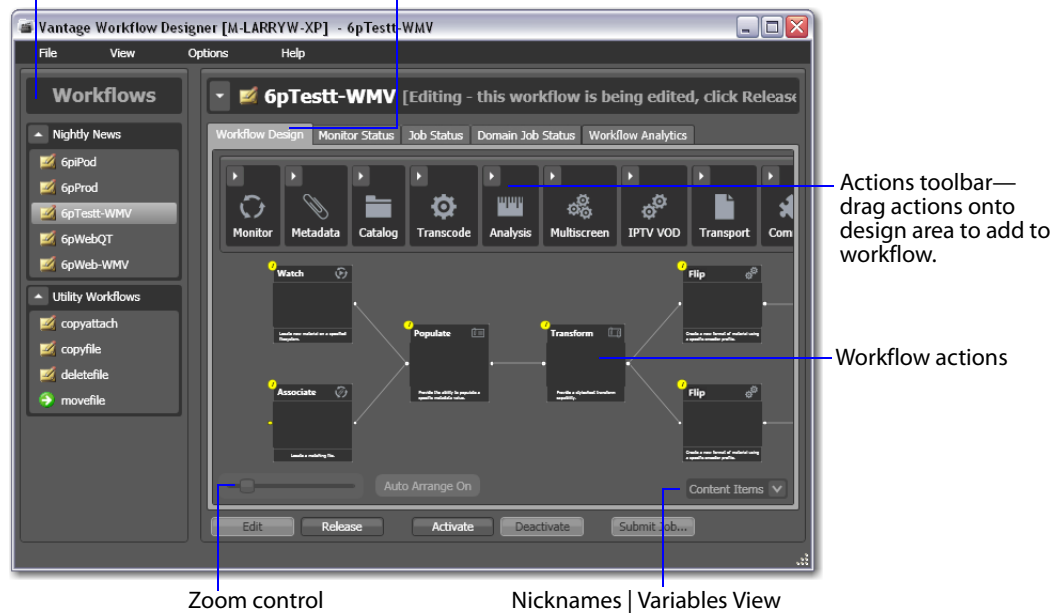
You use the Workflow Design tab (click the tab or select File > Workflow Design) to view, construct, and configure workflows, and activate workflows for job processing.

The figure below illustrates the layout and main components of this panel (the Workflows panel (left) is not part of the panel, but is shown here for clarity).

Figure 91. Workflow Designer Window

Workflows panel—displays all workflows in the database.

Use the Workflow Design tab to construct and configure workflows.



At the top of the Workflow Design tab is the actions toolbar, categorized in groups by action type. To sort them, right-click in the toolbar and select Sort by Name or Sort by Behavior.

Click the arrow to open each action group and display the set of actions in this group.

Viewing and Specifying Workflow Details

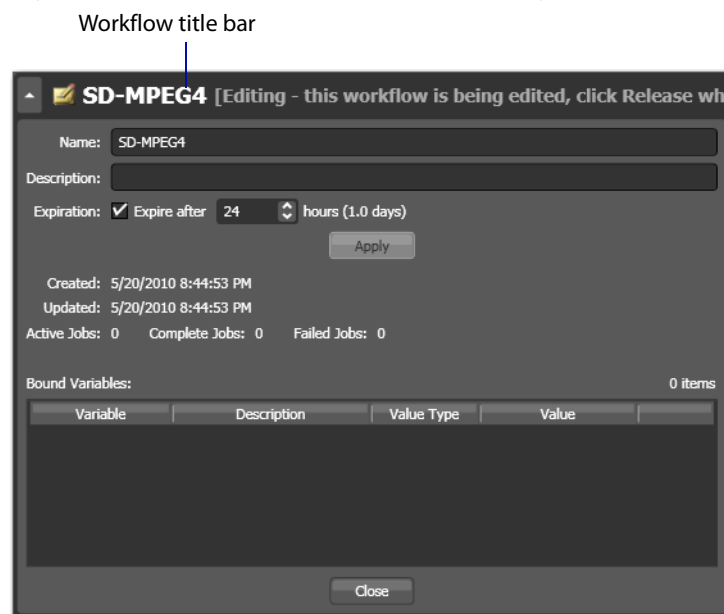
To display or hide the selected workflow's details panel, do one of the following:

- Select File > Workflow Details Panel
- Click in the Workflow Design panel's title bar

This panel displays details about the workflow: name, description, binder expiration for jobs processed with this workflow, and variables used in the workflow.

Vantage obscures the tabbed panels and displays details about the selected workflow as shown in Figure 92.

Figure 92. Workflow Details Panel, Showing Workflow Title Bar



When the workflow details panel displays, use the following controls to manage the workflow information:

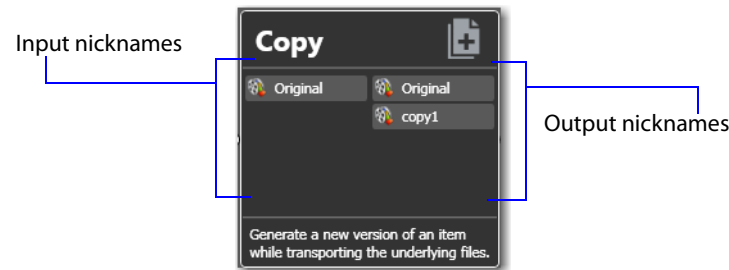
- Name text box—Edit the workflow name.
- Description text box—Edit an optional description for the workflow.
- Expiration controls—Modify to configure the job expiration time.
- Apply—Click Apply to save your configuration changes.
- Close—Click Close to hide the workflow details panel.

The information that displays below the Apply button is informational and cannot be changed. The Expected Variables list indicates which variables are being utilized by actions in this workflow. If an action parameter in the workflow binds to a variable, it displays here.

Displaying Nicknames or Variables on Actions

The [nicknames](#), metadata labels, and [attachments](#), or [variables](#) can be displayed directly on all actions (in detailed action view) for quick reference.

Figure 93. Copy Action, Showing Nicknames



Nickname View—To display nicknames, select View > Action Details > Nicknames. In Nicknames view, each action displays a list of file nicknames and metadata labels, plus [attachments](#), that are available to the action before it executes (on the left), and the nicknames and labels that are available downstream when the action completes (on the right).

Items on an action change color based upon the validity of the workflow. Highlighted nicknames have been utilized/created in this workflow. Nicknames displayed in red represent an error.

Note: Nicknames and labels that are used or affected by the action are highlighted. Nicknames and labels also change color indicating whether or not the workflow is valid.

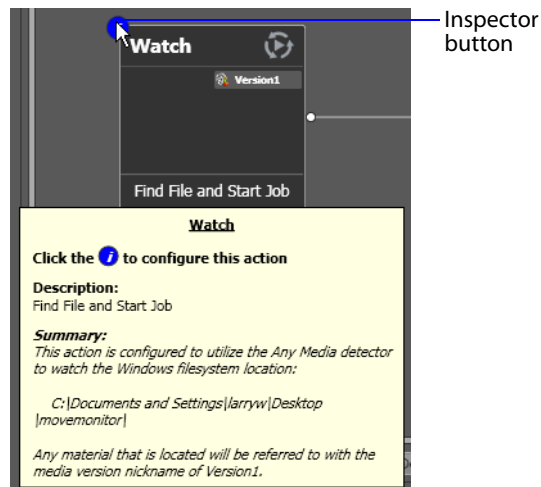
For example, if you configure an action to utilize nickname *Copy7* provided by an earlier action and then delete the action that created *Copy7*, then *Copy7* displays in red on the now-invalid action.

Variable View—To display variables, select View > Action Details > Variables. The variable view displays [variables](#) that are used to bind parameters in this action.

Displaying Action Summary Information

To display action summary data, hover over the inspector button as shown in [Figure 94](#).

Figure 94. Action Summary Text



The summary displays the action type, description (editable), and a high level description of how the action is configured.

Showing and Hiding Grid Lines

To toggle the grid lines, do one of the following:

- Select View > Show Grid Lines (Control-G).
- Right-click in the workspace (but not on an action) and select Show Grid Lines to display horizontal and vertical grid lines.

Repeat to hide the grid lines.

Moving the Workflow Around in the Design Space

A workflow with lots of actions may be larger than your workspace when viewed at the zoom level you're using.

To move the workflow around in the workspace, click and hold anywhere on the design area other than directly on an [action](#). The cursor displays as a compass, you can drag the workflow in the appropriate direction, and you can release when done.

Centering a Workflow

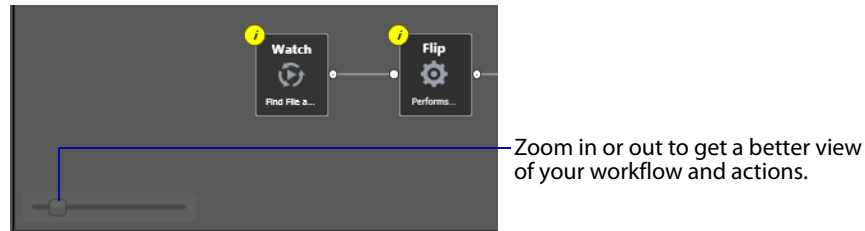
To center a workflow in your workspace, do one of the following:

- Right-click in the workspace and select Recenter Diagram (Control-R)
- Select View > Recenter Diagram to position the workflow in the middle of the work area.

Zooming In and Out on a Workflow

You can zoom the design space based on the current position of actions, or you can select an action and center the design space on that action as you zoom.

Figure 95. Zooming In and Out to View your Workflow Better



Zooming In—To zoom in on a workflow so you can better view details, do one of these actions:

- Drag the zoom slider bar to the right
- Select an action, press Shift, and drag the zoom slider bar to the right to zoom in directly on the selected action
- Select View > Zoom In
- Repeatedly press Control++ (the Plus key)
- Press Control and move the mouse scroll wheel up

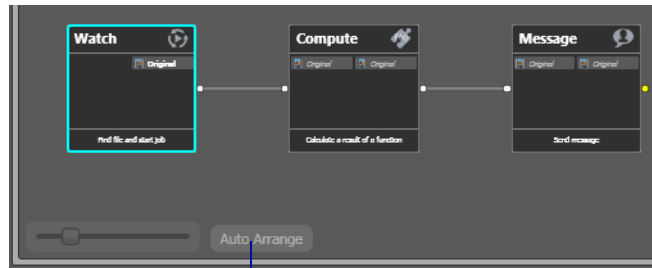
Zooming Out—To zoom out on a workflow so you can see more actions, do one of these actions:

- Drag the zoom slider bar to the left
- Select an action, press Shift, and drag the zoom slider bar to the left to zoom out on the selected action
- Select View > Zoom Out
- Repeatedly press Control-- (the Minus key)
- Press Control and move the mouse scroll wheel down

Automatically Arranging Workflow Actions

Use the Auto Arrange feature to assist you in visually optimizing and organizing the layout of actions in your workflow.

Figure 96. Enabling Auto Arrange



Enable or disable Auto Arrange to suit your construction style.

To disable automatic arrangement of actions while you're adjusting actions in a workflow, click the Auto Arrange button, located at the bottom of the Workflow Design tab, to toggle it off. While Auto Arrange is off, the Auto Arrange button displays Auto Arrange SUSPENDED in yellow.

Click the button again to toggle auto arrangement back into effect.

Automatically Validating Workflows

By default, Workflow Designer monitors how actions are connected and organized in your workflow. Workflow Designer notifies you of problems, and prevents activation in the case of an improperly-organized or incorrectly configured workflow.

Disabling validation allows new actions to be connected or inserted in large workflows (those with about 30 or more actions) much faster. It also makes it faster to delete action connections.

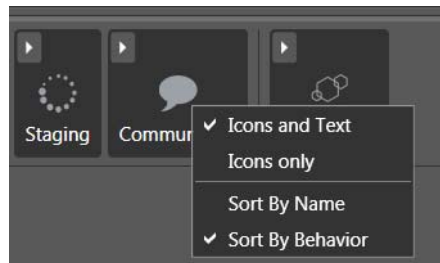
To disable workflow validation, select Options > Auto Validate Workflow. When Auto Validate Workflow is disabled, validation is deferred until you open an action inspector, activate the workflow, or switch workflows. In addition, an orange indicator displays at the bottom of the tab, which you can use to re-enable validation.

When you create a workflow with 30 actions or more, Workflow Designer displays a tip to inform you about the Auto Validate capability.

Action Toolbar Display Options

Use the context menu to configure the Action toolbar to suit your preferences.

Figure 97. Action Toolbar Context Menu



Toolbar Display Size—To reduce the size of the Action toolbar at the top of the design area, select *Icons only*. To display the action names (making the toolbar a bit larger), select *Icons and Text*.

Action Group Display Order—To display the action groups in alphabetic order, select *Sort By Name*. To display the action groups by functionality and (generally) in order of utilization in a workflow, select *Sort By Behavior*.

Using Context Menus in the Workflows Pane

Right-click in the workflows panel to display the following context menus:

In the panel title or empty space—Use the context menu to change the Vantage domain, or to create a new workflow category or workflow, import a workflow, or open a workflow you've used recently.

On a category—Use this context menu to create a new workflow or to rename or delete the category.

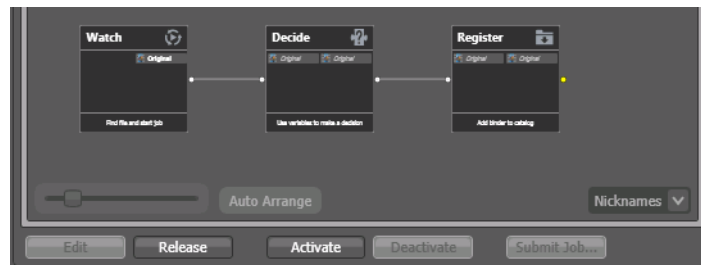
CAUTION: When you delete a workflow category, all workflows in this category are permanently removed from the [database](#).

On a workflow—Use this context menu to change the status of the target workflow. You can also perform a variety of operations on the workflow (see [Managing Workflows](#)), or manually submit a [job](#) if the workflow is activated.

Controlling Workflow Status

This topic describes the four workflow status commands and how and when to change a workflow's status. You change the workflow status via menu items in the File menu or by using the buttons at the bottom of the main window.

Figure 98. Changing a Workflow's Status



Edit—Select File > Edit Workflow or click the Edit button to modify the selected workflow. If the workflow is currently active (a Watch or Receive action is running and the workflow can process jobs), Vantage displays a warning dialog that it is about to deactivate the workflow. Click OK to continue.

The Actions toolbar displays at the top of the panel when in design mode, so that you can add new actions to the workflow.

When you are editing a workflow, other Workflow Designer users can view the workflow, but cannot edit or activate it.

Release—When you're done editing a workflow, select File > Release Workflow or click the Release button. Released workflows can be activated, and can also be edited by others.

Activate—Select File > Activate Workflow or click the Activate button on a deactivated workflow to start a Watch or Receive action so that jobs can be submitted and processed by this workflow.

Deactivate—Select File > Deactivate Workflow or click the Deactivate button to deactivate the workflow. New jobs cannot be submitted and media cannot be processed by the workflow in this state. Existing jobs using this workflow continue executing to completion.

Managing Workflow Categories

Vantage provides workflow categories so that you can organize your workflows by categories that you design, and so that you can isolate and control workflows by Vantage user accounts (which is done in the Management Console).

Note: Administrators can prevent Vantage specific users from seeing (and therefore using) workflows by category. To select workflow categories and specify which users have access to them, use the Vantage Management Console.

The following topics describe how to manage workflow categories:

- [Creating a Workflow Category](#)
- [Renaming a Workflow Category](#)
- [Deleting a Workflow Category](#)

Creating a Workflow Category

All workflows are stored in categories, and you must have at least one category created before you can create a workflow.

To create a new category, do the following:

1. Select File > Create New Category, or right-click in the Workflows panel (on the left side of the main window) away from any categories or workflows, and select Create New Category. Workflow Designer displays the Create New Category dialog shown in [Figure 99](#).

Figure 99. Create New Category Dialog



2. Enter the name of the category you want to create, and click OK.

Workflow Designer creates the category in the [database](#), and displays it in the list.

Renaming a Workflow Category

To change the name of a category, right-click on the category name in the Workflows Panel and select Rename or press F2. Workflow Designer makes the text editable so you can change it. Press Enter or just click away from the field when you're done.

Deleting a Workflow Category

To delete a category, right-click on the category name in the Workflows panel and select Delete. Workflow Designer displays a warning that you are about to delete the category and all workflows stored in this category. Click OK to delete the category and its workflows.

CAUTION: This action deletes all workflows in the category, and cannot be undone.

Managing Workflows

This topic describes how to add, rename, and delete workflows, and perform batch operations and other workflow-related operations.

Note: Whenever you are performing a workflow operation, you can select the workflow directly from the Workflow panel or select File > Recent Workflows, and select the workflow from the list.

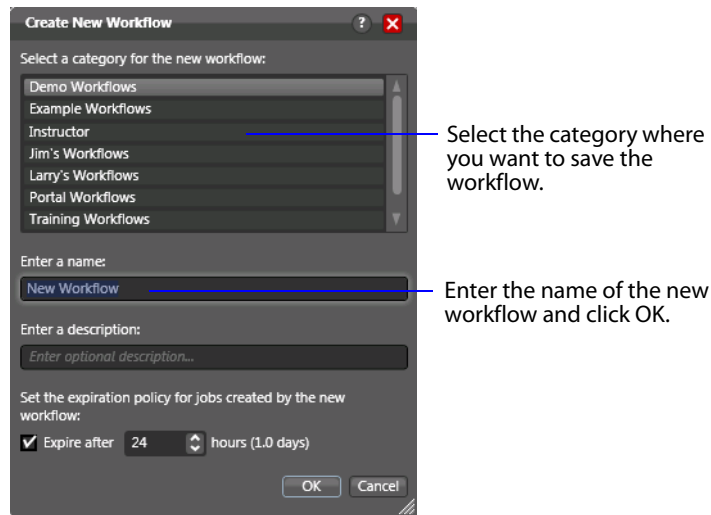
- [Creating a Workflow](#)
- [Renaming a Workflow](#)
- [Deleting a Workflow](#)
- [Moving Workflows Between Categories](#)
- [Duplicating a Workflow](#)
- [Locking and Unlocking a Workflow](#)
- [Exporting Workflows](#)
- [Importing Workflows](#)
- [Printing Workflows](#)
- [Performing Batch Workflow Operations](#)
- [Upgrading Flip Actions](#)

Note: To set the status of a workflow, see [Controlling Workflow Status](#).

Creating a Workflow

To create a new workflow, select File > Create New Workflow, or right-click in the Workflows panel (on the left side of the main window) away from any category or workflow and select Create New Workflow. Workflow Designer displays the Create New Workflow dialog:

Figure 100. Create New Workflow Dialog



Category—Select the category for this workflow from the list at the top.

Name and Description—Enter the name of the workflow you want to create and an optional description in the Name and Description fields.

Expiration Policy—If checked, specifies (in hours) the time that elapses before [job](#) records for jobs submitted by this workflow are deleted from the [database](#). The time for expiration is based on the last updated time in the job record—not the job submission time. Once the expiration period has elapsed, the jobs are subject to automatic deletion by the system.

OK | Cancel—Click OK to create the new workflow. Workflow Designer creates the workflow in the database, adds it to the specified category, and displays it in the Workflow Design tab in edit mode—that is, deactivated and editable.

Renaming a Workflow

To change the name of a workflow, right-click on the workflow name in the Workflows panel and select Rename. Workflow Designer makes the text editable so you can change it. Press Enter or just click away from the field when you're done.

Note: You can only rename a workflow when it is in edit mode.

Deleting a Workflow

To delete a workflow, select File >Delete Workflow or right-click on the workflow name in the Workflows Panel and select Delete. Workflow Designer displays a warning that you are about to delete the workflow and all [job](#) history for this workflow. Click OK to delete the workflow and its history.

CAUTION: This action deletes the workflow and its job history, and cannot be undone.

Moving Workflows Between Categories

To move a workflow from one category to another, select File > Move Workflow or right-click on the workflow you want to move and select Move. Workflow Designer displays a Category dialog. Select the category you want to move the workflow to, and click OK.

Duplicating a Workflow

To duplicate a workflow, select File > Duplicate Workflow or right-click on the workflow and select Duplicate. Workflow Designer displays a Category dialog. Select the category you want to create the new workflow in, enter a name, and click OK.

Locking and Unlocking a Workflow

If you are an administrator, you can lock workflows to prevent unauthorized changes or deletion. To lock a workflow, select File > Lock Workflow or right-click on the workflow and select Lock. Workflow Designer displays a lock icon beside the workflow.

Note: Locked workflows can be activated and deactivated even when they are locked. However, they can't be edited or deleted.

Exporting Workflows

Exporting a Single Workflow—To export the selected workflow, select File > Export Workflow or right-click on the workflow and select Export Workflow. Workflow Designer displays a File System dialog. Navigate and select the location where you want to save the workflow XML file, and click Save. Workflow Designer exports the workflow as an XML file.

When you export a workflow, the following elements are also exported, if they are used in the workflow:

- Media nicknames
- [attachment nicknames](#)
- Variables
- Metadata labels
- Stores
- Output folders

Exporting All Workflows in the Domain—To export all workflows in the domain, select File > Export Workflows by Category. Workflow Designer displays a File System dialog. Navigate and select the location where you want to save the workflows. Optionally, create a new folder, and click OK.

Workflow Designer creates a folder for each category in the domain, then exports each workflow in each category, as an XML file.

Importing Workflows

You can import workflows into your domain which have been previously exported from this or other domains.

Note: You can import workflows into your domain that have the same name of another workflow, into a different category. However, if you import a workflow into a category which already has a workflow with the same name, Vantage assigns the imported workflow an incremental copy number; it does not overlay the first workflow. You can't have two workflows of the same name in the same category.

To import a workflow, do the following:

1. Select File > Import Workflow or right-click on the workflow and select Import Workflow.
 Workflow Designer displays a File System dialog.
2. Navigate and select the workflow XML file previously exported from Vantage, and click Open.
3. Select the category where you want the imported workflow placed, or create a new one.

Workflow Designer imports the workflow into the selected category. You can now rename and edit the workflow as appropriate.

Note: When importing workflows that have been created and exported from another domain, you may end up with duplicate variables in your domain. For example, you might end up with two *Agency* variables. This is typically not a problem. However, to determine which workflows use a particular variable—so that you can correct them to use only one definition of it—go to the Management Console > Workflow Design Items > Variables. Select the variable you want to search workflows for, and click the Find Workflows Using this Variable button in the toolbar (5th from left).

Printing Workflows

Select File > Print Workflow to print the selected workflow using the current workflow settings. The workflow is scaled to fit on a single page (with landscape or portrait mode preset based on workflow shape), unless the workflow is sufficiently large to make it difficult to read when scaled to a single page. Then, Workflow Designer provides you the option of printing across multiple pages.

Performing Batch Workflow Operations

Use this feature to select multiple workflows and initiate the following actions on the selected workflows: edit/release, activate/deactivate, lock/unlock, delete or move.

Note: This feature is enabled only when a Vantage user with Administrator privileges is logged in.

To change the status of multiple workflows simultaneously, do the following:

1. Select File > Batch Workflow Operations.
Workflow Designer displays the Batch Workflow Operations dialog, which lists every workflow in the domain.
2. Select one or more workflows (using shift and control keys).
3. Click one of the buttons at the bottom of the dialog to apply a task to the selected workflows.
4. When you are done, click Close.

Upgrading Flip Actions

During a Vantage upgrade (where you are converting your domain from an older version to a new version), actions may change definitions. That is, they may have new features added to them, or existing features may change, requiring you to update the obsolete actions in your workflows.

You can automatically upgrade [Flip actions](#) in your workflows, if the Flip action is modified during an upgrade. When you open a workflow in Workflow Designer, Vantage checks to make sure that Flip actions are current. If not, the action's title (Flip) is displayed in italic text.

Figure 101. Upgrading a Flip Action



Right-click the action and select Upgrade. Then, open the inspector and review your configuration, making changes as appropriate, based on the action's new or changed controls.

Note: For more information on the Vantage upgrade process, see the Vantage Domain Management Guide.

Constructing Workflows

The following topics describe the operations you'll use to construct workflows, which is done by adding actions, arranging them in order of execution, and connecting them together. One operation—exporting an action—can only be performed on [Flip actions](#). It is used in conjunction with implementing an SDK-based Vantage application.

Note: Before you can edit a workflow (work with actions or change configuration), it must be deactivated and editable. When you first create a new workflow, Workflow Designer places it in edit mode automatically.

- [Adding Actions](#)
- [Controlling the Order of Action Execution](#)
- [Deleting Actions](#)
- [Removing Line Crossings](#)
- [Re-ordering Actions](#)
- [Exporting a Flip Action](#)

Adding Actions

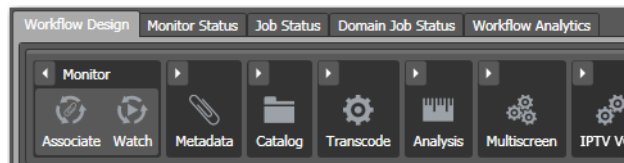
There are several ways to add actions to a workflow, depending on the situation.

New action—to add an unconfigured action, open the appropriate [action](#) category in the Actions toolbar and drag the desired action onto the design area. When you drag an action from the toolbar, it has no configuration set, and must be configured before you can use the workflow.

Action template—many actions have action templates—pre-configured actions that make it easier to assemble workflows. Vantage provides many built-in action templates, and you can also make and use your own. For details, see [Creating Action Templates](#).

To add an action template, click on the action in the action group, select an action template from the list, and drag it onto the workflow. The configuration of a template may be exactly what you need, or you may need to make minor configuration changes.

Figure 102. Open an Action Category to Add an Action to your Workflow



Copy and paste—to copy and paste actions in a workflow, first right-click the action you want to copy and select Copy (you can control-click to select multiple actions).

Next, right-click on the design area, right-click and select Paste to add the copied action to the workflow.

To paste a workflow *configuration* onto an action of the same type, right-click and select Paste to configure the action identically with the copied action.

Note: An [origin action](#) (Watch or Receive action) is required as the first action in a workflow, even if you plan to manually submit [jobs](#) to this workflow.

When you drag an action onto the design area, Vantage may automatically align it near where you dropped it (unless auto-arrange is off; see [Automatically Arranging Workflow Actions](#)). Until you connect an action to other actions, you can move it anywhere you want on the work area. If you bump the action you're adding right next to an existing action, Workflow Designer will automatically connect the two.

Generally, its easiest to drag and drop actions in a pattern similar to the flow of the desired workflow, working from left to right (on each branch, if more than one). However, you can drag actions anywhere, and connect them as desired later.

Vantage will tidy up actions—moving them and organizing them by column. Once an action is connected, you can move it vertically (up or down) but it cannot be moved from its column. Alternatively, Vantage can also attempt to optimize the workflow, removing as many line crossings as possible.

Controlling the Order of Action Execution

You connect actions together linearly in a workflow to control the order of execution relative to other actions in the same workflow, and to control the flow of variables and files from one [action](#) to another.

Job execution proceeds action by action, from left to right: when a workflow execute, the origin action (at the far left) executes first to start the [job](#), and each action following the previous action execute next.

Connecting Your Actions Together

You connect actions together to specify order of execution, from the output pin (right-side) of one action to the input pin (left side) of the action you want to execute next in the workflow.

Actions can only be connected from an output pin (on the right side of the action) to an input pin (on the left side of the action), and control (file or logic) flows from output to input—from left to right.

Here are ways you can connect actions together:

- Click and drag a connecting line from one connector pin to another
- Click and drag an action (either from the actions toolbar or one already in the work area) and bump it into the edge of the action you want to connect it to—until a pale blue vertical line displays. (You must drag your mouse pointer up to the edge of the action you're connecting to).
- Copy an action, and right-click on a connector line and select Paste to add the copied action between the two actions. Or, drag an action onto a connector line until it displays as a larger line. Then, drop it to connect it between the two actions.

Certain connections are not permitted:

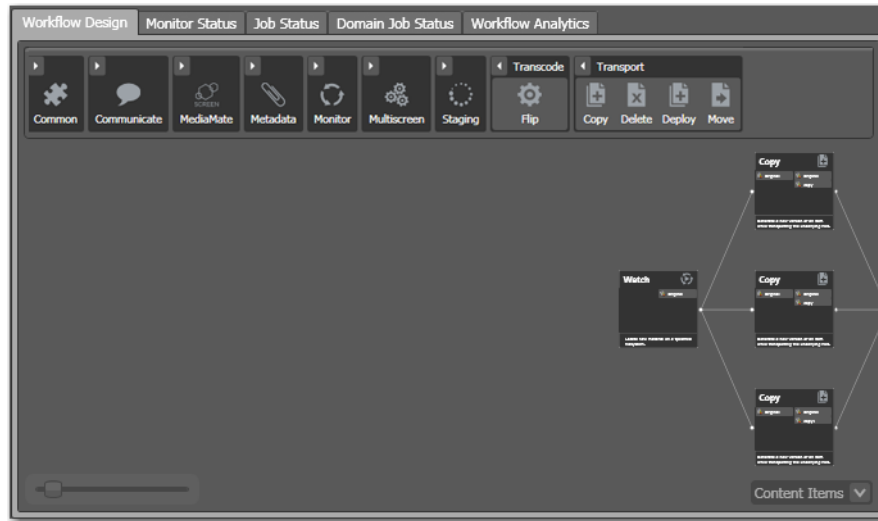
- You cannot form recursive loops, by connecting actions to themselves or to the input of preceding actions in the workflow.
- You cannot connect one input (left) pin to another input pin, or one output pin (right) to another output pin.

Note: When you connect actions by clicking and dragging a connection, Workflow Designer can display a popup message that provides connection details. To enable or disable this feature, select Options > Show Connection Helper.

You can connect one action to multiple succeeding actions, creating logical branches, as shown in the figure following. When you do, none of the actions you connect can execute before the preceding action upon which they depend completes.

When you have branches in a workflow, you can optionally, use a [Synchronize action](#) as a visual connector at either end of the branches, to better organize them. Synchronize does not perform any special task, it merely aids in design. In this example, three [Copy actions](#) execute in parallel after the Watch action completes.

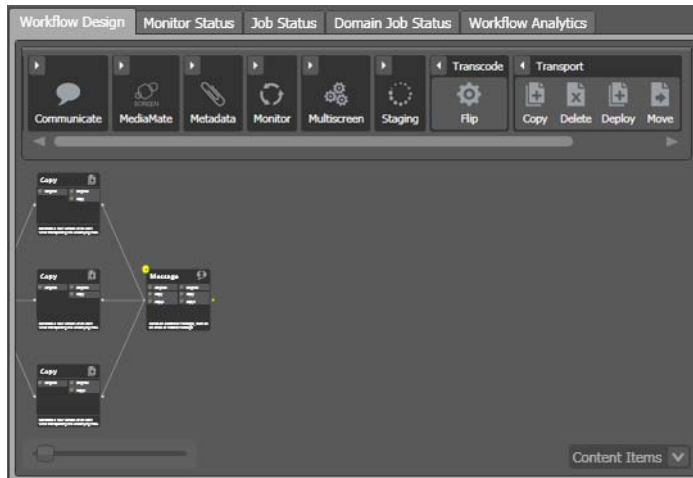
Figure 103. Multiple Actions Can Branch From a Common Action



These three **Copy actions** execute independently of each other, and their start time and completion time relative to each other is non-determinant. They execute in parallel from the perspective of the actions which precede and follow these actions.

You can also connect multiple actions (branches) back to a single succeeding action, as shown in the following figure. When you do, each of the actions you connect must execute before any succeeding **common action** can execute.

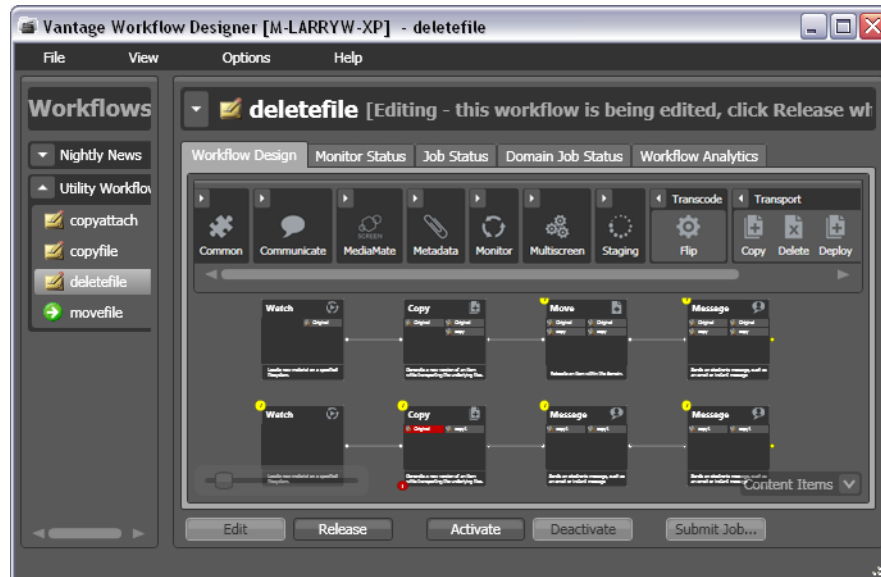
Figure 104. Multiple Action Branches Precede a Common Action



In this example, all Copy actions must execute before the Message action executes.

You can also create multiple, independent action branches—each branch starting with an origin action. Each origin action creates its own job. Although this is not generally recommended, you may have situations where it is the best solution.

Figure 105. Multiple Independent Branches in a Workflow



In this example, two independent sets of actions are in this workflow. As each origin action detects new files to process, a separate job is initiated.

Note: Although this is a legal workflow, it is an unusual configuration. Typically, two independent sets of actions would be better defined as two separate workflows.

Deleting Actions

To delete an action, select it and press Delete or right-click the action and select Delete. When you delete an action, Workflow Designer connects the preceding and succeeding actions, unless you uncheck Fill connections after delete in the Delete confirmation dialog.

To select multiple actions to delete, control-click multiple actions. When the appropriate actions are selected, delete them using one of the following options:

- Press Delete.
- Right-click one of the selected actions, and select Delete.

Removing Line Crossings

On occasion, you might connect two actions on rows in the layout that are more than one row apart—resulting in an unintended line crossing. To manually optimize the workflow layout, select View > Remove Line Crossings or right-click and select Remove Line Crossings. Workflow Designer reformats the workflow and optimizes the layout of the actions in a grid.

Re-ordering Actions

To re-order actions vertically, drag one of the actions up or down in the design area to the location where you want it. Workflow Designer adjusts the other actions to accommodate the manual placement of the other [action](#).

Exporting a Flip Action

When you are creating a custom Vantage application using the Vantage SDK, you can create and configure a [Flip action](#) and then export it as an XML file, for use as a template in your application.

To export a Flip action, first create and configure the action to meet your requirements. Next, right-click the Flip action and select Export. Workflow Designer displays a File Save dialog, where you can navigate and save the XML file with a name you choose.

You can use this XML file (which contains a definition of your Flip action) in your Vantage SDK-based application. You can also edit the XML file separately from Workflow Designer, of course.

Note: Only Flip actions can be exported using this feature.

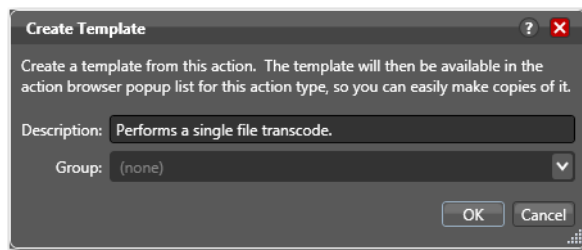
Creating Action Templates

Vantage provides many actions with a variety of action templates, which you can use (along with your own) to make workflow construction easier.

To make your own action template, follow these steps.

1. Add an action to a workflow.
2. Configure it as appropriate.
3. Edit the description (at the bottom of the action), which is used to name the action template.
4. Right-click and select Create Template to save the selected [action](#) as a template.

Figure 106. Create Template Dialog



5. Enter a description (this is optional).
6. Add or select a group, or select None and click OK.

Grouping allows you to organize your action templates. If you want more than one level of grouping, separate each group with a vertical bar (|)—for example, *Broadcast Servers | Grass Valley*. The description of the action displays as the name of the action template.

The action template is added to the template list, and can be selected by clicking on the action.

Configuring Actions

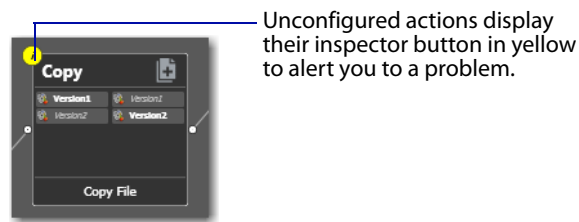
The following topics describe how to configure the actions in a workflow:

- [Using the Action Inspector](#)
- [Changing Action Descriptions](#)
- [Setting Conditional Task Execution](#)
- [Understanding Variables](#)
- [Adding Variables to an Action](#)
- [Creating New Variables](#)
- [Binding Settings to a Variable](#)
- [Configuring an Action's Run On Rules](#)
- [Specifying Retry Rule Settings](#)
- [Modifying Resource Costs for Cost-Based Load Balancing](#)
- [Using the Filename Pattern Editor](#)
- [Action States](#)
- [Implementing Logic and Conditional Execution in Workflows](#)

Using the Action Inspector

Each [action](#) (except the [Synchronize action](#)) has an [action Inspector](#)—a series of one or more dialogs—which you use to configure the action to perform its task in a particular way. To access the action inspector, click the inspector button (round *i* button) in the upper left corner of the action, or right-click the action and select [Configure](#).

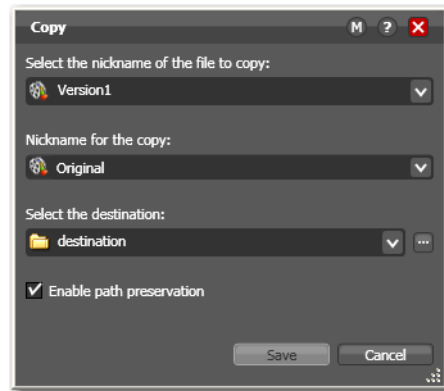
Figure 107. Action Inspector Button



Until an action has been configured, the inspector button displays yellow; a workflow cannot be activated until all actions have been configured. If you hover directly over the button, a summary of the action displays.

The inspector dialog or dialogs vary, depending on the type of action, and the configuration choices you make. For example, to configure a [Copy action](#), you make all changes in one dialog (see [Figure 108](#)).

Figure 108. Typical Action Inspector Dialog



However, the inspector for a [Watch action](#) typically consists of about 7 or more dialogs, depending on the file system you configure it to monitor.

When you're viewing an inspector of an action in a workflow that is activated or someone else is editing it, the term *Read Only* displays in the inspector's title bar. Also, if you have changed the configuration, an asterisk (*) displays immediately before the action name: For example, **Watch*.

Detailed help is available on each panel in the inspector: Click the *M* button to display its man page or click the *?* button to display this topic in the *Vantage User's Guide*.

Changing Action Descriptions

You can change an action description by directly clicking on the description text field at the bottom of the action, or right-click and select Description. Enter the new text and click away.

Setting Conditional Task Execution

You can configure some [actions](#) to only execute when the upstream action or actions pass a specific [action state](#) to the downstream action. Not all actions allow you to set condition execution. For example, you cannot test action states in origin actions—Watch and Receive. You also cannot set conditional execution for Flip and Agility actions, and others.

To set the state under which an action will execute, right-click and select Perform On > Success | Failure | Ignore | Any. The Any option is not a state—it is a selection to indicate this action should execute regardless of the state passed to it.

By default, actions only execute when the action state (as set by upstream actions) is Success. Success means that the upstream actions have completed normally and the incoming state is Success.

The Fail state indicates that at least one action has executed and failed to complete normally or completed normally, but was explicitly set to Fail. If you have an action configured to execute on Fail, it only executes if at least one upstream action has reported a failure.

You can also configure an action to execute on the Ignore state by selecting Ignore.

Understanding Variables

In Vantage, a variable is a container for temporary [job](#) information—a symbolic name (or identifier) which contains some known or unknown quantity or element of information; a value. You use the variable name to reference the current value; this separation of name and content allows the name to be used independently of the exact information it represents. The variable can be bound to a value during run time, and the value of the variable may change during the course of workflow execution.

Each variable has a name (such as *Number of Audio Channels*), a type (such as *Integer Number*), and a default value, all of which are defined when the variable is created. You can change variable values in a variety of ways. For example, a variable value can be changed in actions that are designed to use variables, such as the Analysis, Populate, Watch and [Associate actions](#). Variable values can also be changed when adding a variable to an action in a workflow or when manually submitting a job.

Variables are passed from action to action according to the action connections. When an action create a given variable, all downstream actions that use variables can access the variable and its current value.

Note: Not all actions are designed to use variables—for example, the Register action does not utilize variables.

Variables are used by some actions to control their functionality and execution—and thus, implement workflow logic. (Variables are also used by Vantage services as defined by the Vantage domain administrator.)

Many parameters in Vantage can be *bound* to a variable, allowing the workflow to dynamically update parameters on a job-by-job basis. For details on binding parameters to variables, see [Binding Settings to a Variable](#).

When a variable is set to a specific value, that variable value is only available to actions within the same branch as the one that set the variable and actions in downstream branches.

Note: If two branches merge to a [common action](#), and both have specified a value for the same variable, then the behavior is indeterminate.

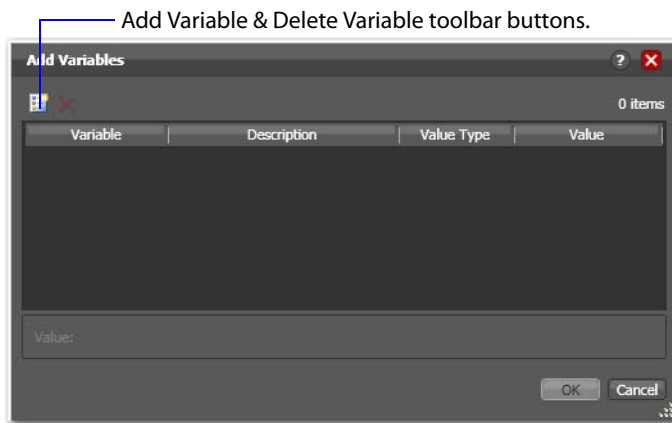
Adding Variables to an Action

Sometimes, you need to provide information to one or more actions (or directly to a job, when you're manually submitting it) that is independent of the functionality of the actions. To do so, you can manually add a variable and set a static value. These variables can be used by downstream actions or by other Vantage components such as services, to execute the workflow appropriately.

For example, you can add a variable to set the execution priority of one workflow branch to high, and another to low.

To manually add a variable to an action, right-click and select Add Variables. Workflow Designer displays the Add Variables window.

Figure 109. Add Variables Window



In the Add Variables window, you can add variables to the action prior to execution. Values set in this window are available to this action, and all downstream actions (including actions in connected workflows).

Click the Add Variables button in the toolbar to display a list of variables.

Figure 110. Select Variables Window



Select the variable to add and click OK.

Note: Click Create New Variable to create a variable if you need a new one. For details, see [Creating New Variables](#).

Next, with the variable selected, modify its default static value if necessary, and click OK to add it to the variable for use in the workflow.

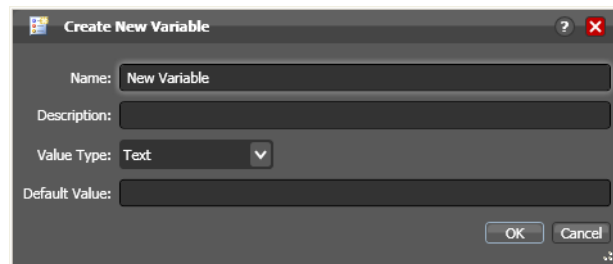
Note: It is important not to use the same variable in two actions if the branches merge, because the behavior is indeterminate.

Creating New Variables

Vantage includes some default variables, and you can create variables directly in Workflow Designer. Vantage domain administrators can also create variables using the Vantage Management Console (Workflow Design Items > Variables).

On variable selection windows in Workflow Designer, click the Create New Variable button. Workflow Designer displays the Create New Variable dialog (Figure 111).

Figure 111. Create New Variables Dialog



Configure the new variable as follows:

1. Enter an appropriate name for the variable in the Name text box.
2. Enter a description in the Description text box. (This is optional.)
3. Select a variable type from the Value Type dropdown list.
4. Enter a value for this variable in the Default Value text box.
5. Click OK to save the variable.

Binding Settings to a Variable

Most settings in an action are configured with a static value—one that does not change from job to job. For example, you configure a Watch action to poll a specific directory—and job after job, this directory never changes—that is, it is a *static* value.

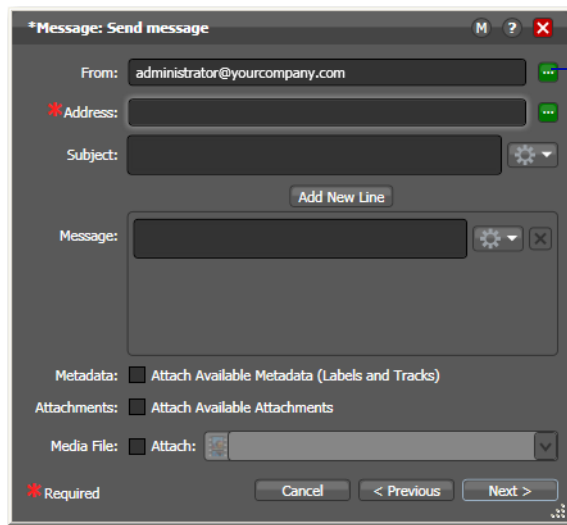
However, many **actions** also have settings whose values change from job to job—and thus, must be assigned a value when the job runs—typically, based on the media being processed.

For example, you may have a Message action that generates an email—and the To address in the email should be the address of the associate producer of the show, which is provided in metadata, and assigned to a variable prior to the Message action. Or, a variable may be assigned a value by an Analysis action to determine how many lines of black are at the top of a video frame; a crop filter later in the workflow can bind to that variable, ensuring that every crop in every job is appropriate to the workflow.

To support unique values for a job, Vantage enables many settings to be bound to a variable, allowing the workflow to dynamically update the value on a job-by-job basis.

Settings that can be bound to a variable display a green bind variable button.

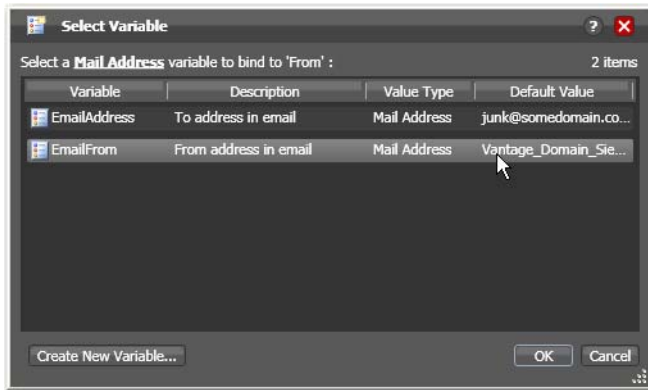
Figure 112. Message Action Inspector—Bindable Parameters



Parameters that can be bound to a variable display a green bind variable button. Click it to select a variable, which will supply its current value as the value for the parameter.

Click the bind variable button to display the Select Variable dialog (Figure 113).

Figure 113. Select Variable Dialog

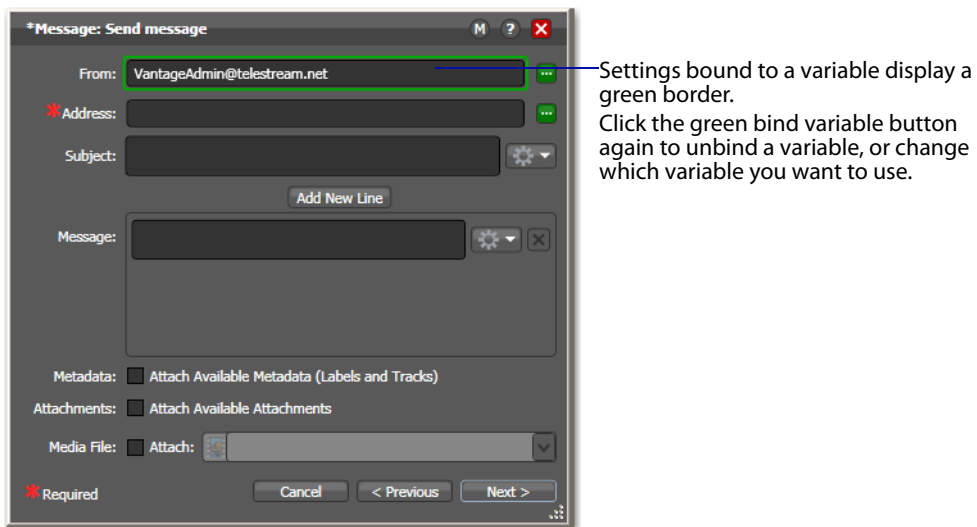


The list of variables includes those variables that are present in the domain, and are of the correct type for the parameter. For example, the subject line only accepts text variables; the email address can only accept email address variables.

Select the variable to bind to this parameter, and click OK.

Note: Click Create New Variable to create a variable if you need a new one. For details, see [Creating New Variables](#).

Figure 114. Message Action Inspector with a Bound Parameter



Now, the setting displays with a green border, indicating its value is derived directly from the current value of a variable, not the manually entered value.

Configuring an Action’s Run On Rules

Most actions (except the [common actions](#)—Compute, Construct, Decide, Forward, Receive, and Synchronize) have a set of rules called *run on rules*, which can be configured to determine if a given Vantage service has the features which enable it to execute a given action. Unlike qualification rules, which are service-centric, run on rules are action-centric.

Note: In addition to setting up specific rules on an action, Vantage domain administrators can set up service-based qualification rules using the Vantage Management Console.

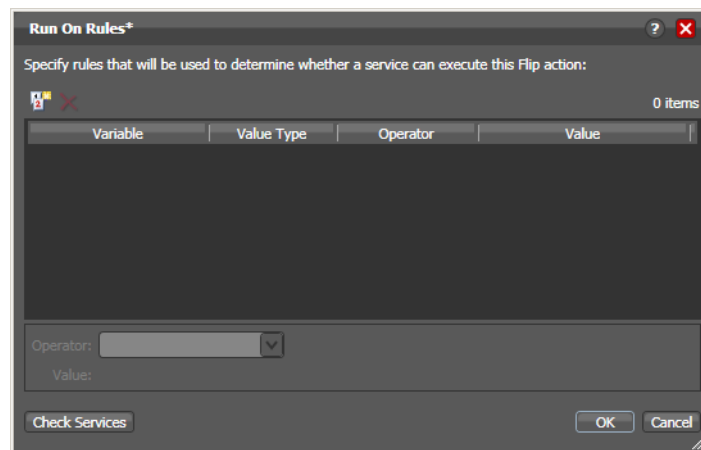
Run on rules provide you explicit control over which service can execute a particular action in a given workflow.

As you design a workflow, you can indicate that you need to have a particular action execute on a particular service (or set of services). To implement this, you define a True/False variable and provide it a value of TRUE to indicate that this instance of the service can satisfy the requirement. Next, you assign this variable to the service or services that qualify, in the Vantage Management Console > Services > Variables.

For example, you are designing an HD transcoding workflow, and the [Flip action](#) must be executed by a Transcode Service deemed HD-capable—that is, it is running on a server with a processor set capable of adequately handling HD media transcoding. For this example, its a server named *Vantage_HD_Transcoder*.

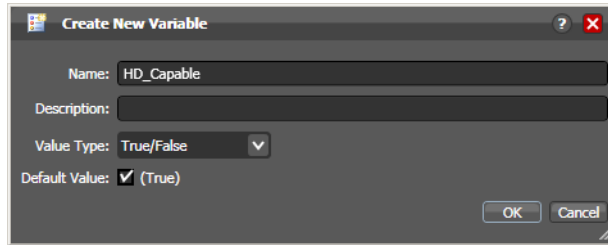
In Workflow Designer, open your HD workflow, right-click on your Flip action and select Run On Rules to display the Run On Rules dialog.

Figure 115. Creating Run On Rules for an Action



Click the Add Run On Rules button in the toolbar at the top, and create an *HD_Capable* variable and set its value to TRUE, as shown below.

Figure 116. Creating a Variable for use with Run On Rules



Next, click OK to create this variable, and click OK to save the Run On Rule.

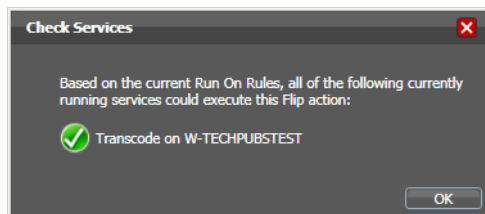
In the Vantage Management Console, select Services > Variables and add the *HD_Capable* variable to the Transcode Service running on the Vantage_HD_Transcoder server.

Note: When a variable is added to a service, that variable is added to the job if the service executes it. Be careful about which variables you use for run on rules, and which are used for decision-making; generally you will want to use different variables. Run on rules *only* analyze variables explicitly set by a service. They do not analyze variables already set in a job. This ensures that run on rules only execute actions on a service that explicitly sets them.

Now, return to Workflow Designer and open your HD workflow again. Right-click on your Transcode action and select Run On Rules to display the Run On Rules dialog.

Click Check Services to verify that the *Vantage_HD_Transcoder* now responds correctly to queries about being HD-capable.

Figure 117. Check Services Dialog



Specifying Retry Rule Settings

Certain actions (typically, those that deal directly with files or other network-accessible computer systems) which may fail due to file system latency or network delays, can be configured to execute multiple times in an effort to overcome the problem, according to user-specified rules called *retry rules*.

Table 5. Actions with Retry Rules

Archive	Examine	Move
Associate	Faspex Delivery	Multiscreen Flip
Compare	Flip	IPTV Flip
Copy	Gather	Notify
Delete	Identify	Process MMF
Deploy	Message	

Default retry rules are set for each action *type* by the Vantage domain administrator. For example, the Vantage domain administrator might specify a default retry rule (in the Vantage Management Console) so that all [Flip actions](#) retry one time after five minutes.

The default retry rules can be modified for an action in Workflow Designer, and the action retry rules override the default rules. For example, you might specify that a specific [Copy action](#) in a workflow should retry three times: once after five minutes (in case of a SAN blip), once after four hours (in case of Internet congestion), and up to a certain number of times after two days (in case of complete Internet failure).

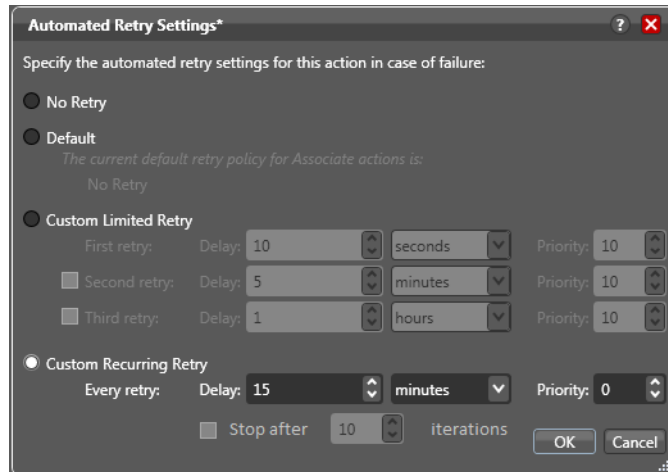
It is important to keep in mind that individual action retry rules specified in Workflow Designer override the default retry rules specified in the Vantage Management Console. If an action does not have override retry rules, the default retry rule for the action type is used instead. If there are no override rules specified for an action, and no default rules for its action type, then a failed action is not retried.

When an action re-tries, it is again processed for execution. It is handled according to load balancing rules, and it may be assigned to a different service for execution.

If you restart a [job](#) that is in the Stopped by User or Failed state, the actions execute as a first-time execution. For example, you have an action with retry after 4 hours. Restarting this job results in immediate execution, because the action is executing on its first try.

Right-click on an action and select Retry Settings to view or modify retry rules. Workflow Designer displays the Automated Retry Settings dialog.

Figure 118. Automated Retry Settings Dialog



The dialog in [Figure 118](#) supports the following options:

- *No Retry*—Override any default retry settings, and not retry execution on failure.
- *Default*—Utilize the default retry settings specified by the Vantage domain administrator.
- *Custom Limited Retry*—Configure up to three retry settings.
- *Custom Recurring Retry*—Configure the time and priority (which is optional) between retries, and optionally, stop after a certain number of iterations.

Modifying Resource Costs for Cost-Based Load Balancing

Vantage supports two types of load balancing: cost-based load balancing and session-based load balancing. Cost-based load balancing is available with the Advanced Task Scheduling license and is disabled by default. To determine if cost-based load balancing is enabled, contact your Vantage domain administrator.

Note: When cost-based load balancing is disabled (the default setting), Vantage uses session-based load balancing and resource cost settings are ignored. For information on configuring load balancing, see the *Vantage Domain Management Guide*.

When cost-based load balancing is enabled, each action has a default cost and a custom cost. The default cost is defined by the Vantage domain administrator. The custom cost is defined by the workflow designer in the workflow. When you define a custom cost, that cost applies to action processing instead of the default value.

Cost-based load balancing provides a way to control how action processing is distributed among multiple services. During workflow processing, the action cost defines the relative resources that must be available on a Vantage service to process the action. If there are multiple services that can process an action, and if one service does not currently have the resources to process that action, another service with available resources will process the action.

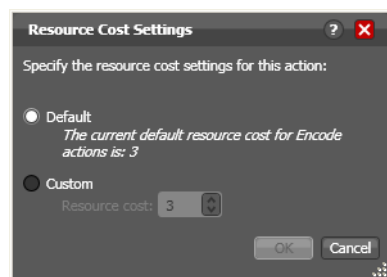
The resource cost is an integer value that has an ordinal relationship to the other action costs and to a *target resource usage* value defined by the domain administrator. A higher resource cost in an action means that fewer actions can run simultaneously on the same service. A lower resource cost allows more actions to run simultaneously. The actual values you enter for a workflow action must conform to the service settings defined by the Vantage domain administrator. To determine the range of resource cost settings available to you, consult with your Vantage domain administrator.

To view or set a resource cost on a given action, do the following:

1. Right-click on the action and select Resource Cost.

Workflow Designer displays the Resource Cost Settings dialog shown in [Figure 119](#).

Figure 119. Resource Cost Settings Dialog



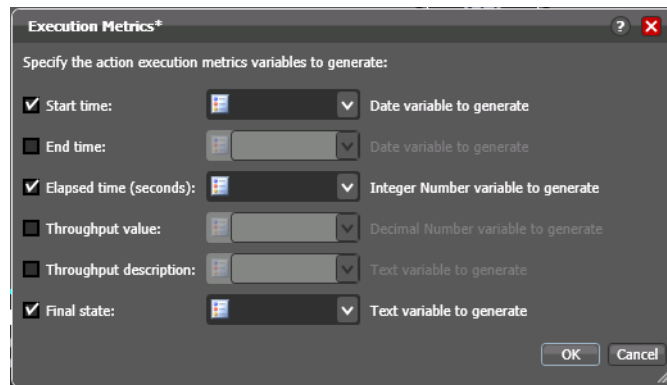
2. Select Default, or select Custom and enter an integer value.
3. Click OK to save.

Generating Execution Metrics

For most actions, you can collect execution metrics, and assign them to variables for processing downstream. For example, you can generate start and end times, total elapsed time, and final [action state](#), among other values. You can use these metrics to enhance your ability to fine tune your system, and improve throughput, or identify bottlenecks.

To generate execution metrics for a given task, right-click the task and select Execution Metrics. Vantage displays the Execution Metrics dialog.

Figure 120. Execution Metrics Dialog



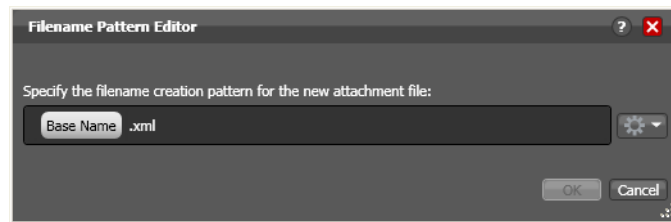
Check the metrics you want to collect, and assign each one to a variable. Then, downstream you can access these variables for analysis.

Using the Filename Pattern Editor

Some action inspectors utilize a filename pattern editor, so that you can customize the pattern for filename generation, based on the task and the workflow requirements. The filename pattern editor is implemented in actions including Flip, Copy, Move, Agility Job Profile, and Transform.

To display the editor, click the filename pattern editor button in the inspector:

Figure 121. Filename Pattern Editor Dialog



Use the editor to implement a filename generator pattern for your workflow. To produce the name generator pattern you require, you can include raw text (for example, *.xml*) and any combination of the following elements: base name (which includes the full file name including the extension, variable (select your variable), date, and time.

Note: In Metadata and Flip actions, the basename element is the base name of the source file without the extension (for example, *myfile* for a file named *myfile.mpg*). In Copy, Move, and Agility Job Profile actions, the basename is the full name of the file, including the extension. For example, *myfile.mpg*.

Action States

The **action state** describes the condition of an action during execution or after completion.

During execution, an action's state may be Queued | Paused | In Process | Waiting. These keywords display in the Job Status tab.

After execution, an action's final state is assigned: Success | Ignore | Fail. These keywords may be tested by actions immediately following the target action, to determine whether or not the action should execute. Each action's state is passed to the next action or actions in the workflow.

If an action fails, the next action inherits the Fail action state and (in most cases) will not execute—unless its Perform On state is set to Fail.

Some, but not all actions can be configured to set the Ignore state. The next action inherits the Ignore state and will likely not execute (unless it has been explicitly set to execute on Fail). Most actions, such as Message, can be configured to perform on certain states—this allows workflows to send an email if they detect a failure.

If an action receives states from two incoming actions (such as a merge of two branches), then states are given the following priority:

- If at least one incoming state is Fail, regardless of other incoming states, the action will inherit the Fail state—Fail has precedence over all action states.
- If there is no Fail state, but at least one Success state, then the action will inherit the Success state—Success has precedence over Ignore states.
- Only if all incoming states are Ignore, will the action will inherit the Ignore state.

Ignore has lowest precedence of the three states.

Implementing Logic and Conditional Execution in Workflows

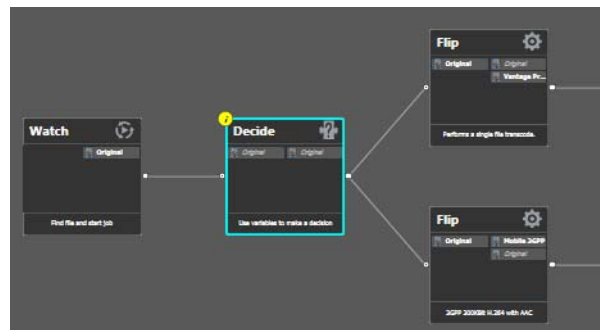
Many workflows consist of several actions connected in a single line—thus, each action is executed, in turn, for the entire workflow.

However, you may want to create workflows that are intelligent and flexible, so that they can successfully process media files with complex output requirements automatically, workflows that can collect information about the media or the file itself at runtime, and store that information in variables. Then, you can add a [Decide action](#) to examine the values in the variable or variables, and pass control to one branch or the other, based on the value.

Generally, controlling the logical flow of media in a workflow is achieved by three things: adding variables and assigning them values, using a [Decide action](#) to evaluate variables, then setting an [action state](#) for each branch that follows the Decide action, so that only the appropriate branch executes for each [job](#).

Branching workflows are scalable; you can add as many decide actions and branches as you need, to further refine your execution choices.

Figure 122. Use Decide Actions to Implement Execution Branching Logic



In this example, some metrics about the input file are being examined by the Watch action—file modification date, for example. The Decide action determines if the date is prior to or later than a given date, and sets Success or Fail, based on the answer.

The top branch’s [Flip action](#) only executes on Success (processing those files whose modification date is prior to the test date), and the lower branch’s Flip action only executes on Fail (processing those files whose modification date is later than the test date).

Managing Vantage Folders

Vantage folders are aliases or alternate names for actual file system folders. You create (and name) Vantage folders to identify specific paths you use frequently. Vantage folders simplify directory referencing by allowing you to specify a short, descriptive folder name instead of a long, complex path and file name. Vantage folders also allow you to update a path or credentials once, and automatically update all actions using that Vantage folder.


For example, you might have a folder on a given server for HD MPEG2 content: `\\voyager\SunupCampaign\Darwin\WaitingApproval\HDMPEG2`. You can create a Vantage folder in the Vantage folder address book for this path, and name it *SunupHDWaitingApproval*. If you need to change the path or any password associated with the address later, you can simply change it in the address book and all actions will automatically update.

Telestream recommends using UNC paths instead of drive letter paths, and it is required in Vantage arrays. For a detailed discussion, see [Understanding Paths for Vantage Storage](#).

Now when you create a workflow that generates media you want saved in this folder path, you simply select *SunupHDWaitingApproval* in the Flip action's inspector.

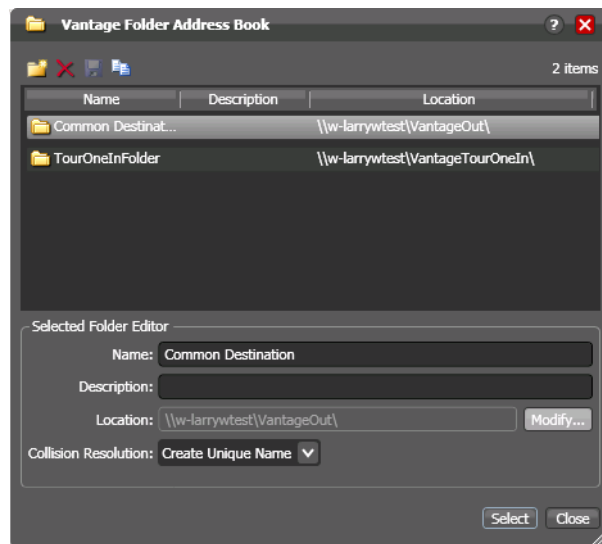
You can create Vantage folders in both the Vantage Management Console and in Workflow Designer.

To manage Vantage folders in Workflow Designer, do the following:

1. Click on the browse  button to the right of any location field that accepts Vantage folders.

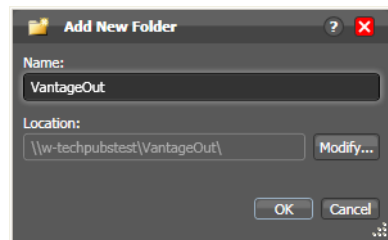
For example, open a Flip action and select Vantage Store/Folder to see a Browse button. Vantage displays the Vantage Folder Address Book (see [Figure 123](#)).

Figure 123. Vantage Folder Address Book



2. Click the Add Folder toolbar button (the new folder button at far left).

Figure 124. Add New Folder Dialog



3. *Name*—Enter the Vantage folder name.
4. *Location*—Click Modify to display the Folder Location Editor.
5. Select a file system and click Next.
6. Click Browse to navigate and select the directory that this [Vantage folder address](#) should reference. Or, enter the fully-qualified path manually, preferably in UNC form (be sure to only use drive letters when the domain is a single machine.). When manually entering a fully-qualified path, the text displays in red if it does not conform to the proper convention for the supported file system. For a detailed discussion, see [Understanding Paths for Vantage Storage](#).
7. Click Finish to close the Folder Location Editor dialog. (You may have to click OK on the local folder warning dialog.)
8. Click OK to add this new Vantage folder address to the domain and close the Add New Folder dialog.
9. *Collision Resolution*—Select Create Unique Name | Overwrite | Set Failure State to specify what Workflow Designer should do when a file of the same name already exists in this location.
 - *Create Unique Name*—Workflow Designer adds a suffix to the filename, making it unique, then saves the file in the location.
 - *OverWrite*—Workflow Designer deletes the current file and saves the new file in the location.
 - *Set Failure State* —Workflow Designer does not save the file; it sets the action state to Fail so that downstream actions may detect the error and perform a specified task under this condition.
10. Click Select to close the dialog and use the currently-selected folder address, then press OK to save changes. Click Close to simply close the Vantage Folder Address Book dialog with changes.

Troubleshooting Workflow Designer

When opening Workflow Designer 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 the domain. If this is the case, you can log in by using the name or IP address of the server.

Workflow Actions

This chapter describes each of the [action](#) groups and their actions.

Workflow Designer groups actions according to the service that executes them, with one exception. The actions in the Common group can be executed by all Vantage services.

Note: For detailed, implementation-oriented help, open the [Inspector](#) on any action and click the M icon to display its man page.

- [Agility Actions](#)
- [Analysis Actions](#)
- [Aspera Actions](#)
- [Aurora Action](#)
- [Baton Action](#)
- [Catalog Actions](#)
- [Common Actions](#)
- [Communicate Actions](#)
- [Edit \(Post Producer\) Actions](#)
- [IPTV VOD Actions](#)
- [MediaMate Action](#)
- [Metadata Actions](#)
- [Monitor Actions](#)
- [Multiscreen Actions](#)
- [Signiant Actions](#)
- [Staging Actions](#)
- [Traffic Actions](#)
- [Transcode Actions](#)
- [Transport Actions](#)
- [VidChecker Action](#)

Agility Actions

Use Agility actions in workflows where you have an Agility ECS system and you want to submit [jobs](#) to it for processing. You can use Agility actions to create workflows, submit and monitor jobs, process MMF files, and control jobs during execution in Agility.

Note: Before you can use Agility actions, the Agility ECS must be identified in the Management Console: Settings & Options > Agility ECS, and you must have an Agility ECS Connector license installed.

Agility actions are executed by the [Agility Service](#):

- [Job Profile Action](#)
- [Job XML Action](#)
- [Process MMF Action](#)

Job Profile Action

Use the Agility Job Profile action to obtain and display a list of Agility profiles from an Agility ECS (which must be configured in the Vantage Management Console and available at design time), from which you can select and configure, to submit [jobs](#).

Job XML Action

Use the Job XML action to submit the [job](#) described in the specified XML to the Agility system for processing. This is an alternative to Vantage-based configuration using the Job Profile action, and is intended for use primarily by Agility users with SDK implementations to generate XML-based job profiles for Agility execution.

Process MMF Action

Use the Process MMF action to process an attached MMF file in Agility, and generate variables from it.

Analysis Actions

Use these actions (executed by the Telestream Transcode & Analysis Engine on behalf of the [Analysis Service](#)) in workflows when you want to perform measurements on media files, compare media files, or identify the characteristics of media files, and publish the results as variables or metadata labels, or set the state of the workflow based on the results.

You can publish analysis results in a metadata label within the [binder](#), or you can publish results as variables so that they can be used for decision-making, or to feed parameters in other actions. In some cases, you can also set the [action state](#) of the [action](#) based on the results of the measurement.

- [Analyze Action](#)
- [Compare Action](#)
- [Examine Action](#)
- [Identify Action](#)
- [MedialInfo Action](#)
- [QC Action](#)
- [Report Action](#)

Analyze Action

Use the Analyze action (which is executed by the [Analysis Service](#)), to perform analysis on media using a variety of analysis tools, and variables for use downstream, with the result of the analysis.

Compare Action

Use the Compare action to examine two media files and determine their differences.

Examine Action

Use the Examine action to analyze the video and audio of a media file, by selecting a given analyzer (black detection, macroblocking analysis, slate detection, etc.).

Identify Action

Use the Identify action to extract the properties of a media or [attachment](#) file (for example, file name, extension, size, or path) or to generate an MD5 hash of a media or attachment file, which you can use to compare two files downstream, or in other workflows.

You can also extract metadata (such as Author or Title) from media files.

In addition, you can extract a comprehensive set of properties from media files (for example, frame size, frame rate, codec, bitrate, number of audio channels, etc.).

Extracted values are assigned to variables (which you create in Vantage Management Console or directly in Workflow Designer), for use later in a workflow. You can also set the workflow state as a result of execution conditions.

MediaInfo Action

Use the MediaInfo action to perform 2 tasks, based on its analysis of the media file and its streams: Create variables from properties via the MediaInfo API, and create a report of the properties and their values.

In each category, you can produce variables of selected metrics with the results the analysis.

QC Action

Use the QC action to perform analysis on media using a variety of analysis tools. The QC action is similar to the Analyze action, with additional features in addition to generating variables for each property.

In each tool, you can test various properties for True/False, min/max values, allowable values, or ranges, and then set pass/fail and other variables based on the results of the analysis. You can use these variables in downstream actions.

Option, you can also produce a report on the analysis.

Report Action

Use the Report action to generate a report file which contains a list of variables and their values.

Examine Action

Use the Examine action to analyze the video and audio of a media file, by selecting a given analyzer (black detection, macroblocking analysis, slate detection, etc.).

Aspera Actions

Aspera servers and applications enable secure, high-speed batch file transfers of various file types, including media and metadata files. Aspera actions are an optional, licensed feature in Vantage; used to deliver media or other files to Aspera systems.

Faspex Delivery Action

The Faspex Delivery action can be used to deliver media or other files to Aspera faspex drop boxes and users.

Aurora Action

The Aurora action is an optional, licensed feature in Vantage. It uses the [Aurora Service](#) to utilize and interact with various QC tests provided by the Digimetrics Aurora software. The tests provide the ability to determine whether a particular input media (specified by nickname) either passes or fails a particular QC check. Each test also generates a report file that may be utilized during later stages of the workflow.

Baton Action

The Baton action is an optional, licensed feature in Vantage. It uses the [Baton Service](#) to enable Vantage workflows to utilize and interact with various QC tests provided by the Baton software. The tests provide the ability to determine whether a particular input media (specified by nickname) either passes or fails a particular QC check. Each test also generates a report file that may be utilized during later stages of the workflow.

Catalog Actions

Catalog actions enable you to query a Vantage catalog to determine if a [binder](#) exists, and also to register a binder in a catalog. These actions are executed by the [Catalog Service](#).

- [Exist Action](#)
- [Register Action](#)

Exist Action

Use the Exist action to determine if a [binder](#) of the same name already exists, thus indicating that a [job](#) has already run on the same media file.

Register Action

The Register action adds the workflow [binder](#) generated by each [job](#) to a Vantage catalog. This allows Vantage to preserve the binder—and all files referenced by it—even after a job expires. This is also how binders become accessible to operators in Vantage Workflow Portal. For more information about configuring Workflow Portal, see [Using Workflow Portal](#).

Common Actions

Common actions are typically light-weight, short duration, utilitarian actions, and do not have a dedicated Vantage service to execute them. Instead, these actions are implemented in every Vantage service, so that any service available can execute them efficiently and instantaneously.

- [Compute Action](#)
- [Construct Action](#)
- [Decide Action](#)
- [Forward Action](#)
- [Receive Action](#)
- [Synchronize Action](#)

Compute Action

A Compute action uses variables to set other variables. For example, you can use Compute to add two numbers and assign the result to the selected variable. Compute can perform mathematical operations such as addition, subtraction, division and multiplication. It can also convert variables between types (such as converting a time code to a string), string manipulation, such as appending strings together into an output variable, and comparison functions.

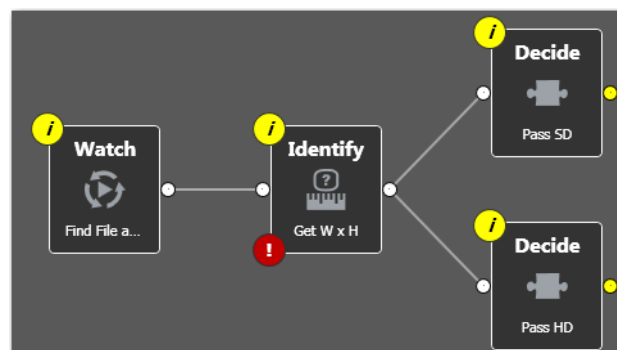
Construct Action

A Construct action enables you to construct complex strings, paths, and math expressions from literals, variables, and tokens, for use in downstream actions.

Decide Action

A Decide action sets the *action state* based upon variables. It is commonly used to determine whether or not a branch in a workflow should execute (it sets the Success state) or not (it sets the Ignore state).

Figure 125. Decide Actions Enable You to Branch Media Processing



For example, if one branch is for HD, it will start with a Decide action that will set the state to Success for HD content, ignore otherwise; if another branch is for everything else, it will start with a Decide action that performs the opposite behavior.

Forward Action

A Forward action starts a new [job](#) for the target workflow, delivering a [binder](#) and all current variables from the originating. A Forward action can only be added to the end of a workflow, and requires that the target workflow has a Receive action as its first action.

The Forward action is the only terminating action in Vantage—it does not have a connecting pin on the right side. Thus, once you add a Forward action to a workflow (or branch in a workflow), you cannot add any more actions, because control has passed to another workflow with a Receive action as its origin action.

Typically, workflows are created with a Receive action when they are intended for execution by another workflow that immediately precedes this one. This ability to chain workflows enables you to create run-time customizable workflows consisting of smaller workflow building blocks.

Receive Action

A Receive action is a special, [origin action](#) that is designed to accept a from some external source: another workflow, an SDK-based application, or Workflow Portal. The Receive action is an optional, licensed feature for use Forward workflows, and with SDK-based applications and Workflow Portal applications.

A workflow can use a Forward action to directly submit media to a workflow that starts with a Receive action.

The ability to chain workflows enables you to create run-time, customizable workflows consisting of smaller workflow building blocks. When you chain workflows, you can also pass [binders](#) and variables between them.

Another way to submit media to a workflow with a Receive action is to manually submit with Workflow Portal (see [Using Workflow Portal](#)), or with an application built on the Vantage SDK.

Note: An origin action is required as the first action in a workflow, even if you plan to only manually submit [jobs](#) to this workflow.

Synchronize Action

The Synchronize action is used in workflows where multiple actions connect to multiple subsequent actions. Synchronize provides a common connection point, where all upstream actions need to be connected to all downstream actions.

Communicate Actions

Communicate actions are used to communicate with external systems. They are executed by the [Communicate Service](#).

- [Message Action](#)
- [Notify Action](#)

Message Action

A Message action enables you to generate and transmit an electronic message—an email, for example. You must configure Vantage to use an SMTP server before email can be utilized; this can be done in the Vantage Management Console.

Notify Action

A Notify action saves [job](#) information to an XML file, invokes a command shell and passes data, or interfaces with an external system via Web Services.

In TrafficManager applications, this action is useful to notify automation systems that a commercial has been processed and is available for air. For example, a Notify action can create text or CSV dublists and provide them to automation systems that are capable of processing dublists in that format.

Edit (Post Producer) Actions

Edit actions are components of Vantage Post Producer, an optional, licensed feature. These actions are executed by the Edit Service, and may run on a Vantage Lightspeed server or a standard Vantage server.

- [Chronicle Action](#)
- [Compose Action](#)
- [Conform Action](#)

Chronicle Action

The Chronicle action converts a post-rendered Composition XML file into an SCTE35 file, for use in ad-insertion systems.

Compose Action

The Compose action converts various media descriptor file formats (such as Anystream AN2 and Telestream TSEDL) into a Composition XML file so that it can be used by the Conform action to compose media.

Conform Action

The Conform action assembles and optionally transcodes multiple video and still image files into a single output file, applying filters as specified by you. The input files and related specifications for the output file are all defined in a Composition XML file.

IPTV VOD Actions

The IPTV Flip action (in the IPTV VOD category) is included with the Cable / IPTV version of TrafficManager. IPTV VOD transcoding is designed for generating MPEG2 Transport Stream files and meeting multiplexing requirements. IPTV Flip actions are executed by the Cable Transcode Service, which can optionally run on a Lightspeed server for GPU-accelerated x264 encoding and video processing.

IPTV Flip Action

The IPTV Flip action and Cable Transcode Service supports the features required to handle varying IPTV, set-top box and cable encoding requirements, and ancillary metadata specific to cable ad splicing and cable/IPTV set-top box environments. Transcoding is performed by the Telestream Media Transcode and Analysis engine on behalf of Vantage.

MediaMate Action

The MediaMate action enables you to implement screen subtitling. This is an optional, licensed feature. The MediaMate action is used to provide screen subtitling, by utilizing various subtitling systems from Screen.

Note: The MediaMate action is only supported on 64-bit Windows Server 2008.

Metadata Actions

Metadata actions are an optional, licensed feature available in certain Vantage editions. They are used to perform conversions between [attachment](#) files, metadata labels, and variables. These actions are executed by the Metadata Service.

- [Populate Action](#)
- [Transform Action](#)

Populate Action

Populate actions transform data between variables, attachments, and metadata labels. During ingest, metadata labels can be added to ingested media and generally include trim information, audio levels, file properties, and commercial metadata. The metadata labels can then be reviewed and modified by operators using Workflow Portal. At any stage of a workflow, Vantage can extract information from labels using the Populate action, allowing Vantage for example to use trim points during a transcode, or audio level information when creating the final broadcast asset.

Transform Action

A Transform action transforms data between XML files (attachments) and labels. XSL style sheets are used to perform these transformations.

Note: The Transform action is available in Metadata or Transcode Connect licenses. You can only use style sheets that have been implemented in the [database](#); you cannot select an XSL style sheet from a file system. The Vantage administrator manages your XSL style sheets using the Vantage Management Console (Vantage Domain > Workflow Design Items > Style Sheets).

Monitor Actions

Monitor actions are used to identify and ingest files to be processed by a workflow, and in the case of the Watch action, start [jobs](#) for this workflow. They are executed by the Monitor Service.

- [Watch Action](#)
- [Associate Action](#)

Watch Action

A Watch action is a special [origin action](#), which uses the Monitor Service to continually (and at regular periods) poll a target location (a directory, for example) on a device or file system (FTP, network folder, etc.) to discover new files.

When a new file is discovered, the Watch action submits a [job](#) to the workflow which it is part of, for processing the file, typically a media file.

Note: An origin action is required as the first action in a workflow, even if you plan to manually submit jobs to this workflow.

Associate Action

An Associate action uses the Monitor Service to continually (and at regular periods) poll a target location (a directory, for example) on a device or file system (FTP, network folder, etc.) to discover new files.

Often, an Associate action follows a Watch action, and utilizes the file name of an existing media file or [attachment](#) as the basis for discovering new files; for example, if media file *Vantage.mpg* is currently in the workflow, then the Associate action may look for *Vantage.scc*. The Watch action can publish the file name as a variable, and pass it to the Associate action to pick the corresponding file (the file extension must be dropped to accomplish this). The required file match pattern can be configured in the Associate action's [Inspector](#) dialog.

Associate actions only execute when the new file is discovered; subsequent actions can't execute until the file is found or a time-out occurs. When the new file is discovered, the Associate action ingests the file, assigns a nickname, and makes the file available to other actions in the workflow.

Note: An origin action is required as the first action in a workflow, even if you plan to manually submit [jobs](#) to this workflow—Associate is not an origin action.

Multiscreen Actions

There is only one action—the Multiscreen Flip action— in the Multiscreen category. Multiscreen is an optional, licensed feature. Multiscreen Flip actions are executed by the Multiscreen Service. The Multiscreen service may run on a Vantage Lightspeed server or a standard Vantage server.

Multiscreen Flip Action

The Multiscreen Flip action allows you to encode and package decoded digital baseband media into industry-standard adaptive rate streaming formats, including Adobe HDS, Apple HLS, Microsoft HSS, and others. Transcoding is performed by the Telestream Media Transcode and Analysis engine on behalf of Vantage.

Signiant Actions

There is one action in the Signiant group.

Signiant Delivery Action

The Signiant Delivery action is an optional, licensed feature which enables Vantage workflows to deliver files to Signiant-enabled servers. The Signiant Delivery action is executed by the Signiant Service, and uses the Signiant Content Transfer Engine (CTE) feature, which must be licensed on the Signiant server.

Staging Actions

The optional, licensed Staging Service actions are responsible for file operations in preparation for moving files to other systems/platforms with special packaging requirements. They are executed by the Staging Service:

- [Archive Action](#)
- [Gather Action](#)

Archive Action

Use the Archive action to convert the selected input file to another format, usually in preparation for copying, moving, or deploying a file to a given system that has special file format requirements.

Gather Action

Use the Gather action to collect one or more files from a specified server and directory (and optionally, its subfolders), and bring them into the workflow as [attachments](#). Use of a file matching pattern allows you to select only certain types of files.

Traffic Actions

The following actions are executed by the Traffic Service and monitor catch servers and dublist servers for new files. These actions are both [origin actions](#), and are a component of TrafficManager, an optional, licensed feature.

- [Catch Action](#)
- [Dublist Action](#)

Catch Action

Use the Catch action (an [origin action](#)) to select a catch server, and configure the action to monitor it for new commercials and syndicated content arriving from the publisher, expose all relevant metadata, and submit the commercial for processing in TrafficManager workflows. The Catch action is part of TrafficManager, an optional, licensed feature of Vantage.

Dublist Action

Use the Dublist action (an [origin action](#)) to select a dublist system or server, and configure the action to monitor it for new dublists, which it resolves with the standing dublist, when used for processing in TrafficManager workflows. The Dublist action is part of TrafficManager, an optional, licensed feature of Vantage.

The Dub List action uses the [binder](#) name as the commercial's unique identifier, so it should be set to either the ISCI code or the Ad ID.

Transcode Actions

The only action in the Transcode group is the Flip action.

Flip Action

The Flip action is executed by the Transcode Service (which in turn utilizes the Telestream Transcode & Analysis Engine). Use the Flip action to create media of a new format, and save it as a file, using a prescribed codec profile. How you configure the encoder depends on the encoder you choose.

Transport Actions

Transport actions are executed by the Transport Service and perform file operations on specified files.

- [Copy Action](#)
- [Move Action](#)
- [Delete Action](#)
- [Deploy Action](#)

Copy Action

Use the Copy action to duplicate a file from one directory to another directory on a given file system. The new file can be tracked by the workflow—that is, referenced in the [binder](#). As a result, the new file must be given a nickname.

Move Action

Use the Move action to remove a file from one directory and place it in another. You can optionally specify a different destination nickname during the move.

Delete Action

Use the Delete action to delete a file on the specified file system. This action also removes the file reference from the [binder](#).

Deploy Action

The Deploy action copies one or more files to a destination in a single step, and may perform additional custom steps depending upon the type of deployment.

Deployed files are not referenced in the [binder](#), and are not tracked after the action completes.

VidChecker Action

The VidChecker action is an optional, licensed feature which enables broadcasters to integrate VidChecker, automated QC and intelligent automated correction, directly in Vantage workflows.

Monitoring Workflows and Managing Jobs

The topics in this chapter describe how to monitor workflows and manage [jobs](#) in Workflow Designer.

- [Checking Workflow Activation Status & History](#)
- [Monitoring and Managing Jobs](#)
- [Submitting Jobs Manually](#)
- [Creating Job Reports](#)
- [Managing Job Report Formats](#)
- [Viewing Binders](#)
- [Controlling Action Execution in Jobs](#)
- [Viewing Action Status](#)

Note: You can also monitor and manage jobs using the Job Status Views Web app. See [Using the Job Status Views Web Application](#).

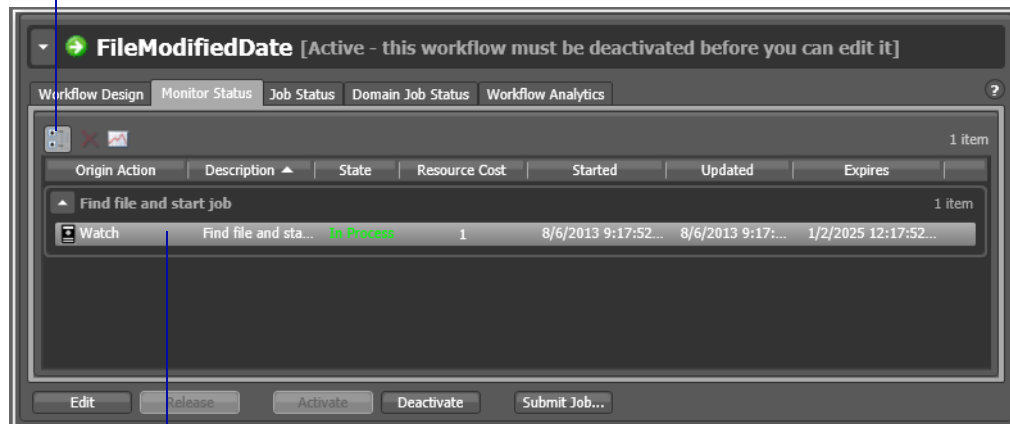
Checking Workflow Activation Status & History

To check on the status and activity history of your workflows, select the workflow for the [job](#), and then click the Monitor Status tab (or select File > Monitor Status).

The Monitor Status tab displays all activation records for the selected workflow, indicating the dates and times when the workflow was active. Each time a workflow is activated, a new activation record is added. It displays each origin action's execution (typically, Watch and [Associate action](#)s) in the selected workflow, and indicates its current status.

Figure 126. Monitor Status Displays Origin Action Details.

Monitor Status toolbar



Each row is an active origin action, indicating status and other details.

Static information in the activation record includes the origin action, resource cost, and several date/time stamps, including when the action will expire.

The state is real time information, indicating the state of the action: In Process (currently executing), Completed, etc.


Click any column to make it the primary column and sort it in ascending or descending order.

These topics provide information on using the Monitor Status tab:



- [Using the Toolbar](#)
- [Viewing Origin Action Record Details](#)

Using the Toolbar


The Monitor Status tab provides the following buttons in the toolbar:

- Show in groups button —Click to organize records for the selected [action](#) by group, based on the primary column—the one you have selected. Click again to turn grouping off. For example, if you select State as the primary field in the table and display Groups, Workflow Designer sorts the records by state: In Process and Complete.

When displayed in groups, click the Down arrow on the table entry to display the origin records in this group (In Process, or Complete, for example).

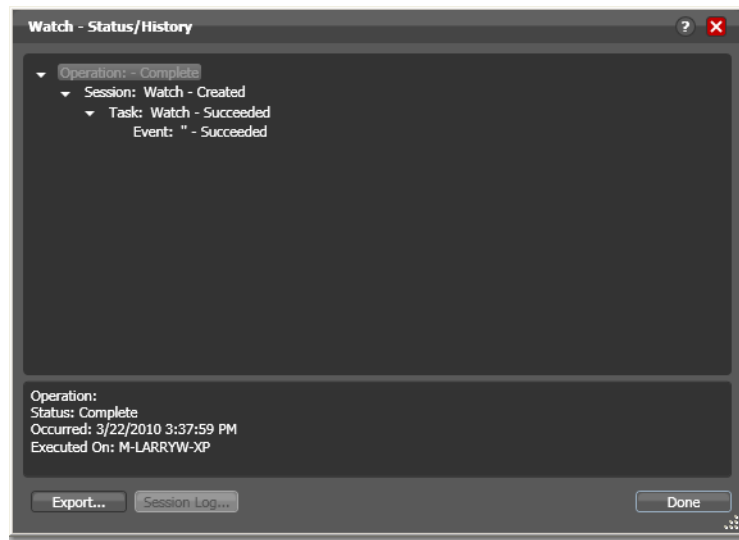
- Delete button —Click to delete the selected record(s). Or, right-click on the record, and select Delete. You can only delete records whose origin actions are complete—that is, the session has ended because the workflow was deactivated.
- Status button —Click to display the selected workflow's origin action details. Or, right-click and select View Status.

Viewing Origin Action Record Details

To display details about the origin action for the selected workflow, double-click the row (or select a row and click the Status button .

The Status/History dialog ([Figure 127](#) and [Figure 128](#)) provides details about the status of an origin action.

Figure 127. Status/History Dialog, Showing Completed Action Status



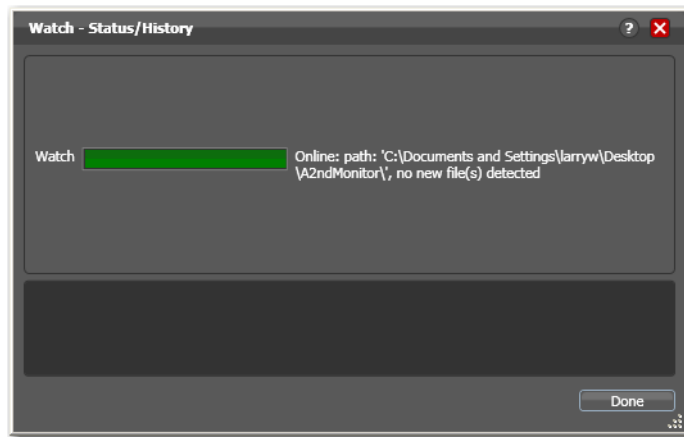
When an action is complete, the Status/History dialog displays information on each aspect of the action's execution. You can use this information to gather details about its execution, and when an action fails, you can use this information to determine why and correct the problem.

Each line in the upper panel of the Status/History dialog provides a summary of some aspect of action execution. To display more information related to a line in the upper panel, click on the line. The detailed information appears in the lower panel.

The symbol to the left of the summary lines in the upper panel allow you to hide or expose subordinate summary lines. Click a symbol to hide or display subordinate summary lines.

When an action is *In Process*, (Queued, Paused, In Process, or Waiting states), the Status/History dialog displays a progress bar, the path of the target directory, and the status.

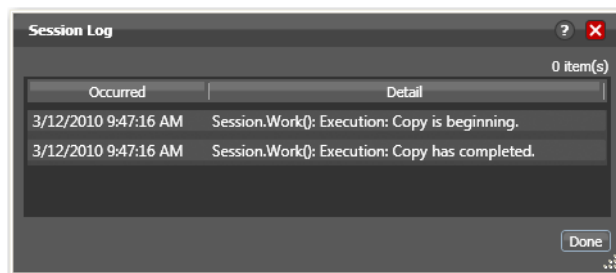
Figure 128. Status/History Dialog, Showing In-Process Action Status



For **jobs** in the Success, Ignore, and Failure states, the Status History dialog displays the following buttons:

- *Export*—Click Export to display a File System dialog, and save the status/history information as an XML file. You can send these files to Telestream for support issues, or export them for processing in other systems.
- *Session Log*—To display a session log, select a session in the upper panel and click Session Log.

Figure 129. Session Log Dialog



The session log displays session activity entries, if any, including which variables have been provided to each **action**. This information can be helpful when debugging the use of variable, or when working on an issue with Telestream Customer Service.

Click Done to close the window.

Monitoring and Managing Jobs

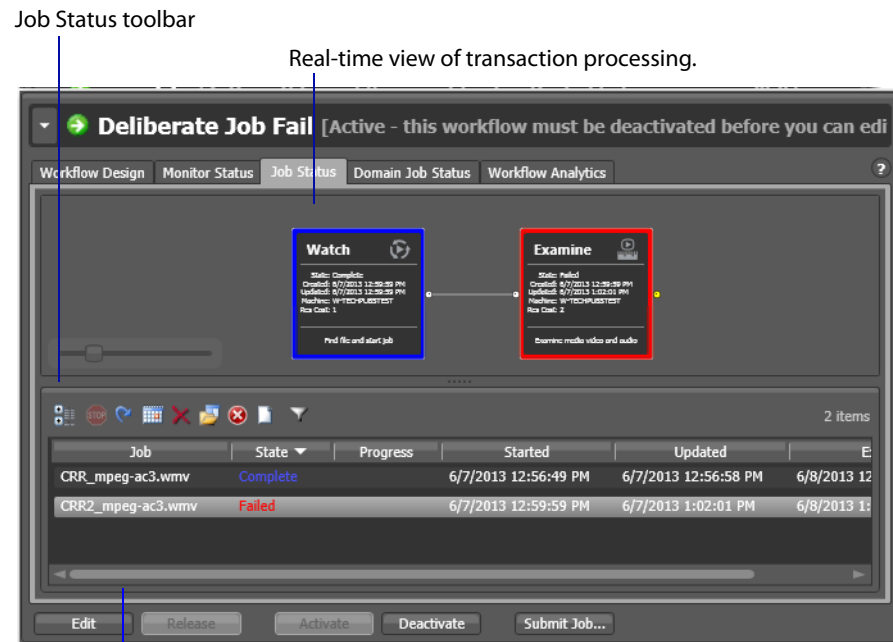
To monitor and manage jobs that are executing (or have already executed), display one of the job status tabs (or click File > Job Status or File > Domain Job Status).

The Job Status and Domain Job Status tabs each display a list of jobs (those that are currently executing and those that have completed) and provide job details. Use these tabs to monitor your media processing, set priorities, view binders and associated files, and to pause and resume jobs in progress.

The only difference between the two is one of scope. The Job Status tab allows you to select a specific workflow, and displays all this workflow's jobs—those that are currently executing, and those that have already completed. The Domain Job Status tab displays all the jobs currently executing in the entire domain, plus any jobs that are complete but failed. Because the Domain Job Status tab displays all jobs in the domain, it also displays 2 columns not present in the Job Status tab: Workflow and Category.

The Job Status tabs are useful when you're performing operator-related tasks, or when you're managing or performing domain-wide production media processing.

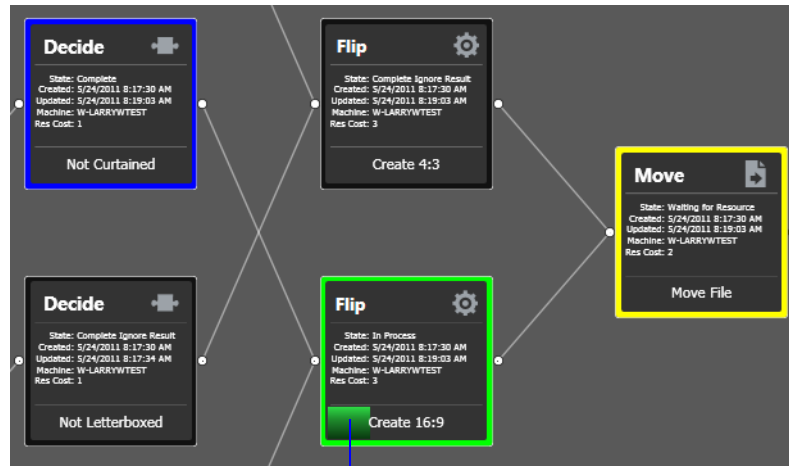
Figure 130. Job Status Tab



Each row is a job processed by the selected workflow, indicating status and other details.

When an action is executing, it is displayed with a green border, and a progress bar displays at the bottom of the action, indicating execution progress.

Figure 131. During Execution, each Action Displays a Progress Bar



The progress bar indicates progress for this action.

The following topics provide additional information on using the Job Status tabs:

- [Viewing the Detailed Action View](#)
- [Using the Job Status Table's Toolbar](#)
- [Using the Jobs Table](#)

Viewing the Detailed Action View

To view [actions](#) in detailed action view, select View > Detailed Action View. In this view, each action displays its state, creation and update dates, and resource costs directly on the action.

Using the Jobs Table

Click any column title in the Jobs table to make it the primary column and sort it in ascending or descending order.

Jobs display a color to indicate their state:











- Yellow—State: Idle, Pending, or Interrupted. An [action](#) is waiting to execute.
- Green—State: In Process. The action is currently executing.
- Blue—State: Complete. The action completed successfully.

Note: Completing without errors does NOT mean that the action performed the task—an action may be configured to execute ONLY when a previous action succeeded or when a previous action failed—thus, an action may complete without errors, and perform *no task at all*.

- Red—State: Failed. This action has failed or an upstream action failed.
- Black—State: Ignored. This action was not executed due to Perform On state mismatch.
- Light Gray—State: Paused or Suspended. An action is paused or suspended.
- Magenta—State: Stopped by User. An action was stopped by a user.
- Orange—State: Waiting to Retry. An action failed and is waiting to re-execute the action.

Using the Job Status Table's Toolbar

The toolbar for the Jobs table is displayed directly above the table. It provides buttons for the following commands:

- Show in groups button —Organizes [jobs](#) by group, based on the primary column—the one you have selected. Click again to turn grouping off.
- Stop button —Halts processing on this job. When you stop a job in process, each [action](#) for that job is notified to stop its own transaction. When all actions have been stopped, the job is considered complete, in a user-stopped state.
- Restart button —If a job was stopped or it failed, re-starts and continue processing where it was stopped. Actions that fail or are stopped by a user are re-executed. When you restart a job, it is started as a first-time job again. This affects the execution of retry rules.
- Set job expiration button —Modifies the default expiration time for this job. Workflow Designer displays the Set Job Expiration dialog—specify a new expiration date and click OK.
- Delete button —Deletes the selected job row(s). Or, right-click and select Delete.
- Binder button —Displays the selected job's [binder](#). Or, right-click an action or the job row in the table, and select View Binder. For details, see [Viewing Binders](#).
- Job Errors button —Displays details about errors encountered in the job.
- Job Report button —Creates a job report. Select one or more jobs in the table, and click on the Job Report button. For details, see [Creating Job Reports](#).
- Jump to Workflow button —This button only displays in the Domain Job Status tab. To jump directly to the workflow for this job, select a job in the table and click the button.
- Filter button —Displays only jobs that contain specific text in the job name. Enter the text to begin filtering displayed jobs. Delete the text (or just close the filter by clicking the filter button) to display all jobs again.

Note: When you stop, restart, or delete a job with Agility actions in the workflow, Agility transactions and tasks are also stopped, restarted, or deleted.

Submitting Jobs Manually

To submit a [job](#) to any active workflow directly in Workflow Designer, do the following:

1. Select the target workflow and click Submit Job.

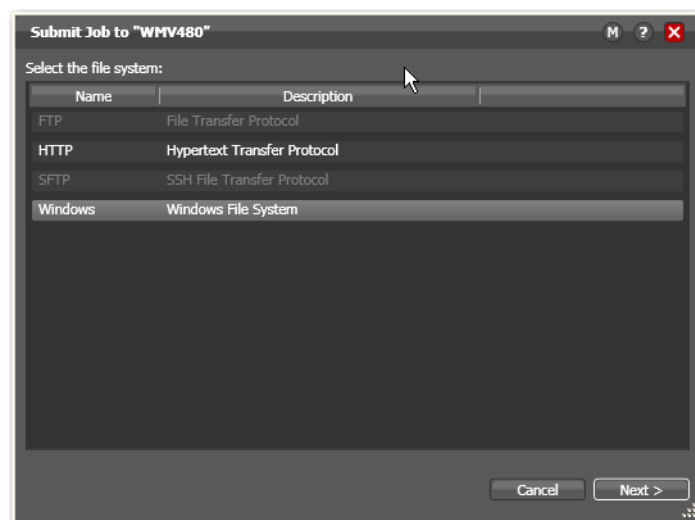
Figure 132. Workflow Designer Window, Showing Submit Job Button



Note: You can only submit jobs to active workflows.

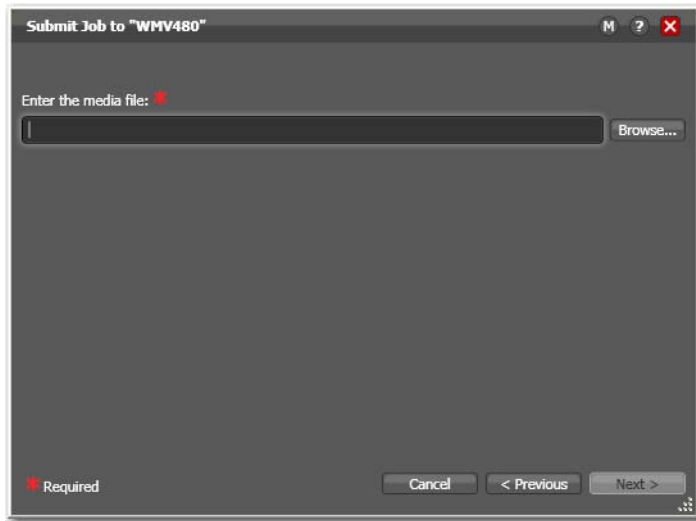
Workflow Designer displays the Submit Job dialog shown in [Figure 133](#).

Figure 133. Submit Job Dialog



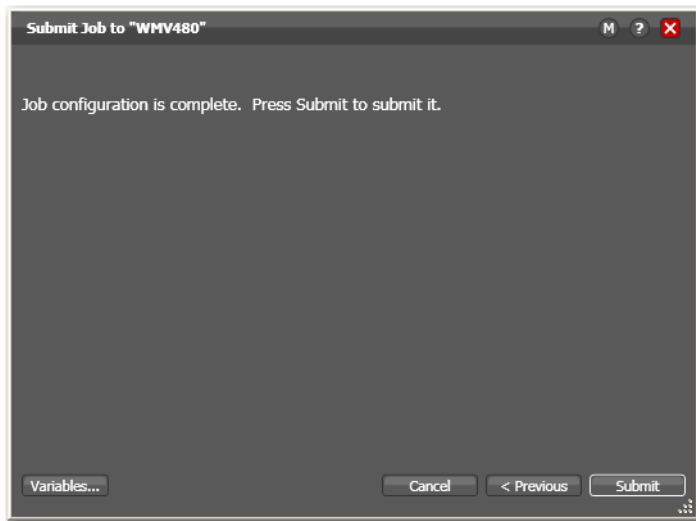
2. Select the type of file system where the input file is stored, and click Next.

Figure 134. Submit Job Window, Selecting the Media File



3. Click Browse to navigate to the directory and select the file you want to submit, then click Next.

Figure 135. Submit Job Dialog, Showing Variables and Submit Buttons



4. Optionally, click Variables to manually add a variable with a static value to this [job](#). For details, see [Adding Variables to an Action](#).

Variables can be used by [actions](#) to control their behavior and workflow logic. (Variables are also used by services when configured with processing rules, to control which actions can be executed by a given service instance.)

For example, you might be submitted an extremely long movie file for encoding—and you have a Transcode Service on a dedicated server specifically for processing

long jobs. You add the appropriate variable and enter the predetermined value to route this action to this service.

5. Click Submit to submit the job for processing.

When you have submitted the job, you can view its progress in the Job Status tab (see [Monitoring and Managing Jobs](#)).

Creating Job Reports

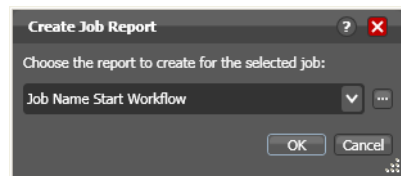
Workflow Designer creates [job](#) reports for the selected job or jobs, as comma-separated value (CSV) files. You can open these reports in spreadsheet programs and other programs that can display CSV files, or you can use the CSV files in other systems, such as databases or media asset management systems.

Each job report is based on a job report format you select ([Managing Job Report Formats](#)).


Note: If there are no job report formats, Workflow Designer displays a dialog indicating that you need to create one. Click OK to display the Job Report Manager, so you can create a job report format ([Managing Job Report Formats](#)).

To create a comma-separated values job report, select one or more jobs in the table, then click on the Job Report button in the toolbar. Workflow Designer displays the Create Job Report dialog.

Figure 136. Create Job Report Dialog

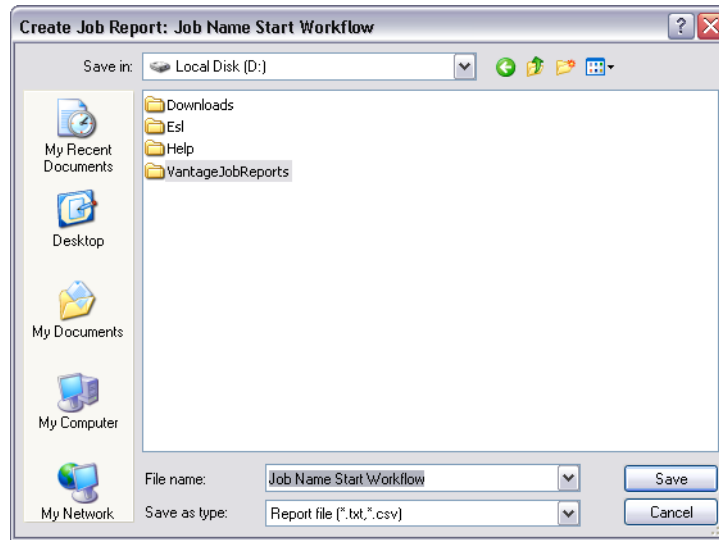


Select a job report format from the list and click OK to continue.

Note: To manage job report formats, click the browse  button to display the Job Report Manager dialog. For details, see [Managing Job Report Formats](#). You can also manage job reports in the Vantage Management Console.

Vantage displays the File System dialog, which you can use to select the server and directory where you want the CSV report file for the selected job or jobs stored, as shown in the following figure.

Figure 137. Selecting a Folder and Naming a Job Report Format File



Optionally, enter a new name for the job report file (or append a date or other significant qualifier) and click Save to process the report and save the file with a .csv file extension. When the report file has been generated, Vantage displays a dialog to indicate where the file was saved. Click OK to close the dialog.

Managing Job Report Formats


Use the Job Report Manager dialog to create a new [job](#) report format, or to edit or delete an existing job report format.

The following sections describe these tasks:

- [Displaying the Job Report Manager Dialog](#)
- [Creating a New Job Report Format](#)
- [Including and Excluding the Header Row](#)
- [Choosing the Report Columns](#)
- [Duplicating a Job Report](#)
- [Deleting a Job Report](#)

Displaying the Job Report Manager Dialog

To view the Job Report Manager dialog, follow these steps.

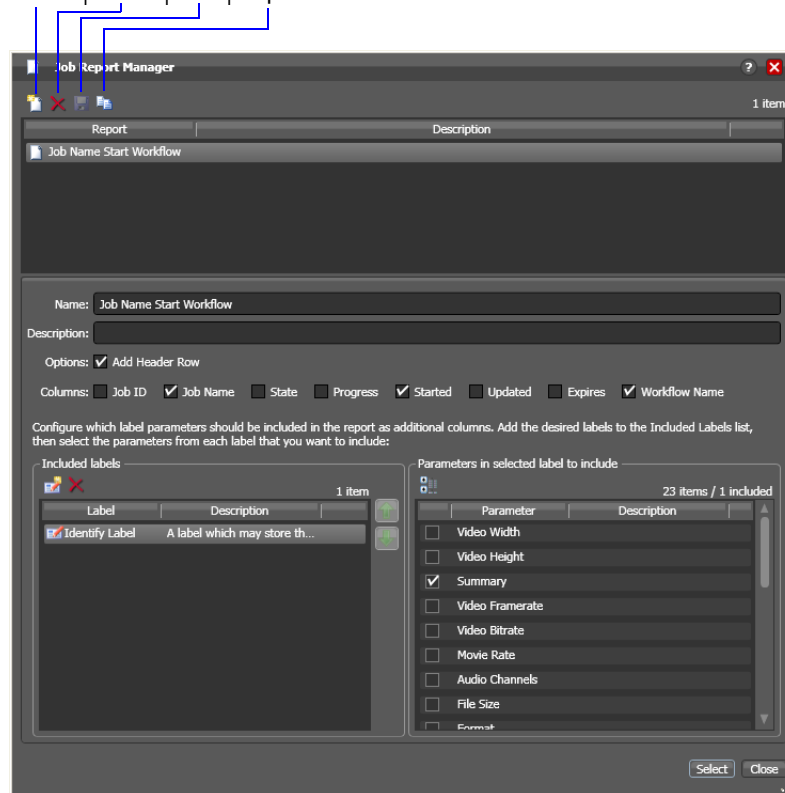
1. Display the Job Status or Domain Job Status tab.
2. Click the Job Report button in the toolbar to display the Job Reports dialog.
3. Click the browse  button to the right of the popup menu.

Workflow Designer displays the Create Job Report Manager dialog, shown below.

Figure 138. Using the Job Report Manager to Configure Templates

Toolbar buttons:

Create | Delete | Save | Duplicate





Creating a New Job Report Format

You can create [job](#) report formats in Workflow Designer.


Note: Vantage domain administrators can also create report formats with the Vantage Management Console.

To create a new report format, do the following:

1. Click the Create report button .
Workflow Designer adds a new report to the report list and selects it.
2. Enter a new name in the Name field.
3. Optionally, enter a report description in the Description field.
4. Click the Save button .

Including and Excluding the Header Row

To include or exclude a header row in the job report, select the report and do the following:

1. Check the Add Header Row check box to include the header row, or clear the checkbox to exclude the header row.
2. Click the Save button .

Choosing the Report Columns





You can configure reports to include or exclude the following columns:


- Job ID
- Job Name
- State
- Progress
- Started
- Updated
- Expires
- Workflow Name
- Additional columns for metadata label parameters

When you choose to display a column for a metadata label, the column displays the label value.

To define which columns appear in a report, select the report, and do the following:

1. Under Columns, check (display) or clear (hide) the check boxes for the columns you want to display.



2. To add or delete columns for metadata labels, do the following:
 - a. Click the Add Column button  to display the Select Label Parameters for Columns dialog.
 - b. In the Labels pane, select a label for which you want to display parameters.
 - c. In the Parameters pane, check the checkbox for any parameter you want to display, and clear the checkbox for any parameter you do not want to display. To toggle the display of parameter by category, click the Category button . One display state displays parameters with category headings; the other displays them without category headings.
 - d. Repeat parameter label selection until all labels are properly selected.
 - e. Click OK.
3. To change the displayed order of parameter labels, select a label in the list and use the green up  and down arrow  buttons to move the label in the list.

The top item in the list appears to the right of the columns listed in the Columns row, and to the left of all the other label columns. The last item in the list becomes the last column on the right.
4. Click the Save button .

Duplicating a Job Report


When you duplicate a [job](#) report, a new report is created with a modified report name. All other configuration settings in the duplicate report match those in the original report.

To duplicate a job report, do the following:

1. Select the report to duplicate.
2. Click the Duplicate button .
3. In the Name text box, enter a name for the duplicate report.
4. In the Description text box, optionally enter a description for the duplicate report.
5. Click the Save button .

Deleting a Job Report

To delete a [job](#) report, select the report and do the following:

1. Click the Delete button .
2. When the confirmation dialog displays, click OK.

Viewing Binders

The Binder window displays information about all of the files ingested or generated in a [job](#). Or, subsequent jobs for the same media file, when the Register [action](#) is configured to overwrite [binders](#) when a media file of the same name is submitted (Conflict Resolution). Assets in the binder are organized by media, metadata, and [attachments](#), each in its own tab.

To view the binder for the selected job, choose:


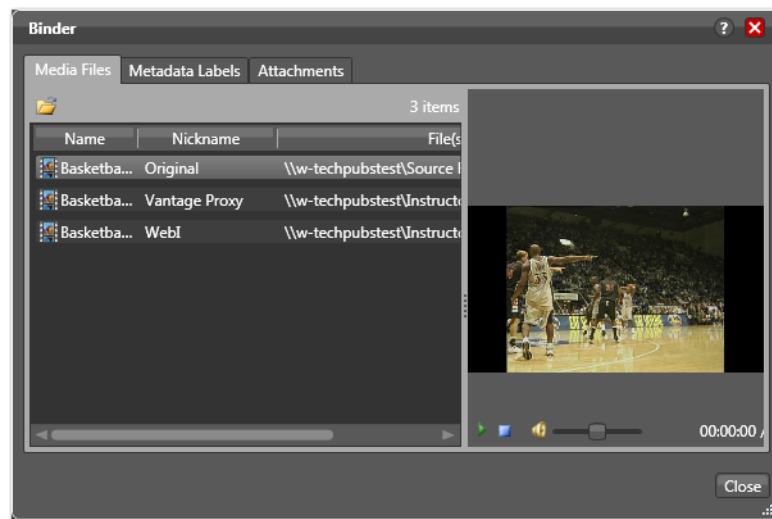
- Click the binder button  in the toolbar
- Right-click on any action, or job row in the table, and select View Binder.
- Double-click the job row in the table.

Figure 139. Viewing the Binder and Its Assets



Media Files tab—Displays a list of media files ingested or created in the job, including the file’s path, nickname, and filename. To the right is a WMV player control, where you can preview the selected file provided that it is playable by Windows Media Player (typically, .wmv, .avi, and .asf, depending on your configuration).

Note: When running Workflow Designer on Windows Server 2008, unless Desktop Experience is installed, you can’t review media. For details, see Windows Server 2008 Requirements in the Domain Management Guide.

Metadata Labels tab—Displays metadata labels in the [binder](#), their parameters and values. You cannot edit values in this viewer. You can edit metadata in Workflow Portal and Vantage Management Console as necessary.

Attachments tab—Displays a list of [attachment](#) files, including each file’s path, nickname, and filename.

Controlling Action Execution in Jobs

These topics describe how you can control actions in your jobs:

- [Pausing and Resuming Flip Actions](#)
- [Pause for Priority in Flip Actions](#)
- [Setting an Action's Execution Priority](#)

Pausing and Resuming Flip Actions

To pause and resume Flip actions in a job in progress, right-click on the action and select Pause from the context menu. To resume a paused action, right-click on the job and select Resume from the context menu.

You cannot pause actions in certain states or in certain workflows. For example, you cannot pause an action that has failed. Also, you cannot resume an action downstream of another failed action, without restarting the first failed action, etc.

Pause for Priority in Flip Actions

Pause for Priority is an automatic feature of Flip actions. Here's how it works:

If a given Transcode Service is saturated (that is, it is performing a number of jobs equal to the maximum number of sessions); then normally, Vantage will queue up the incoming job and wait for a slot to become available. For example, a Transcode Service is configured to run 2 simultaneous jobs; it receives three jobs (A, B and C); jobs A and B begin execution (the service was idle prior to this) and job C is queued until either job A or B completes (at which point C will execute).

Pause for Priority comes into play if job C has a higher execution priority than job A or B. When job C has a higher priority than job A, then job A is paused and job C begins processing immediately. When Job C or Job B completes; then job A (which was previously paused) returns to processing.

Setting an Action's Execution Priority

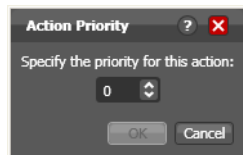
You can modify the execution priority of actions that are in the Wait, Pause, or Running states. You cannot set an [action](#) priority for a completed action.

To change the priority of an action that has not completed, do the following:

1. Right-click the action and select Priority.

Workflow Designer displays the Action Priority dialog.

Figure 140. Action Priority Dialog



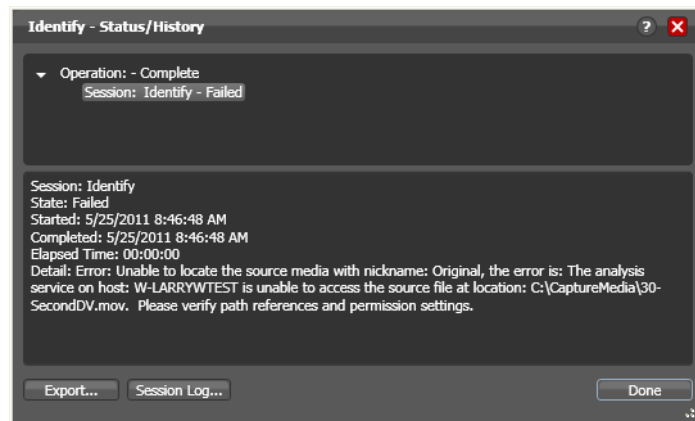
2. Change the priority value, and click OK to modify the priority of this action in this [job](#).

Viewing Action Status

To view details about the status of any **action** in a **job**, select the job in the jobs list, right-click the target action in the workflow, and select Status.

The Status/History dialog (Figure 141) provides details about each aspect of the action's execution. You can use this information to gather details about its execution, and when an action fails, you can use this information to determine why and correct the problem.

Figure 141. Status/History Dialog



Each line in the upper panel of the Status/History dialog provides a summary of some aspect of action execution. To display more information related to a line in the upper panel, click on the line. The detailed information appears in the lower panel.

The symbol to the left of the summary lines in the upper panel allow you to hide or expose subordinate summary lines. Click a symbol to hide or display subordinate summary lines.

Export—Click Export to display a File System dialog, and save the status/history information as an XML file. You can send these files to Telestream for support issues, or export them for processing in other systems.

Session Log—To display a session log, select a session in the upper panel and click Session Log.

Click Done to dismiss the Status/History window.

Using Workflow Analytics

Use this chapter to learn how to use Workflow Designer to analyze workflows and [job history](#) to identify problems and improve overall system performance.

- [Understanding Workflow Analytics](#)
- [Using the Workflow Analytics Panel](#)
- [Performing Bottleneck Analysis](#)
- [Performing Execution Analysis](#)

Note: Features in editions for which you do not have a license are disabled, and indicate that you need a license to use them.

Understanding Workflow Analytics

Workflow analytics is an optional, licensed feature in Workflow Designer, and requires a Reporting and Analytics license. Workflow analytics enables you to visually analyze workflows and [job](#) history to identify problems and improve overall system performance.

In Workflow Designer, workflow analytics enables you to view jobs (based on the job history currently in the [database](#)) on a case-by-case basis to:

- Identify performance bottlenecks by [action](#) in a workflow
- Analyze workflow execution as a result of decisions in a workflow
- Visualize the progress of multiple jobs submitted to a single workflow
- Rank workflows and actions, based on processing time consumption.

Note: Because workflows may be modified over time, jobs run in the selected workflow prior to the last change are ignored.

Vantage administrators and personnel responsible for designing and implementing workflows can use this information to modify workflow design and improve Vantage domain performance and efficiency.

Note: In the Management Console, workflow analytics enables you to analyze workflows at the domain level. For details on using workflow analytics in the Vantage Management Console, click the Help button in the toolbar to display the *Vantage Domain Management Guide*.

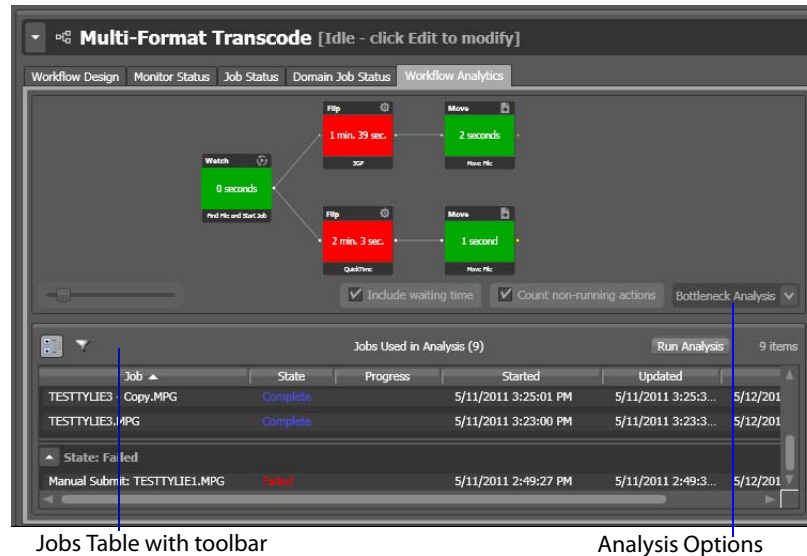
Workflow analytics automatically includes new jobs that are submitted, as appropriate, displaying them in the Jobs table and recalculating metrics.

Using the Workflow Analytics Panel

Click the Workflow Analytics tab (or click File > Workflow Analytics), and select the workflow in the Workflows panel to view **job** history information, which helps you identify performance bottlenecks and collect workflow processing statistics.

Figure 142. Workflow Analytics Panel Displays Workflow Execution History

Actions display the average execution time, and stack rank time relatively by color—green (fastest) through red (slowest).



Jobs Table with toolbar

Analysis Options

To select a workflow to view, use the Workflows list to the left of the Workflow Analytics tab. Open the appropriate workflow category and click on any workflow to select it. You can then view all of the job history records for the selected workflow in the Workflow Analytics tab.

After making your job selection (see below), click the Run Analysis button to begin near real-time display of the analytics data. To stop calculating and updating the data (or to change the jobs you want to analyze), click Stop Analysis.

The following topics provide additional information:

- [Using the Jobs Table Toolbar](#)
- [Using the Jobs Table](#)

Using the Jobs Table Toolbar

The toolbar for the Jobs table displays buttons for the following commands:

Groups—Click to organize the [jobs](#) by group, based on the primary column—the one you have selected. Click again to turn grouping off.

Filter—Click to display (and thus determine the set) only jobs that contain specific text in the job name. Enter the text to begin filtering displayed jobs. Delete the text to display all jobs again.

Using the Jobs Table

Click any column in the Jobs table to make it the primary column and sort it in ascending or descending order.

When you first select a workflow, no jobs are selected, so all jobs are considered in calculating the metrics. Select any job or jobs (shift-click or control-click) to view the selected set's analytic details.

To deselect all jobs and return the table to its original state, select one record, then control-click to deselect it.

Performing Bottleneck Analysis

Select Bottleneck Analysis from the popup menu on the far right. Workflow Designer displays elapsed time for the selected records in the [job](#) history set.

In bottleneck analysis (which is enabled by default), you can identify the longest running [actions](#) in a workflow, based on color and time values.

Color values are applied to each action from green to red on a sliding scale, based on a comparison of the average of all selected job records. The shortest average execution time displays the darkest shade of green; the longest displays red. Those in between display color values through yellow-green, yellow (average), and orange.

Numeric values on each action display the average execution time of the actions which ran, based on the selected job records.

When performing bottleneck analysis, choose:

- *Include Waiting Time*—Check to add wait time to execution time and display the combined total time for each action. Wait time includes time spent in a Waiting state and a Paused state. Uncheck to display only execution time.
- *Count Non-running Actions*—Check to include the execution time (0 seconds) of actions that did not run, thus providing a weighted bottleneck analysis based on which branches in a workflow executed, based on decision actions. This allows you to focus upon the actions which are bottlenecks in real-world operations.

Uncheck to disregard non-running actions when calculating the execution time. This allows you to find the most expensive actions, regardless of whether or not they are commonly run.

Performing Execution Analysis

Select Execution Analysis from the popup menu on the far right. Workflow Designer displays percentile and numeric values for the selected records in the [job](#) history set.

In execution analysis, you can determine which percentage and number of [actions](#) executed, based on the selected job history set, based on color and percentile values.

Color values are applied to each action from black to green on a sliding scale. The lowest average execution displays the darkest shade of black; the highest displays green.

Darker actions are those that have not executed yet (near zero percent). Dark green actions are average (near 50 percent), and the highest percentile executing actions are bright green (approaching 100 percent).

For each action, the percent of executions completed is calculated against the total number of jobs, based on your selected job criteria.

When using execution analysis, choose your job criteria:

All Jobs | *Only Completed Jobs* | *Only Successful Jobs*—Select to include all selected jobs regardless of their status, only completed jobs (thus excluding running or partially completed jobs), or only successful jobs in the calculations.

Using Workflow Portal

This chapter describes how to use Vantage Workflow Portal. Workflow Portal is a user-configurable program, designed specifically for operator-driven media processing systems.

Workflow Portal is provided as a Windows program and a Web application. The Workflow Portal Windows program (called *Workflow Portal Windows client*), provides optimum performance and the full feature set. The Web application, which is called the *Workflow Portal Web client*, provides most of the features in the Windows client and enables platform-independent operation from any computer with a Web browser and a network or Internet connection to a Vantage domain.

The following topics introduce and describe Workflow Portal:

- [Starting Workflow Portal](#)
- [Workflow Portal Overview](#)
- [Understanding Workflow Portal Configurations](#)
- [Workflow Design Guidelines](#)
- [Starting a Workflow Portal Session](#)
- [Using Workflow Portal Controls](#)
- [Submitting Jobs in Workflow Portal](#)
- [Changing or Reloading a Configuration](#)
- [Deleting Binders from a Catalog](#)
- [Troubleshooting Workflow Portal](#)

Most of these Workflow Portal topics apply to both the Workflow Portal clients. When a topic applies to only one client, it is noted in that topic.

Note: For basic information on using Vantage clients, including starting and stopping Workflow Portal, Vantage Web client requirements, starting and stopping Web clients, changing domains, user names and passwords, see [Vantage Client Programs](#).

When using Workflow Portal on Windows Server 2008, you might have problems minimizing windows you have maximized by dragging them to the top of your monitor. To disable the AeroSnap feature, open *Control Panel > Ease of Access Center > Change how your mouse works*, and check *Prevent windows from being automatically arranged when moved to the edge of the screen*.

Starting Workflow Portal

To start Workflow Portal, do one of the following:

- Double-click its shortcut on your desktop
- If the shortcut has been deleted, click Start > All Programs > Telestream > Vantage > Workflow Portal.

Next, select a domain and log in, then select a configuration.

Note: For complete information on managing Windows clients, including starting and stopping the program, logging into and changing domains, changing Vantage users and passwords, and selecting configurations, go to the Vantage User's Guide > Managing Windows clients.

Workflow Portal Overview

Video operations frequently require some form of operator intervention as media is processed. An operator might initiate processing, evaluate pre-processing results, scrub and set trim points, add metadata to the workflow process, and submit media to alternative Vantage workflows for further processing. A single, automatic Vantage workflow is not the answer to all media processing applications.

Figure 143 shows how Workflow Portal is implemented and utilized in a Vantage domain.

Figure 143. How Workflow Portal is Implemented



Operator access to [job](#) and media metadata is a powerful feature that enables operators to control the operation of the next workflow. For example, operators can edit metadata labels to add tags to media, control content routing, or select other processing options in the next workflow.

Some applications of Workflow Portal features include:

- *Highlight Extraction From Archive Files*—The operator marks in and out timecodes and chooses the timecode for a thumbnail.
- *Promo Preparation*—The operator marks the voice-over and graphics entry points on the timeline. A subsequent workflow reprocesses the promo for multiple markets, days, and languages based upon this input.
- *VOD Distribution*—The operator creates a playlist of clips and enters metadata. A subsequent workflow merges the clips into a single media file and transforms metadata for distribution.
- *TrafficManager*—The operator searches catalogs, and reviews and submits commercial inventory for processing.

Workflow Portal provides multiple features for performing media processing. These features allow operators to:

- Browse Vantage catalogs for the results ([binders](#)) of completed [jobs](#):
 - Preview/scrub media
 - Determine 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
- Create an [Edit Decision List](#) (EDL) of clips for stitching (Windows client only)
- Browse Windows servers for media and submit it to a workflow, updating metadata and variables during submission (Windows client only)

To implement Workflow Portal, a Vantage domain administrator must first use the Vantage Management Console to do the following:

- Enable support for Workflow Portal.
- Configure one or more *Workflow Portal configurations*, which define the Workflow Portal feature set for specific applications and the features and resources available to operators.

Note: Administrators who are setting up a Workflow Portal configuration should refer to the *Vantage Domain Management Guide*.

Preparation for Workflow Portal usage requires planning by the Vantage administrator and workflow designer, and implementation by the Workflow Portal operator. This guide provides general information on using Workflow Portal. The exact procedures for your application should be documented by the those who design it.

Understanding Workflow Portal Configurations

When you start Workflow Portal, you must select a configuration before you can manage media with Workflow Portal. A *Workflow Portal configuration* is a specific configuration that defines how a Workflow Portal session operates. These configurations are defined by the Vantage domain administrator.

Note: Once you have selected a configuration, each time you launch Workflow Portal it uses the configuration that was last used.

Within a Vantage domain, there can be many Workflow Portal configurations, each with a unique, application-specific purpose. However, each configuration belongs to one of the following types:

- *Browse Catalogs (copy binder)*—Copy Binder
- *Browse Catalogs (forward binder)*—Forward Binder
- *Browse Windows Network (create binder)*—Browse Network
- *Create EDL from Catalogs (create binder)*—Create EDL

The names before the dash in the list above match the names a Vantage domain administrator sees when creating a Workflow Portal configuration. The names that appear after the dash are the abbreviated names used in this guide.

The Copy Binder, Forward Binder, and Create EDL configurations are all designed to allow operators to browse Vantage [catalogs](#) for [binders](#) that have been registered by a previous of a Vantage workflow. Depending on the configuration, operators can select binders, view media and metadata, edit metadata, and submit the binder and its media to another workflow for further processing.

The Browse Windows Network configuration allows you to browse a Windows server, select a media file, review/edit metadata, and submit that file to a workflow.

When you are working with a Copy Binder or Forward Binder configuration, Workflow Portal displays a Catalogs list. Likewise, Workflow Portal displays a Create EDL tab (see [Figure 146](#)), when you're using a Create EDL configuration. When Workflow Portal only displays a file selection control and workflow selection list, you're working with a Browse Windows Network configuration.

The following topics provide more information on Workflow Portal configuration types:

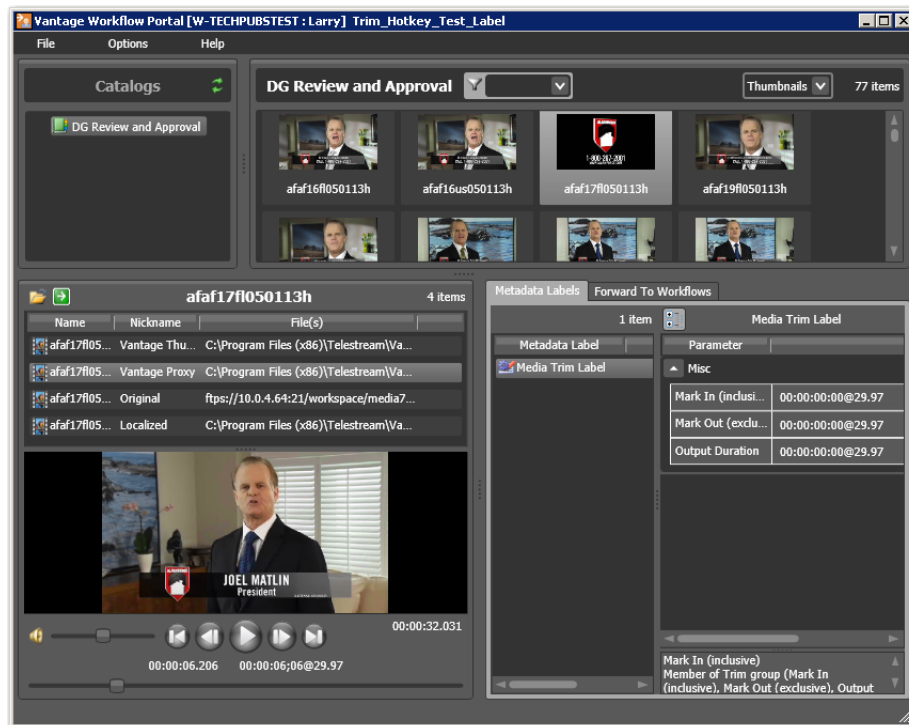
- [Understanding Binders and Catalogs](#)
- [Understanding Copy & Forward Binder Configurations](#)
- [Understanding the Create EDL Configuration](#)
- [Understanding the Browse Windows Network Configuration](#)

Understanding Binders and Catalogs

Each time you submit media to a workflow, it starts a **job** and executes. Provided that the workflow has a Register action, information related to each job is recorded in a user-specified Vantage **catalog**, as a uniquely-named **binder**. A binder is a Vantage catalog container, which contains file references (URLs or UNC paths) to media that was used or created in the job, and metadata labels for the job, plus variables that were used in the job. Binders do not contain media files or **attachments**; they contain the paths to those files. The binder also contains the media and **attachment nicknames** that map to each referenced file.

Here is an example of a series of binders in a DG Review and Approval catalog. Each of these binders were registered in the catalog as a result of an ingest workflow executing when MPEG media files were dropped into a monitored folder.

Figure 144. Workflow Portal Window, Showing Selection of Multiple Binders



As you can see, the workflow created a thumbnail file, a proxy file, and a local file (which is identical to the original file). All of these are referenced, so that operators and workflows can access them. In addition, metadata is present, along with variables (which are not shown).

Similar in concept to the folders (or directories) in Windows, a Vantage *catalog* is a container that stores binders. *Catalog folders* are sub-containers that organize binders, just as folders can contain other folders. When you use Workflow Portal to access a binder, you can browse or search through the visible catalogs and folders, just as you would sort through folders in Windows, to locate the binder you want to process.

As a Vantage operator, you can view only those catalogs, catalog folders, and binders that the workflow designer and the Vantage domain administrator permit you to see. The following are some of the controls that determine which catalogs and binders you can view:

- Vantage administrators define which Workflow Portal configurations you can access and which catalogs you can view in each configuration.
- Workflow designers and Vantage domain administrators create catalogs and catalog folders.
- Workflow designers specify which catalog to create the binder in (using the Register action).

Thus, Workflow Portal gives you access to only those binders that have been stored in a Vantage catalog to which you have access.

Understanding Copy & Forward Binder Configurations

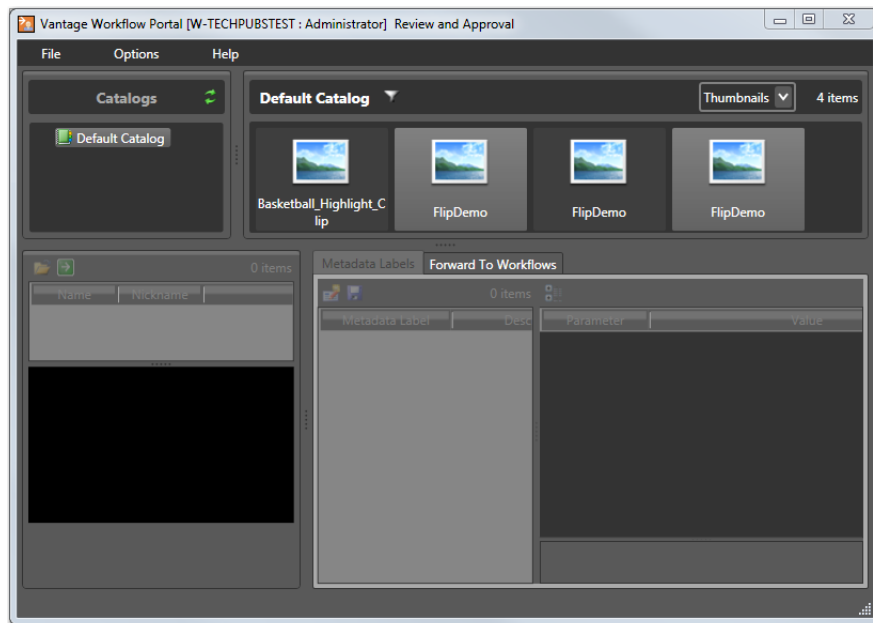
In both Copy Binder and Forward Binder configurations, you can select and submit [binders](#) that have been created by completed Vantage workflows (which use a Register action to add the binder to a catalog). The difference between these two configuration types is how the binder is treated when you submit the binder to another workflow.

In Copy Binder mode, when the operator browses a [catalog](#), selects a [binder](#) to work on, and submits the job, the binder is duplicated and submitted—thus leaving the original binder intact in the catalog for future use or re-submittal in case of an error, for example. If you also need to use the *copied* binder later, you should also register the new binder in a catalog (using the Register action). In contrast, in Forward Binder mode, Workflow Portal submits the binder you selected (without making a copy). If you no longer need the binder, you can elect to automatically or manually delete it, or just set expiration rules.

Here are the functional differences in Workflow Portal between Copy Binder and Forward Binder modes:

- In Forward Binder mode, you can select multiple binders and submit them at the same time (Windows client only)
- In Forward Binder mode, you can edit metadata before clicking the Submit button.
- In Copy Binder mode, you must click the Submit button *before* you can edit metadata—because you’re operating on a copy of the original binder, which is created when you click Submit.

Figure 145. Selecting Multiple Binders in Forward Mode Configuration.



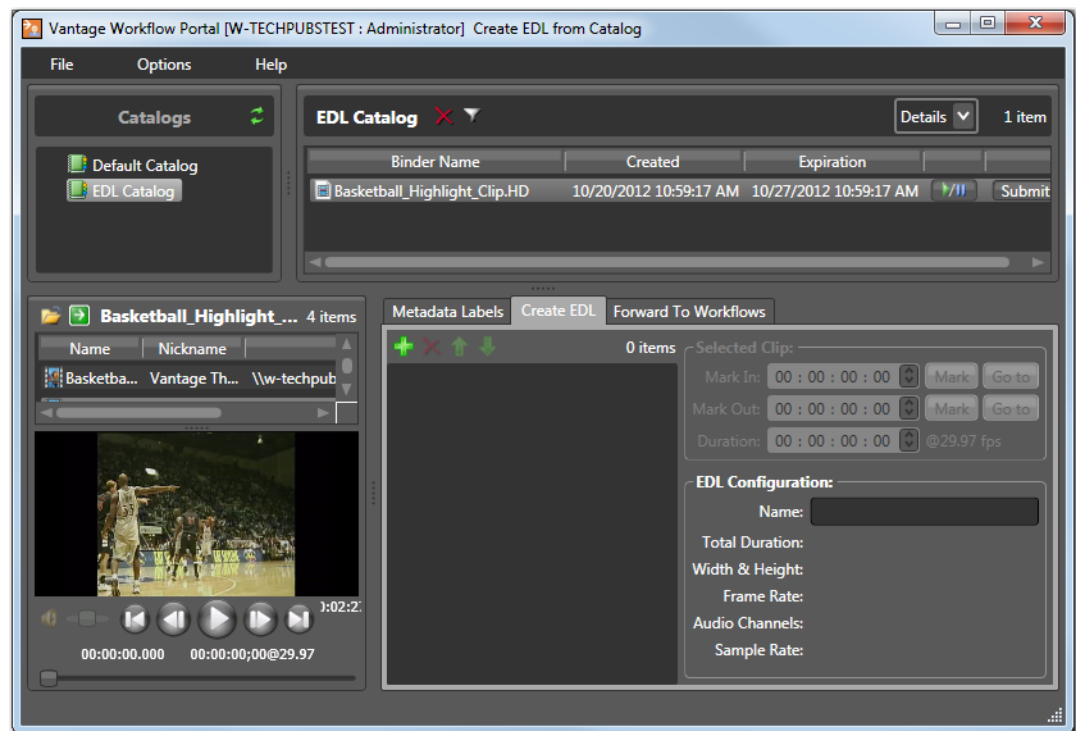
Understanding the Create EDL Configuration

Note: This configuration is not available in the Workflow Portal Web client.

As with the Copy Binder and Forward Binder configurations, you can use the Create EDL configuration to open and view [binders](#) for completed workflows. The Create EDL configuration is different because it is designed to allow you to create an [Edit Decision List](#) (EDL) to submit to a workflow that can process that list. With an EDL, you can mark start and end points to clip one or more media files, and you can stitch the clips together.

When you are using a Create EDL configuration, the Create EDL tab appears in the Workflow Portal window as shown in [Figure 146](#).

Figure 146. Workflow Portal Window, Showing Create EDL Tab



For details on using the Create EDL configuration, see [Creating an EDL](#).

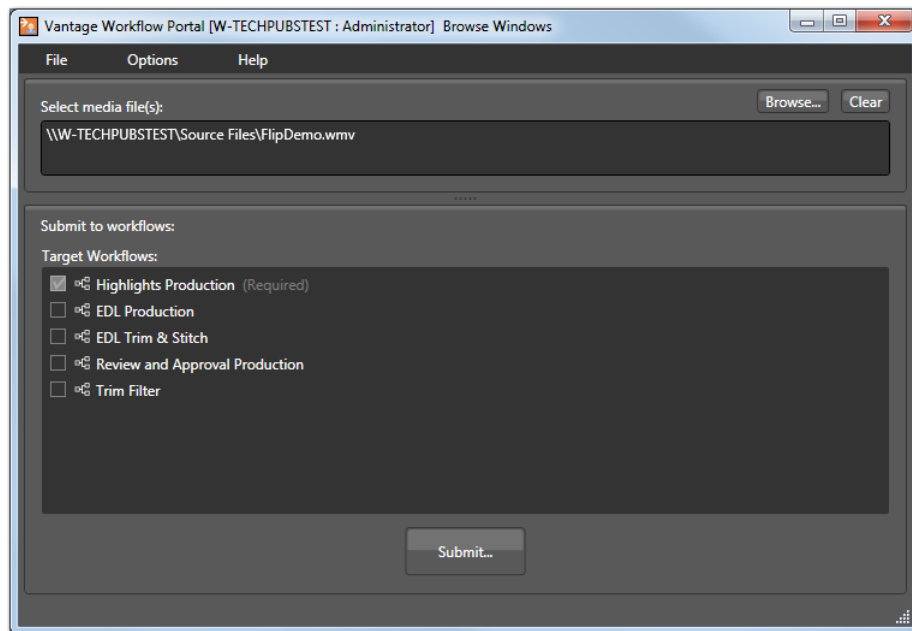
Understanding the Browse Windows Network Configuration

Note: This configuration is not available in the Workflow Portal Web client.

The Browse Network configuration allows you to select one or more media files from any location on the Windows network and submit them to one or more workflows, depending on how the configuration is set up. If the configuration permits, you can also edit metadata labels and variables to be submitted with the media.

When you are viewing a Browse Network configuration, Workflow Portal displays a *Select media files* list instead of a Catalog list as shown in [Figure 147](#).

Figure 147. Workflow Portal Window, Browse Network Configuration



For details on using this configuration, see [Initiating Windows File Submission with the Windows Client](#).

Workflow Design Guidelines

This topic is for workflow designers workflow and describes design guidelines for workflows intended for use with Workflow Portal. While you can use a single workflow to produce and distribute media, there are some significant advantages to dividing the media processing into multiple workflows. Dividing processing into distinct, separate workflows reduces workflow complexity. It also introduces the potential for operator intervention, for QA tasks, and for editing metadata.

For example, an *ingest* workflow can automatically analyze source media and detect media attributes and characteristics such as frame rate, dimensions, letterboxing, and macroblocking. When operator intervention is planned, you'll often use Register actions in the ingest workflow, to create [binders](#) in Vantage [catalogs](#). The ingest workflow can do this while you are performing other tasks, which improves efficiency.

Ingest workflows can also produce proxy media that you can view with the Workflow Portal media viewer to evaluate quality issues and quickly define timecodes for trim points or commercial insertion. Using one tool (Workflow Portal) for media evaluation and submission also improves efficiency.

A *target* workflow is a workflow designed to process media submitted by Workflow Portal operators. Target workflows always start with a Receive action. When your application calls for an ingest workflow, you use Workflow Portal to evaluate the ingest workflow results, take any action required, and then submit the [job](#) to a target workflow. Frequently, a given application has more than one target workflow. You can also chain target workflows, providing operator intervention at more than one point in the process.

If your process does not require an ingest workflow, you might use Workflow Portal (in a Browse Windows configuration) to submit jobs to a target workflow, rather than just placing media files in a watch file for automated processing. The advantage to operator submission is that you can set metadata labels and variables during submission, providing more control over target workflow processing.

The following topics provide guidelines for creating workflows for use with Workflow Portal:

- [Ingest Workflow Guidelines](#)
- [Target Workflow Guidelines](#)

Ingest Workflow Guidelines

When you use an ingest workflow, you must provide a Register action (which can be located anywhere in the workflow), to add a [binder](#) to a [catalog](#). One binder is created for each [job](#) that executes. In addition to recording each file referenced or created in the workflow, metadata labels which you specify are stored in the binder, along with variables.

When you browse catalogs in Workflow Portal, you can view binders created by each job, giving you access to all resources defined in the binder.

When building ingest workflows, consider the following guidelines:

- To make a binder available to Workflow Portal operators, use a Register action to save the binder in the appropriate catalog.
- The required formats for the Workflow Portal media viewer are:
QuickTime media encoded in H.264 and AAC audio
OR
Final Cut / Avid QuickTime media encoded in H.264 or x.264 and AAC audio.
To support operator preview of media, use a Flip action and select one of the supported encoders and codecs. Workflow Designer does not allow you to assign the nickname *Vantage Proxy* if you select an incompatible encoder/codec.
- To enable a media file to automatically display in the Workflow Portal media viewer when a binder is opened, assign the *Vantage Proxy* file nickname to the media file.
- To support the Use Clip Start Time feature, create media using the QuickTime encoder and configure the encoder container settings to generate a Timecode Track.
- The Workflow Portal Web client can also display WMV movies, but QuickTime movies are preferred.
- To support operator viewing of binders by thumbnail (instead of by name), configure a Flip action with the Keyframes encoder to create a thumbnail that uses the *Vantage Thumbnail* file nickname.
- If you want the workflow to make media information available to operators, configure Identify and Examine actions to collect that information, and use metadata labels to store that information in the binder.

Note: Telestream strongly recommends that you use QuickTime H.264 MOV with AAC audio as the proxy format in both Workflow Portal clients. Telestream does not recommend the use of WMV files as proxies; but for those users who have an archive of WMV proxy files; the Web client does provide the ability to view/playback these proxy files.

Note: If you are using the Safari 5 browser, the Silverlight viewer in the Workflow Portal Web client is supported only on MacOS X. For more information on supported browsers, see [Vantage Web Applications Browser Requirements](#).

Target Workflow Guidelines

When you configure target workflows, consider the following guidelines:

- The target workflow must have a Receive action so that an operator can submit [jobs](#) to it for processing.
- To support operator control of target workflow processing, the target workflow must be configured to accept and process any metadata labels and variables that an operator enters.

Starting a Workflow Portal Session

The following topics describe how to start sessions with the Workflow Portal clients:

- [Starting a Session with the Windows Client](#)
- [Starting a Session with the Web Client](#)

Starting a Session with the Windows Client

To start a session with the Workflow Portal Windows client, do the following:

1. Start the Windows client as described in [Starting Workflow Portal](#).
2. If you are prompted to select a Vantage domain, select a domain as described in [Selecting the Domain](#).
If you do not know the Vantage domain name, contact your Vantage domain administrator.
3. If you are prompted to enter a Vantage user name, log in as described in [Changing Vantage Users in Windows Client Programs](#).
If you do not know your Vantage user log in information, contact your Vantage domain administrator.
4. If you are prompted to select a Workflow Portal configuration, enter the configuration specified by your Vantage domain administrator.
5. If you need to change the Workflow Portal configuration, see [Changing or Reloading a Configuration](#).

Starting a Session with the Web Client

To start a session with the Workflow Portal Web client, do the following:

1. Start the Web client as described in [Starting & Stopping Vantage Web Apps](#).
2. If you are prompted to select a Vantage domain, select a domain as described in [Logging into or Changing Domains from Web Apps](#).
If you do not know the Vantage domain name, contact your Vantage domain administrator.
3. If you are prompted to enter a Vantage user name, log in as described in [Changing Vantage Users in Web Apps](#).
If you do not know your Vantage user log in information, contact your Vantage domain administrator.
4. If you are prompted to select a Workflow Portal configuration, enter the configuration specified by your Vantage domain administrator.
5. If you need to change the Workflow Portal configuration, see [Changing or Reloading a Configuration](#).

Using Workflow Portal Controls

The following topics describe Workflow Portal controls.

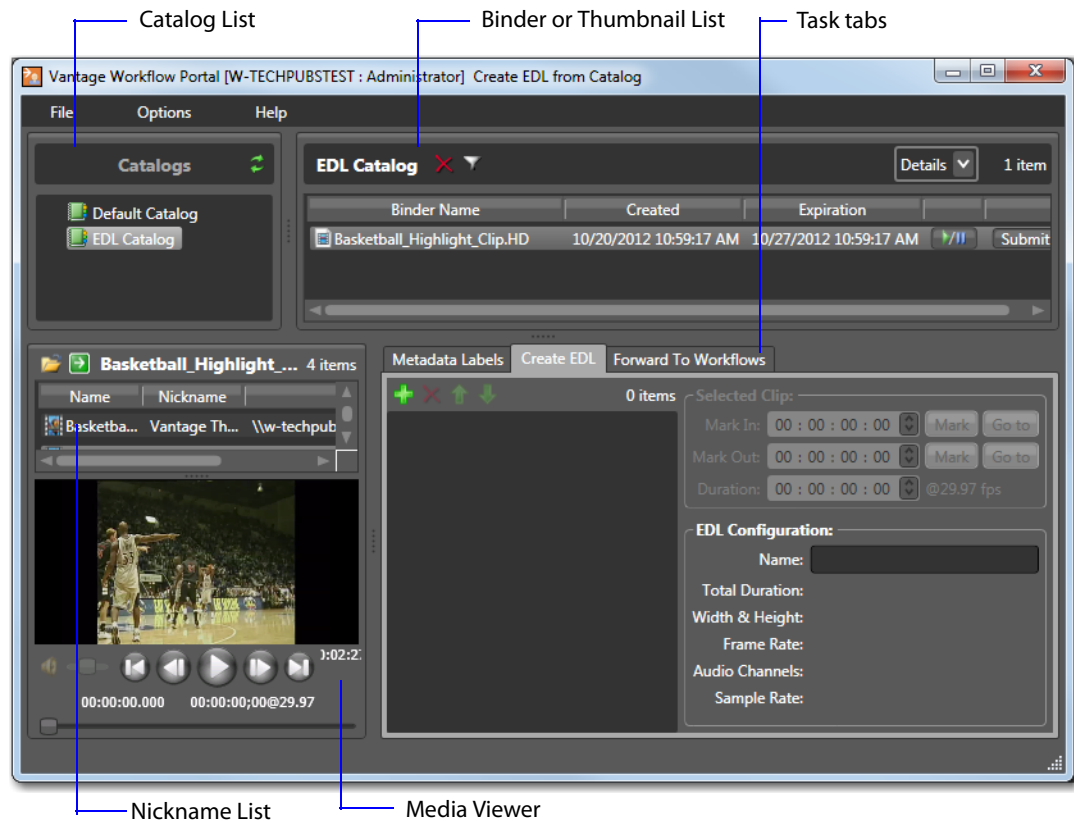
Note: The presence of these controls depends on the configuration you are using at the moment in Workflow Portal. Not all controls are present in every configuration.

- [Using Workflow Portal Windows Client Controls](#)
- [Using Workflow Web Client Controls](#)

Using Workflow Portal Windows Client Controls

Figure 148 shows the Workflow Portal Windows client controls.

Figure 148. Workflow Portal Window, Controls



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 how to use the components shown in Figure 148:

- Catalog list—see [Opening a Binder in the Windows Client](#)
- Binder list—see [Controlling the Binder Display](#)
- Program menus—see [Windows Client Menus](#)
- Metadata Labels tab—see [Previewing Metadata Labels](#)
- Create EDL tab—see [Creating an EDL](#)
- Forward to Workflows tab—see [Submitting Media to Workflows](#)
- Media viewer—see [Previewing Proxy Media Files](#)
- Nicknames list—see [Reviewing Non-proxy Media](#)


Controlling the Binder Display

Workflow Portal allows you to view and select [binders](#) in a [catalog](#) in two different ways:

- Thumbnail view displays an image thumbnail for each binder. (For thumbnail view to work correctly, ingest workflows must create a keyframe, and its nickname must be *Vantage Thumbnail*.)
- Details view display a list of binders, including columns containing binder meta-data and controls.

Use the dropdown list in the binder list title bar to select Details to display binder names or Thumbnails to display thumbnails.

To select a binder, click on the binder. In Forward binder mode, you can use Shift-click and Ctrl-click to select multiple binders.

To filter the binders in the list, click the filter button  and type characters that are in the binder names you want to display. Click the filter button again to display all binders. Workflow Portal remembers the filter names you enter, so you can click the filter button and select a previously entered name from the list.

Windows Client Menus

[Table 6](#) describes the menu selections in the Workflow Portal Windows client.

Table 6. Workflow Portal Windows Client Menus

Menu	Selection	Description
File	Change Vantage Domain	See Logging into or Changing Vantage Domains in Windows Client Programs .
	Change Vantage User	See Changing Vantage Users in Windows Client Programs .
	Change Password	See Changing Passwords in Windows Client Programs .
	Change/Reload Application Configuration	See Changing or Reloading a Configuration .
	Exit	Closes the Workflow Portal program.

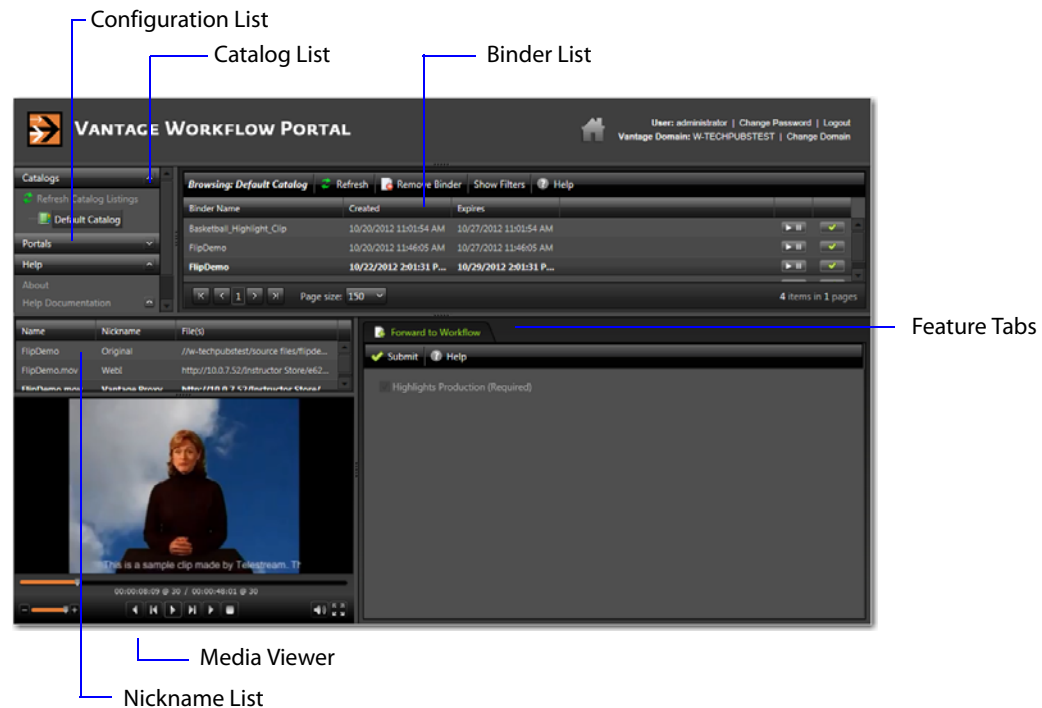
Table 6. Workflow Portal Windows Client Menus (Continued)

Menu	Selection	Description
Options	Restore Tips & Warnings	Select to restore the display of Workflow Portal tips and warnings after the feature has been disabled.
	Hide Tips & Warnings	Select to hid Workflow Portal tips and warnings.
	Use Clip Start Time	Select this option to toggle this feature. When a check appears to the left of this option, the preview window uses the start time defined in the proxy media. When no check appears, the clip start time begins at zero.
Help	Contents	Select to display a Windows help version of this user guide.
	Index	Select to display the index feature of the Windows help version of this user guide.
	Search	Select to display the search feature of the Windows help version of this user guide.
	Online Help	Select to display the Vantage product guides available on the Telestream, Inc. Web site.
	About	Select to display Workflow Portal product version information.

Using Workflow Web Client Controls

Figure 149 shows the Workflow Portal Web client controls.

Figure 149. Workflow Portal Web Page and Controls



Note: The Workflow Portal Web client does not automatically update the assets list as new assets arrive in catalogs. Depending upon your task, you may need to periodically use the refresh button to view new assets as they arrive.

The following topics describe how to use the components shown in Figure 148:

- Catalog list—see [Opening a Binder in the Web Client](#)
- Binder list—see [Opening a Binder in the Web Client](#)
- Title bar options—see [Web Client Menus](#)
- Help menu—see [Web Client Menus](#)
- Forward to Workflows tab—see [Submitting Media to Workflows](#)
- Media viewer—see [Previewing Proxy Media Files](#)
- Nicknames list—see [Previewing Proxy Media Files](#)

Web Client Menus

Table 6 describes the menu selections and title bar options in the Workflow Portal Windows client.

Table 7. Workflow Portal Windows Client Menus

Menu	Selection	Description
Title bar options	Change Password	See Changing Passwords in Windows Client Programs .
	Logout	Log out the current Vantage user.
	Change Domain	See Logging into or Changing Vantage Domains in Windows Client Programs .
Catalogs menu	Refresh Catalog Listings	Click to refresh the display of catalogs.
Help menu	About	Select to display Workflow Portal product version information.
	Help Documentation	Click this entry to toggle the display of the submenu.
	User Guide	Click to display the PDF version of this guide in a separate browser window.
	Web Help	Click to display the HTML version of this guide in a separate browser window.

Submitting Jobs in Workflow Portal

When submitting [jobs](#) in Workflow Portal, your first step is to determine if you are processing a [binder](#) or a single file.

If you are processing a binder, the typical order of tasks is as follows:

1. Make sure that all target workflows are running (in Workflow Designer).
2. Back in Workflow Portal, select the binder and preview the media proxy and metadata.
3. In a Copy Binder configuration, click the Forward to Workflows tab, check the target workflow(s) and click Submit to display the Submit Jobs window.
4. Scrub the proxy (if required), and edit the metadata as appropriate.
5. Update any variables for use in the target workflow.
6. Create an EDL (if this is an EDL configuration).

If you are selecting a file or if you have completed the above steps, the final step is to submit the media to a workflow. When you submit media to a workflow, configuration options can allow you to configure one or more of the following:

- Metadata labels
- Variables

The following topics describe the typical Workflow Portal management tasks:

- [Opening Binders In Workflow Portal](#)
- [Reviewing Binder Assets](#)
- [Creating an EDL](#)
- [Submitting Media to Workflows](#)

Opening Binders In Workflow Portal

You can open binders in the Copy Binder, Forward Binder, and Create EDL configurations. The following topics describe how to open a binder in both Workflow Portal programs:

- [Opening a Binder in the Windows Client](#)
- [Opening a Binder in the Web Client](#)

Opening a Binder in the Windows Client

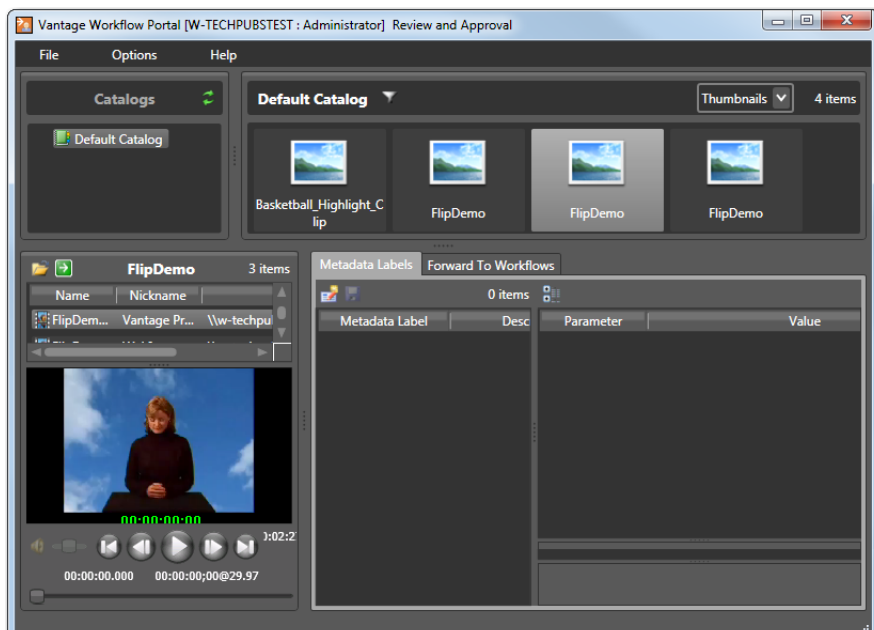
To open a binder in the Workflow Portal Windows client, do the following:

1. Start Workflow Portal and select a Workflow Portal configuration, as described in [Starting a Workflow Portal Session](#).
2. In the Catalogs Panel (see [Figure 150](#)), select the catalog or catalog folder that contains the binder you want to operate on.

For information on which catalog contains the media you want, see your workflow designer. The Register action defines which catalog contains the binder.

Note: Vantage administrators control which catalogs you can browse, and how they are handled when submitted to a workflow—copied or forwarded.

Figure 150. Workflow Portal Window, Showing the Catalogs Panel



- In the catalog browser panel (to the right of the Catalogs panel), select the binder that you want to view.

This panel displays the name of the catalog you selected. The panels below the Catalogs panel display information related to the binder you selected. For more information, see [Reviewing Binder Assets](#).

Opening a Binder in the Web Client

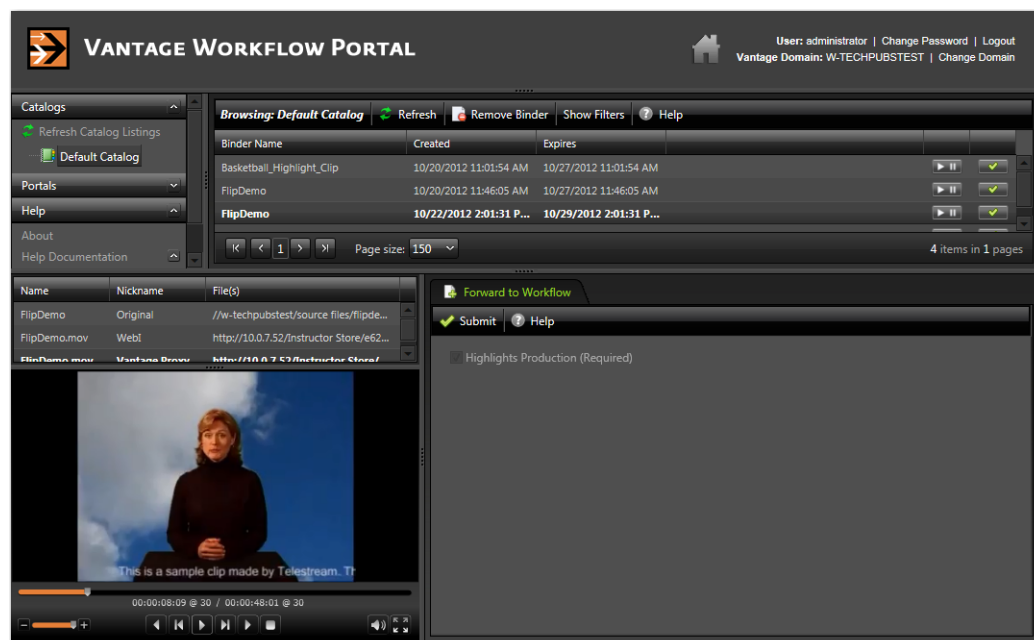
To open a [binder](#) in the Workflow Portal Web client, do the following:

- Start the Workflow Portal Web client and select a Workflow Portal configuration that supports opening binders as described in [Starting a Workflow Portal Session](#).
- In the Catalogs list (see [Figure 151](#)), select the [catalog](#) or catalog folder that contains the binder you want to open.

For information on which catalog contains the workflow you want, see your workflow designer. The Register action defines which catalog contains the binder.

Note: Vantage administrators control which catalogs you can browse. You can only select binders in catalogs you are permitted to browse.

Figure 151. Workflow Portal Web Page, Showing the Catalogs List



- In the binders list, select the binder that you want to view.

This panel displays the name of the catalog you selected. The panels below the binder list display information related to the binder you selected. For more information, see [Reviewing Binder Assets](#).

Reviewing Binder Assets

When you open workflow media in Copy Binder, Forward Binder, or Create EDL configurations, the Workflow Portal window displays all the [binder](#) assets that you are permitted to see. The following topics describe how to review binder assets:

- [Previewing Proxy Media Files](#)
- [Reviewing Non-proxy Media](#)
- [Previewing Metadata Labels](#)

Previewing Proxy Media Files

A proxy media file is a file that has been prepared by Vantage to be previewed with the Workflow Portal media viewer. You can create a proxy file by using a Flip action to create a QuickTime H.264 MOV file or a Final Cut / Avid QuickTime MOV file encoded in H.264 or x.264—all proxy files should be encoded with AAC audio. If you use the *Vantage Proxy* nickname for the proxy file, the file automatically displays in the Workflow Portal media viewer when you open the binder.

The following topics describe how to review proxy media in the two versions of Workflow Portal:

- [Previewing Proxy Media with the Windows Client](#)
- [Previewing Proxy Media with the Web Client](#)

Previewing Proxy Media with the Windows Client

When you preview proxy files in the Workflow Portal Windows client, you are utilizing the QuickTime Player to preview QuickTime MOV files. If you do not have a QuickTime Player installed, you will have to download and install the player before you can review proxy files.

Select a binder list to specify the binder for which you want to view media. When media appears in the Workflow Portal preview window, you can use the window, keyboard, and mouse controls listed in [Table 8](#) to control playback. You can also select media in the nicknames list.

Table 8. Playback Controls for Windows Client Media Viewer

Function	Controls
Play/Pause	<i>Ctrl+P or Ctrl+Space</i>
Stop	<i>Ctrl+S</i>
Forward Frame	<i>Ctrl+F</i> <i>Ctrl + Mouse Wheel, one frame per wheel click</i>
Forward/Reverse One Second	<i>Mouse Wheel (no modifier keys)—one second per wheel click</i>

Table 8. Playback Controls for Windows Client Media Viewer (Continued)

Function	Controls
Forward/Reverse One Minute	<i>Shift + Mouse Wheel</i> —one minute per wheel click
Forward/Reverse One Hour	<i>Ctrl + Shift + Mouse Wheel</i> —one hour per wheel click
Reverse Frame	<i>Ctrl+R</i> <i>Ctrl + Mouse Wheel</i> , one frame per wheel click
Go to start	<i>Ctrl+Home</i>
Go to mark in frame	<i>Click in the EDL Mark In time, then press Ctrl+G</i> <i>Applies only to Create EDL configurations.</i>
Go to mark out frame	<i>Click in the EDL Mark Out time, then press Ctrl+G</i> <i>Applies only to Create EDL configurations.</i>
Go to end	<i>Ctrl+End</i>
Adjust Volume	<i>Drag volume button right or left to adjust volume.</i>
Scroll media	<i>Drag media button right or left to scrub (scroll) media.</i>

Previewing Proxy Media with the Web Client









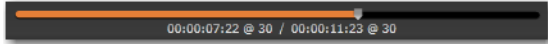

When you preview proxy files in the Workflow Portal Web client, you are utilizing the Microsoft Silverlight Player to preview QuickTime MOV files. If you do not have a Microsoft Silverlight Player installed, you will have to download and install the player before you can review proxy files.

Select a binder in the binder list. When media appears in the Workflow Portal media player, you can use the Web page and keyboard controls listed in [Table 9](#) to control playback. You can also select media in the nicknames list.

Note: The Silverlight player, which is utilized in the Workflow Portal Web client, has a known issue related to playback behavior when attempting to jog/shuttle/seek to the end of a media file.

The issue manifests itself as the inability to scrub or mark at the very end of the proxy file being manipulated. The effects can be mitigated by scrubbing to a point just before the end (not less than 1% or 1 second from the end) and then playing the video for the remainder of the sequence. Play-to-the-end functionality works correctly. For reference, see the Web page: <https://connect.microsoft.com/VisualStudio/feedback/details/714100/mediaelement-stops-playing-before-end>.

Table 9. Playback Controls for Web Client Media Viewer

Function	Controls
Play/Pause	 (appears in binder list) P
Stop	
Forward Frame	 Using the slider, scrub to the target location in the clip, press the Right Arrow key to move forward 1 frame. O. Press the upper case O key to move forward 1 frame.
Reverse Frame	 Using the slider, scrub to the target location in the clip, press the Left Arrow key to move reverse 1 frame. I. Press the upper case I key to move reverse 1 frame.
Go to start	 Home
Go to end	 End
Adjust Volume	 J and K
Mute audio	 M
Scroll media	
Toggle full screen	 F

Reviewing Non-proxy Media

Note: This feature is not supported in the Web client.

If the selected Workflow Portal configuration permits it, Workflow Portal displays the non-proxy media assets for the selected binder in the nickname list above the media viewer in the Workflow Portal window. If you are using the Workflow Portal Windows client and you have a program on your computer that can open a media asset, you can open it as follows:

1. Right-click on the media asset in the list.
2. Select Open Containing Folder.
3. In the dialog that appears, double-click the media file you want to open.

OR

1. Select the media asset in the list.
2. Click the green arrow icon in the toolbar directly above the asset list, to attempt to open or play the selected file.

Previewing Metadata Labels

When the selected configuration permits it, you can view the metadata labels ingested, produced, updated, or passed through previous workflows in Workflow Portal. To view the labels that you are allowed to view (as specified in the configuration file you're using), click the Metadata Labels tab. The metadata labels that display represent the values from the previous workflow and cannot be edited.

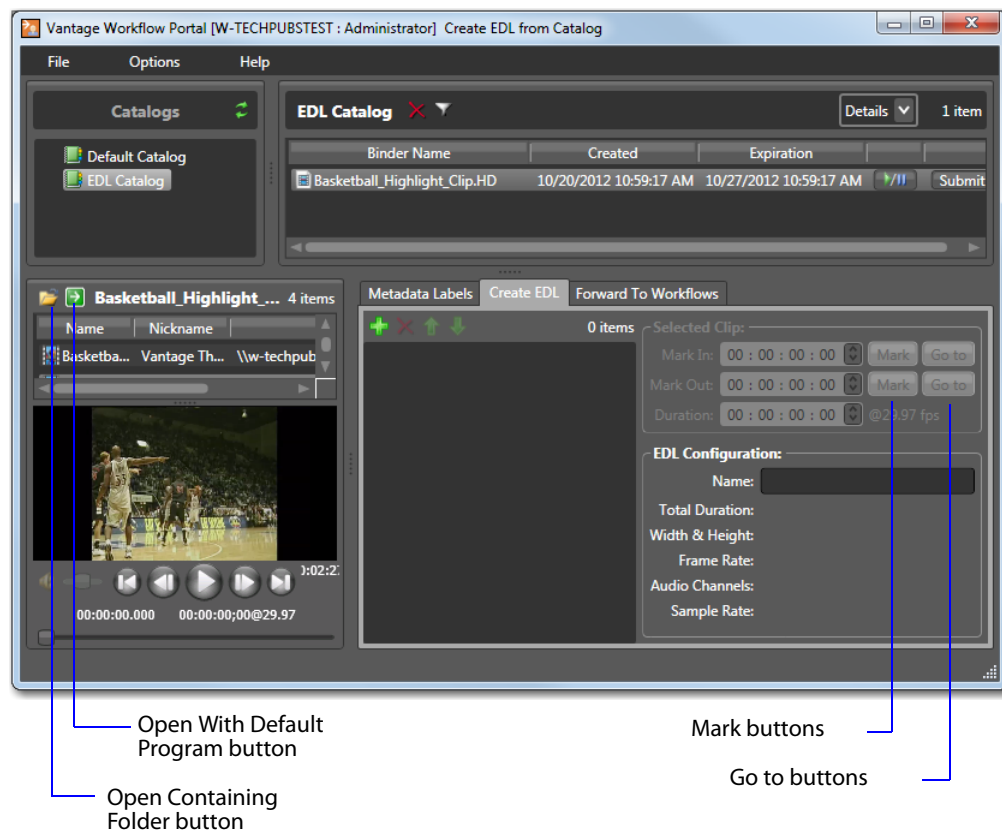
Note: When the selected configuration permits it, the Workflow Portal Windows client displays two Metadata Labels tabs. The first Metadata Labels tab appears when you open a binder and displays until you submit the binder to another workflow. After you submit the binder, a second Metadata Labels tab appears that enables you to edit the metadata labels that will be submitted to the next workflow.

Creating an EDL

Note: Only the Create EDL configuration supports the creation of EDLs. EDLs can not be created in the Workflow Portal Web client.

When you are using a Create EDL configuration, the Create EDL tab displays as shown in Figure 152.

Figure 152. Workflow Portal Window, Showing the Create EDL Tab



To create an EDL, do the following:

1. Add clips to the EDL list.
2. Set the start and end times for each clip in the list.
3. Submit the EDL as described in [Submitting Media to Workflows](#).

Note: The Microsoft User Account Control feature denies access to the default Vantage store for submitted stitched assets (EDLs). If you receive an error message that access to the Vantage store is denied, contact your Vantage administrator. Additional information on this issue is provided in the *Vantage Domain Management Guide*.


The following topics describe how to manage the EDL:

- [Adding Clips to an EDL](#)
- [Evaluating Clip Content](#)
- [Editing the Clip Start and End Times](#)
- [Deleting Clips from the EDL](#)
- [Reordering Clips in the EDL](#)

Adding Clips to an EDL

You can add multiple clips to an EDL, and you can add the same clip multiple times. When submitted, the clip files are clipped to the EDL settings and merged together into a single output file by the target Vantage workflow.

Note: If you do not want to combine clips in one file, you can clip the same file multiple times. For example, if you are extracting multiple highlights from a single media file, you can mark a highlight, select Submit, and then mark a new highlight without affecting the first one.

To add a clip to an EDL, select the clip in the Binder list or the Nickname list and click the Add button  below the Create EDL tab.

Note: An EDL must be comprised of media file clips that have the same frame size and frame rate.

When you add the first clip to the EDL, the frame size and rate of the EDL are set to the metrics of that clip. Once the frame size and rate are set for an EDL, Workflow Portal does not allow you to add an incompatible clip. If you select a clip that is incompatible, the Add button is disabled to indicate that the clip cannot be added.

Evaluating Clip Content

After you select the first clip for an EDL, Workflow Portal displays the clip information in the EDL Configuration portion of the window. The EDL configuration information includes the frame size and the frame rate, as well as other information about the selected clip. The frame rate also appears in the Selected Clip portion of the window.

When multiple clips are present in the EDL, click on any clip to display the clip information in the EDL Configuration area.

Editing the Clip Start and End Times

The default clip start and end times are the start and end times defined in the source media file. To display an entire clip, no change is necessary. To display a portion of a clip, edit the start and end times to define the clip you want in your EDL.

To change the clip start time do any of the following:


- Use the media viewer to select the start time and frame, then click the Mark button for the Mark In time.
- Click in the Mark In time setting and press CTRL-M.
- Type time or frame values in the Mark In time setting. The displayed format is: HH:MM:SS;FF, where HH indicates hours, MM indicates minutes, SS indicates seconds, and FF indicates frames.
- In the Mark In time setting, click one of the numbers and use the up and down controls to change the value.

To change the clip end time do any of the following:



- Use the media viewer to select the end time and frame, then click the Mark button for the Mark Out time.
- Click in the Mark Out time setting and press CTRL-M.
- Type time or frame values in the Mark Out time setting. The displayed format is: HH:MM:SS;FF, where HH indicates hours, MM indicates minutes, SS indicates seconds, and FF indicates frames.
- In the Mark Out time setting, click one of the numbers and use the up and down controls to change the value.
- Adjust the duration timecode, which adjusts the mark out point relative to the mark in point. This field indicates the duration of the media between the mark in/out points of the currently selected clip.

If you specify a mark in, mark out, or duration timecode that makes one or more of the timecodes invalid, the affected timecodes display a red background. For example if you select a Mark In timecode that starts after the Mark Out timecode, the Mark In and Duration timecodes display red. Also, if the duration timecode moves the mark out timecode beyond the end of the clip timeline, both the Duration and Mark Out fields display red to indicate the error.

Deleting Clips from the EDL

To delete a clip in an EDL, click on the clip and click the Delete button .

Reordering Clips in the EDL

To change the order of a clip in an EDL list, click on the clip and click the up  and down  buttons to change the clip position.

Submitting Media to Workflows

- [Initiating Binder Submission with the Windows Client](#)
- [Initiating Binder Submission with the Web Client](#)
- [Initiating Windows File Submission with the Windows Client](#)
- [Configuring Metadata Labels](#)
- [Configuring Variables](#)

Initiating Binder Submission with the Windows Client

When you initiate the submission of a [binder](#), the Workflow Portal view and mode change from displaying media information to submitting information. In the submit mode, the selected configuration might allow you to select the media files to submit, create an EDL, configure metadata labels, configure variables, and select target workflows. Some of these options are limited to a particular configuration, and some of them can be disabled. The options that apply to your environment are defined by the Vantage domain administrator and the workflow designer.

The Workflow Portal configuration you have selected can be configured to support submission to one workflow or to multiple workflows. The selected configuration can also be configured to specify one or more required workflows, or you might be allowed to select one or more workflows from a list of workflows.

If the selected configuration allows you to view the workflows to which you can submit, Workflow Portal displays a Forward to Workflows tab. If the configuration does not support operator viewing of the workflow list, there is a Submit button at the bottom of the Workflow Portal window.

The Copy Binder and Forward Binder configurations allow you to select or exclude each of the media files referenced in the binder. You can also submit each media file with the nickname from the previous workflow, or you can select a replacement nickname.

To initiate submit mode, do the following:

1. If the Workflow Portal window displays a Forward to Workflows tab, do the following:
 - Select the Forward to Workflows tab.
 - Check or clear each workflow checkbox to specify which target workflows should process the [job](#).
 - Click Submit to enter submit mode.
2. If Workflow Portal does not display a Forward to Workflows tab, do one of the following to initiate submit mode:
 - Click the Submit button at the bottom of the window.
 - If the binder list is in Details mode, click the Submit button to the right of the binder name in the binder list. (This button is not displayed in Thumbnails mode.)

3. If the Media Files tab is present, select the media files to submit as follows:
 - a. Select the Media Files tab.
 - b. Check or clear the checkbox to the left of each media file name.
A check mark causes the media to be submitted.
 - c. In the *Change nicknames during submit* list, check the box to the left of any media file you want to rename.
 - d. For each media file that you rename, select a new nickname in the dropdown list to the right of the media name.
4. If other configuration settings are available, Workflow Portal displays a dialog in which you can configure those options. For more information, refer to [Configuring Metadata Labels](#) and [Configuring Variables](#).
5. When you are done preparing for submission, click Submit.

Initiating Binder Submission with the Web Client


When you initiate the submission of a [binder](#), the Workflow Portal view and mode changes from displaying media information to submitting information. In the submit mode, the selected configuration might allow you to configure metadata labels, configure variables, and select target workflows. Some of these options are limited to a particular configuration, and some of them can be disabled. The options that apply to your environment are defined by the Vantage domain administrator and the workflow designer.

The Workflow Portal configuration you have selected can be configured to support submission to one workflow or to multiple workflows. The selected configuration can also be configured to specify one or more required workflows, or you might be allowed to select one or more workflows from a list of workflows.

If the selected configuration allows you to view the workflows to which you can submit, Workflow Portal displays a Forward to Workflow tab. If the configuration does not support operator viewing of the workflow list, Workflow Portal displays a Submit button.

To initiate submit mode, do the following:

1. If the Workflow Portal window displays a Forward to Workflows tab, do the following:
 - a. Select the Forward to Workflow tab.
 - b. Check or clear each workflow checkbox to specify which target workflows should process the job.
 - c. Click Submit to enter submit mode.

2. If Workflow Portal does not display a Forward to Workflows tab, do one of the following to initiate submit mode:
 - Click the Submit button.
 - Click the submit button  to the right of the binder name in the binder list.If no other configuration options are available, the binder is submitted to the selected workflows.
3. If other configuration settings are available, Workflow Portal displays a dialog in which you can configure those options. For more information, refer to [Configuring Metadata Labels](#) and [Configuring Variables](#).
4. When you are done preparing for submission, click Submit.

Initiating Windows File Submission with the Windows Client

Note: This feature is not available in the Workflow Portal Web client.

When you initiate the submission of one or more media files, Workflow Portal either immediately submits the files or it enters submit mode. In submit mode, the Browse Network configuration might allow you to configure metadata labels or variables. The options that apply to your environment are defined by the Vantage domain administrator and the workflow designer.

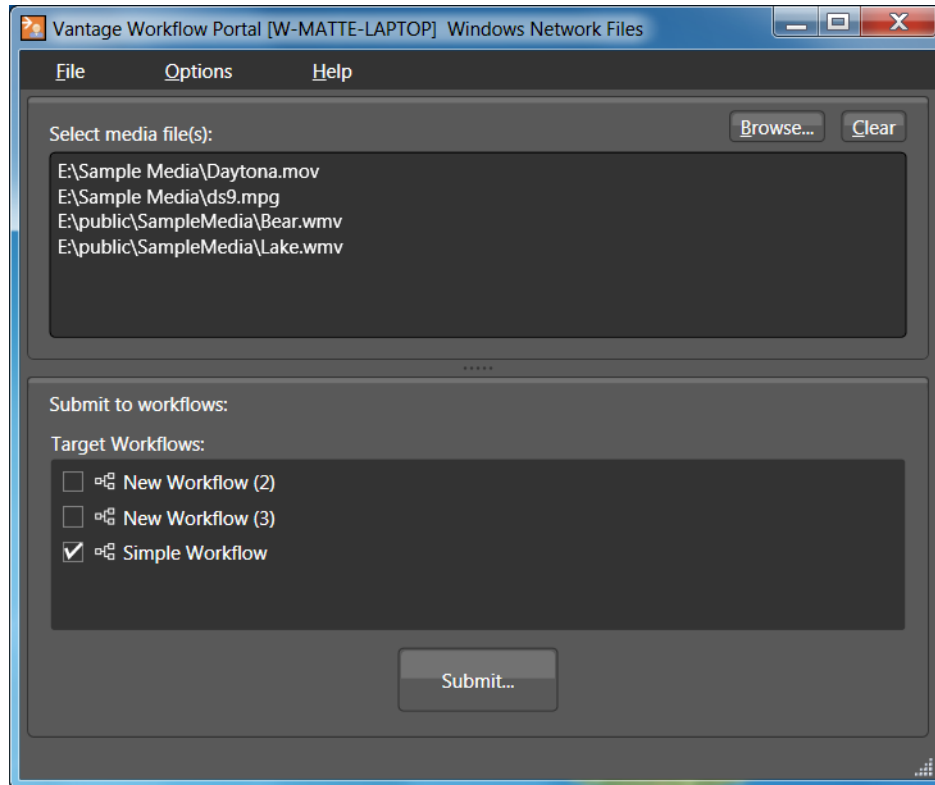
The Workflow Portal configuration you have selected can be configured to support submission to one workflow or to multiple workflows. The selected configuration can also be configured to specify one or more required workflows, or you might be allowed to select one or more workflows from a list of workflows.

If the selected configuration allows you to select the workflows to which you can submit, Workflow Portal enables check boxes in the *Submit to workflows list*. If the configuration does not support operator selection of workflows, the check boxes are disabled in the *Submit to workflows list*.

To initiate submit mode, do the following:

1. Start Workflow Portal and select a Workflow Portal configuration that supports Browse Windows mode as described in [Starting a Workflow Portal Session](#).
Workflow Portal displays the Workflow Portal window shown in [Figure 153](#).

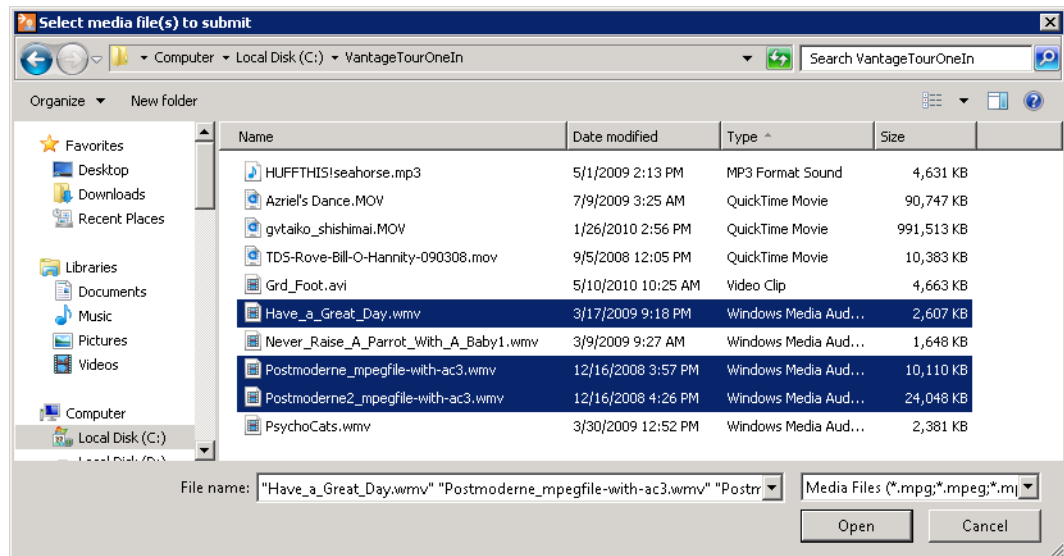
Figure 153. Workflow Portal Window for Windows File Submission



2. Click the Browse button.

Workflow Portal displays the *Select media file(s) to submit* dialog shown in [Figure 154](#).

Figure 154. Select Media Files to Submit Dialog



3. Use the *Select media file(s) to submit* dialog to select files from Windows directories. To select multiple files in a given directory, Shift-click and Control-click as needed to select files.
4. Click Open.
Each file that you open appears in the *Select media file(s)* list as shown in [Figure 153](#). You can repeat the selection process to select files from multiple directories. The Browse button is additive—that is, each time you repeat the process of navigating to a location and choosing a file or files to submit, they are added to the Files list. If the file list is not correct, you can edit the list manually. For example, you can select a given file path and delete it. Or, you can edit a path or filename, copy and paste file paths, or add new ones. To delete the list entirely, click Clear.
5. If any check boxes are enabled in the Target Workflows list, check the checkbox for any target workflow to which you want to submit.
If a checkbox is checked and not editable, this workflow is required by this configuration.
6. Click Submit.
If the selected configuration does not provide any additional configuration options, Workflow Portal submits the selected media files to each of the selected Target Workflows.
7. If the selected configuration supports either the metadata labels or the variables option, Workflow Portal displays the Submit Jobs dialog with tabs for the enabled options. For information on configuring these options, refer to [Configuring Metadata Labels](#) and [Configuring Variables](#).
8. If you are done preparing for submission, click Submit.

Configuring Metadata Labels

Binders are registered in [catalogs](#) when media has been processed by a Vantage workflow which includes a Register action. (You can manually create [binders](#) in the Management Console to correct media processing errors but this is an exception.) When you are submitting a binder, any metadata labels in the registering workflow are included when you submit. If the selected configuration supports metadata entry and editing, you can configure metadata labels before you submit. All metadata labels are applied to all media files that are being submitted.

The following topics describe how to configure metadata labels:

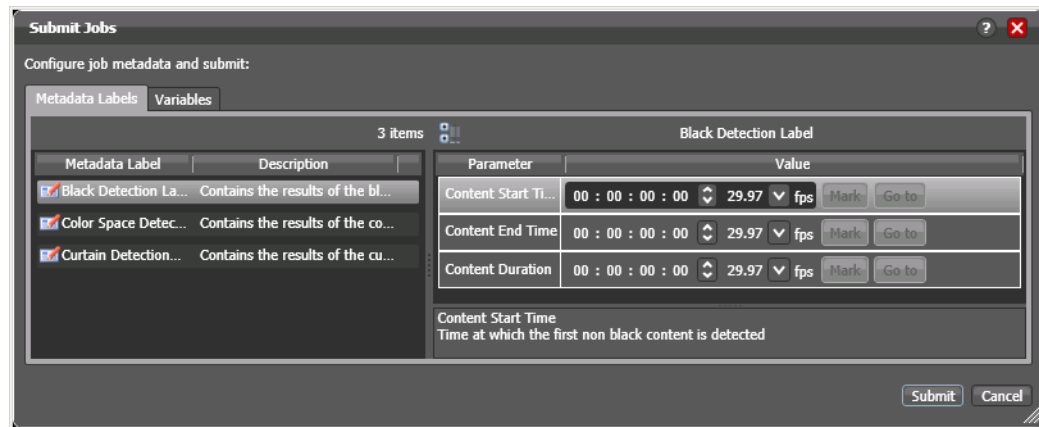
- [Editing Metadata Labels with the Windows Client](#)
- [Configuring Metadata Labels with the Web Client](#)

Editing Metadata Labels with the Windows Client

If the selected configuration supports metadata label data entry, you can edit metadata labels as follows:

1. Initiate submit mode as described in the appropriate one of the following topics:
 - [Initiating Binder Submission with the Windows Client](#)
 - [Initiating Windows File Submission with the Windows Client](#)
2. Select the Metadata Labels tab.

Figure 155. Submit Jobs Window, Browse Network Configuration



3. Select the Metadata Label you want to edit in the Metadata Label list.
4. In the Parameter list to the right, edit the metadata label parameters.
5. If the metadata label you want to configure does not appear in the Metadata Label list, click the new label button, select a label to add, and click OK.

Note: This option is not available when submitting files in a Browse Network configuration.

6. Repeat metadata label selection and parameter configuration until all required metadata labels are configured.

Editing Timecode Values with Hot Keys

If hot keys are assigned to input, output, or duration parameters in this configuration, you can use them to set these values as you scrub the media in the player. Roll over the mark button to display the assigned hot key in the tool tip.

Editing Timecode Values in Trim Groups

If trim groups are defined (a set of input, output, and duration parameters) in this configuration, the duration is automatically calculated. If you change the input value or output value, duration is automatically updated. If you change the duration value, the output value is automatically updated. (When using a trim group, the hot key (if any) for duration is disabled, because its not needed.)

Note: If you need to configure variables, see [Configuring Variables](#).

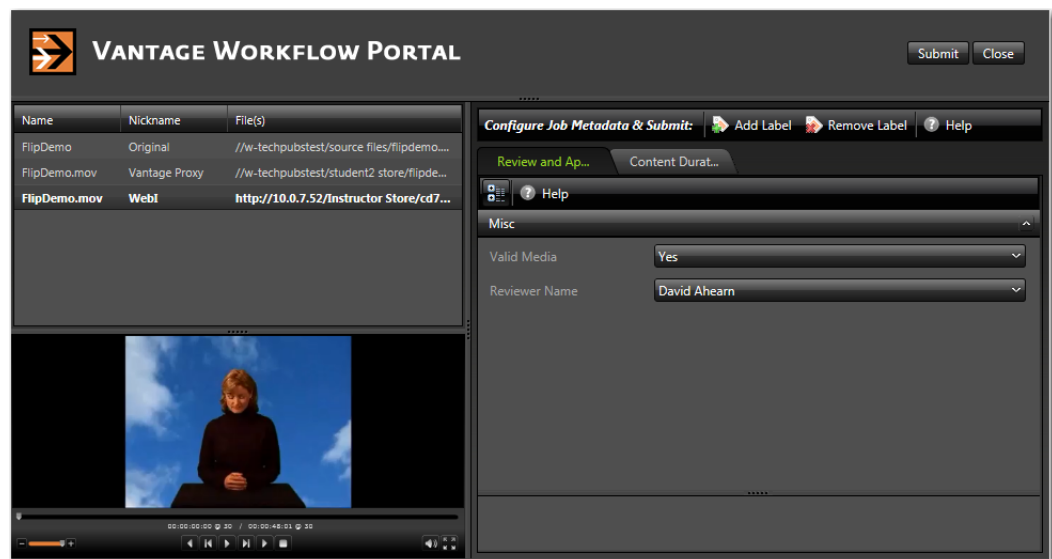
When you are done preparing for submission, click Submit.

Configuring Metadata Labels with the Web Client

If the selected configuration supports metadata label entry, you can configure metadata labels as follows:

1. Initiate submit mode as described in [Initiating Binder Submission with the Web Client](#).

Figure 156. Workflow Portal Window, Metadata Labels in Web Client



2. To add a metadata label to configure, do the following:
 - a. Click Add Label.
 - b. Select a label to add from the Add Metadata Labels dialog.
 - c. Click Add.
3. To configure metadata label parameters, locate the tab for the label, select the tab, and configure the label parameters.
4. To remove a metadata label configuration, locate the tab for the label, select the tab, and click Remove Label.
5. Repeat metadata label selection and parameter configuration until all required metadata labels are configured.
6. If you need to configure variables, see [Configuring Variables](#).
7. When you are done preparing for submission, click Submit.

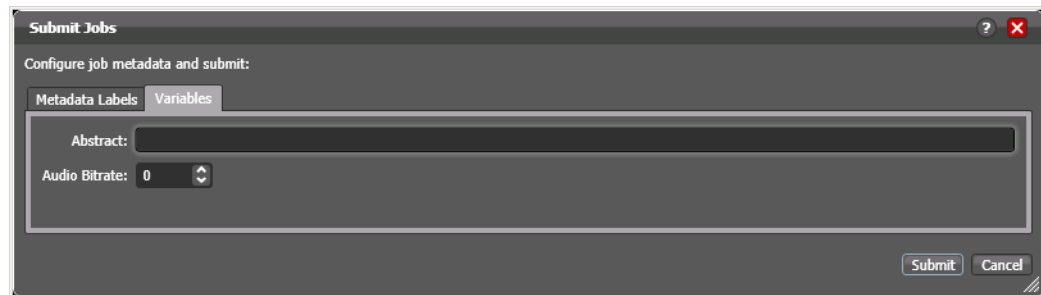
Configuring Variables

Variables are not forwarded from one workflow to another, but the selected configuration can allow you to add variable values for a target workflow before you submit the media. If the selected configuration supports variable entry, all variables that you define are applied to all media files that are being submitted.

Configure variables as follows:

1. Initiate submit mode as described in the appropriate one of the following topics:
 - [Initiating Binder Submission with the Windows Client](#)
 - [Initiating Binder Submission with the Web Client](#)
 - [Initiating Windows File Submission with the Windows Client](#)
2. Select the Variables tab.

Figure 157. Variables Tab, Browse Network Configuration, Windows Client



3. Scroll through the list of variables and set each one as needed.
4. If you need to configure metadata labels, see [Configuring Metadata Labels](#).
5. When you are done preparing for submission, click Submit.
For each media file in the list, a job is submitted.

Changing or Reloading a Configuration

If a Vantage domain administrator updates a Workflow Portal configuration while you are using it, the program continues to use the configuration as it was when you selected it.

To change or reload a configuration in the *Windows client*, do the following:

1. Select File > Change/Reload Application Configuration.
2. When the Select Configuration dialog appears, select a configuration to use and click OK.

To change or reload a configuration in the *Web client*, do the following:

1. Select Portals.
2. Select the configuration to which you want to change.
3. When the confirmation dialog appears, click OK.

Deleting Binders from a Catalog

If your Workflow Portal configuration permits it, you can delete [binders](#) from the [catalog](#). You might want to delete a binder because it has been successfully processed with another workflow and no longer needed or because the [job](#) quality did not meet standards.

Note: Automatic binder deletion can be controlled by workflow designers and the Vantage domain administrator.

In Workflow Designer, you can set an expiration time on a workflow, when binders are automatically deleted unless registered in a catalog. In the console, administrators can set catalog expiration time, when binders are automatically deleted.

Binder removal removes all temporary job data and related media files in the Vantage store that was used for the job, and deletes the binder record from the [database](#). Binder removal does not remove any files that are stored outside the Vantage store.

To delete a binder, do the following:

1. Open the catalog where the binder is located.
2. Select the binder name from the binder detail list or the binder thumbnail from the thumbnails view (see [Figure 158](#)).

Figure 158. Binder Detail List, Windows Client

Binder Name	Created	Expiration	
Azriel's Dance	6/7/2012 4:21:28 PM	6/14/2012 4:21:28 PM	
Never_Raise_A_Parrot_With_A_Ba...	6/7/2012 4:17:36 PM	6/14/2012 4:17:36 PM	
Postmodern_mpeg-ac3	6/7/2012 4:22:27 PM	6/14/2012 4:22:27 PM	

3. Click the Delete button at the top of the list to permanently remove the binder from the catalog.

Troubleshooting Workflow Portal

When opening Workflow 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 the 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...

Workflow Portal displays this error when you log onto a domain where no Workflow Portal configurations are defined or where you do not have access to any of the defined configurations.

Contact your Vantage domain administrator.

- No session licenses available for this application...

The domain you logged on to is not licensed for running Workflow Portal or all available licenses are in use. Workflow Portal will operate in unlicensed/demo mode and will not allow you to submit [jobs](#) or edit metadata labels until a Workflow Portal license becomes available.

Contact your Vantage domain administrator.

Note: An administrator can release a license in the Vantage Management Console.

- Problem communicating with [database](#)—could not find stored procedure Select-SessionsByExecution...

This error displays when Workflow 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 Workflow Portal program on your computer.

- The requested workflows are either not running or no longer exist...

This error displays when you submit an asset or media file to a workflow that has been deleted, or is not activated. Contact your Vantage domain administrator, who can activate the Vantage workflow or edit the configuration to correct the problem.

Using the Job Status Views Web Application

Job Status Views is a Web application that enables basic Vantage [job](#) management via a Web browser. You can use Job Status Views to access job information and manage jobs in your Vantage domain from anywhere on the LAN, or via the Internet when you establish an Internet connection.

Note: For information about Vantage Web application requirements, starting and stopping Web applications, and other basic topics, see [Vantage Client Programs](#).

This chapter presents the following topics:

- [About the Job Status Views Web Application](#)
- [Job Status Views Web Application Overview](#)
- [Using Public and Private Views](#)
- [Displaying/Hiding the Title and View Panels](#)
- [Displaying/Hiding the Title and View Panels](#)
- [Paging Through Job Tables & Setting Page Size](#)
- [Filtering the Job Table](#)
- [Highlighting Job States Row by Row](#)
- [Managing Jobs](#)
- [Troubleshooting](#)

Note: You can also monitor and manage jobs using the Job Status Views Web app. See [Using the Job Status Views Web Application](#).

About the Job Status Views Web Application

You can use the Job Status Views Web app to do the following:

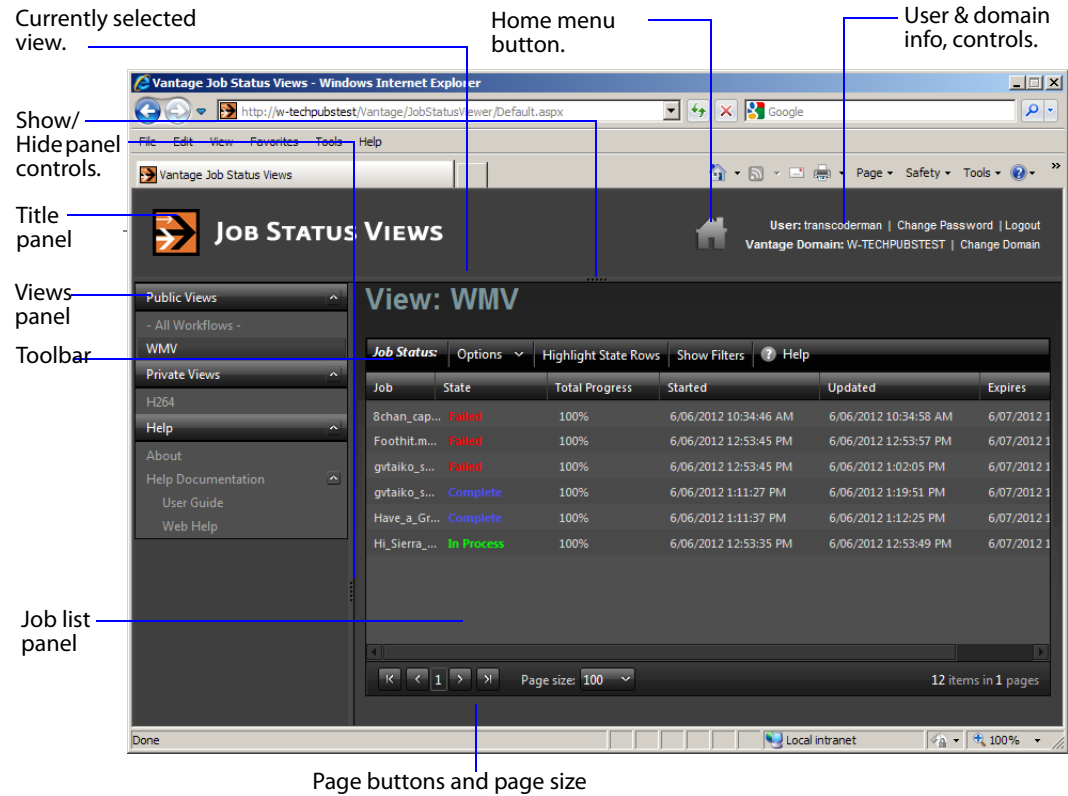
- Display information about submitted [jobs](#)
- Sort and filter job entries
- Highlight and identify jobs in different states
- Stop, restart, and delete jobs
- Troubleshoot job processing issues.

The *views* that you see in Job Status Views are defined by Vantage administrators, who control which job information displays and which job control functions (such as the ability to delete a job) are allowed. Views may be public or private. Public views are available to everyone, and private views are for use by specified Vantage users.

Job Status Views Web Application Overview

After logging in, the Job Status Views Web application displays the **jobs** table, as shown in [Figure 159](#).

Figure 159. Job Status Views Job List



The Job Status Views display is presented in three panels:

- Title panel—Displays the home button, Vantage domain and user name, and controls to manage the user password, change domains, and to log out of the domain.
- View panel—Displays views, which define which jobs are listed in the job list. This panel also includes controls to display product version information and this user guide.
- Job list panel—Displays the job list in table format, along with the program’s toolbar, which contains command buttons and menus.

Note: If you do not log in with a Vantage username, private views display *None Available*.

The following sections describe how to use the Web app:

- [Displaying/Hiding the Title and View Panels](#)
- [Using Public and Private Views](#)
- [Displaying/Hiding the Title and View Panels](#)
- [Paging Through Job Tables & Setting Page Size](#)
- [Filtering the Job Table](#)
- [Highlighting Job States Row by Row](#)

Using Public and Private Views

All views are defined either as public or private, and are created and configured in the Management Console. Click on the view to select it, and display **jobs** for this workflow. Only private views that are enabled for your Vantage user name are listed.

The default view is the *All Workflows* public view, which displays jobs for all workflows. The information that *All Workflows* displays depends on how it is configured in the Management Console, and whether it is enabled or not. If no private views have been defined, or if you log in as *Public*, the Private Views list displays *None Available*.

The following topics provide more information on views:

- [About Public and Private Views](#)
- [About View Definitions](#)

About Public and Private Views

Public views are views that the Vantage administrator has made available to all Vantage users. Anyone who connects to the Vantage domain can display public views in the Job Status Views Web application.

Private views are views that are available only to those Vantage users for which the Vantage administrator has enabled access. The administrator might configure custom views for different departments, users by role, or customers, and limit access to those views to the appropriate users.

About View Definitions

All views that you create are based on a specific workflow. In addition to being public or private, views limit the information that is displayed and specify which [job](#) control features (if any) the user has to use. If no controls are enabled, the view is considered a read-only view. You cannot create or configure views directly in Job Status Views; views are created by the Vantage administrator, via the Vantage Management Console, and specified as public or private; enforced by which user logs in.

There are many options for views, and displaying all options usually provides too much information for most applications. For example, it might be more convenient to display fewer columns. This view might only display active jobs, and it might disable controls that allow jobs to be restarted, stopped, or deleted.

The following topics provide information on what can be customized (and thus, may or may not be present) in views

- [Displaying Items in Views](#)
- [Controls in Views](#)

Note: Administrators should refer to the *Vantage Domain Management Guide* for information on how to set up custom views.

Displaying Items in Views

Two items of information are always displayed as columns in a view:

- Job—The name of the workflow for each job.
- State—The current state of the job, which can be:
 - Complete
 - Failed
 - In Process
 - Paused
 - Stopped by User
 - Waiting
 - Waiting to Retry

Four optional items of information can be added as columns in a view:

- Total Progress—The progress of the job (in percent) if still running.
- Started—The date and time the job was started.
- Updated—The date and time the job was last updated.
- Expires—The date and time when the job expires and will be deleted.

Controls in Views

An administrator can configure the following controls in a view:

- **Enable**—Enables or disables use of the view.
- **Show Only Active Jobs**—Displays only active [jobs](#).
- **Read Only Access**—Disables the use of the stop, restart, and delete controls for managing jobs.

Displaying/Hiding the Title and View Panels

To display or hide the title or view panels, click the show/hide controls, as shown in [Figure 159](#).

Sorting Jobs by Column

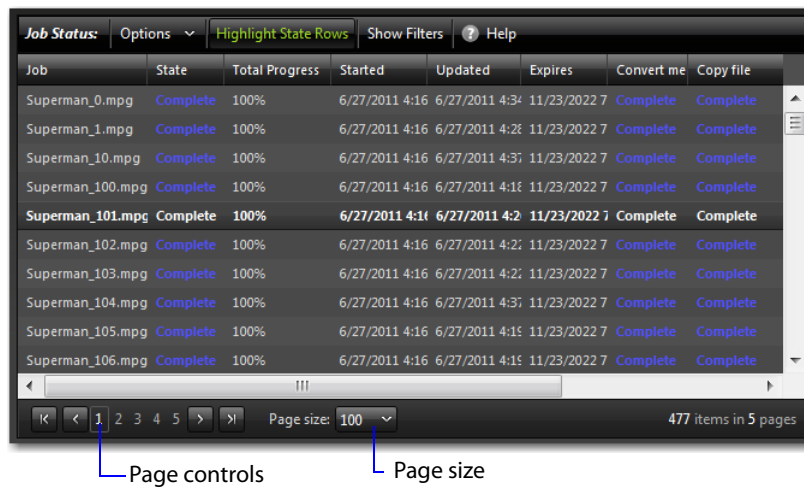
To sort the displayed [job](#) list according to the entries in any column, click that column label. Each time you click the column label, the sort changes in the following sequence: ascending order, descending order, and default sort order.

Paging Through Job Tables & Setting Page Size

A **job** table may span multiple pages. Use the page size control at the bottom center of the job list to specify the number of jobs to display on a page.

The page controls on the bottom left allow you to change pages and jump to the first or last page of a job list. [Figure 160](#) shows where the page controls appear in the job panel.

Figure 160. Job List, Showing Page Controls

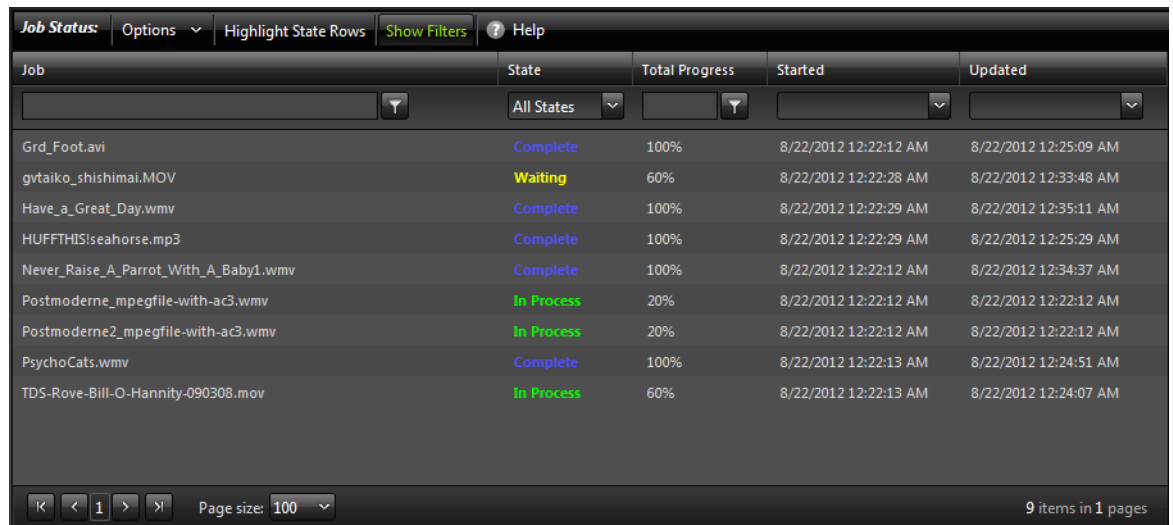


Filtering the Job Table

Job filters allow you dynamically control which **jobs** display in the job table. The default configuration displays all jobs specified in the view for the workflow. However, during troubleshooting, you might want to display only those jobs that are in a failure state. Other times, you might want to display only those jobs that are in progress.

To display the Job List filters, click Show Filters in the toolbar. The filters are displayed directly below the column titles in the job list table, as shown in [Figure 161](#).

Figure 161. Job List, Showing Job Filters



The screenshot shows a web application interface for job status. At the top, there is a toolbar with 'Job Status', 'Options', 'Highlight State Rows', 'Show Filters', and 'Help'. Below the toolbar is a table with columns: Job, State, Total Progress, Started, and Updated. The 'State' column has a dropdown menu set to 'All States'. The table lists several jobs with their respective states and progress percentages. At the bottom, there is a pagination bar showing 'Page size: 100' and '9 items in 1 pages'.

Job	State	Total Progress	Started	Updated
Grd_Foot.avi	Complete	100%	8/22/2012 12:22:12 AM	8/22/2012 12:25:09 AM
gytaiko_shishimai.MOV	Waiting	60%	8/22/2012 12:22:28 AM	8/22/2012 12:33:48 AM
Have_a_Great_Day.wmv	Complete	100%	8/22/2012 12:22:29 AM	8/22/2012 12:35:11 AM
HUFFTHIS!seahorse.mp3	Complete	100%	8/22/2012 12:22:29 AM	8/22/2012 12:25:29 AM
Never_Raise_A_Parrot_With_A_Baby1.wmv	Complete	100%	8/22/2012 12:22:12 AM	8/22/2012 12:34:37 AM
Postmoderne_mpegfile-with-ac3.wmv	In Process	20%	8/22/2012 12:22:12 AM	8/22/2012 12:22:12 AM
Postmoderne2_mpegfile-with-ac3.wmv	In Process	20%	8/22/2012 12:22:12 AM	8/22/2012 12:22:12 AM
PsychoCats.wmv	Complete	100%	8/22/2012 12:22:13 AM	8/22/2012 12:24:51 AM
TDS-Rove-Bill-O-Hannity-090308.mov	In Process	60%	8/22/2012 12:22:13 AM	8/22/2012 12:24:07 AM

To hide filters, click Show Filters again.

Which **jobs** display in the job list is determined by all the filters working together to filter the list. If multiple filters are configured, the job list includes all jobs that meet the criteria of all configured filters.

- [Setting the Job Name Filter](#)
- [Setting the Job State Filter](#)
- [Setting the Total Progress Filter](#)
- [Setting the Date and Time Filters](#)

Setting the Job Name Filter

You can use the [job](#) name filter to limit the job list display to only those jobs with a name that meet criteria you specify. The following sections describe how to set and clear the job name filter:

- [Specifying a Job Name Filter](#)
- [Clearing the Job Name Filter](#)

Specifying a Job Name Filter

To specify a job name filter, do the following:

1. If the filters are not visible above the job list, click the Show Filters button.
2. In the text box above the job names, enter text that is part of job names that you want to include or exclude from the list.
3. Click the control to the right of the filter text box and select one of the following filters:
 - *Contains*. Displays all jobs that have a name that contains the text you specified.
 - *DoesNotContain*. Displays all jobs except those that have a name that contains the text you specified.
 - *EqualTo*. Displays only those jobs that have names that exactly match the text you specified.
 - *NotEqualTo*. Displays all jobs except those that have a name that exactly matches the text you specified.

Clearing the Job Name Filter

To clear a job name filter, do the following:

1. If the filters are not visible above the job list, click the Show Filters button.
2. Click the control to the right of the filter text box and select No Filter.

Setting the Job State Filter

The [job](#) state filter allows you to selectively exclude jobs from the job list based on the [job state](#). The default configuration displays jobs for all of the following [job states](#):

- Complete
- Failed
- In Process
- Stopped By User
- Waiting
- Waiting to Retry

When the job state filter is set to display jobs in all states, the filter name for the *State* column is *All States*. When the job state filters disable the display for jobs in one or more states, the filter name for the *State* column changes to *Custom*.

To specify a state filter, do the following:

1. If the filters are not visible above the job list, click the Show Filters button.
2. Click the control below the State column head and check and clear the checkboxes to define the states for which you want to display jobs.

Setting the Total Progress Filter

You can use the total progress filter to limit the [job](#) list display to only those jobs that meet progress criteria that you specify. The following topics describe how to set and clear the total progress filter:

- [Specifying a Total Progress Filter](#)
- [Clearing the Total Progress Filter](#)

Specifying a Total Progress Filter

To specify a total progress filter, do the following:

1. If the filters are not visible above the job list, click the Show Filters button.
2. In the text box below the Total Progress column name, enter the progress level you want to include or exclude from the list. The range is 0% to 100%.
3. Click the control to the right of the total progress text box and select one of the following filters:
 - *Contains*. Displays all jobs for which the total progress includes the value you specified.
 - *DoesNotContain*. Displays all jobs except those for which the total progress includes the value you specified.
 - *EqualTo*. Displays only those jobs for which the total progress matches the value you specified.
 - *NotEqualTo*. Displays all jobs except those for which the total progress matches the value you specified.

Clearing the Total Progress Filter

To clear a job name filter, do the following:

1. If the filters are not visible above the job list, click the Show Filters button.
2. Click the control to the right of the Total Progress text box and select NoFilter.

Setting the Date and Time Filters

The date and time filters allow you to limit the [job](#) display list to jobs that started, updated, or will expire within a specified time period. There are three separate date and time filters for:

- Started
- Updated
- Expires

The following topics describe how to set and clear the date and time filters:

- [Specifying a Date and Time Filter](#)
- [Clearing a Date and Time Filter](#)

Specifying a Date and Time Filter

To set any of the date and time filters, do the following:

1. If the filters are not visible above the job list, click the Show Filters button.
2. Click the control to the right of the filter label box in the appropriate column.
If the filter label box is empty, no filter is defined. If a filter is defined, the filter label box displays *Custom*.
3. In the panel that appears, click on the calendar and clock buttons to set the date and time for the period start and period end.
If you omit the period *From* date and time, the program displays all jobs up to the *To* date and time. If you omit the period *To* date and time, the program displays all jobs after the *From* date and time.
4. When the period is defined, click Apply.

Clearing a Date and Time Filter

To clear a date and time filter, do the following:

1. If the filters are not visible above the job list, click the Show Filters button.
2. Click the control to the right of the filter label box.
3. Click Clear.

Highlighting Job States Row by Row

Job state highlighting allows you to use colors to make the different [job](#) states more visible. Or, you can use the same color for all [job states](#) to draw less attention to the job states.

To toggle job state highlighting, click the Highlight State Rows button in the toolbar. Each time you click the button, the job state highlighting changes from the current state to the opposite state.

Managing Jobs

Job management, when enabled in a view, enables you to stop, restart, and delete [jobs](#).

The following topics describe how to stop, restart, and delete jobs:

- [Stopping Jobs](#)
- [Restarting Jobs](#)
- [Deleting Jobs](#)

Stopping Jobs

You might want to stop a [job](#) to make Vantage resources available for another job, or you might stop a job in preparation for system maintenance.

To stop a job, do one of the following:

- Right-click on a job in the job list, and select Stop.
- Select a job in the job list, then click the Options menu in the toolbar, and select Stop.

Restarting Jobs

Jobs can be stopped by service or network interruptions, or an operator might stop a [job](#) to give another job priority. To restart a job, do one of the following:

- Right-click on a job in the job list, and select Restart.
- Select a job in the job list, then click the Options menu in the toolbar, and select Restart.

Deleting Jobs

You might want to delete a [job](#) because the job has failed, or because the output file is no longer needed, for example.

To delete a job, do either of the following:

- Right-click on a job in the job list and select Delete.
- Select a job in the job list, then click the Options menu in the toolbar, and select Delete.

Troubleshooting

Job Status Views enables troubleshooting and correction at the [job](#) level. For more comprehensive troubleshooting, use the Vantage Web.

The first step in Vantage troubleshooting with Job Status Views is to identify the jobs that are having problems. There are several ways to do this:

- Enable *Highlight State Rows* to indicate job status with colors. Failed jobs are highlighted in red, and other states have distinct colors. (See [Highlighting Job States Row by Row](#) for more information.)
- Click the State column head to sort the jobs by the current state, then locate the group of jobs you want to investigate.
- Use filters to display only the jobs in the state you are investigating. (See [Filtering the Job Table](#) for more information.)

After you locate the jobs with issues, look for common traits among those jobs. The following are some possible issues and suggestions for resolution:

- *All jobs are failed or waiting.* Look for network, [database](#), or service issues. If all jobs within a certain time period had problems, there might have been a temporary issue that has since been corrected. Restart failed jobs as described in [Restarting Jobs](#).
- *All jobs for a specific workflow have failed or are waiting.* Look for issues with the workflow. Has the workflow ever worked? Are all resources used by that workflow available?
- *All jobs for a particular watch folder or destination have failed or are waiting.* If you know that all the troubled jobs use the same watch folder or destination, it could be that the location is not available.

After you resolve a problem, some jobs might restart on their own, and others might require further action from you. If your view is so enabled, you can take the following actions on jobs in the job list:

- Restart—Restart stopped jobs as described in [Restarting Jobs](#).
- Delete—Delete jobs as described in [Deleting Jobs](#).
- Stop—If a job seems unlikely to complete or stop, you can stop the job as described in [Stopping Jobs](#). Once a job is stopped, you can try to restart the job or delete it.

Using Vantage Transcode

Vantage Transcode, a browser-based Web application, allows Transcode and Transcode Pro customers to quickly and easily build straight-line, template-based transcoding workflows. Workflows created in Vantage Transcode can include these features:

- One or more [hot folders](#) to watch for incoming media
- One or more output formats
- Delivery to one or more destinations.

You can also review the status of jobs directly in Transcode, where jobs can be stopped, restarted, and deleted.

Note: For information about Vantage Web application requirements, starting and stopping Web applications, and other basic topics, see [Vantage Client Programs](#).

This chapter presents the following topics:

- [About Vantage Transcode](#)
- [Vantage Transcode Overview](#)
- [Managing Vantage Transcode Workflows](#)
- [Configuring Workflows](#)
- [Managing Job Status](#)
- [Troubleshooting](#)
- [Accessing Help](#)

About Vantage Transcode

Vantage Transcode is a Web-based, template-driven Vantage workflow editor that allows you to perform the following types of tasks:

- Create and configure watch-transcode-deliver workflows from a template
- Submit media for processing through a workflow
- Activate and deactivate workflows
- View domain job status.

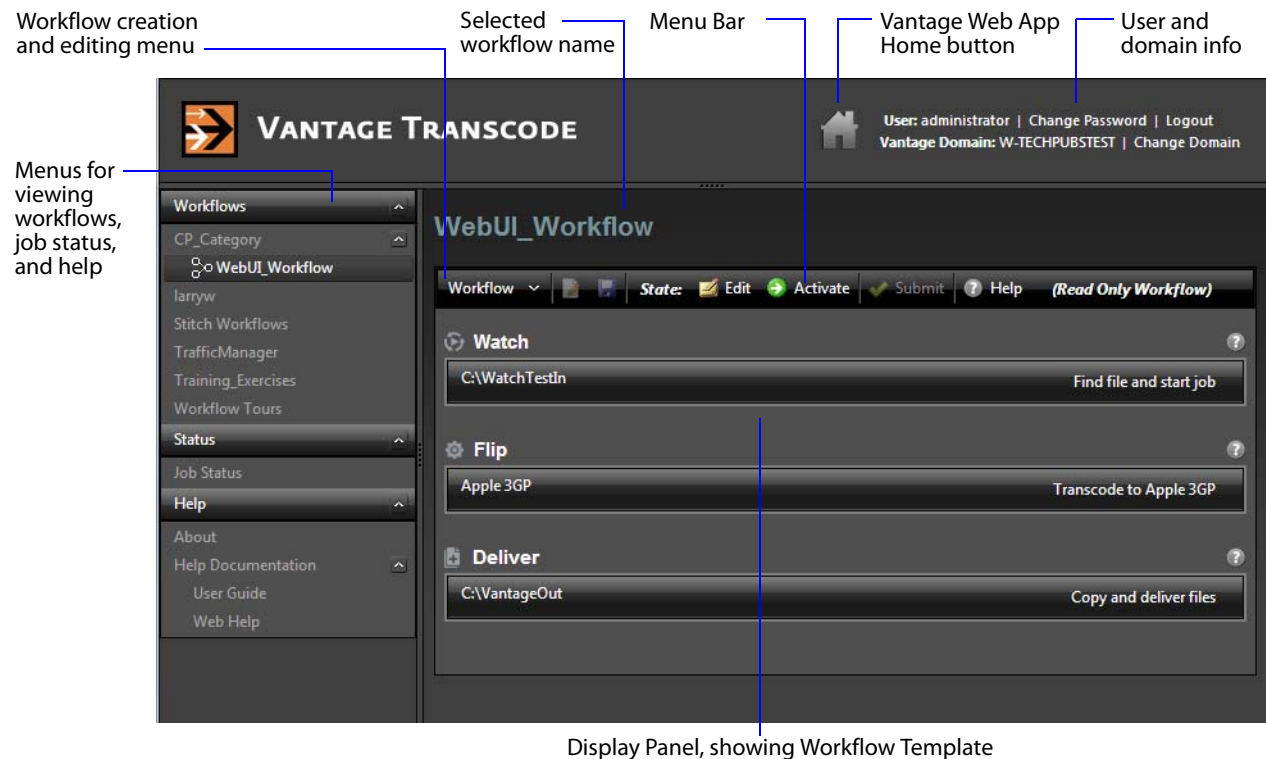
Note: Workflows you create in Transcode are automatically listed in Workflow Designer. You can view workflows created in Transcode in Workflow Designer, but if you edit them in Workflow Designer, you can't use them in Transcode again. Workflows in Vantage are tagged based on the client application that created or edited them. Because Transcode can only utilize basic transcoding workflows, it does not attempt to open workflows tagged as edited by Workflow Designer.

For designing complex, branching workflows with no restrictions, use the Vantage Workflow Designer. For basic, single-branch workflows, the Transcode Web app offers you a quick fixed-template workflow design alternative.

Vantage Transcode Overview

After you log in, the Vantage Transcode Web app displays the workflow design window shown in [Figure 162](#).

Figure 162. Vantage Transcode Window.



The Vantage Transcode window consists of these parts:

- Details Panels
 - Displays the workflow template when Workflows is selected in the menu.
 - Displays a jobs list when Job Status is selected in the menu.
 - A Menu Bar shows menus applicable to what is being displayed
 - A Title indicates whether you're viewing a workflow or job status
- Menu Items
 - Workflows lets you view categories and select workflows
 - Status lets you select and view Job Status
 - About lets you select and view Vantage version information, or Help Documentation consisting of the User Guide or online Web Help
- The Home button takes you back to the Vantage Web Apps page
- User and domain information; click Change Domain to select a Vantage domain

Managing Vantage Transcode Workflows

Vantage Transcode presents a fixed workflow design template in which you can create and save workflows that include these three [actions](#):

- *Watch* specifies a folder to watch for media to transcode.
- *Flip* transcodes watched media into another selectable format.
- *Deliver* deploys transcoded media to a selectable device or output folder.

With these features, you can quickly create and manage simple but powerful workflows using a web browser instead of the full-featured but more complex Workflow Designer.

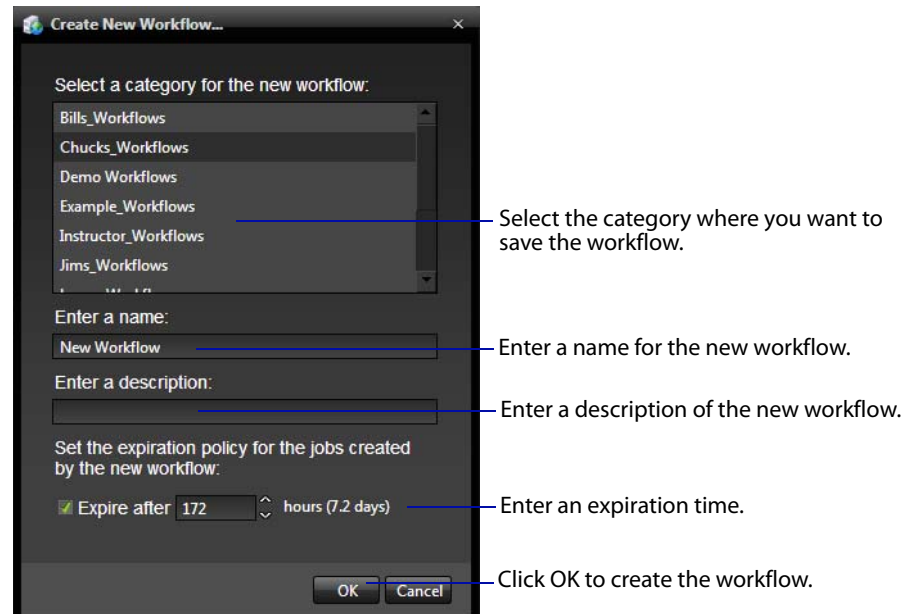
These topics explain how to manage Vantage Transcode workflows:

- [Creating a New Workflow](#)
- [Saving a Workflow](#)
- [Activating a Workflow](#)
- [Deactivating a Workflow](#)
- [Editing a Workflow](#)
- [Duplicating a Workflow](#)
- [Deleting a Workflow](#)

Creating a New Workflow

To create a new workflow, click the Workflow menu at the top of the Workflow panel, and select New. Vantage Transcode displays the Create New Workflow dialog:

Figure 163. Create New Workflow Dialog



Select a Category—Select the category for this workflow from the list.

Enter a Name—Enter a name for the workflow you want to create.

Enter a Description—Enter a description of the workflow.

Expire after—Specify in hours (and days) how much time elapses before the system automatically deletes job records from the [database](#) for jobs submitted by this workflow. The time for expiration is based on the last updated time in the job record, not the job submission time.

OK | Cancel—Click OK to create the new workflow. Vantage Transcode creates the workflow in the database, adds it to the specified category, and displays it in the Vantage Transcode panel in edit mode—that is, deactivated and editable.

After the workflow is created, you need to configure its Watch, Flip, and Deliver actions as explained in [Configuring Workflows](#).

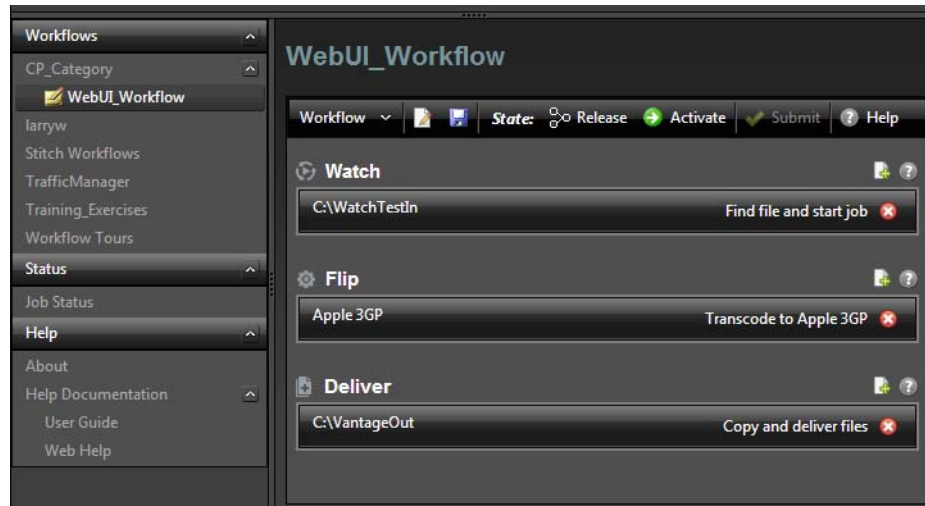
Saving a Workflow

To save a workflow, click the Disk icon in the toolbar at the top of the Workflow panel, or click Save in the Workflow menu.

Activating a Workflow

To activate a deactivated workflow, right-click it in the Workflows panel on the left, and select the green Activate button in the menu bar (Figure 164). When activated, the workflow can process jobs, as indicated by the green arrow next to the workflow name in the left panel. You cannot edit or rename a workflow when it is active. To edit or rename, see [Editing a Workflow](#).

Figure 164. Activate a Workflow



Submitting a File

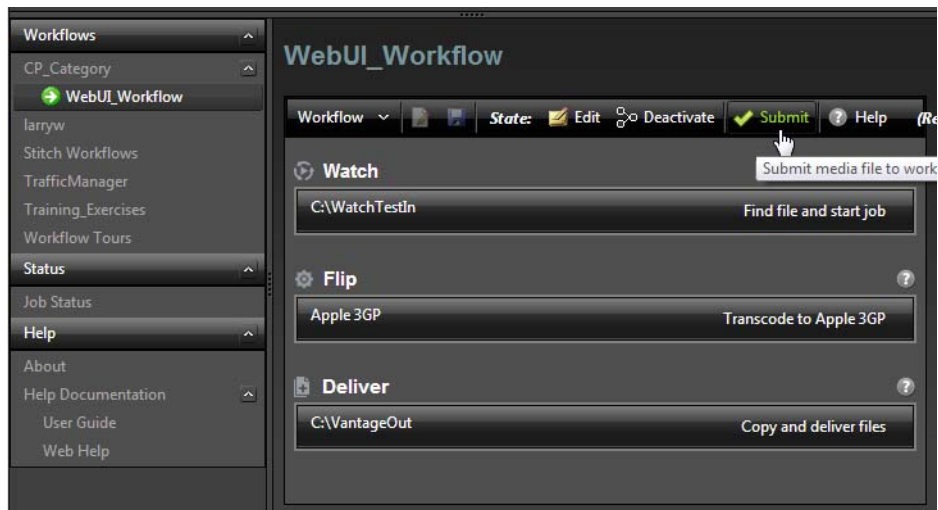
When a workflow is activated, it monitors the selected Watch folder for new files to transcode, or you can manually submit a file for immediate transcoding.

To submit a file:

1. Click Submit in the menu bar above the workflow (Figure 165).
2. Select the File System to use for locating the file.
3. Browse for the file, and click OK.

Vantage Transcode immediately submits a job to transcode the file.

Figure 165. Submit a File



Deactivating a Workflow

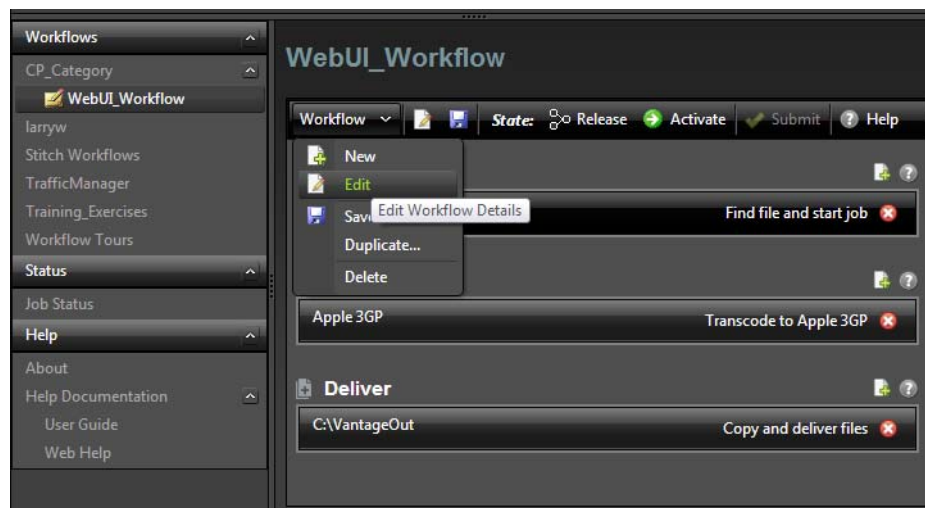
To deactivate an active workflow, right-click it in the Workflows panel on the left, and select Deactivate. When a workflow is deactivated, you can edit it, but you cannot process jobs with it.

Editing a Workflow

To make a workflow editable, click the Edit button in the menu bar. Alternatively, you can first deactivate it, and then click on it in the left panel. A dialog announces that it is read-only and asks if you want to make it editable. Click OK (or Cancel). Workflows can be edited only when they are not activated.

To edit workflow details, click the pencil icon at the top of the workflow panel, or click the Workflow menu, and select the Edit icon (Figure 166). The Edit Workflow dialog opens, allowing you to change the name, the description, or the expiration—just click the item, make a new entry, and click OK.

Figure 166. Edit a Workflow



Editing Workflow Actions

To edit [actions](#), just click on the action—Watch, Flip, or Deliver. The window for that action opens, allowing you to make changes.

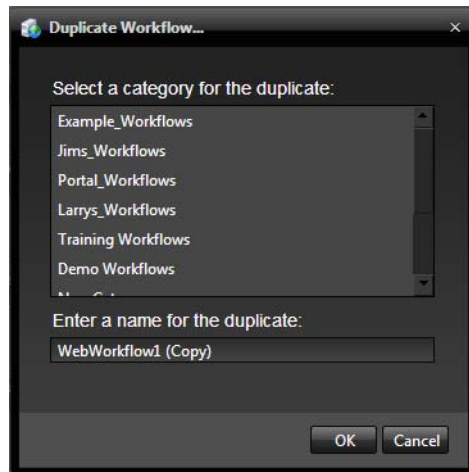
Duplicating a Workflow

Workflows can be duplicated only when they are not activated.

To duplicate a workflow:

1. Click the workflow name in the left panel to highlight it.
2. Click the Workflow menu, and select Duplicate.
3. Select a category and enter a new name in the Duplicate Workflow dialog.
4. Click OK to create the new workflow.

Figure 167. Duplicate a Workflow



Deleting a Workflow

Workflows can be deleted only when they are not activated and editable. To deactivate the workflow, right click it in the Workflows left panel and select Deactivate. Then click it again. A dialog announces that it is read-only and asks if you want to make it editable. Click OK (or Cancel).

To delete a workflow, right-click the workflow name in the Workflows Panel and select Delete or click the Workflow menu and select Delete. Vantage Transcode displays a warning that you are about to delete the workflow and all job history for this workflow. Click OK to delete the workflow and its history.

CAUTION: This action deletes the workflow and its job history from the [database](#). Once deleted, a workflow cannot be recovered.

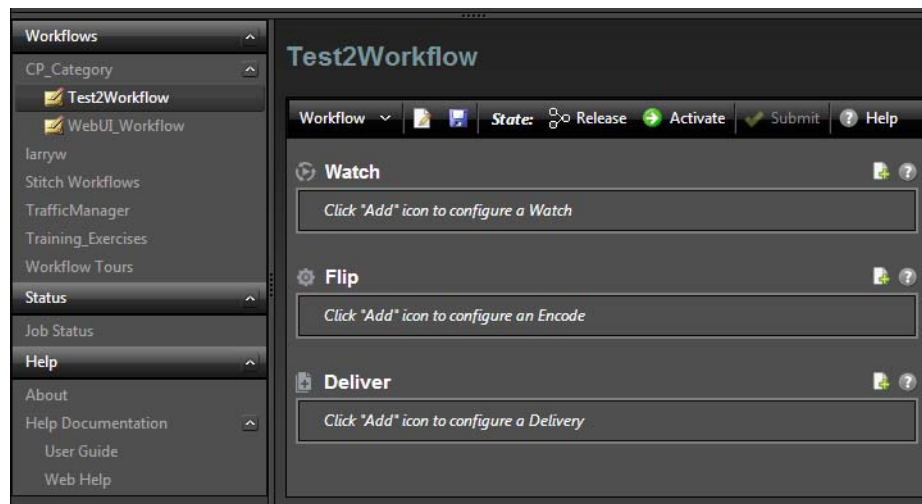
Configuring Workflows

After creating a new workflow, you will need to configure the three actions built into the workflow template: Watch, Flip, and Deliver.

The following topics provide more information on configuring your workflow:

- [Configuring the Watch Action](#)
- [Configuring the Flip Action](#)
- [Configuring the Deliver Action](#)

Figure 168. Actions Ready for Configuration



Configuring the Watch Action

The Watch action monitors a folder you specify, and when a media file is placed in the folder, the Watch action detects the file and sends it through the workflow as a job.

To configure or edit the Watch action for a workflow, click the green plus (+) symbol at the right end of the Watch row (next to the question mark). A *New Watch* dialog opens and presents a series of dialogs. Click Next/Previous to move through the dialog screens (or Cancel to exit the configure dialog) and select from the following fields:

Watch Description—Enter a Watch Description.

Select what you want to watch—Select the type of files you want to watch for.

Select the File System—Click a file system. Several systems are available, including Windows at the bottom of the list if you want to watch a Windows folder. Click Next.

File System Parameters—Enter parameters to allow Vantage Transcode to find and access the host system where the watched folder resides. Required parameters vary depending on the type of file system you selected.

Configure settings for this file system detector—Make selections and entries to describe how and when to detect and submit files to the workflow:

Cycle—Select the number of seconds between checks of the watched folder.

Count—Select the number of cycles a file must remain unchanged in size before it is submitted as a job. (This ensures files are done being written to the folder before they are processed.)

Submit Immediately—Check to submit jobs as soon as detected without waiting to verify that the file is done being written.

Look in Subfolders—Check to drill down to lower level folders to detect media.

Send Offline Notification Emails—Check to send email to the administrator when a job fails because the system is offline.

Process Existing Files—Select which existing files in the folder to process, if any. Selecting *All* processes all existing files. Selecting *Limit to Last* processes all files placed in the folder within the specified number of days. Selecting *Since Last Workflow Deactivation* processes all files placed in the folder since the workflow was last deactivated, which helps ensure no files are missed between activations.

File Match Pattern—Enter any file naming pattern to explicitly accept or reject. For example, if you want to accept only .mov files, enter *.mov in the Accept field. If you want to accept all files except .txt files, leave Accept blank and enter *.txt in the Reject field.

Cancel/Previous/Finish—Click Finish to create the Watch action (or Previous to go back to previous screen, or Cancel to cancel your entries).

Configuring the Flip Action

The Flip action transcodes files directed to it from the watched folder by the Watch action. To configure or edit the Flip action for a workflow, click the green plus (+) symbol at the right end of the Flip row (next to the question mark) to open the Flip configuration dialog. Click Next/Previous to move through the dialog screens (or Cancel to exit the configure dialog) and select from the following fields:

The *Create New Encode* dialog:

Encoder—Select an encoder from the menu.

Description—Enter a description in the text field.

OK/Cancel—Click OK to create the flip action (or Cancel to cancel your entries).

The *Flip: Performs a single file transcode* dialog configures the transcode. Detailed selections in this dialog vary with the selected format, but may be similar to these:

Encoder—Click Encoder and select an encoder from the menu. You can use this to change the encoder without going back to the previous dialog.

Output Location: Path—Browse to select a folder for the transcoded output. You can also select (Collision Resolution) whether to create a new name for each file, overwrite existing files, or do nothing if the same file name exists and set the job to the failure state.

Container—Select the container for packaging the transcoded file.

Movie Filters—Select the options such as captions, timecode, and media length

Video Stream—Select the processor to use for the video stream.

Codecs—Select a codec, bit rate (Video Settings), and so on.

(Video) Filters—Expand and select the video filter functions you want to apply.

Audio Stream—Enable the audio stream, select a codec, and so on.

(Audio) Filters—Expand and select the audio filter functions you want to apply.

OK/Cancel—Click OK to create the flip action (or Cancel to cancel your entries).

Configuring the Deliver Action

The Deliver action delivers files supplied to it by the Flip action. To configure or edit the Deliver action for a workflow, click the green plus (+) symbol at the right end of the Deliver row (next to the question mark) to open the Deliver configuration dialog. Click Next/Previous to move through the dialog screens (or Cancel to exit the configure dialog) and select from the following fields:

The *New Delivery* dialog:

Delivery Description—Enter a description of the delivery.

Select the files to deliver—Select to deploy files when received or a single transcode.

Collision Resolution—Decide what to do if the output file name is the same as a file from a previous job. Select *Create Unique Name* to add a version number at the end of the name, or *Overwrite* the existing file, or *Set Failure State* to cause the job to fail.

Select the File System—Click a file system to receive the output. Several systems are available, including Windows at the bottom of the list.

Cancel/Next—Click Next to go to the next screen (or Cancel to cancel your entries).

The *File System Parameters* dialog opens:

Delivery Folder Path—Enter the path to the delivery folder.

Cancel/Previous/Finish—Click Finish to create the delivery action (or Previous to go back to previous screen, or Cancel to cancel your entries).

Managing Job Status

When you click Job Status in the left panel Status section, a Job Status page opens. The Domain Job Status page provides a real time view of Vantage workflow jobs, and it provides controls that you can use to manage job processing. The Domain Job Status page displays two lists: the Job Status list and the Actions list.

The Job Status list presents workflow jobs, the state of each job (complete, failed, stopped), and timestamps for job events. Whenever a job is selected, the actions associated with that job are listed in the Actions list at the bottom of the window. The Actions list presents status information for each action and controls for managing the actions.

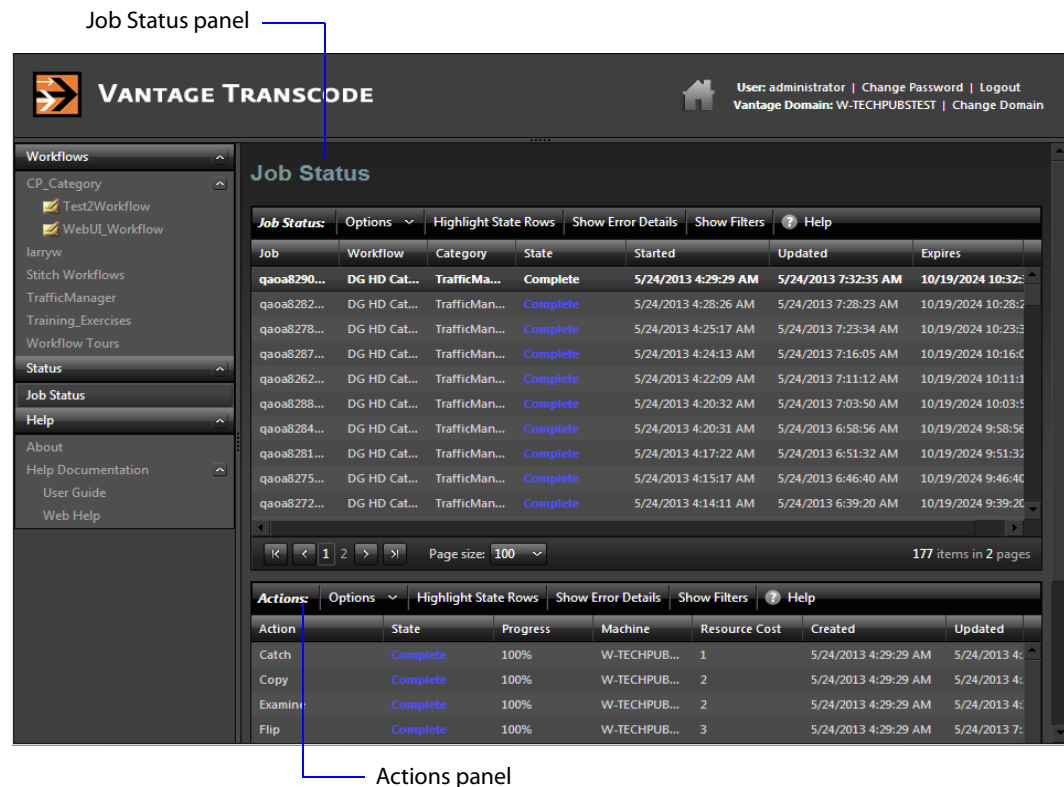
The following topics describe status management:

- [Monitoring Jobs](#)
- [Sorting Jobs](#)
- [Filtering Jobs](#)
- [Stopping Jobs](#)
- [Restarting Jobs](#)
- [Deleting Jobs](#)

Monitoring Jobs

You can monitor and manage jobs created by your workflows right in the Vantage Transcode window. Click the Status menu in the left panel to reveal the Job Status selection, and click Job Status. This opens a Job Status and Actions panel (Figure 169).

Figure 169. Job Status and Actions Panels



The Job Status View offers these job monitoring options:

Column Headings—Sort the jobs list by clicking the column headings: Job, State, Total Progress, Started, Updated, or Expires.

Options—Control jobs by clicking the job and selecting Stop, Restart, or Delete.

Highlight State Rows—Click to turn row status coloring on or off for all rows. When on, status colors are applied to entire rows. When off, only the State column is colored.

Show Error Details—Click to open a window showing information and error messages about a selected failed job.

Show Filters—Click to show multiple tools for controlling which jobs you see in the list.

? Help—Opens the user guide to the appropriate manual page for the topic.

Page selections (bottom)—Click the forward and back buttons to view multiple pages of job lists. Click the Page size menu to set how many jobs are shown on a page.

Actions panel—Click a job to see the list of its actions in this panel. Details about the Actions panel are described in [Viewing Actions](#) later in this section.

Sorting Jobs

To sort the displayed job list according to the entries in any column, click the column label. Each time you click the column label, the sort changes in the following sequence: ascending order, descending order, and default sort order.

- *Job* sorts in alphanumeric order by job number.
- *Workflow* sorts by workflow name
- *Category* sorts by category
- *State* sorts by state
- *Total Progress* sorts by the percentage of job progress.
- *Started* sorts by the job start date and time.
- *Updated* sorts by the date and time jobs were last updated.
- *Expires* sorts by the date and time the jobs expired.

Filtering Jobs

Show Filters lets you filter which jobs appear in the jobs list. You can filter on a single field or multiple fields. Click Show Filters to reveal six filter fields associated with the column headings above them:

- *Job* filters on job titles based on the characters you enter and the logic function you select. Click the funnel icon next to the field to select from these logic functions: NoFilter, Contains, DoesNotContain, EqualTo, or NotEqualTo.
- *Workflow* filters workflow names by the characters you enter plus the Contains, DoesNotContain, EqualTo, NotEqualTo, or NoFilter function.
- *Category* filters categories by the characters you enter plus the Contains, DoesNotContain, EqualTo, NotEqualTo, or NoFilter function.
- *State* filters by the specific state. Click the menu and click the state you want to use: Complete, Failed, In Process, Paused, Stopped by User, Waiting, or Waiting to Retry.
- *Total Progress* filters by the percentage of job progress you enter and the logic function you select. Click the funnel icon next to the field to select from these logic functions: NoFilter, Contains, DoesNotContain, EqualTo, or NotEqualTo.
- *Started* filters by the job start date and time within the range you specify. Click the menu and make entries to show all jobs started between the dates and times you specify.
- *Updated* filters updates by the date and time jobs were updated within the range you specify. Click the menu and make entries to show all jobs updated between the dates and times you specify.
- *Expires* filters expiration dates by the date and time the jobs expired within the range you specify. Click the menu and make entries to show all jobs started between the dates and times you specify.

Stopping Jobs

You might want to stop a job to make Vantage resources available for another job, or you might stop a job in preparation for system maintenance.

To stop a job, do one of the following:

- Right-click on a job in the job list, and select Stop.
- Select a job in the job list, then click the Options menu in the toolbar, and select Stop.

Restarting Jobs

Jobs can be stopped by service or network interruptions, or an operator might stop a job to give another job priority. To restart a job, do one of the following:

- Right-click on a job in the job list, and select Restart.
- Select a job in the job list, then click the Options menu in the toolbar, and select Restart.

Deleting Jobs

You might want to delete a job because the job has failed, or because the output file is no longer needed, for example.

To delete a job, do the following:

- Right-click on a job in the job list and select Delete.
- Select a job in the job list, then click the Options menu in the toolbar, and select Delete.

Viewing Actions

When you click on a job in the Job Status panel, the job's actions appear in the Actions panel. The Actions panel enables you to gather information about the performance of the job, such as how much time each action took to execute, which action, if any, may have failed and how much progress it made before failing.

The Actions panel includes these selections:

Column Headings—Sorts the actions list by clicking the column headings: Action, State, Total Progress, Started, Updated, or Expires.

Options—Controls a selected action by selecting Change Priority or Restart. Change Priority opens a window allowing you to set the action processing priority. Higher numerical values are processed first. Restart resumes processing of the selected action, enabling you to step through a job one action at a time.

Highlight State Rows—Turns row status coloring on or off for all rows. When on, status colors are applied to entire rows. When off, only the State column is colored.

Show Error Details—Opens a window showing information and error messages about a selected failed job.

Show Filters—Shows multiple tools for controlling which actions you see in the list.

? Help—Opens the user guide to the appropriate manual page for the topic.

Troubleshooting

Job Status Views enables you to troubleshoot and correct workflow design and configuration errors at the job level.

The first step in Vantage troubleshooting with Job Status Views is to identify the jobs that are having problems. There are several ways to do this:

- Enable *Highlight State Rows* to indicate job status with colors. Failed jobs are highlighted in red, and other states have distinct colors. (See [Highlighting Job States Row by Row](#) for more information.)
- Click the State column head to sort the jobs by the current state, then locate the group of jobs you want to investigate.
- Use filters to display only the jobs in the state you are investigating. (See [Filtering Jobs](#) for more information.)

After you locate the jobs with issues, look for common traits among those jobs. The following are some possible issues and suggestions for resolution:

- *All jobs are failed or waiting.* Look for network, [database](#), or service issues. If all jobs within a certain time period had problems, there might have been a temporary issue that has since been corrected. Restart failed jobs as described in [Restarting Jobs](#).

- *All jobs for a specific workflow have failed or are waiting.* Look for issues with the workflow. Has the workflow ever worked? Are all resources used by that workflow available?
- *All jobs for a particular watch folder or destination have failed or are waiting.* If you know that all the troubled jobs use the same watch folder or destination, it could be that the location is not available.

After you resolve a problem, some jobs might restart on their own, and others might require further action from you. If your view is so enabled, you can take the following actions on jobs in the job list:

- **Restart**—Restart stopped jobs as described in [Restarting Jobs](#).
- **Delete**—Delete jobs as described in [Deleting Jobs](#).
- **Stop**—If a job seems unlikely to complete or stop, you can stop the job as described in [Stopping Jobs](#). Once a job is stopped, you can try to restart the job or delete it.

Accessing Help

The Help section at the bottom of the left panel includes these features:

- *About* selection shows what version of Vantage you are using
- *User Guide* is organized into chapters and leads you systematically through the process of learning to use Vantage
- *Web Help* is organized into searchable topics you can access when you need a quick explanation of how to use a particular Vantage function.

Glossary

action

An *action* is the smallest unit of work that can be specified in a Vantage workflow. Actions are connected together in a workflow to perform a useful task. Each action must be configured to perform its task in the context of the workflow, using an action [Inspector](#). Action inspectors are specific to each type of action.

Actions are grouped by functional categories: communication, transcoding, file operations, metadata processing, etc. Each action is defined by the specific task it performs. For example, an email action, or a metadata label/file transformation action.

Actions have limited interdependency, and so, are very flexible. You may impose limitations on actions in a workflow. For example, you might require action B to depend on action A in a Vantage workflow.

During execution, actions operate on files, [binders](#), variables, and states, and they generate an action state when they complete. Actions are executed by Vantage services, which perform the requirements of the action.

action state

The *action state* describes the condition of an action execution in process and after completion.

During execution, an action may be Queued | Paused | In Process | Waiting. After execution, an action's final state may be Success | Ignore | Fail. Certain actions (Decide/Examine/Compare/Identify, for example) allow the user to specify the post-execution state, including Ignore. For all other actions, the post-execution state is set by the service, and is either Success or Fail. These states display in the Vantage Workflow Designer Job Status tab.

Action states are always passed to subsequent actions. The incoming state is tested by the next actions to determine whether or not following actions should execute.

Some actions allow you to specify that an action should execute on a specific state (right-click the action, and select Perform On > Success | Fail | Ignore | Any).

If an action fails, then the next action will inherit the Fail state and (in most cases) will not execute. If one action fails, the entire [job](#) fails.

Similarly, if you specify an action to set the Ignore state, the next action will inherit the Ignore state and will also likely not execute. Certain special actions, such as Message,

can be configured to perform on any state (Fail, for example)—this allows workflows to send an email if they detect a failure.

Action states have precedence when an action receives states from multiple incoming actions (a merge of multiple branches):

- If at least one incoming state is Fail, regardless of other incoming states, the action will inherit the Fail state. Fail has precedence over all action states.
- If there is no Fail state, but at least one Success state, then the action will inherit the Success state. Success has precedence over Ignore states.
- If all incoming states are Ignore, the action will inherit the Ignore state. Ignore has lowest precedence of the three states. If an action receives an Ignore state and does not explicitly fail, then it emits a Success state. Otherwise, it emits a Fail state *unless* it is an action which can emit Ignore, and you have configured it to do so.

Agility Service

The *Agility Service* is the Vantage component which executes the actions relating to Agility [job](#) submission and interaction with Agility via the [Job Profile action](#), [Job XML action](#), and [Process MMF action](#). Agility features are enabled by the Vantage Agility ECS License license.

All-in-one domain

An *all-in-one* (or single-node or single-server) Vantage domain is one in which all server components of Vantage—the Microsoft SQL Server [database](#), all Vantage services, and the optional Vantage Web Applications—are installed and operate on a single computer.

See also [Vantage array](#).

Analyze action

An *Analyze action*, which is executed by the [Analysis Service](#), enables you to perform analysis on media using a variety of analysis tools, as well as variables, with the result of the analysis, for use in downstream actions.

Analysis Service

The *Analysis Service* is the Vantage component which executes the actions relating to the analysis of content: [Examine action](#), [Compare action](#), [Identify action](#), [Analyze action](#), [Report action](#), [QC action](#), and [MediaInfo action](#).

Archive action

An *Archive action*, which is executed by the Staging Service, uses the selected archiver (TAR, for example) to convert the selected input file to another format, usually in preparation for copying, moving, or deploying a file to a given system that has special file format requirements.

array

Another term for [Vantage array](#).

Aspera Service

An *Aspera Service* implements the Aspera software for Vantage, and provides two-way communication between workflows (and the [Faspex Delivery action](#)) utilizing the Aspera software itself.

Associate action

An *Associate action* uses the Monitor Service to continually (and at regular periods) poll a target location (a directory, for example) on a device or file system (FTP, network folder, etc.) to discover new files, based on some permutation of the name of the file being processed.

Associate actions can be executed on any action state.

Generally, the Associate action uses the file name of an existing media file or attachment as the basis for discovering new files. For example, if media file *Vantage.mpg* is currently in the workflow, then the Associate action may look for *Vantage.scc*. This behavior can be configured in the Associate action's [Inspector](#).

Associate actions begin executing when a [job](#) is submitted, and execute until a new file is discovered—subsequent actions do not execute until the file is found. When the new file is discovered, the Associate action makes the file available to the other actions in the workflow.

Configuration is accomplished in the inspector, and is based on the target device/file system being monitored and other requirements.

attachment

An *attachment* is a non-media file that is associated with media during execution of a workflow. For example, an attachment may be an XML file that contains metadata, an SCC caption file, or an STL or PAC subtitle file. An attachment may also be a PDF file, Excel spreadsheet, or Word document, for example. Attachments are identified and processed using nicknames for simplicity. Processing is optional—attachments may be simply passed through a workflow for storage with the processed media and registered in a Vantage [catalog](#).

attachment nickname

An *attachment nickname* is an alias or alternate name that is assigned to an attachment file during Vantage workflow execution. When an attachment file is submitted to a workflow, the actual file name and location is stored in a Vantage [binder](#) along with a nickname as defined in the workflow. Within the workflow, all references to a file are by nickname. However, when Vantage needs to access a file, Vantage uses the actual file name and location stored in the binder.

See [media nickname](#) and [nickname](#).

Aurora action

An *Aurora action* is an optional, licensed feature in Vantage. It uses the Aurora Service to enable Vantage workflows to utilize and interact with various QC tests provided by the Digimetrics Aurora software. The tests provide the ability to determine whether a particular input media (specified by nickname) either passes or fails a particular QC check. Each test also generates a report file that may be utilized during later stages of the workflow.

Aurora Service

The *Aurora Service* implements the Digimetrics Aurora software for Vantage, and provides two-way communication between workflows (and the [Aurora action](#)) utilizing Aurora and the Aurora software itself.

Baton action

A *Baton action* is an optional, licensed feature in Vantage. It uses the Baton Service to enable Vantage workflows to utilize and interact with various QC tests provided by the Baton software. The tests provide the ability to determine whether a particular input media (specified by nickname) either passes or fails a particular QC check. Each test also generates a report file that may be utilized during later stages of the workflow.

Baton Service

The *Baton Service* implements the Baton software for Vantage, and provides two-way communication between workflows (and the [Baton action](#)) utilizing the Baton software itself.

binder

A *binder* is a collection of file and metadata information, created for each [job](#) that Vantage executes. A binder contains media and attachment file references and metadata labels that were ingested or created during the job. While a binder is created for every job, many binders are never used. Therefore, only media processing scenarios which require operator intervention should use the Register action in ingest workflows to create binders in a user-accessible [catalog](#).

You use the Register action to automatically create binders during a job, and you use Exist to determine if a binder of a certain name has already been created. Binders are most often named by some permutation of the name of the file that started the job. Binders that are not explicitly registered are accessible to users only in Workflow Designer, in the Job Status tabs.

Vantage catalogs and their binders are accessible in Workflow Portal. Binders are saved in the [Vantage domain database](#) until deleted manually or by job expiration policies. You can also view binders in the Vantage Management Console, and manually create them there—or delete them.

Binders are not file folders and are not part of the Windows file system—they are records in the Vantage database. Thus, binders do not contain the files themselves; they only have the paths to those files.

catalog

Similar in concept to the folders in a file system, a Vantage *catalog* is a container that stores [binders](#). *Catalog folders* are sub-containers that organize binders. To access a binder, VWP operators search through the visible catalogs and folders, just as they might sort through folders in a file system.

Catalog Service

The *Catalog Service* is the Vantage component that executes the [Register action](#) and [Register action](#).

Catch action

A *Catch action* is an [origin action](#); it is a specialized origin action for ingesting commercials and syndicated media assets (including metadata) from catch servers in TrafficManager applications. It uses the Traffic Service to regularly poll the catch server to discover new files.

When a new file is discovered, the Catch action exposes all relevant metadata and submits a job to the workflow for processing. 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](#). For more details, see the TrafficManager User's Guide.

Chronicle action

The *Chronicle action*, along with Compose and Conform actions, are part of the optional, licensed Post Producer feature in Vantage. Chronicle uses the Edit Service to convert post-rendered Composition XML files into SCTE35 files.

common action

Common actions are actions that are implemented in every Vantage Service; they are not restricted execution by a single service. See [Receive action](#), [Forward action](#), [Decide action](#), [Compute action](#), [Construct action](#), [Synchronize action](#).

Communicate Service

The *Communicate Service* is the Vantage component that executes the actions relating to electronic messaging: [Message action](#), and [Notify action](#).

Compare action

A *Compare action* uses the [Analysis Service](#) to compare media files based on certain metrics (for example, PSNR). These metrics can generally be published as variables or as metadata labels.

Composition (CML) file

A *Composition file* is an XML schema that provides the vocabulary to describe media elements and their temporal and spatial relationships on a video timeline. Composition files (or Composition XML objects in a computer program) are submitted to a Conform action in a workflow to render the media file from the description.

Compose action

A *Compose action*, along with Chronicle and Conform actions, are part of the optional, licensed Post Producer feature in Vantage. The Compose action uses the Edit Service to convert various media descriptor file formats (such as Anystream AN2, QuickTime Reference, and Telestream TIFO) into a Composition XML file so that it can be used by the Conform action to compose media.

Compute action

A *Compute action*, which is implemented in every service, performs various arithmetic and string manipulation functions, permitting you to create and modify values in variables, for use in downstream actions.

Conform action

A *Conform action*, along with Compose and Chronicle actions, are part of the optional, licensed Post Producer feature in Vantage. The Compose action uses the Edit Service to assemble and optionally transcode multiple video and still image files into a single output file, applying filters as specified by you. The input files and related specifications for the output file are all defined in a Composition XML file.

Construct action

A *Construct action*, which is implemented in every service, enables you to construct complex strings, paths, and math expressions from literals, variables, and tokens, for use in downstream actions.

Copy action

A *Copy action* is executed by the Transport Service and is used to replicate a file from a source target (file system/device and directory) to a destination target (file system/device and directory). It typically performs this task by copying the file to the destination.

Copy actions can be executed on any action state.

database

The term *database* is the common term used to refer to the [Vantage domain database](#), where all specifications for the domain are stored, along with workflows and job history.

Decide action

A *Decide action*, which is implemented in every service, is an action which allows you to explicitly set the action state based upon analysis of variable values at runtime. It is most commonly used to determine whether or not subsequent actions (or actions in a given branch) in a workflow should execute.

When the Decide action is used, the state set by the Decide action is passed to the next action. Typically, more than one Decide action is required to support decision branches. For example, if one branch is for HD media, it will start with a Decide action that will set the state to Success for HD content, or set it to Ignore otherwise; if another branch is for all other media, it will start with a Decide action that performs the opposite behavior.

See [variable](#), [action state](#).

Delete action

A *Delete action* is executed by the Transport Service, and is used to permanently remove a file from a source target (file system/device and directory). Delete actions can be executed on any action state.

Deploy action

A *Deploy action* is executed by the Transport Service, and is used to save the 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.

distributed domain

Another term for [Vantage array](#).

domain

See [Vantage domain](#).

Dublist action

A *Dublist action* is a specialized [origin action](#) for ingesting dublist files from a specified server and directory in TrafficManager applications. It uses the Monitor Service to regularly poll the server to discover new files.

When a new dublist file is discovered, it is parsed by the specified scheme 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 found, it submits a [job](#) to a TrafficManager application workflow for processing. The Dub List action uses the [binder](#) name as the commercial's unique identifier, so it should be set to either the ISCI code or the Ad ID.

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. For more details, see the TrafficManager User's Guide.

Dublist Portal

Dublist Portal is a client Windows program provided as part of a TrafficManager license. Dublist Portal enables customers who are performing advertisement processing to define, manage, and process dublists as part of their automated TrafficManager workflows.

Edit Decision List

A Vantage *edit decision list* (EDL) is a list of clips that will be merged together in a target clip. The list entries specify the start and stop of the clip, and Vantage supports list entries from multiple media files. Vantage operators use Vantage Workflow Portal (VWP) to create EDLs.

Edit Service

The *Edit Service* executes the [Conform action](#), [Chronicle action](#), and the [Compose action](#).

Examine action

An *Examine action* uses the [Analysis Service](#) to evaluate the video and audio of a media file to measure certain characteristics, such as audio loudness, or to detect characteristics, such as the presence and size of curtains. You can configure it to publish metadata or variables containing the results of analysis.

Exist action

An *Exist action* uses the Catalog Service, and allows you to determine if a [binder](#) of a given name (or name fragment) is present in a specified catalog.

Faspex Delivery action

A *Faspex Delivery action*, which is executed by the Aspera Service, is used to deliver files to Aspera faspex servers. Upon delivery, recipients are notified and can download the package.

Flip action

A *Flip action* is executed by the Transcode Service, and implements the specified codec, which is used to transcode decoded digital baseband media into another media encoding format. The Telestream Media Transcode and Analysis engine performs the transcode on behalf of Vantage. The Flip action has an Export command, which allows you to save the configured Flip action as an XML file, for use in SDK applications.

Forward action

A *Forward action*, which is implemented in every service, forwards a [binder](#) and all current variables to another workflow, starting a new [job](#) with the target workflow. A Forward action may be added to the end of a workflow, and requires that the target workflow have a Receive action as its first action.

Typically, workflows are created with a Receive action when they are intended for execution by another workflow that immediately precedes this one. This ability to chain workflows enables you to create comprehensive, intelligent run-time switching workflows consisting of smaller workflows used as building blocks.

See [Receive action](#).

Gather action

A *Gather action* is implemented by the Staging Service, and collects one or more files from a specified server and directory (and optionally, its subfolders), and brings them into the workflow as attachments. Use of a file matching pattern allows you to select only certain types of files.

hot folder

A *hot folder* is a directory on a server that has been identified as a directory for storing media to be processed by a workflow in Vantage. When the workflow monitor identifies new media in this folder, it is submitted for processing.

Identify action

An *Identify action* uses the [Analysis Service](#) to determine certain properties of a media file, such as codec type, video bit rate, or file size. This information can then be published as a metadata labels or variables.

Inspector

An *inspector* is a series of one or more panels in Vantage Workflow Designer that facilitate the setup and configuration of a given action. Inspectors are unique to each action—for example, configuring a Watch action is very different than configuring a Flip action.

IPTV Flip action

The *IPTV Flip action* is included with the Cable / IPTV version of TrafficManager. IPTV Flip actions are executed by the IPTV VOD Transcode Service which can optionally run on a

Lightspeed server for GPU-enhanced x264 encoding and video processing. The IPTV Flip action and Cable Transcode Service supports the features required to handle varying IPTV, set-top box and cable encoding requirements, and ancillary metadata specific to cable ad splicing and cable/IPTV set-top box environments. Transcoding is performed by the Telestream Media Transcode and Analysis engine on behalf of Vantage.

IPTV VOD Transcode Service

The *IPTV VOD Transcode Service* is the Vantage component that executes the [IPTV Flip action](#). This service (which can optionally run on a Lightspeed server for H264 encoding and video processing), supports the features required to handle varying IPTV, set-top box and cable encoding requirements, and ancillary metadata specific to cable ad splicing and cable/IPTV set-top box environments. Transcoding is performed by the Telestream Media Transcode and Analysis engine on behalf of Vantage.

job

A *job* is each execution of a Vantage workflow. Jobs have a state (separate from action states), and jobs are comprised of actions that are executing. Jobs, like actions, may be in-process or they may be complete.

As a job executes, each action may be performed by any service (on any computer) in the Vantage domain that is capable of performing it. The capability of a service to perform a specific job depends on its current operating state, its workload, and its suitability, defined by a [qualification rule](#).

Jobs for a given workflow can be viewed in the Vantage Workflow Designer by selecting the workflow in the Workflow Designer panel and displaying the Job Status tab. Alternatively, all in-process and failed jobs within a Vantage Domain may be viewed in the Status details panel of the Management Console.

Job Profile action

Use the *Job Profile action* (which is executed by the Agility Service) to submit jobs to Agility for processing; definition of the job is provided directly in Vantage by configuring the action.

Job XML action

Use the *Job XML action* (which is executed by the Agility Service) to submit jobs to Agility for processing; definition of the job is provided in an XML file.

job routing

See [qualification rule](#) and [run on rules](#).

job state

A *job state* is the current condition of a job. Keyword values are Start | Pause | Success | Fail | In Process.

Job Status Views Web Application

The *Vantage Job Status Views Web Application* is installed on a Vantage Web server and enables you to view real-time information about jobs in the domain from anywhere on your network with a Web browser.

label

A *label* or *metadata label* defines a set of metadata by use of name/value pairs associated with content. For example, a spot label may contain Agency, Author, ISCI code or Ad-ID and other metadata values; this set of metadata is collectively called a Spot metadata label. Metadata labels are stored in [binders](#) with the associated media and attachment files.

Vantage supplies a set of default metadata labels for use in workflows. In addition, you can create and modify labels for your use using the Management Console (Workflow Design Items > Metadata Labels).

license

A Vantage *license* is stored in the [Vantage domain database](#) and enables one or more Vantage features within a Vantage domain. Licenses are delivered as XML files and imported into the database and activated via the Vantage Management Console.

Lightspeed Server

A Vantage *Lightspeed Server* is a 1RU, GPU-enabled, multi-core CPU server used to host Vantage services and accelerate video processing and x264 transcoding. Lightspeed Server accelerates compute-intensive image processing, including scaling, deinterlacing, frame rate conversion, motion vector calculation, and other tasks that require computation and analysis to modify or create new video frames.

Management Console

The *Management Console* enables Vantage system administrators to effectively configure Vantage domains, and scale domains across multiple servers to meet their operating requirements and perform effectively in their environment.

MedialInfo action

The *MedialInfo action*, which is executed by the [Analysis Service](#), performs 2 tasks, based on its analysis of the media file and its streams:

- Creates variables from properties, using the MedialInfo API
- Creates a report of the properties and their values.

In each category, you can produce variables of selected metrics with the results the analysis.

media nickname

A *media nickname* is an alias or alternate name that is assigned to a media file during Vantage workflow execution. When a media file is submitted to a workflow, the actual file name and location is stored in a Vantage [binder](#) along with a media nickname as defined in the workflow. Within the workflow, all references to a file are by media nickname. However, when Vantage needs to access a file, Vantage uses the actual file name and location stored in the binder.

See [attachment nickname](#) and [nickname](#).

MediaMate action

A *MediaMate action* uses the MediaMate Service to enable Vantage workflows to utilize and interact with the Subtitling capabilities of Screen MediaMate. Each subtitling option provides different capabilities that relate to the subtitle process.

Note: The MediaMate action is only supported on 64-bit Windows Server 2008.

MediaMate Service

The *MediaMate Service* implements the MediaMate Screen software for Vantage, and provides two-way communication between workflows (and the [MediaMate action](#)) utilizing the MediaMate Screen software itself.

Message action

A *Message action* is implemented in the [Communicate Service](#) and enables you to generate and transmit an electronic Message—an email, for example. A Vantage administrator must configure Vantage to use an SMTP server (Vantage Management Console: Settings & Options > Email) before email can be utilized.

Metadata Service

The *Metadata Service* is the Vantage component that executes the actions relating to the transformation of metadata between labels, variables, and XML files: [Populate action](#), and [Transform action](#).

Monitor Service

The *Monitor Service* is the Vantage component that executes [Watch actions](#) and [Associate actions](#), both relating to the discovery of files and starting jobs.

Move action

A *Move action* is executed by the Transport Service, and is used to move a file from a source target (file system/device and directory) to a destination target (file system/device and directory). It typically performs this task by copying the file to the destination, then deleting the source.

Move actions can be executed on any action state.

Multiscreen Flip action

Multiscreen Flip actions are an optional, licensed feature. Multiscreen Flip actions are executed by the Multiscreen Service, which is used to perform adaptive bit-rate encoding and simultaneous packaging of decoded digital baseband media into multiple bit-rate variants of H.264 video and containers in adaptive rate streaming formats, including Adobe HDS, Apple HLS, Microsoft HSS, and players that support MPEG DASH. Transcoding is performed by the Telestream Media Transcode and Analysis engine on behalf of Vantage. You can configure the Multiscreen action to perform transcoding on a standard Vantage server or on a Lightspeed server.

nickname

A *nickname* is an alias or alternate name that is assigned to a media or attachment file during Vantage workflow execution. When a media or attachment file is submitted to a workflow, the actual file name and location is stored in a Vantage [binder](#) along with a

nickname as defined in the workflow. Within the workflow, all references to a file are by nickname. However, when Vantage needs to access a file, Vantage uses the actual file name and location stored in the binder.

Nicknames may refer to either media files or attachment files. Certain actions only allow the use of certain nickname types. For example, a Flip action only allows media file nicknames to be used as the inputs and outputs. However, other actions (such as the Move and Copy actions) operate on any type of file and allow the use of any nickname. See [attachment nickname](#) and [media nickname](#).

Notify action

A *Notify action* is implemented in the [Communicate Service](#), and is an action which saves job information to a file, or which interfaces with an external system. You can configure a Notify action to produce an XML file, and you can also use it to invoke a Web Service.

In TrafficManager applications, this action is useful to notify automation systems that a commercial has been processed and is available for air. For example, a Notify action can create text or CSV dublists and provide them to automation systems that are capable of processing dublists in that format.

origin action

An *origin action* is a specific type of action, which must be used to start a workflow. A workflow without an origin action as its first action is not properly designed, and cannot be activated. The origin actions include the [Watch action](#) and [Receive action](#), as well as the [Catch action](#) and [Dublist action](#), (optional TrafficManager actions).

Original nickname

The media nickname *Original* is a reserved nickname that is typically assigned to media files in a workflow by the origin action.

See [media nickname](#).

Pipeline

Pipeline is a network-based video capture and playout device for moving SD & HD SDI video & audio in and out of MacOS X and Windows file-based workflows, with a wide variety of industry-standard encoders.

Populate action

A *Populate action* uses the Metadata Service to read and write metadata labels. During ingest, metadata labels can be added to ingested media and generally include trim information, audio levels, file properties, and commercial metadata. The metadata labels can then be reviewed and modified by operators using Workflow Portal. At any stage of a workflow, Vantage can extract information from labels using the Populate action, allowing Vantage for example to use trim points during a transcode, or audio level information when creating the final broadcast asset.

Process MMF action

A *Process MMF action* (which is executed by the Agility Service) processes an attachment as an MMF file and generates variables from it.

QC action

A *QC action*, which is executed by the [Analysis Service](#), enables you to perform analysis on media using a variety of analysis tools, and optionally, produce a report of the analysis. The QC action is similar to the [Analyze action](#), with additional features in addition to generating variables for each property.

In each tool, you can test various properties for True/False, min/max values, allowable values, or ranges, and then set pass/fail and other variables based on the results of the analysis. You can use these variables in downstream actions.

qualification rule

A *qualification rule* influences or controls the routing and execution of actions among Vantage services of the same type in a distributed Vantage domain. Qualification rules can be used to ensure that jobs are routed to services that are best suited for the task. Vantage uses values contained in variables to determine the suitability of a given service to execute the action.

Qualification rules are exclusively based on variables; they are not based on any actual machine analysis. As a result, it is up to the system administrator to correctly set up variables and qualification rules, and apply variables to the appropriate actions to ensure that jobs are routed correctly.

Qualification rules are created and managed in the Vantage Management Console: Services.

See also [run on rules](#).

Receive action

A *Receive action* is an optional, licensed feature; an [origin action](#) which is implemented in every service. Receive actions are designed to receive files from other systems: workflows, SDK-based applications, and Workflow Portal, for example. Files can be automatically submitted from a previous workflow using the Forward action.

See [Forward action](#).

Register action

A *Register action* uses the Catalog Service to add the [binder](#) created by each job to a Vantage catalog. Register actions can be executed on any action state.

See also [Vantage catalog](#).

Report action

A *Report action*, which is executed by the [Analysis Service](#), generates a list of variables and their values and saves them in a file format specified by you.

resource cost

A *resource cost* is an integer value, implemented in the Vantage Management Console on each action type to specify a relative computer resource consumption value in relation to all other action types. This value enables Vantage to maximize resources and optimize transactions, so that you can tune your Vantage system for the highest possible throughput on your particular hardware.

retry rules

Retry rules are rules that you can specify on certain actions, to re-execute actions that fail primarily due to platform access and network latency problems. The retry rules you set on a given action override the default retry rules established in the Management Console.

run on rules

Run on rules are rules that you specify on a given action, to qualify which services have the characteristics that enable them to execute this action. Rules are set up by specifying variables which have been bound to a given Vantage service and values set. After configuration, the action can test each rule by comparing its run time value to the value in the service's copy and determine if there is a match before attempting to execute it.

See also [qualification rule](#).

Sdk Service

The *Sdk Service* is the Vantage component which enables integration with third-party or custom-developed client programs, for submitting jobs, tracking status, etc.

Signiant Delivery action

A *Signiant Delivery action*, which is executed by the Signiant Service, is used to deliver files to servers controlled by Signiant file transfer products.

Signiant Service

The *Signiant Service* is the Vantage component which enables integration with third-party or custom-developed client programs, for submitting jobs, tracking status, etc.

The *Signiant Service* implements the Signiant file transfer product for Vantage, and provides two-way communication between workflows (and the [Signiant Delivery action](#)) utilizing the Signiant software itself.

Staging Service

The *Staging Service* is the Vantage component which executes [Archive actions](#) and [Gather actions](#).

service

See [Vantage services](#).

Synchronize action

A *Synchronize action* is a connector action, for the sole purpose of uncluttering workflow connectors. In workflows where there is a many-to-many relationship (for example, 6 Flip actions connecting to 6 Deploy actions, which connect to 6 Deletes), instead of drawing connection between them all, you simply connect them to a common Synchronize action. There is no [Inspector](#) for the Synchronize action, because no configuration is required.

Traffic Service

The *Traffic Service* is the Vantage component which executes the [Catch action](#) and [Dublist action](#).

TrafficManager

TrafficManager is an optional, licensed feature which enables automated advertisement and syndicated media processing from catch server to automation systems and on-air servers, serving both the broadcast and cable industry. It includes the [Catch action](#) for catch servers and the [Dublist action](#) for dublist management.

transcode

Transcode means the process of decoding media in one format (MPEG2, for example) down to digital baseband and then encoding it in another media format (MPEG4, for example).

Transcode Service

The *Transcode Service* is the Vantage component that executes the [Flip action](#)—transforming media from one format to another.

Transform action

A *Transform action* uses the Metadata Service to transform metadata between XML files (attachments) and labels. XSL style sheets are used to perform these transformations; style sheets can be managed in the Vantage Management Console: Workflow Design Items > Style Sheets.

Transport Service

The *Transport Service* is the Vantage component that executes the actions relating to file operations: [Move action](#), [Delete action](#), [Copy action](#), and [Deploy action](#).

Vantage array

A *Vantage array* is a domain whose software components are distributed among multiple computers for durability and scalability, instead of installed and operating on a single computer (often referred to as a distributed domain). A typical array has the [Vantage domain database](#) installed on a dedicated server, and all Vantage services installed on another computer, and additional Transcode services each installed on other computers for high-performance, parallel transcoding.

Vantage catalog

Formal name for catalog. See [catalog](#).

Vantage domain database

A *Vantage domain database* is a Microsoft SQL Server database which contains all workflows, actions, [jobs](#), [binders](#), licenses, and configuration information for a Vantage domain.

Vantage domain

A *Vantage domain* is a collection of computers, Vantage workflows, actions, Vantage services, [jobs](#), [binders](#), and configuration settings, all known to and interacting with each other, stored in a [database](#). This collection constitutes a Vantage domain. Vantage domains may exist on a single computer or they may be distributed across many computers for durability and scalability.

The name of a Vantage domain is the same as the name of the server that hosts the [Vantage domain database](#).

Multiple Vantage domains may exist on a network, but they are independent entities that do not communicate with each other. They are not bound together and do not share resources or work. The purpose of storing an entire domain in a [database](#) is to provide an easy way to create and manage the domain and to provide access to all the details about each resource in the domain to any other resource that needs it.

Vantage EDL nickname

The nickname *Vantage EDL* is a reserved nickname that is typically assigned to media files that are created in catalog ingest workflows, to identify the ingest files of an [Edit Decision List](#) in Workflow Portal, during Stitch and Trim operations.

See [media nickname](#).

Vantage folder address

A *Vantage folder address* is an alias to a local or remote file folder. You can create and manage Vantage folder addresses in the Vantage Folder Address Book dialog, in Copy and Move actions in Vantage Workflow Designer, and in the Vantage Management Console.

After you create a Vantage folder address, you can specify the destination directory in any workflow simply by selecting the Vantage folder address. Changes to a Vantage folder address—such as updating an IP address or a password—immediately affect all workflows that use that Vantage folder.

Unlike Vantage stores, temporary files that are created during workflow execution are not automatically deleted from Vantage folders according to [job](#) expiration settings.

Vantage Proxy nickname

The media nickname *Vantage Proxy* is a reserved nickname that may be assigned to media files encoded in H.264 and AAC audio as QuickTime movies, or H.264 or x.264 media files with AAC audio encoded with the Final Cut / Avid QuickTime encoder, which enables previewing with the media viewers provided in Vantage programs such as Workflow Designer, Workflow Portal, and the Vantage Management Console.

See [media nickname](#).

Vantage services

The term *Vantage services* refers to the collection of Windows services in a Vantage domain, which are responsible for executing all of the actions in a workflow as it executes.

Vantage store

A *Vantage store* is a directory on a Windows file system that stores temporary files. Stores are managed by the Vantage domain for the purpose of centralizing large directories for reading and writing files. Unlike a Vantage folder, temporary files placed in a Vantage store are deleted when the [binder](#) is deleted. Vantage stores are generally used to hold temporary files for the duration that a [job](#) is executing.

Vantage stores are managed in the Vantage Management Console: Storage. Services that create temporary files, such as the Transcode Service, can be configured to use specific stores.

Vantage Thumbnail nickname

The media nickname *Vantage Thumbnail* is a reserved nickname that is typically assigned to output media files that are created to display thumbnail images instead of [binder](#) names in Vantage programs such as VWP.

See [media nickname](#).

Vantage Transcode

Vantage Transcode is a Web application which allows users to quickly and easily build straight-line transcoding workflows in a browser, based on a Watch > Transcode > Deliver template. Vantage Transcode runs under Microsoft IIS.

variable

In Vantage, a *variable* is a container for temporary [job](#) information—a symbolic name (or identifier) which contains some known or unknown quantity or element of information; a value. You use the variable name to reference the current value; this separation of name and content allows the name to be used independently of the exact information it represents. The variable can be bound to a value (that is, you can set a variable to a given value) during run time, and the value of the variable may change during the course of workflow execution.

A variable identifies temporary job metadata. Variables have a name (such as *Number of Audio Channels*), a type (such as *Integer Number*) and a default value (such as *50*).

Variables values can be set inside a job in a variety of ways: through analysis, through metadata population, in the Watch and Associate actions, as a property of an action, or by a service as it executes an action.

Variables are used by Vantage services and actions to control workflow execution. The majority of parameters in Vantage can be bound (or attached) to variables, allowing the workflow to dynamically update on a job-by-job basis.

For example, a variable may be assigned a value by an Analysis action to determine how many lines of black are at the top of a video frame; a crop filter later in the workflow can bind to that variable, ensuring that every crop in every job is appropriate to the workflow requirements.

Variables in services may be also be used for job routing. For example, an action with a `FibreRequired=TRUE` variable must pass this condition to a service which evaluates the condition to determine if it can successfully perform the action.

Variables can be created in Vantage Management Console (Workflow Design Items > Variables) or in Vantage Workflow Designer, and assigned for use in workflows and services.

VidChecker action

A *VidChecker action* is an optional, licensed feature in Vantage. It uses the VidChecker Service to enable Vantage workflows to utilize and interact with various QC tests provided by the VidChecker software.

VidChecker Service

The *VidChecker Service* implements the VidChecker QC software for Vantage, and provides two-way communication between workflows (and the [VidChecker action](#) actions) utilizing the VidChecker software itself.

Watch action

A *Watch action* is an [origin action](#); it uses the Monitor Service to regularly poll a target location (a directory, for example) on a device or file system (FTP, Windows network folder, etc.) to discover new files.

When a new file is discovered, the Watch action submits a [job](#) for the workflow which it is part of, for processing the file—typically, a media file.

Upload Portal Web App

The *Upload Portal* is a Web application that runs in most popular browsers and presents a simple interface to allow remote users to quickly and easily upload media and other files and metadata to your Vantage system.

Web Dashboard

The *Web Dashboard* option displays important domain information from anywhere on your network in a Web browser. The Web Dashboard is installed on the IIS server on your [Vantage domain database](#) server.

workflow

A *workflow* in Vantage is a set of actions designed to perform an automated process. Vantage workflows are created using the Vantage Workflow Designer by adding and configuring actions and connecting them together. Workflows are stored in the [Vantage domain database](#), and executed by Vantage services.

Workflow Designer

Vantage Workflow Designer is a client program that enables you to create and edit workflows, activate and deactivate workflows, monitor [job](#) status, and review and delete jobs that have completed.

Workflow Portal

Workflow Portal is a client program that features a customizable set of functionality to support various operator-related tasks: selecting media and submitting [jobs](#), updating variables and metadata, forwarding jobs, creating EDL-based jobs, etc.

Customization is implemented in the Vantage Management Console, when Vantage administrators construct the user interface and functionality they want for a given task, then save it. When operators launch VWP, they select the configuration appropriate to the task at hand, and VWP dynamically implements the appropriate user interface from the configuration file.

Workflow Portal Web App

The *Workflow Portal Web app* is a limited implementation of Workflow Portal, for use in a Web browser over a network or Internet connection.

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