



## User's Guide





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## **Glossary 349**

# Preface

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|---|---|
| Vantage Technical Support                                 | Web Site: <a href="http://www.telestream.net/telestream-support/vantage/support.htm">http://www.telestream.net/telestream-support/vantage/support.htm</a><br>Support Email: <a href="mailto:support@telestream.net">support@telestream.net</a><br>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: <a href="http://www.telestream.net/telestream-support/vantage/support.htm">http://www.telestream.net/telestream-support/vantage/support.htm</a><br>Support Email: <a href="mailto:support@telestream.net">support@telestream.net</a><br>Enterprise Product Support: (877) 257-6245  |
| Telestream, LLC   | Web Site: <a href="http://www.telestream.net">www.telestream.net</a><br>Sales and Marketing Email: <a href="mailto:info@telestream.net">info@telestream.net</a><br>Telestream, LLC<br>848 Gold Flat Road, Suite 1<br>Nevada City, CA USA 95959  |
| International Distributor Support                         | Web Site: <a href="http://www.telestream.net">www.telestream.net</a><br>See the Telestream Web site for your regional authorized Telestream distributor.  |
| Telestream Technical Writers                              | Email: <a href="mailto:techwriter@telestream.net">techwriter@telestream.net</a><br>If you have comments or suggestions about improving this document, or other Telestream documents—or if you've discovered an error or omission, please email us.  |





# Introduction to Vantage

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 workflows:

- [Introduction to Vantage](#)
- [Accessing Vantage Guides and Online Help](#)
- [Vantage Domain Components](#)
- [Vantage Domain Configurations](#)
- [Vantage Programs](#)
- [Lightspeed Server](#)
- [Capturing Live and Tape Feeds](#)
- [Topics in this 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 and configured 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 own. [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<br>(Vantage License)                    | Description  |
|--|--|
| File-to-file transcoding                                   | 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—<br>local, regional, and<br>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<br>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/HEVC (using x264/x265 codecs) video and containers for deployment to HTTP adaptive streaming players from Adobe, Apple, Microsoft, and players compatible with MPEG DASH.                  |
| Automated editing and<br>composition of<br>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

| <b>Workflow Objective<br/>(Vantage License)</b>                                | <b>Description</b>  |
|--|---|
| 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 connectors) | Some workflows communicate with third-party products (including Avid, MediaMate Screen, and Digimetrics Aurora) to analyze media. Others can be implemented to perform specialized media processing with systems such as Dolby and Nielsen.   |

With the appropriate licenses, Vantage workflows can incorporate 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.

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.

## Accessing Vantage Guides and Online Help

Vantage documentation consists of various guides, online help in the form of man pages, and application notes.

*Installation and Domain Management Guide*—You can access the domain management guide in the Vantage Management Console's Help menu.

*User's Guides*—in each Windows client and Web application, you can also access a User's Guide from the help menu.

*In-program, Context-based Help*—In each Windows client and Web application, click the ? icon to display a context-sensitive topic in the relevant user's guide, if available. In Workflow Designer, when an action inspector is open, click the M icon to display details about the panel you're viewing for detailed help. Also hover over user interface controls to display brief tooltips.

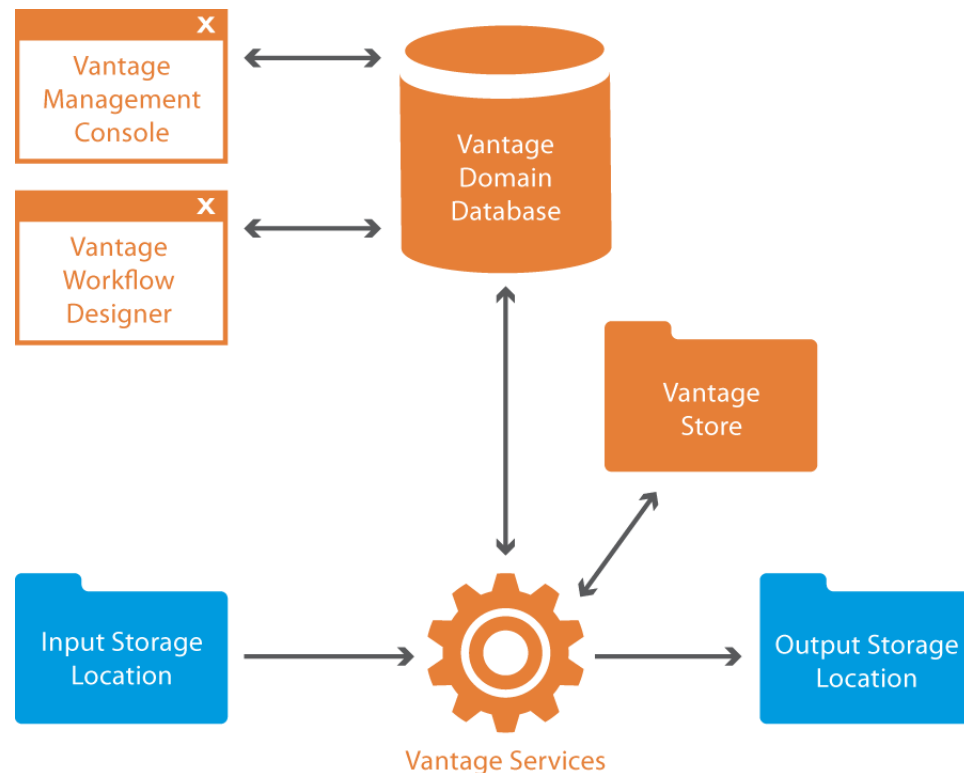
*Application Notes*—Browse the Telestream Web site (at [www.telestream.net/telestream-support/vantage/support.htm](http://www.telestream.net/telestream-support/vantage/support.htm)) for application notes that may apply to your topic of interest.

*Vantage Web Library*—Click on the Vantage logo at [www.telestream.net/telestream-support/vantage/help.htm](http://www.telestream.net/telestream-support/vantage/help.htm) to display the entire Vantage documentation suite which includes all guides and man pages.

## Vantage Domain Components

Each [Vantage domain](#) is a collection of Vantage software components. 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. Each workflow is made up of individual tasks called [actions](#), which specify what task needs to be performed. A typical workflow contains [actions](#) to perform these general types of tasks:

- Monitor and ingest media that is ready for processing at some storage location.
- Analyze and transcode input media into new media files.
- Process metadata.
- Assemble a media file from an edit decision list.
- Deliver finished media files to an output storage location.

Many other types of actions are provided in Vantage Workflow Designer.

Once a workflow has been designed, you can activate it, and it will run continuously to process media provided through hot folders, the Vantage SDK, or other submission mechanisms. For more information on all of the Vantage actions, see [Vantage Actions](#). For more information on working with workflows, see [Managing Workflows](#).

The [Vantage domain database](#) is the control center of a Vantage domain. All workflows, user information, job history, and most configuration settings for the domain is stored in the Vantage domain database, as are statistics and status information about the workflows processed by the domain and the services fulfilling them. 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.

Vantage workflow actions which access input files or publish output files must have read and write access to the input and output storage locations, as shown in [Figure 1](#). 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 storage location designated for temporary files that are created during workflow processing. Temporary files are automatically deleted by Vantage when they are no longer needed; you can control how long temporary files are retained by setting expiration rules for jobs and catalogs.

## 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 of the 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 Vantage components are installed and 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.

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



# Vantage Programs

Vantage programs allow you to manage and use the Vantage domain in various ways. [Table 3](#) lists the Vantage programs according to the function 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 3.** Vantage Programs

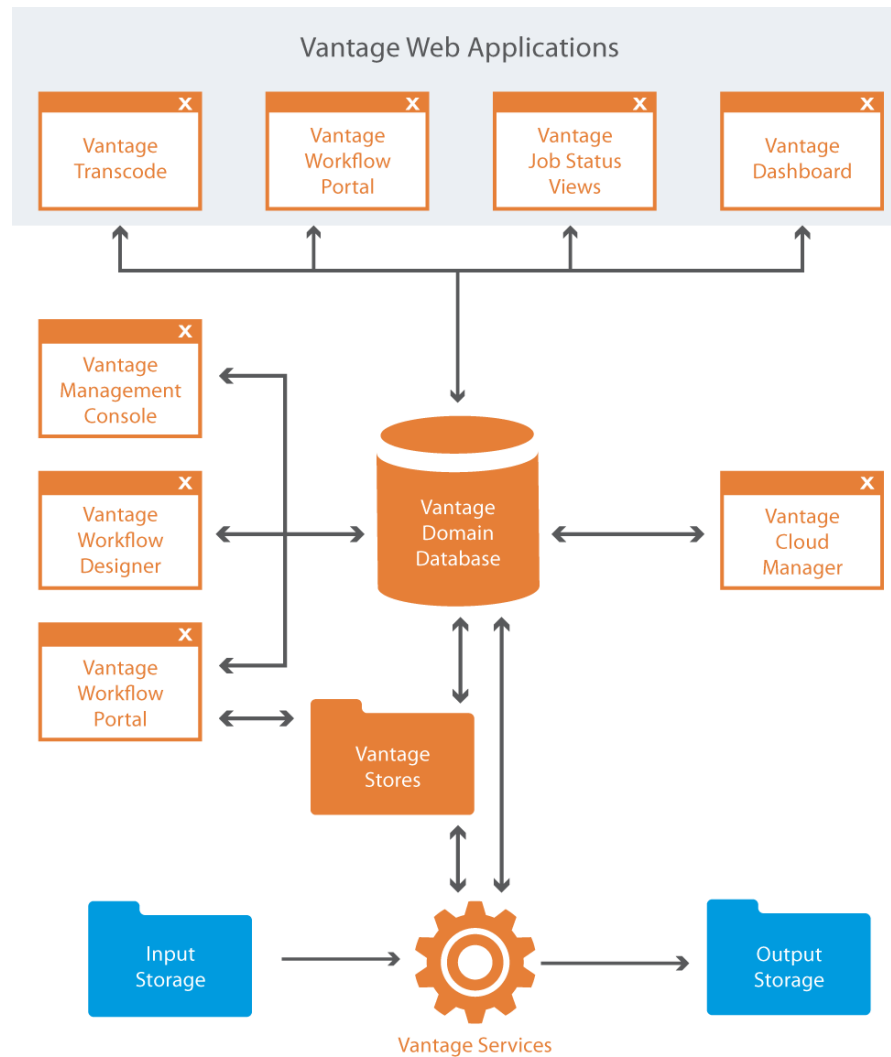
| Functional Area                   | Program Type                |                          |
|-----------------------------------|-----------------------------|--------------------------|
|                                   | Windows Client Applications | Web Applications         |
| Workflow Management               | Vantage Workflow Designer   | Vantage Job Status Views |
|                                   | Vantage Workflow Portal     | Vantage Workflow Portal  |
|                                   |                             | Vantage Transcode        |
| Transcoding Workflow Management   | Vantage Workflow Designer   | Vantage Transcode        |
| TrafficManager Dublist Management | Dublist Portal              |                          |
| Domain Management                 | Vantage Management Console  | Vantage Dashboard        |
| Cloud-base Domain Management      | Vantage Cloud Manager       |                          |

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 files produced or saved by a job, and track the status of jobs. 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 server and can be accessed from any computer with a compatible browser and a network or Internet connection to the IIS server hosting the Web applications.

[Figure 2](#) (following) illustrates the entire suite of programs in 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 Cloud Manager](#)
- [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](#) enables domain administrators to configure and manage a Vantage domain, including specifying what features Vantage users can access.

The following is a list of key features you can control with the Management Console:

- Vantage catalogs and stores
- Vantage users
- Vantage licenses
- Task scheduling rules
- Vantage services
- Import and export Vantage configuration components
- Client Windows and Web application configurations, including Job Status views and the Workflow Portal
- Report and work order configurations
- Dublist and fulfillment schemes
- Vantage domain settings, backup/restore, other utilities

The console also allows you to view a variety of status information, including information about jobs, service status, and catalog contents.

For information about using the 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 decision trees that execute different 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.
- Generate new media based upon edit decision lists or editorial templates.
- 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 these features in hundreds of possible workflows.

A typical workflow design session requires that you pick the actions you want to execute, 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 all source material that is submitted to the workflow. Each time source material is submitted, a Vantage [job](#) is started. A job represents a single execution of a workflow. For example, if 10 different media files are submitted to a workflow, 10 new jobs are started and executed.

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

For detailed information on designing Vantage workflows, see [Managing Workflows](#).

## Vantage Cloud Manager

The [Vantage Cloud Manager](#) enables domain administrators to configure and manage a cloud-based Vantage domain. The following is a list of key Vantage features that administrators can control with Vantage Cloud Manager:

- Cloud service provider accounts
- Domains configuration
- Domain status (starting and stopping)
- Vantage Services
- Domain status.

Vantage Cloud Manager is not included in the Vantage installer; it is a separately-purchased application. For information about using the Vantage Cloud Manager, see the *Vantage Cloud User's Guide*.

## Vantage Workflow Portal

The Vantage [Workflow Portal](#) 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:

- Search [catalogs](#) and [binders](#) to identify media to process
- Preview media and set in and out points for trimming
- Review and edit [variable](#) values used in workflows
- Submit media to workflows for processing
- In TrafficManager, search, review, and submit commercials for processing
- Stitch multiple files together.

Workflow Portal is designed to allow administrators to control which features and resources each operator can access. The desktop version of Workflow Portal must be 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 pre-process 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 [Using Workflow Portal](#).

## Vantage Workflow Portal Web Application

The optional [Workflow Portal Web App](#) is a Web version of the Workflow Portal Windows program. After you install the Vantage Web applications on a server, you can access Workflow Portal at [http://\[server name\]/Vantage/Portal/](http://[server name]/Vantage/Portal/). The Web version of the Workflow Portal works with certain configuration types, and allows most of the features listed above, except for the submission of media from Windows platforms, and stitching of files.

The login requirements are the same as for other clients. For information on using the Workflow Portal Web application, see [Using Workflow Portal](#).

## 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 job status views, which define what information an operator sees. 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 the Vantage Web applications 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 Vantage programs.

For information on using the Vantage Job Status Views, see the *Vantage Domain Management Guide* and [Using the Job Status Views Web Application](#).

## Vantage Dashboard Web Application

The Vantage Dashboard application helps 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 application helps 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 all the servers in the domain. 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

The Vantage Transcode Web application is a browser-based Web 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.

The Vantage Transcode Web application 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 the Web application, where jobs can be stopped, restarted and deleted.

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

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

The same login requirements applies as for other Vantage programs.

## Vantage Dublist Portal

[Dublist Portal](#) is a TrafficManager-licensed Windows 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-licensed 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 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 in 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 improves the quality of all video 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. For details about configuring Flip actions to run on a Lightspeed server, see [Configuring an Action's Fallback Rules](#).



## Capturing Live and Tape Feeds

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. Transcoding occurs simultaneously while ingesting the captured media, ensuring the fastest possible turnaround time for media processing. 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 Overview](#) provides basic information about Vantage client programs and Web applications, including starting and stopping, and logging onto Vantage domains. You'll also learn about Vantage stores, output folders, configuring certain applications, and other skills you'll need to use 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 automate your organization's media processing workflows.
- [Managing Workflows](#) 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.
- [Vantage 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.
- [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 Overview

The following topics provide general information about using Vantage client programs, including starting and stopping, logging onto a Vantage domain, and best practices for accessing Windows files in Vantage.

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**Note:** You manage Vantage licenses in the [Management Console](#). For 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 an updated license file. Follow the instructions accompanying the license file for adding or updating license files.

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- [Adding Trial Licenses](#)
- [Windows Client Program Management](#)
- [Web Application Management](#)
- [Understanding Paths for Vantage Storage](#)

## Adding Trial Licenses

You should always manage licenses in the [Management Console](#). For convenience, you can also import trial [license](#) files to your domain, directly from Workflow Designer.

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

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

1. Store the trial license file in a location that is accessible to your Vantage domain server.
2. Store a second copy of the file in a safe place.
3. In Workflow Designer, select File > Add/Update License to display the Add/Update License dialog.
4. Navigate to and select the trial license, and click Open.
5. 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](#)

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**Note:** Vantage Cloud Manager is not described in this topic. For details about using Vantage Cloud Manager, see the *Vantage Cloud User's Guide*.

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The following topics describe general Windows client program tasks:

- [Starting and Stopping Vantage Client Programs](#)
- [Controlling Tips & Warnings](#)
- [Displaying a Windows Client Version](#)
- [Displaying your Domain's Database Version](#)
- [Configuring Server 2008 to Solve Display Problems for Vantage 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](#)

## Starting and Stopping Vantage Client Programs

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

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

Some Vantage client programs require configuration by the administrator before they can function. For example, Workflow Portal and Dublist Portal require application configurations, which are created in the Management Console.

- [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



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**Note:** If you are launching Workflow Designer for the first time, you'll 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 that allows operators to view binders to select media, enter metadata, and submit jobs. 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.

**Figure 4.** Vantage Workflow Portal Desktop Shortcut



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.

---

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. 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.

**Figure 5.** Vantage Dublist Portal Desktop Shortcut



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.

If you are launching Dublist Portal for the first time, you'll be prompted to select and log into a Vantage domain. 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 typically don't need to explicitly save work you have performed, because all information is stored in the [Vantage domain database](#), and updated automatically as you make changes. However, when you are editing data (for example, metadata in the Management Console or Workflow Portal), you do need to save it explicitly. If you attempt to close a dialog window or the program without saving the data, you'll be warned.



## 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, select Options > Restore Tips & Warnings.

## Displaying a Windows Client Version

To determine an application's version number, select Help > About.

## Displaying your Domain's Database Version

To determine your domain's database version number, in Workflow Designer select Help > Database Version.

## Configuring Server 2008 to Solve Display Problems for Vantage Programs

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 the Desktop Experience feature 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.

## Logging into or Changing Vantage Domains in Windows Client Programs

These tasks are described in the following topics:

- [Selecting the Domain](#)
- [Logging In](#)
- [Creating a Workflows Category in Workflow Designer](#)
- [Selecting a Configuration in Workflow Portal or Dublist Portal](#)

### Selecting the Domain

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

You might need to manually select a domain for the following reasons:

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

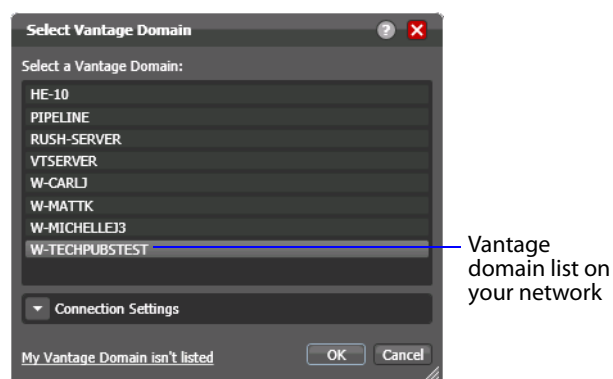
After you select a Vantage domain, the program remembers it and connects automatically each time you restart the program. You can change domains at any time.

To select a domain, do the following:

1. In any Vantage Windows client program, 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. Select a domain in the domain list, and click OK.

When you change domains, the program closes its connection and connects to the new domain.

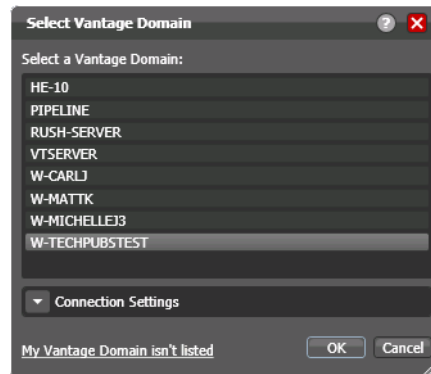
If your domain isn't listed or you can't connect, contact your Vantage domain administrator and/or refer to the following topics:

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

### Connecting to an Unlisted Domain

To connect to a domain that is not in the list, click *My Vantage Domain isn't Listed*.

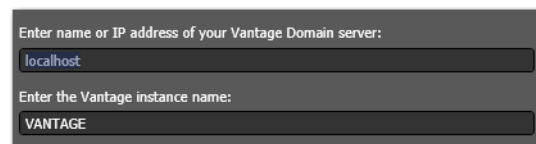
**Figure 7.** Select Vantage Domain Panel



The dialog expands to display fields in which you can specify the domain (the computer where the database is running) using the host name or IP address.

You can also specify the name of the Vantage database instance, if different than the default VANTAGE instance.

**Figure 8.** Selecting an Unlisted Domain



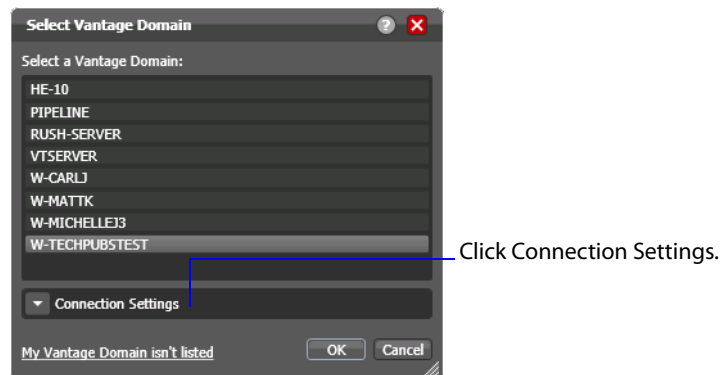
Enter the Vantage server name (for example, *VantageServer203*) or IP address and Vantage instance name if different than the default, and click OK to connect. If you do not know what to enter, contact your Vantage domain administrator.

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

### Connecting with Custom Login Settings

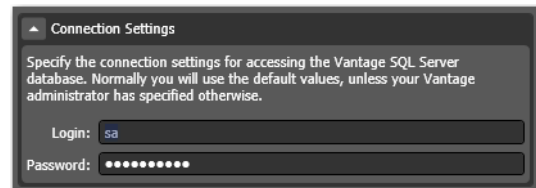
If the Vantage domain is using a SQL database where the default settings for the MS SQL server account were changed during installation, open Connection Settings to display the SQL Server login and password settings.

**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 user name and password (obtained from your Vantage administrator), and click OK to connect.

## Logging In

To access a Vantage domain, you may need to provide user credentials. Your Vantage administrator will either provide you with a Vantage user name or configure Vantage to work with your Windows user name.

---

**Note:** Administrators can enable or disable user authentication. They can also choose whether or not to use Windows user names by enabling or disabling Windows Active Directory. Both settings are configured in the Vantage Management Console.

---

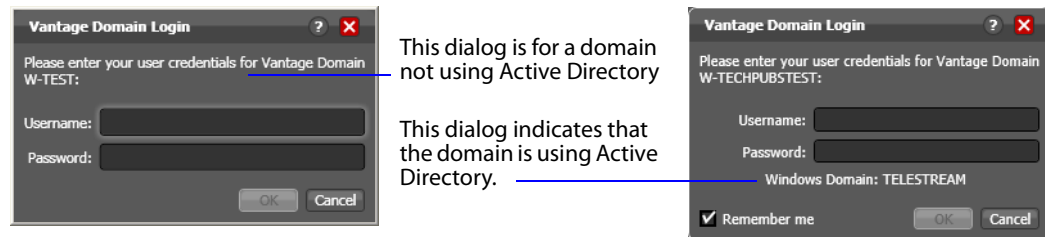
---

**Note:** If you don't have a Vantage user name, ask your Vantage administrator to create one for you or add your Windows user as an authorized Vantage user.

---

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

**Figure 11.** Vantage Domain Login Dialogs



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

In Workflow Designer, you may be prompted to create a new category—see [Creating a Workflows Category in Workflow Designer](#) below.

In Workflow Portal and Dublist Portal, you'll be prompted to select a configuration before you can continue—see [Selecting a Configuration in Workflow Portal or Dublist Portal](#).

## Creating a Workflows Category in Workflow Designer

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

When you log into Workflow Designer, if there are no categories available then you will be prompted to create one. If you're 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 or Dublist Portal

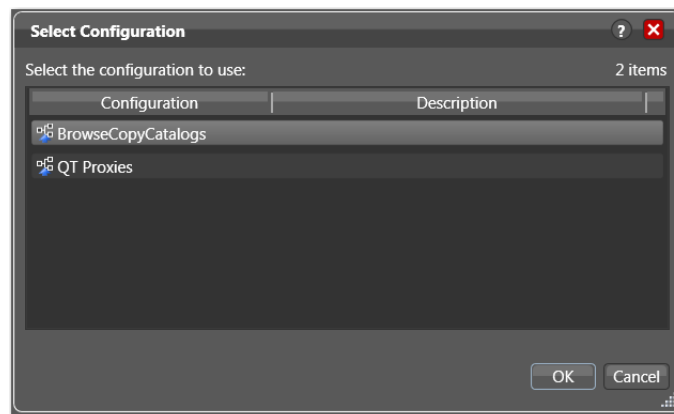
If a configuration has been previously selected, it is used automatically. Otherwise the Select Configuration window displays, enabling you to select a configuration to use during this session.

---

**Note:** The configurations in the list include public configurations (usable by any Vantage user), plus those that your Vantage user account is authorized to use. Access to configurations is controlled by the Vantage domain administrator.

---

**Figure 13.** Select Configuration Window



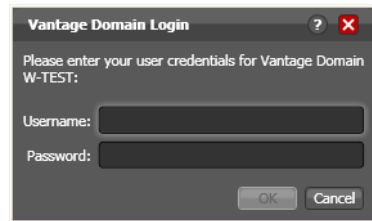
Select a configuration from the list and click OK.

## Changing Vantage Users in Windows Client Programs

When you are logged in to a Vantage domain that has User Administration enabled (in the Vantage [Management Console](#)), you can change to another Vantage/Active Directory user.

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

**Figure 14.** Vantage Domain Login Dialog



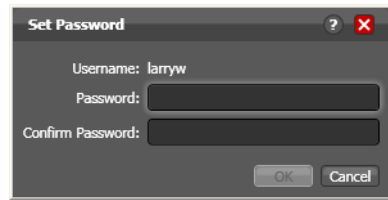
Enter your user name, and password if required, and click OK to log in.

## Changing Passwords in Windows Client Programs

When you are logged in to a Vantage domain that has User Administration enabled (in the Vantage [Management Console](#)) and Windows Active Directory *is not being used*, you can change the password of the Vantage user currently logged in.

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

**Figure 15.** Set Password



Enter a new 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 the new password.



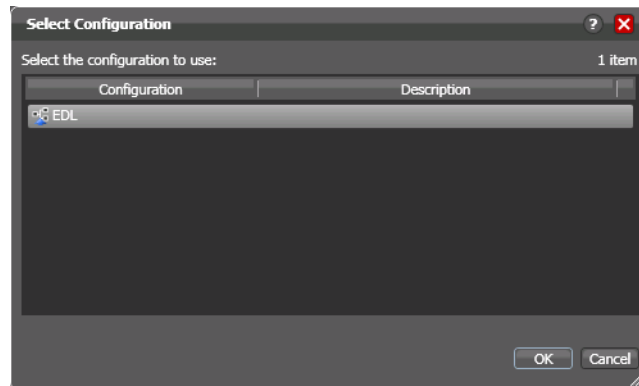
## Selecting A Configuration in Workflow Portal

To change configurations 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 16.** 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

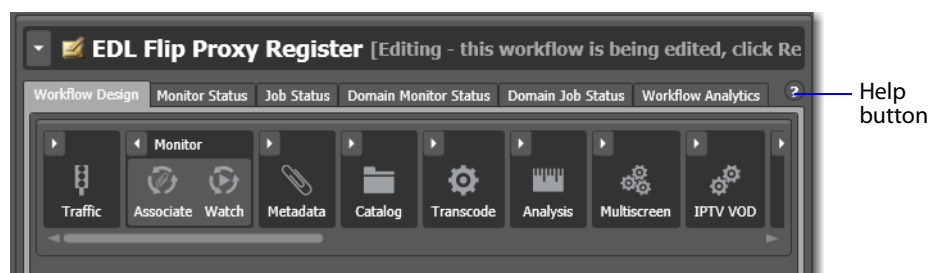
There are several ways to access the *Vantage User's Guide* in Workflow Designer:

- 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 17](#)) to display the topic in the User's Guide that relates to the specific program feature that has focus.

**Figure 17.** Clicking the ? Icon Displays Context-Sensitive Help Topics



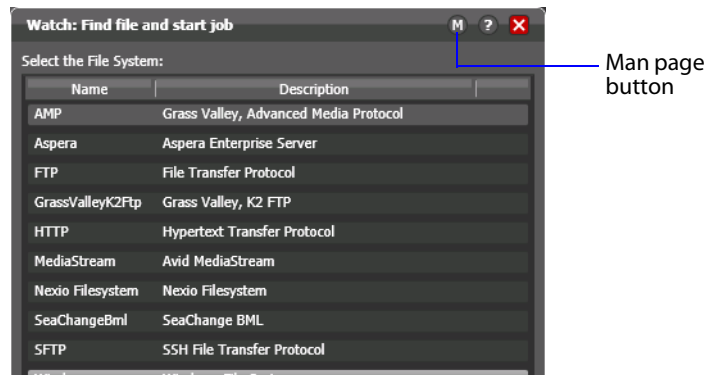
If the topic is not available, you can search the entire User's Guide for information.

### Displaying Man Pages

In Workflow Designer, *man pages* are context-sensitive help topics that provide detailed information for [action](#) configuration options.

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

**Figure 18.** 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 Application Management

Vantage provides the following Web applications:

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

The following topics describe general Web application tasks:

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

## Web Application Browser Requirements

Vantage Web applications 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 applications:

- Internet Explorer 10 & 11—32-bit or 64-bit Windows only
- Chrome—current version on MacOS X & Windows
- Firefox—current version on MacOS X & Windows—Firefox is not recommended for proxy previewing in Web Workflow Portal on Windows Server systems, due to external coded dependencies.
- Safari—current version (MacOS X only).

To configure Internet Explorer for use with Vantage Web applications, 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. If you are using Internet Explorer on a Windows Server that is not hosting the Vantage Web applications, disable Enhanced Security Configuration (ESC) using the Windows Server Manager.
3. If you are using Internet Explorer on a Windows Server that is hosting the Vantage Web applications, 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*).
4. When using the Workflow Portal Web application on a Windows Server platform, you must install the Desktop Experience feature in order to view proxy media in the HTML5 Media Player.

## Starting & Stopping Vantage Web Applications

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. (These functions are performed in the Vantage [Management Console](#).)

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

- [Starting Web Applications](#)
- [Licensing Issues When Starting Workflow Portal](#)
- [Stopping Web Applications](#)

### Starting Web Applications

Logging on to a Vantage domain from a Web application is a bit different than logging on from a Windows client, such as Workflow Designer. When you log on from a Web application, you first start the Web application by accessing the Web server via a browser. Then, you actually log onto the Vantage domain after that.

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

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

*`http://<IISServerName>/Vantage/`*

where *<IISServerName>* 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 applications 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.

---

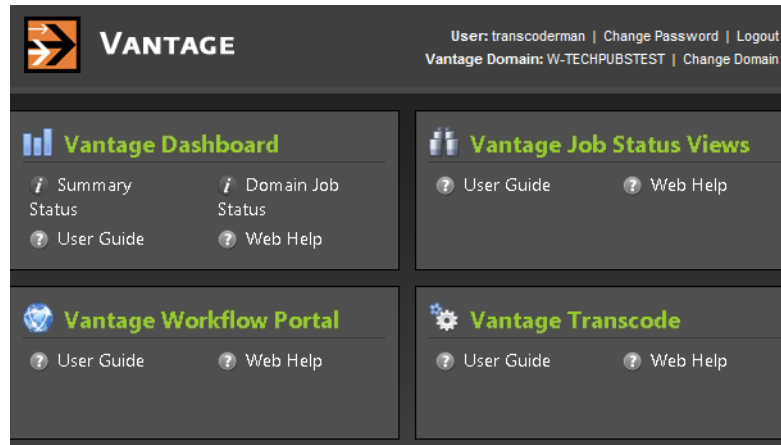
2. If you are prompted to select a domain, select the domain name, and click OK.

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 Applications](#) for more information.

3. Enter an authorized user name and password.

Vantage displays the Vantage Web Applications home page.

**Figure 19.** Vantage Web Applications Menu—Home Page



Click the Web application you want to run.

You can also launch each Vantage Web application 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*—<http://<ServerName>/Vantage/Transcode/>

## Licensing Issues When Starting Workflow Portal

Workflow Portal is an optional, licensed Web application. When you start it, 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 also 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 Portal license. For example, you may be reviewing and submitting assets in one configuration, and setting trim points in another.

## Stopping Web Applications

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

## Logging into or Changing Domains from Web Applications

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

Each *Vantage domain* is a separate, independent Vantage system. As a Vantage user, you might need to select a domain for the following reasons:

- You are starting a Vantage Web application for the first time on a given computer.
- Your work requires that you connect to a different Vantage domain.

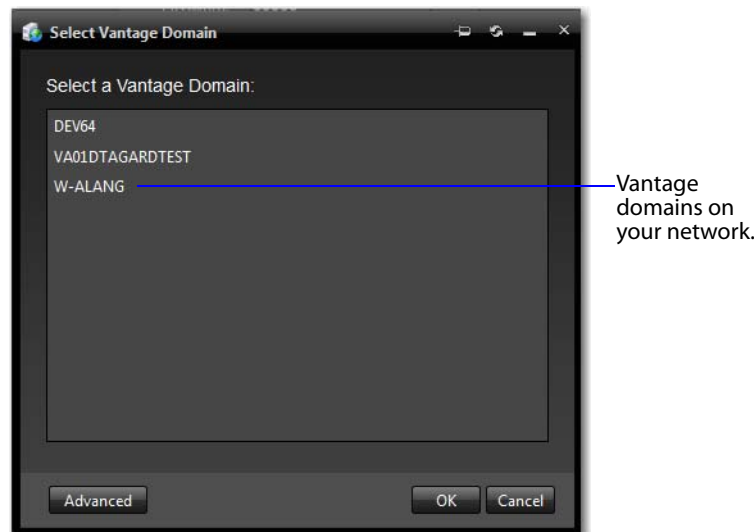
After you log onto a Vantage domain, the Web app remembers it and connects automatically each time you restart the program. You can change domains at any time.

To select a domain, do the following:

1. In any Web app where you want to change Vantage domains, select Change Domain in the application title panel.

The Web application displays the Select Vantage Domain dialog.

**Figure 20.** 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 and connects to the new 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 *Advanced*. To connect to an unlisted domain, do the following:

To connect to an unlisted domain, do the following:

1. In the Select Vantage Domain dialog (see [Figure 20](#)), click *Advanced*.
2. If the domain is not in the list, click *My Vantage Domain is not Listed* to display the Vantage domain server Name/IP field (see [Figure 21](#) below).

**Figure 21.** Select Vantage Domain Dialog

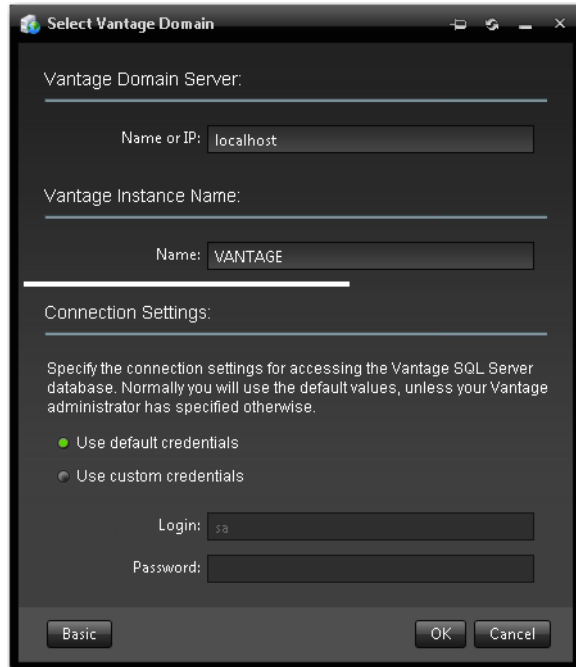
The screenshot shows a Windows-style dialog box titled "Select Vantage Domain". It is divided into three main sections by horizontal lines. The first section, "Vantage Domain Server:", contains a text input field labeled "Name or IP:" with the value "localhost". The second section, "Vantage Instance Name:", contains a text input field labeled "Name:" with the value "VANTAGE". The third section, "Connection Settings:", contains a paragraph of text: "Specify the connection settings for accessing the Vantage SQL Server database. Normally you will use the default values, unless your Vantage administrator has specified otherwise." Below this text are two radio buttons: "Use default credentials" (which is selected, indicated by a green dot) and "Use custom credentials". Below the radio buttons are two text input fields: "Login:" with the value "sa" and "Password:". At the bottom of the dialog are three buttons: "Basic", "OK", and "Cancel".

3. Enter) the domain database server's computer name (for example, *VantageServer203*) or its IP address and click OK to connect.
4. Specify the name of the Vantage database instance, if different than the default VANTAGE instance.

### 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 22.** Manually Entering the Vantage Domain Server Name

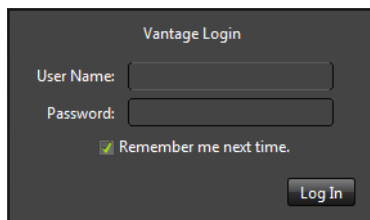


Select Use Custom Credentials, and enter the Vantage database SQL server account user name and password (obtained from your Vantage administrator), and click OK to connect.

### Logging On

If you are accessing a Vantage domain for which user login is required, Vantage displays the Vantage Login dialog shown in [Figure 23](#).

**Figure 23.** Vantage Login Dialog



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**Note:** If you do not have an authorized 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) or use your Active Directory user name and password and click OK to connect. Your Vantage administrator will either give you a user name, or instruct you to use your Windows user name.
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 Applications](#) for more information.
3. Enter the user name and password assigned by your Vantage Administrator, then click Log In.

---

**Note:** The default user name is *Administrator* without a password.

---

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.

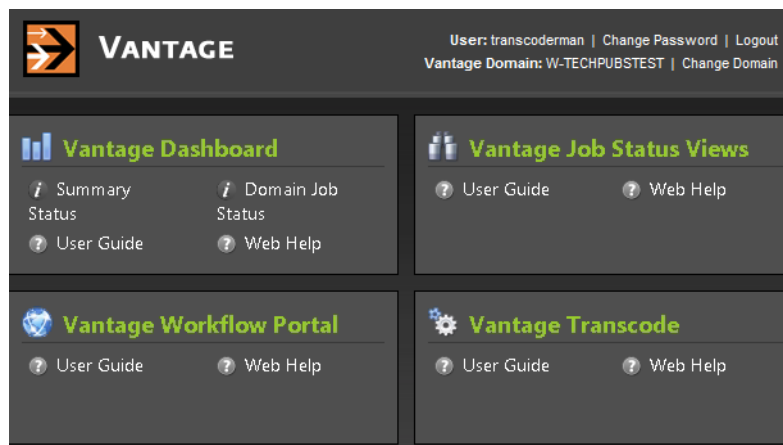
If you entered the Vantage URL, Vantage displays the Vantage Web application home page (see [Figure 24](#)), so you can select any Vantage Web application. Otherwise, your Web application displays.

## Returning to the Vantage Web Applications Menu

To return to the main Web applications menu (see [Figure 24](#)) 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 24.** 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.

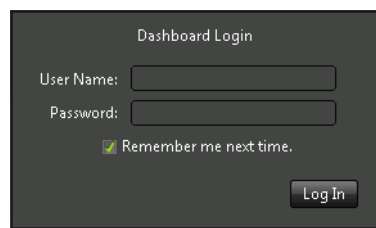
To log out of the Web application, click Logout in the title panel.

## Changing Vantage Users in Web Applications

When you are logged in to a Vantage domain and User Administration is enabled (in the Vantage [Management Console](#)), you can change user names. To log in with a different user, do the following:

1. Select Log Out (upper right corner) to display the Domain Login dialog (see [Figure 25](#)—Dashboard sample).

**Figure 25.** Vantage Domain Web Application Login Dialog

A screenshot of a 'Dashboard Login' dialog box. It has a title bar with the text 'Dashboard Login'. Inside, there are two text input fields: 'User Name:' and 'Password:'. Below the password field is a checkbox labeled 'Remember me next time.' which is checked. At the bottom right is a 'Log In' button.

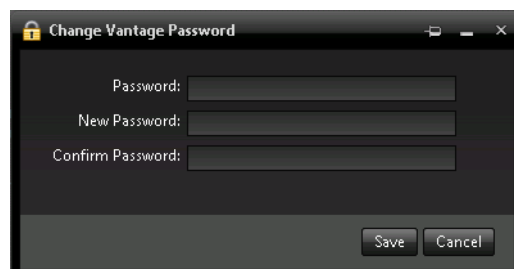
2. Enter your user name, and password if required, and click OK to log in.

## Changing Passwords in Web Applications

If you are logged in using a Vantage user name (not a Windows user name), you can change your password. Do the following:

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

**Figure 26.** Web Application Set Password Dialog

A screenshot of a 'Change Vantage Password' dialog box. It has a title bar with the text 'Change Vantage Password' and a lock icon. Inside, there are three text input fields: 'Password:', 'New Password:', and 'Confirm Password:'. At the bottom right are 'Save' and 'Cancel' buttons.

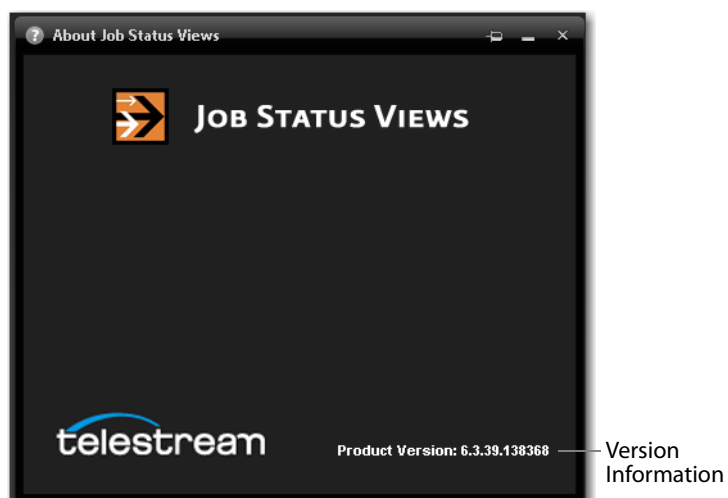
2. Enter your new password, confirm the password, and click OK to change it.

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.

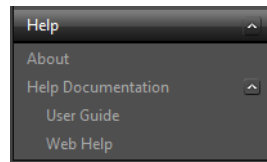
**Figure 27.** Job Status Views About Dialog



## Accessing Vantage Documentation in Web Applications

The Help menu in the Web applications is at the bottom of the left, command column.

**Figure 28.** Web Applications Help Menu



These menu items provide access to the following information and documents:

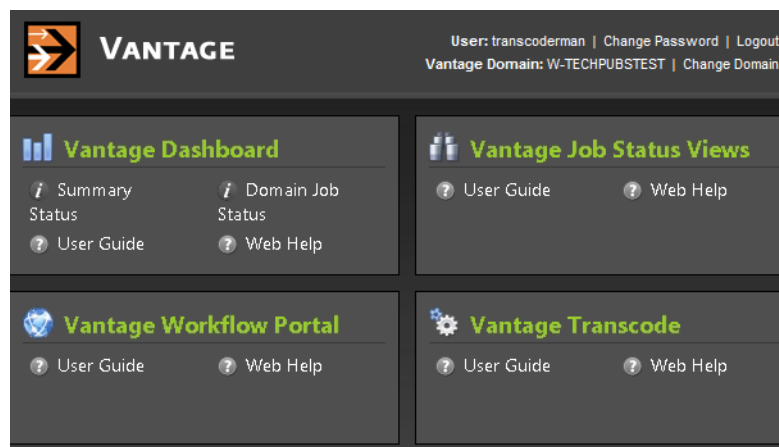
- *About*—Displays the Web application's version number.
- *User Guide*—Displays the *Vantage User's Guide* (this guide) in PDF format. The PDF version contains bookmarks, and you can use the PDF search option to search for one or all occurrences of a term. This is also the best format for printing.
- *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 (applications that display depend on the licenses you own—Dublist Manager, for example).

**Figure 29.** Vantage Web Applications Menu—Home Page



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

## Understanding Paths for Vantage Storage

Vantage stores are named locations for temporary files. They are used frequently in Vantage to access media, attachments, and to write media and other output files. In Vantage, over a dozen different services require access to these files; Windows clients such as Workflow Portal also read and write these files. These Vantage programs (both services and Windows programs) may run on one computer. Usually, however, they are distributed on many computers—from a few, to dozens in a large Vantage array. In these distributed Vantage arrays, file access must be managed properly to ensure that the client programs can function correctly.

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

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

If all of your Vantage services, clients, Vantage stores and folders are on the same server (an all-in-one domain), 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.

Drive-letter paths are defined on the local computer, and the drive-letter form does not identify the computer that hosts the drive. This prevents them from being useful in situations where more than one computer is being used.

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.

---

**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.

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# Vantage Workflow Designer Tours

These tours are designed to help you learn how to create and configure workflows in [Workflow Designer](#). 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, develop a working knowledge of Vantage and its components, gaining proficiency in using Vantage to meet your organization's media processing requirements.

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**Note:** In all-in-one [Vantage domain](#), sample files are provided for use in the tours: <Install\_Drive>:\VantageStore (typically, C:\VantageStore): *FlipDemo.wmv* (48 seconds), *FlipDemo\_short.wmv* (15 seconds), and *FlipDemo.mss* (an MPEG2 Program Stream file). If your domain was installed using the Array Node option or you want another copy, you can download the sample media from the [Telestream Web site](#). To navigate there, go to the main page, select Downloads > Vantage > Download, and log in if required. Scroll to the bottom, click on the Workflow Examples tab and click the Download Vantage Sample Media link. Unzip the zip file and save the media for later use.

---

## Tours

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

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**Note:** You can take tours 1-4 without a Vantage [license](#). For tour 5 and beyond, you'll need a trial [license](#) to run workflows. Also, without a license, you can only decode WMV files in workflows. For a trial license, contact [sales@telestream.net](mailto: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 service (a special type of Windows program)—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.

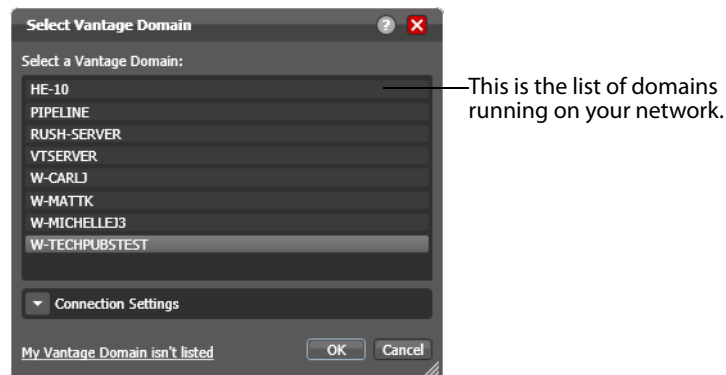
### Starting Workflow Designer and Logging In

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 30.** 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.

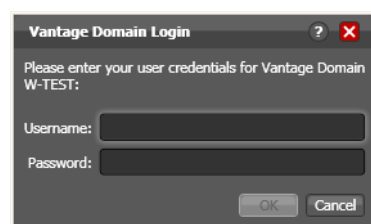
4. If the Vantage Domain Login dialog is displayed, enter your Vantage user name and password in the login dialog to proceed.

---

**Note:** 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 user name is *Administrator*, with no password assigned.

---

**Figure 31.** Vantage Domain Login Dialog



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 to a new domain is prompted to create a new category and workflow.

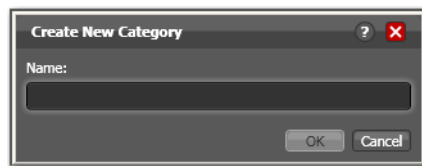
---

**Note:** Even if categories are present, you should make a category for use during these tours, so that your practice workflows don't interfere with the work of others, and 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 32.** Create New Category Dialog



Enter <Your Name> Tutorial Workflows and click OK.

---

**Note:** 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*.

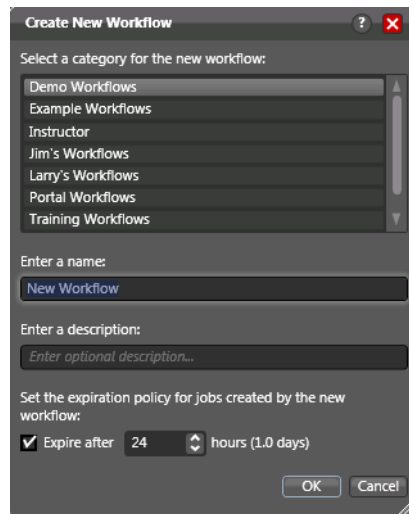
---

## 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 33.** 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.

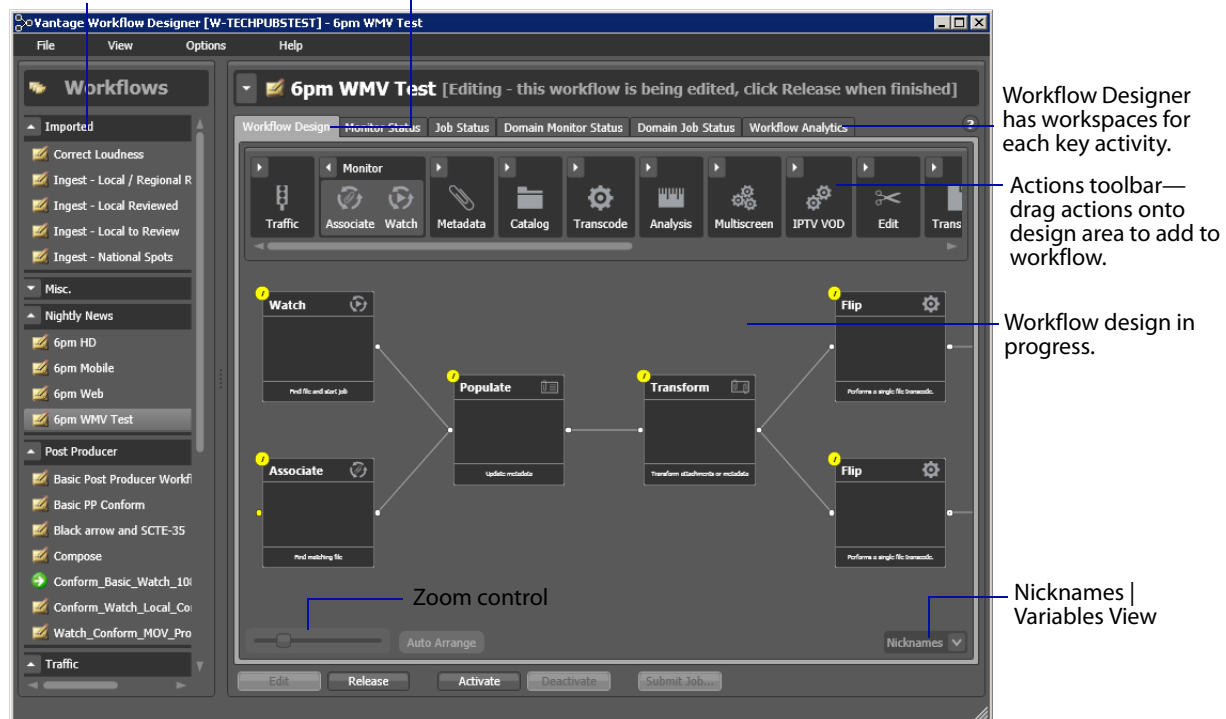
## A Quick Look at Workflow Designer's Main Window

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

**Figure 34.** Workflow Designer Window, Displaying Workflow Design Workspace with Typical Workflow

Workflows panel—displays your workflows by category.

Use the Workflow Design workspace to construct and configure workflows.



Workflow Designer has a comprehensive set of menus, and several tabbed workspaces or panels.

On the left is the Workflows panel, with all of the domain's workflows organized by category. To the right are several workspaces, identified by tabs—Workflow Design, Monitor Status, Job Status, and Domain Monitor Status, Domain Job Status, and Workflow Analytics. Each of these tabs displays a workspace for specific tasks you're performing. In this tour, you'll be working in the Workflow Design workspace, where you can 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 workspace. The list you have may vary from the actions depicted here—some actions are [licensed](#), and may be disabled.

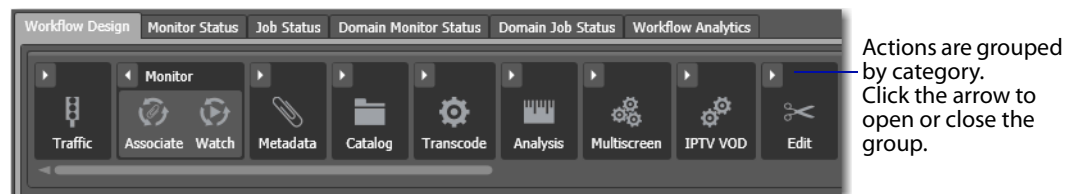
---

**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 (click the arrow in the upper left corner of the group)—to display the [Watch action](#) and [Associate action](#).

**Figure 35.** Action Toolbar, Showing Monitor Group Open



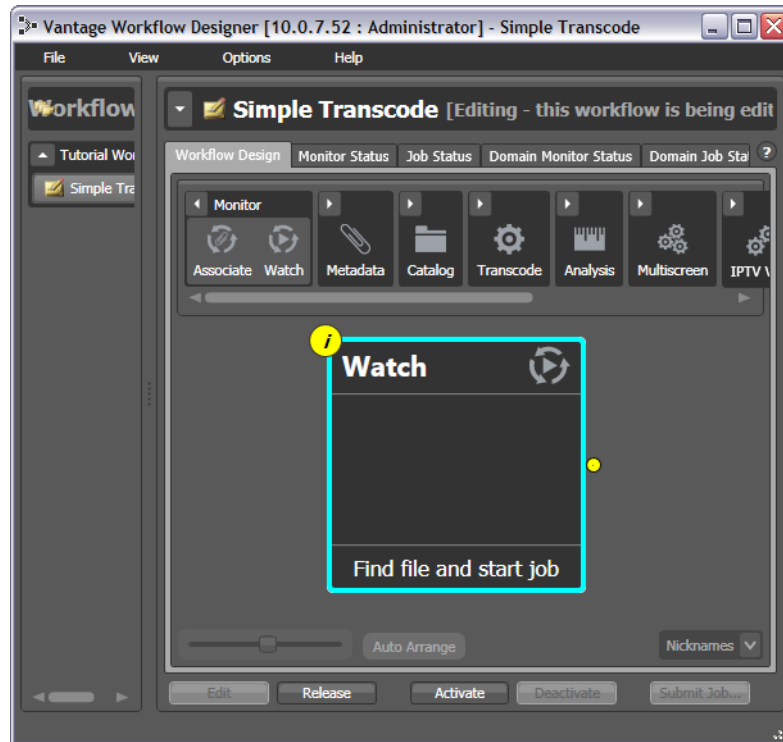
2. Click and drag a Watch action down onto the Workflow Design workspace to add your first action to the workflow. (Notice that it automatically centers itself—Workflow Designer visually optimizes workflow actions automatically.) A Watch action polls a [hot folder](#) (which you need to specify) for 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 in a workflow to duplicate them—the Copy and Paste commands are in the context menu. Right-click an action in the workflow and select Copy, then right-click in an empty area in the workspace and select Paste.

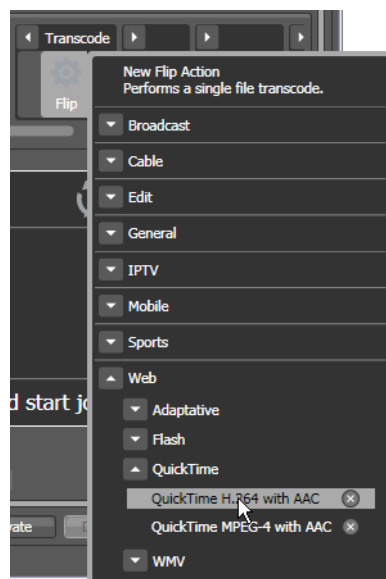
---

**Figure 36.** Workflow Designer Workspace, Showing a Single Watch Action



3. Open the Transcode group and—rather than dragging an un-configured **Flip action** onto 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 37.** 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.

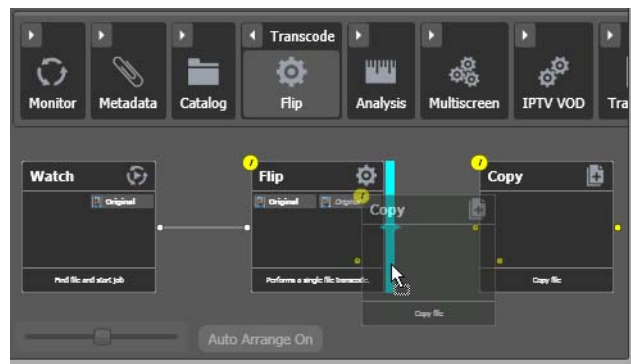
There are also two ways to disconnect actions:

- 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:

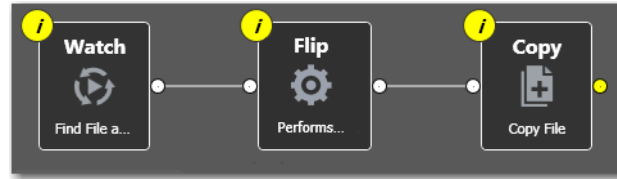
1. Click and drag a connector line from the yellow connector pin on the right side of the Watch action to the yellow connector pin on the left side of the [Flip action](#). (Connector pins display in yellow until they’re connected.)
2. Next, open the Transport action group and drag the [Copy action](#) 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 38.** Workflow Design Workspace, 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 39.** Workflow Design Workspace, Showing Completed 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](#).

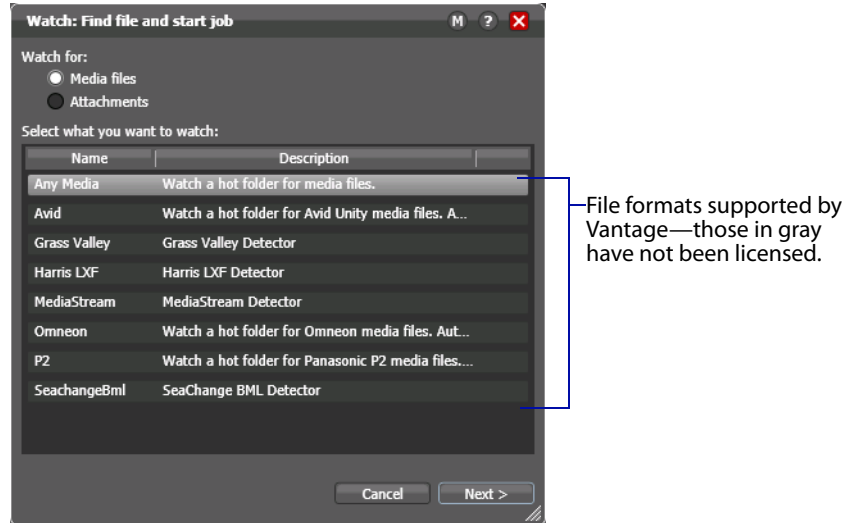
Each action displays an *i* (for *Inspector*) button  in the top left corner; the color yellow indicates that it has not yet been configured (or configured correctly)—it displays blue when properly configured).

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 camera media files.

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 40.** Watch Action—File Type Panel



This first panel allows you to choose a special media type to watch for (such as an Avid reference movie). Or, you can select *Any Media* which will work for most media types.

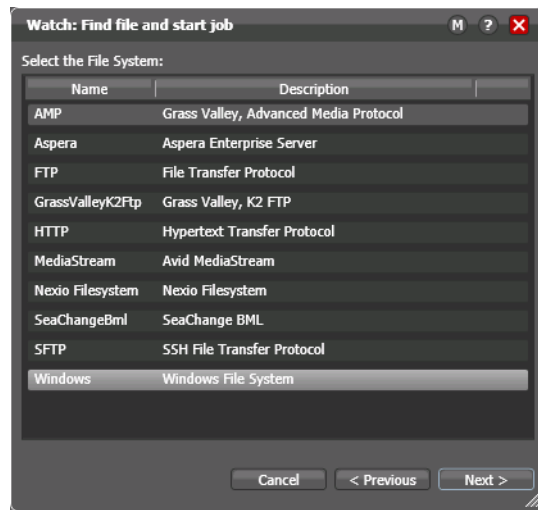
2. Select *Any Media* to poll for any type of new media and click Next. (Media files is checked by default.) Workflow Designer displays the next panel in the [Inspector](#).

---

**Note:** Entries in these lists that are disabled have not been [licensed](#), and thus, are not available to use.

---

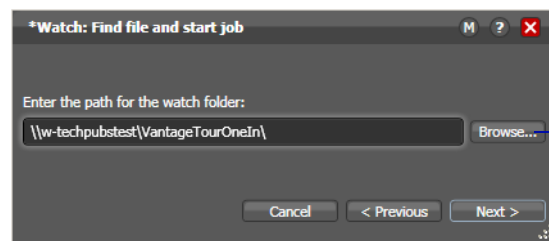
**Figure 41.** Watch Action—File System Panel



This second panel allows you to choose which type of file system (such as FTP or Windows) that the action will be watching (monitoring).

3. Select Windows as the type of file system to monitor, and click Next to display the next panel in the Inspector.

**Figure 42.** 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 43.** Watch Action Inspector—Watch Configuration Panel

Watch: Find file and start job

Configure settings for this file system detector:

Nickname for media file found:  
Original

Cycle: 5 5-120

Count: 3 1-5

☐ Submit Immediately ☐ Look in Subfolders

☐ Send Offline Notification Emails

☐ Process Existing Files: ☒ All  
☐ Limit to last: 7 days  
☐ Since last workflow deactivation

File Match Pattern

Accept:

Reject:

Generate Variables

☐ File Name: Text variable to generate

☐ File Path: Path variable to generate

☐ File Modified Date: Date variable to generate

☐ Active only from 6:00:00 PM to 11:00:00 PM

Cancel < Previous Next >

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.

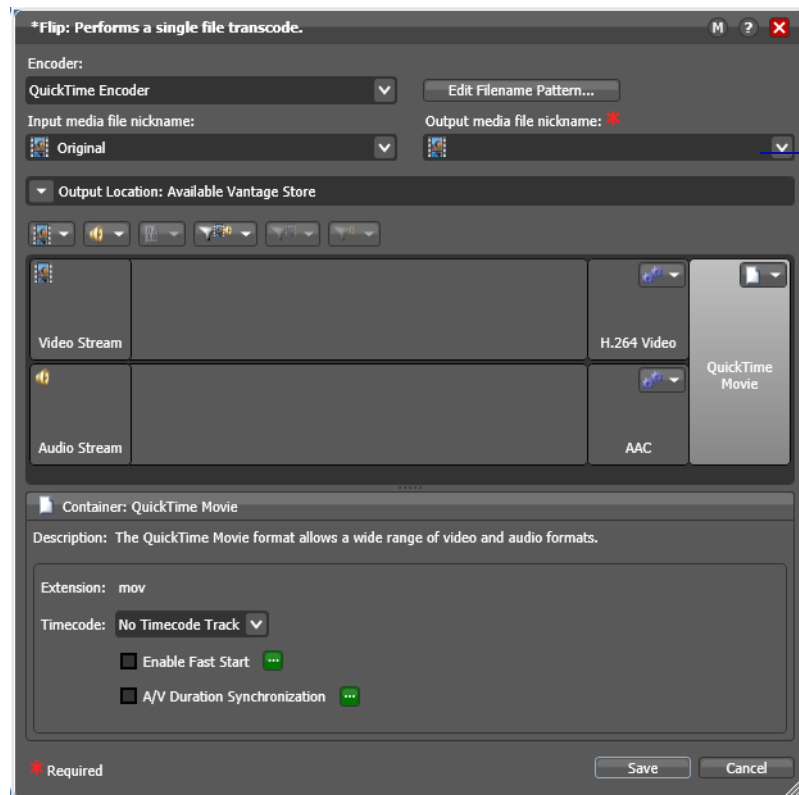
Now that you've configured the action, notice that the Inspector button is hidden to let you know that it has been configured. Move your mouse back over the action—Workflow Designer displays the Inspector button again—in blue. You can always re-open the Inspector to review or change its settings.

## 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 44.** 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*.

Some of the nicknames in the list are key Vantage nicknames—they enable certain Vantage features or are required in certain actions. 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 a workflow, submitting media to [transcode](#), monitoring the [job](#) as it executes—and view the new media it generates.

You can start a job from an active workflow 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 (or files) to submit manually. Just follow the steps in each panel.
- Drag and drop a file (or files) directly onto the origin (Watch or Receive—or Catch or Dublist in TrafficManager) action of a workflow.

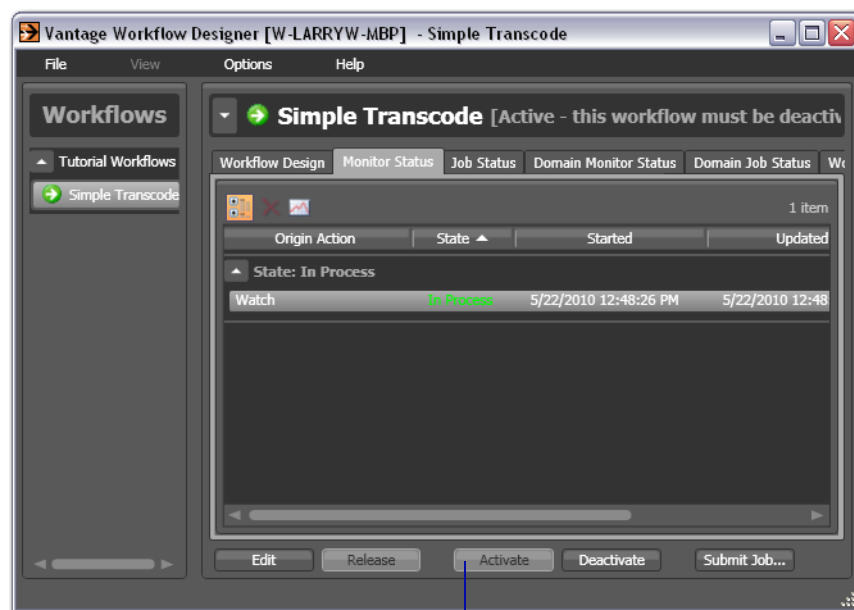
In this tour, we'll drop a media file in a hot folder to start a job automatically.

### 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 Workflows panel on the left.
3. Click the Activate button at the bottom of the window.

**Figure 45.** Activating a Workflow to Process Jobs



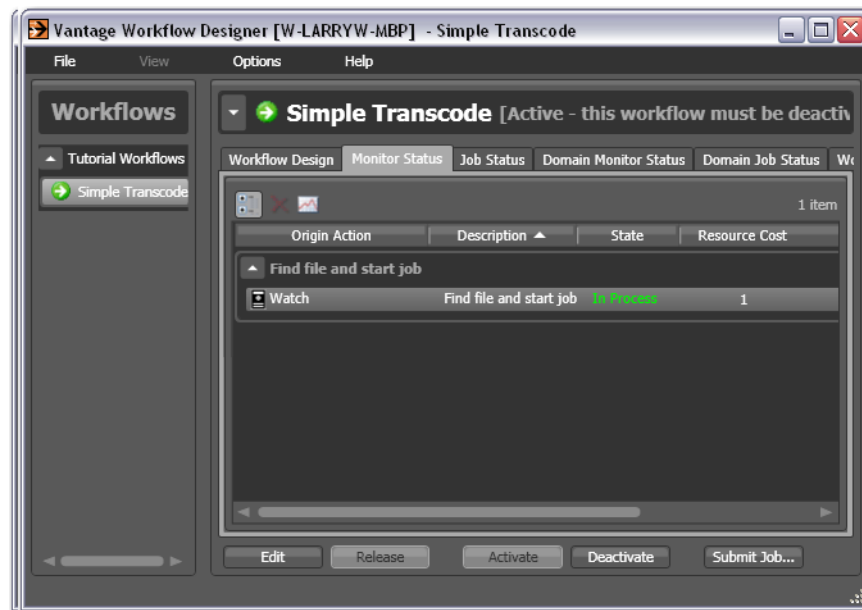
Click Activate to release the workflow from editing, save it, and activate it to start the Watch action.

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 workspace to show you the status of all Watch actions. (You can always select any workflow and view its monitor (or job) status, including a record of past jobs.)

**Figure 46.** Monitor Status Workspace



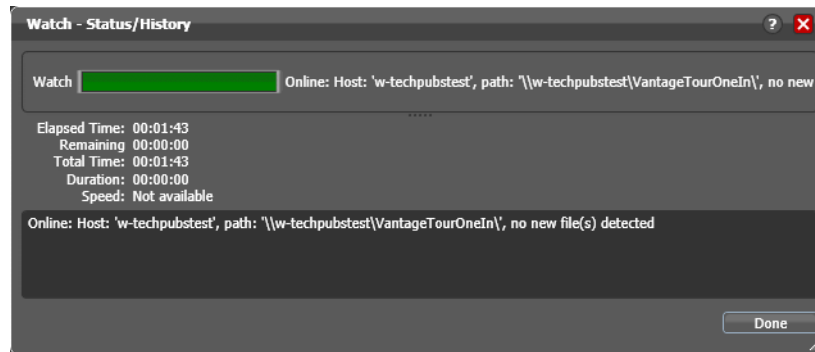
Notice that the [action state](#) of the Watch action is listed as *In Process*, which indicates it has started executing, and it is polling for new files. When a new file is discovered, a [job](#) is created that executes the *Simple Transcode* workflow. Actions may also be *Waiting*—the state that 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.

**Note:** You may have also noticed the Domain Monitor Status workspace—the only difference is one of scope—it displays all of the monitors in the entire domain.

**Figure 47.** Monitor Status/History Dialog

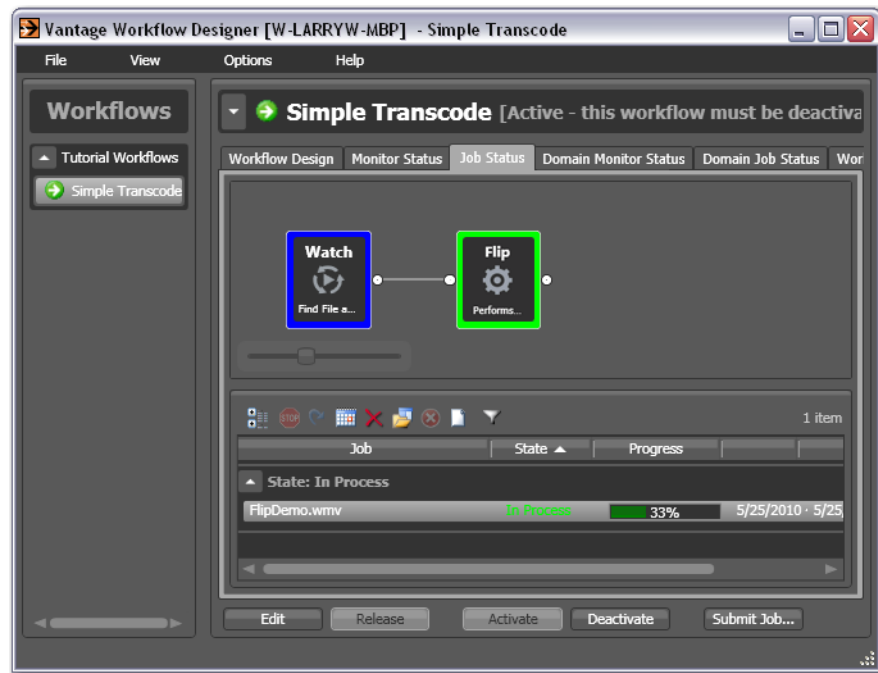


When jobs are started, each action is executed by a corresponding Vantage service, and can be optimized for execution if multiple services (for example, multiple Transcode services) are in your domain.

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 media files provided, which are located at <InstallDrive>:\VantageStore (typically, C:\VantageStore), in an [All-in-one domain](#). (If sample media was not installed, just use your own.)
2. Click the Job Status tab to display the Job Status workspace to monitor the status of running jobs.

**Figure 48.** Job Status Workspace—Each Action Displays a Color-coded Status

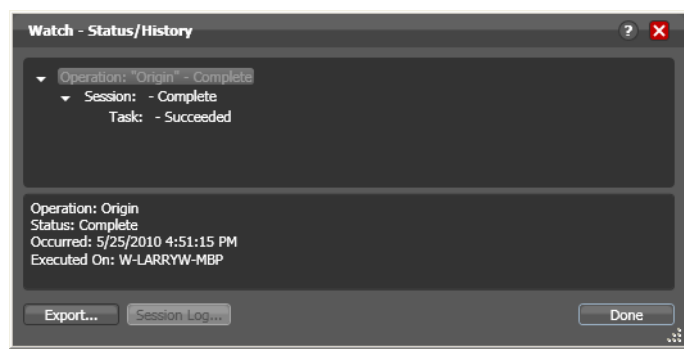


3. Click on the new job entry in the table, and observe each action change color as the entire job executes each task specified by the actions in the workflow.

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

4. Move your mouse over actions in the workflow in the Job Status workspace to display the *i* (Inspector) button in the top left corner.
5. Click the Inspector button to display run-time information about the action in the Status/History window.

**Figure 49.** 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.

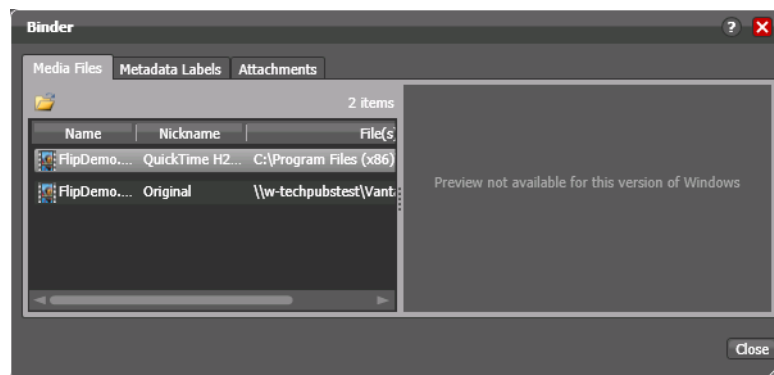
---

**Note:** You didn't 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 Vantage store—a pre-defined directory for storing temporary files.

---

1. In the Job Status workspace, make sure your job entry is selected in the Jobs table at the bottom.
2. Click on the Binders  button to display the [binder](#) for this job.  
A binder in Vantage keeps track of the location of media files associated with a job, plus metadata labels and other [attachments](#) (files).

**Figure 50.** Binder Window Displays Assets—Media, Metadata, and Attachments



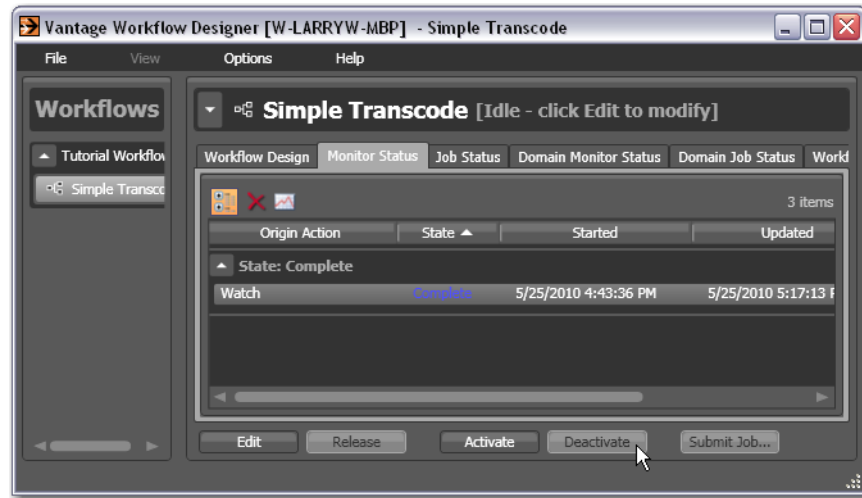
3. Right-click the output file which your workflow transcoded into QuickTime to open the containing Windows folder, then double-click it to play it!

## 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 51.** 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 the Workflow Design workspace effectively.

## Tour 3: Using the Workflow Design Workspace

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 workspace 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 to build 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. The Workorder action enables batch submission multiple input files to a given workflow.

*Traffic*—for processing local and regional, and national commercials to on-air or broadcast, including interacting with catch servers. Actions include the [Catch action](#) and [Dublist action](#). These actions are part of TrafficManager.

*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*—the Flip action includes a broad suite of encoders and codecs, and allows you to encode media on a file-by-file basis.

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

*Multiscreen*—the Multiscreen Flip action allows you to encode adaptive- or multi-bitrate packages such as Apple HLS and MPEG DASH.

*IPTV VOD*—The IPTV Flip action allows you to encode Transport Stream containing MPEG-1, MPEG-2, H.264 and HEVC (H.265). It uses Manzanita multiplexing technology to give you fine control over Transport Stream creation.

*Edit*—Includes the actions for Post Producer. The Conform action renders complex editing timelines into output media files, allowing you to automate the production of



hundreds of customized outputs. The Compose action allows you to import timelines from editing systems such as Final Cut, Adobe, and Avid.

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

There many other utilitarian categories and actions, as well as third-party actions for interaction with their systems: Aurora, Signiant, Aspera, and others.

Take time to browse through 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.

## Zooming In and Out on a Workflow

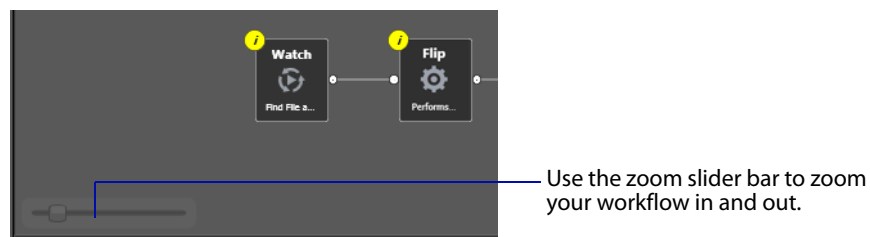
There are three ways to zoom in and out on a workflow:

- 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 Transcode* workflow from your category in the Workflows panel (on the left).
2. With your Simple Transcode workflow selected and displayed in the Workflow Design workspace, 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 52.** Workflow Designer Zoom Control



## Moving the Workflow Around in the Workspace

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 in the Workspace

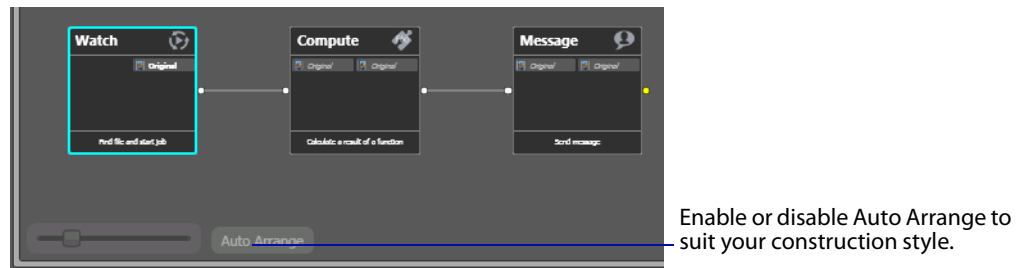
To center the workflow in your workspace, right-click in the workspace and select **Recenter Workflow** from the context menu. Alternatively, you can press **Control-R** on the keyboard.

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 53.** Enabling Auto Arrange



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 workspace, to toggle it off. While **Auto Arrange** is off, the **Auto Arrange** button displays the phrase **Auto Arrange SUSPENDED** in yellow, and actions will not automatically organize themselves.

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

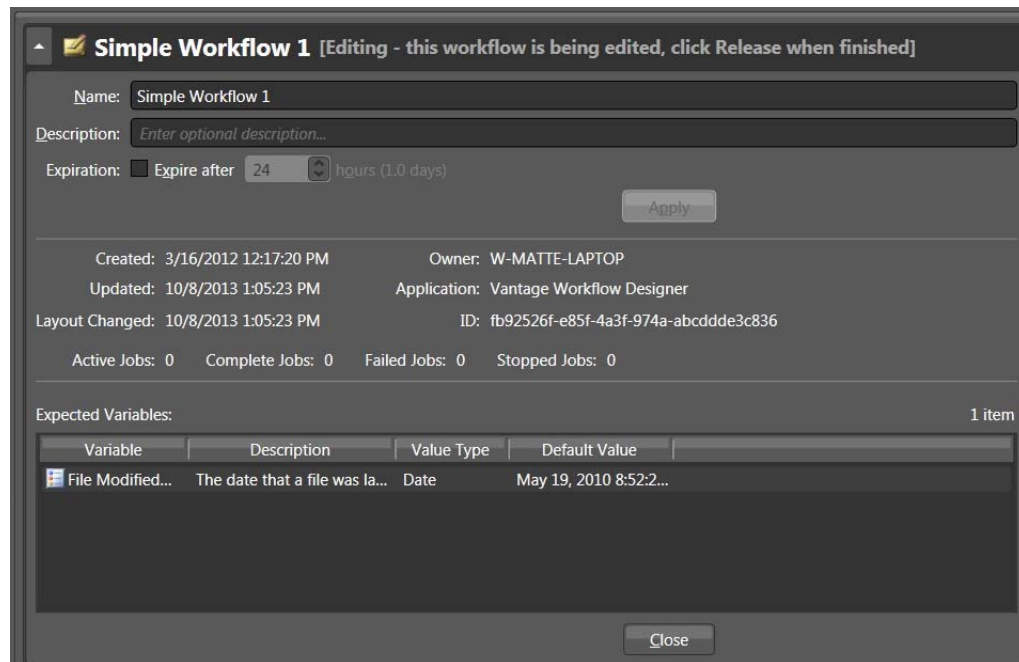
## Displaying Workflow Details

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

- Select **File > Workflow Details** panel.
- Click in the Workflow Design workspace's title bar.

When you display the workflow's details panel, Workflow Designer obscures the tabbed workspaces to display details about the workflow.

**Figure 54.** Workflow Details Panel, Showing Workflow Title Bar



In the workflow details panel, you can 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. Details include creation and modification dates, and the workflow’s GUID in the database.

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 workspace. 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

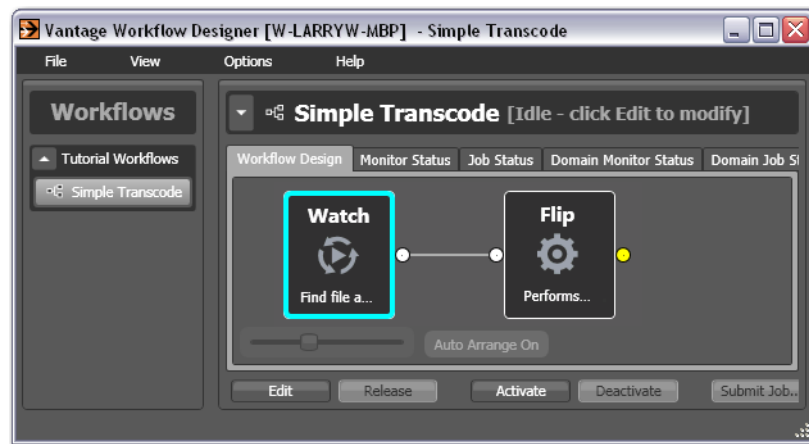
This 20 minute tour adds to your workflow design and configuration skills. It's an in-depth look at how effectively Vantage deals with the complexities of media transcoding.

### Duplicating a Workflow

It is 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:

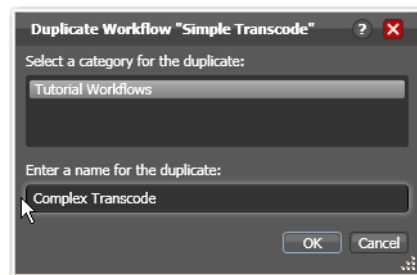
1. If you quit Workflow Designer after the last tour, start it again. In the Workflows panel, open your Tutorial Workflows category.

**Figure 55.** Workflow Designer Window, Showing Workflows Panel on Left



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

**Figure 56.** 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 workspace.

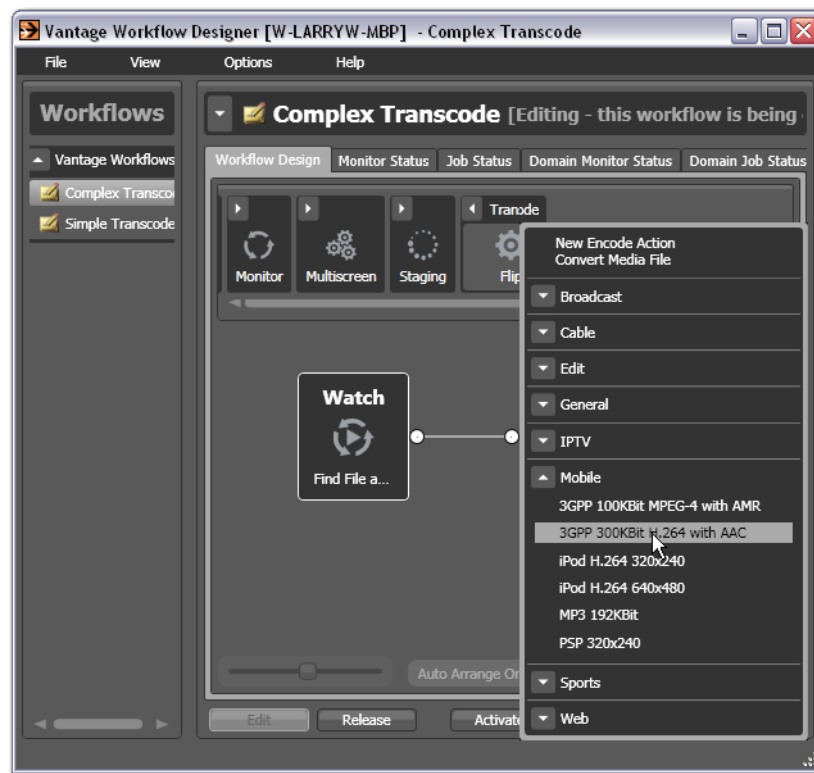
## Adding a Branch to a Workflow

Now, let's add a second, *pre-configured* [Flip action](#) to your workflow. Recall that Workflow Designer has many pre-configured actions, making it easier to build workflows.

Let's add this Flip action so that Vantage can encode two separate output files simultaneously, in a single workflow. By creating a branch with parallel Flip actions, each Flip is executed independently as soon as the Watch action completes (making the resources available). This design is more time-efficient than if one Flip action followed the other. Creating branches for 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 300KBit H.264 with AAC preset from the menu to add it to the workflow (see [Figure 57](#)).

**Figure 57.** 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 Vantage store, because you have not explicitly configured the workflow to place the media in a specific folder. In order to use the new 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 deletes the original.

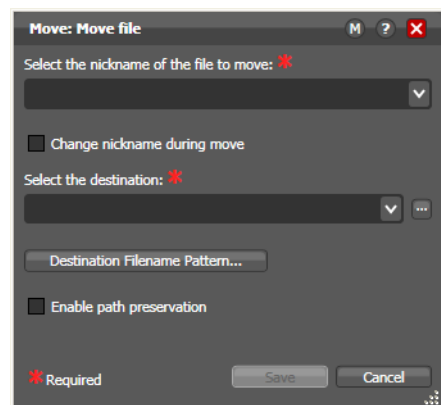
Move actions (and other file system actions) utilize a special feature called the Vantage folder address book, which enables you to store output locations, IP addresses, folder names and credentials in a single place. This makes it easier to manage destination locations for files.


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

To move the new files:

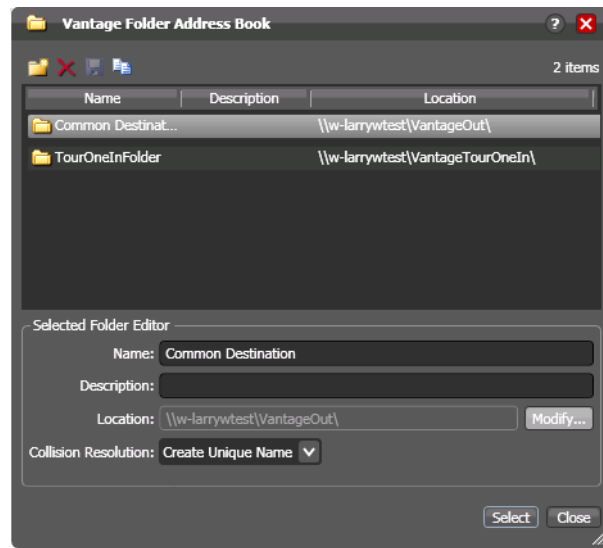
1. Open the Transport action group on the action toolbar. Drag a Move action onto the QuickTime branch, and another onto the 3GPP branch, connecting each to the Flip action, so that each Move executes after the Flip action.
2. Open the QuickTime branch's Move action [Inspector](#).

**Figure 58.** 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 59.** Vantage Folder Address Book

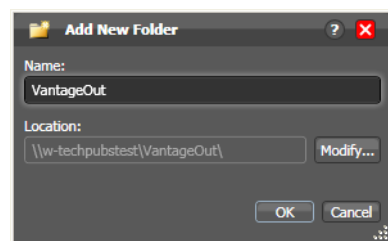


Vantage folders simplify directory referencing by allowing you to specify a fully-qualified output location by a simple name. They also allow you to update a path or credentials centrally, and automatically update all actions using that Vantage folder.

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):

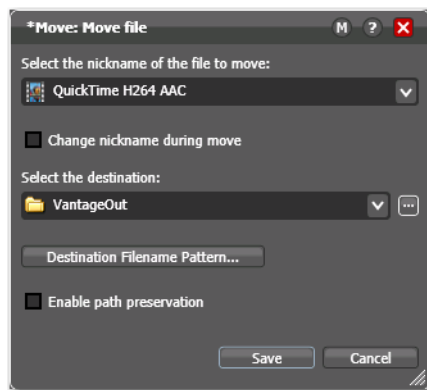
**Figure 60.** Add New Folder Dialog



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.)

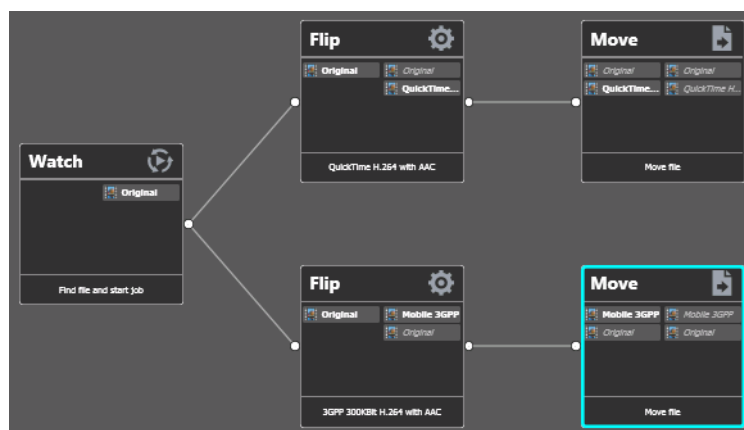
9. Click Browse to select a directory (for example, in Windows Explorer make a folder named *C:\VantageOut*) where you want the output media file copied, and click Select Folder. (Don't use drive letters on a distributed Vantage array or distributed clients—they won't work.)
10. Click Finish to close 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 61.** 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 62.** 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>\VantageStore\* (typically, *C:\VantageStore*). (If sample media



was not installed, just use your own.)

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.

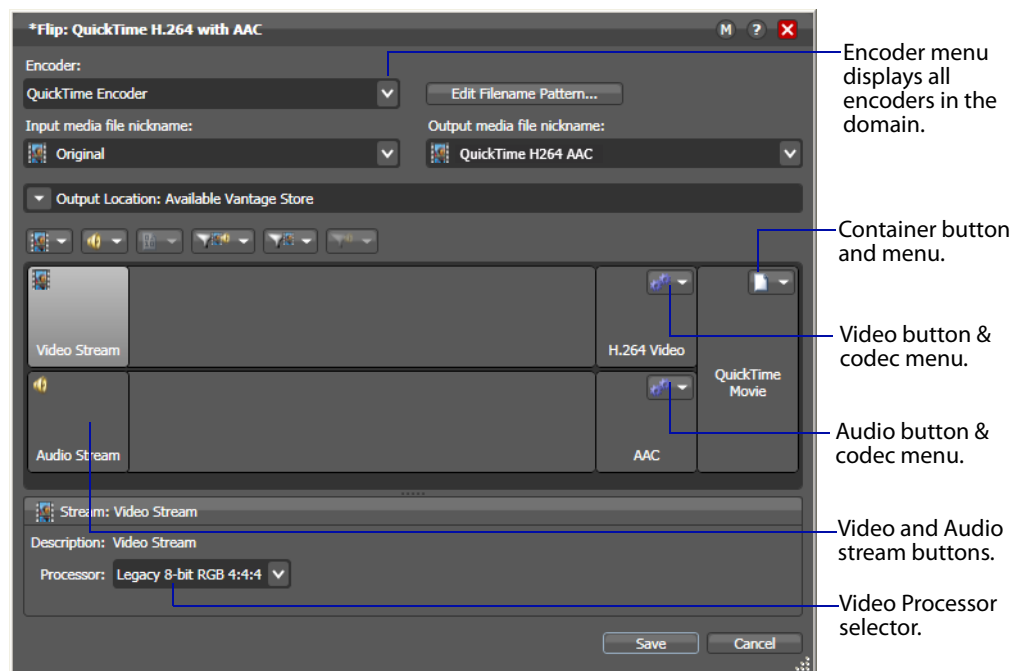
## Configuring a Flip Action

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.

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 63.** 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.

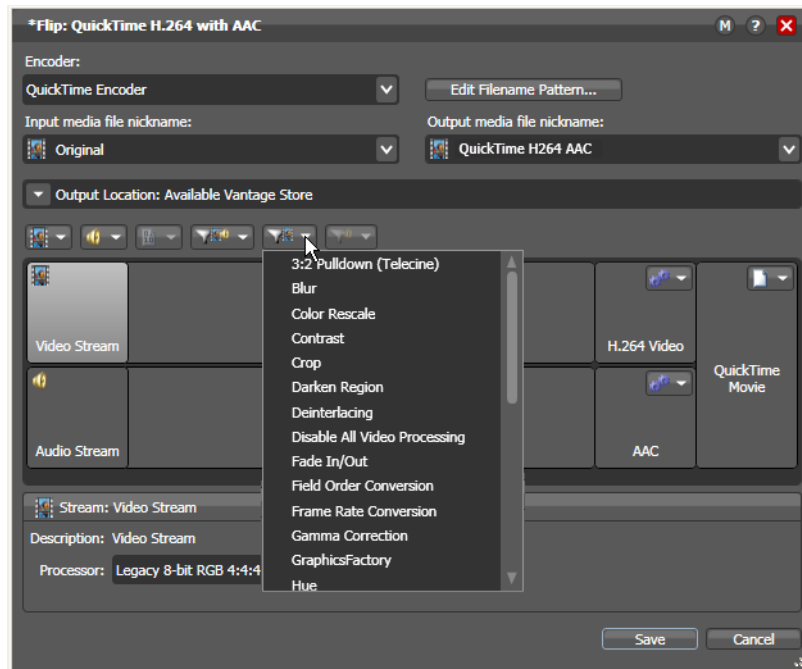
7. At the far right of the Video and Audio Stream components, click the Container menu to display the containers that are available (notice that the QuickTime encoder only provides a QuickTime container).

**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 64.** Flip Action Inspector Dialog, Showing Video Filters



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

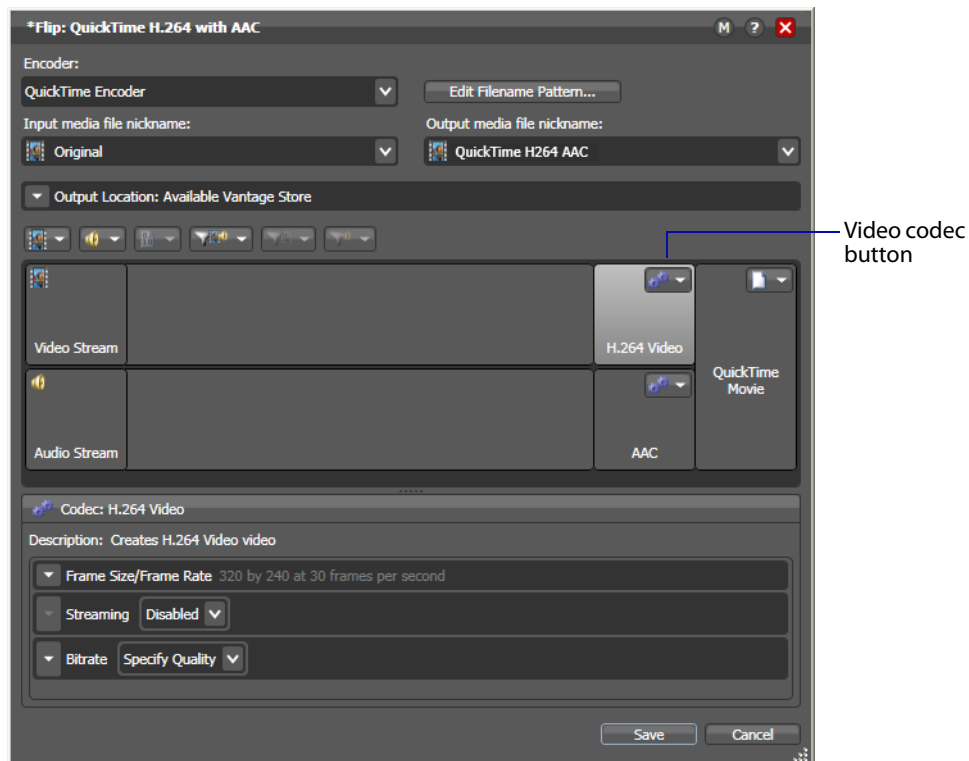
**Figure 65.** Video Stream Configuration, Showing Contrast Filter



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 66.** 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:** Click the Edit Filename Pattern button to control the output file name. By default, Flip actions name the files they create using the same root name as the

original file's name plus an appropriate extension, based on the encoder. For example, a QuickTime movie flipped 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 learned how to configure Flip actions to perform encoding tasks the way you want.

## Tour 5: Using Nicknames to Identify Files

This tour rounds out your knowledge of nicknames, and how you use them to easily track and process multiple files action by action in a [workflow](#). It takes about 10 or 15 minutes to complete.

### Overview

A key feature of Vantage workflows is the notion of *nicknames*. A nickname in Vantage provides 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. Nicknames provide an easy way to tell an action which logical file it should use. For example, after a transcode, a Move action might move either the output of the transcode, or the original file used as the source. You can use the Move action to move either one, and you use a nickname to identify which file to move. Vantage automatically keeps track of which file and its associated nickname as a job runs.

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 actions 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.

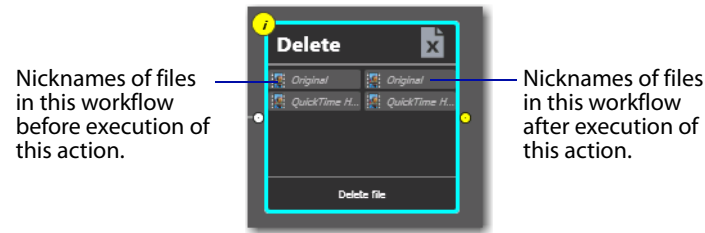
3. Connect the Delete action to the top Move action so that it executes when the Move action is complete.

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**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.)

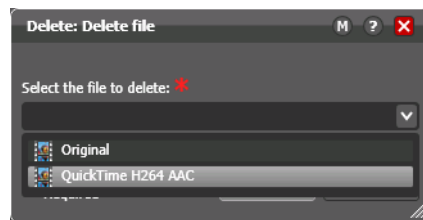
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**Figure 67.** Nicknames Display Directly on an Action



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

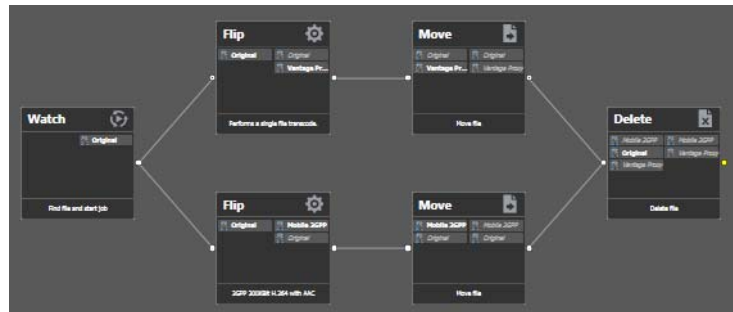
**Figure 68.** Delete Action Inspector Lists Files by Nickname



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, based on its connection—*Original* (from Watch) and *QuickTime H264 AAC* (from the connected Flip action).

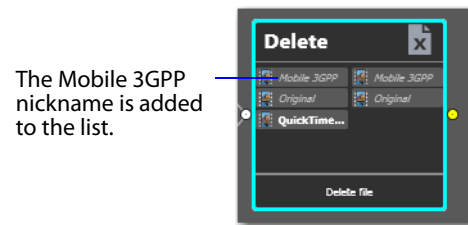
5. Select *Original* (which identifies the input file) and click Save to close the Inspector. Workflow Designer immediately highlights the other Flip action's *Original* nickname in red, indicating an error. In this case, you're attempting to delete a file while it is simultaneously being transcoded 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 69.** 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 70.** 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.

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**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\Transcoding* (or other drive where Vantage was installed). Locate and have this workflow available before taking this tour, which explains how to use it.

---

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

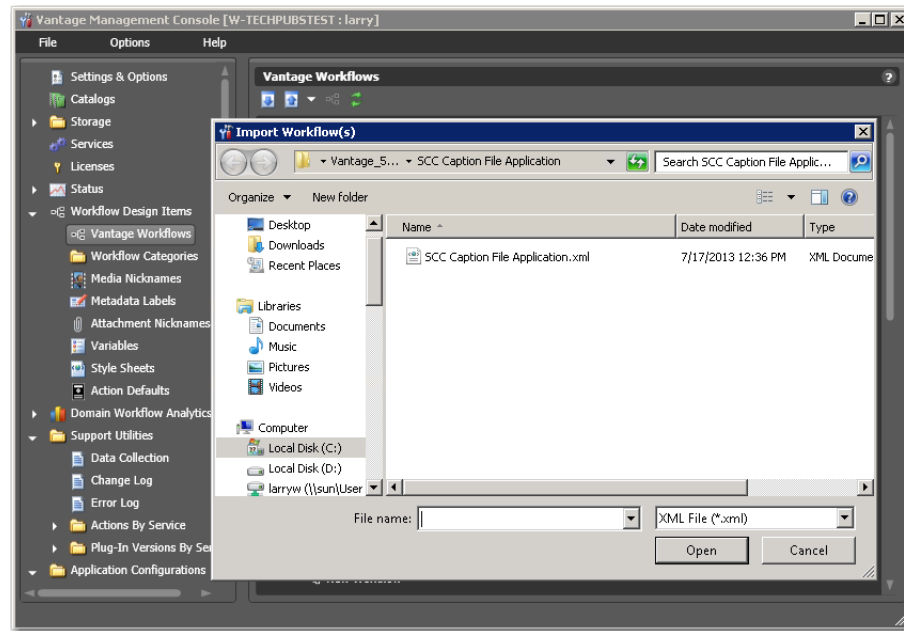


The Vantage [Management Console](#) (often referred to as simply the *console*) is the program you use to configure and administer your [Vantage domain](#)—including Vantage services, [licenses](#), and workflow design items. You can also import many items, such as stylesheets, workflows, etc. To begin 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 71.** 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 Management Console so that 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 cause the [job](#) to wait for an incoming [attachment](#) file and then add the file to the job's [binder](#) already created by the Watch action that picked up the media file. 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.

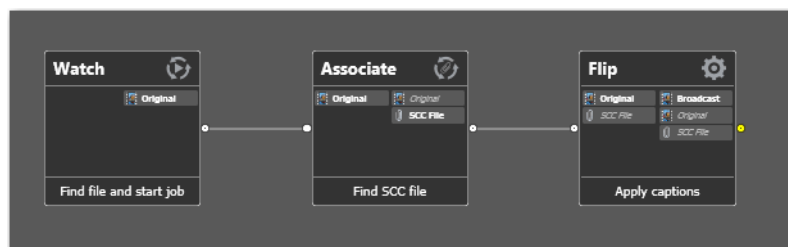
The *SCC Caption File Application* workflow works in exactly that way. It watches a folder for media, associates a caption file from a different directory (waiting if necessary for it to arrive), and then transcodes the media file while also applying the caption file to the output.


## 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 Workflows panel. The workflow opens in the Workflow Design workspace. If necessary, click the Workflow Design tab to see it.

**Figure 72.** Importing a Workflow



3. Click the inspector button  on the **Associate** action (or just double-click on the action itself) 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 cannot 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 workspace and click Edit to allow you to modify the workflow.

8. Click the inspector button  on the [Flip action](#) to display 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. Create a folder on your C drive and name it *Vantageln*.
2. Activate the workflow, so that it will detect the MPG media file and start a [job](#).
3. Locate or create an MPEG media file and a matching SCC caption file. Ensure that they are named identically except for the 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.
4. Drop the MPG media and SCC caption file into the *C:\Vantageln* folder.
5. Click on the Job Status tab and select the job to watch it execute.
6. When it's done, 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 to display it in Windows. Or, select Open With Default Program to play it directly.

---

**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: 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.

### Overview

In Vantage, a variable is a named unit of data (for example, an integer named *Video Width*) that only lasts as long as the job is executing. Variables can be used to pass data between actions. For example, an Analysis action might publish a variable named Video Width containing the width of the frame in a particular media file, and a Decide action might make a decision based upon the value of Video Width.

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 supplied a default value, 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 *Video 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 creates (or sets) a variable, all downstream actions that use variables can access the variable's 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.

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 is the value that is passed on. Because the branch which finishes last cannot be known when you create 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.

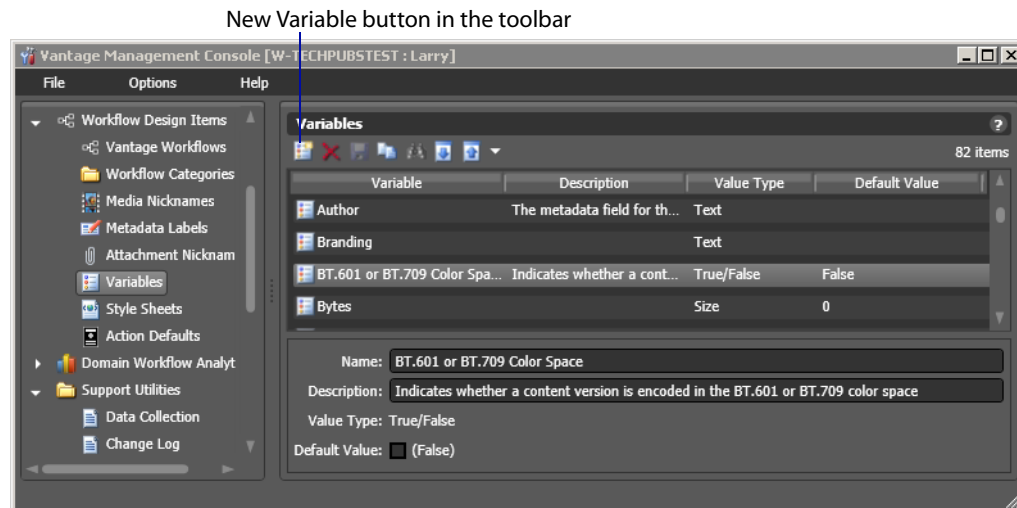


1. Double-click the Vantage Management Console shortcut to launch it.
2. If you haven't previously launched the console, you're prompted to select a domain. You'll log in using a Vantage user with administrative privileges (default: Administrator, no password), unless User Administration is disabled.

## Creating Variables

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

**Figure 73.** Creating and Configuring Variables in the Management Console



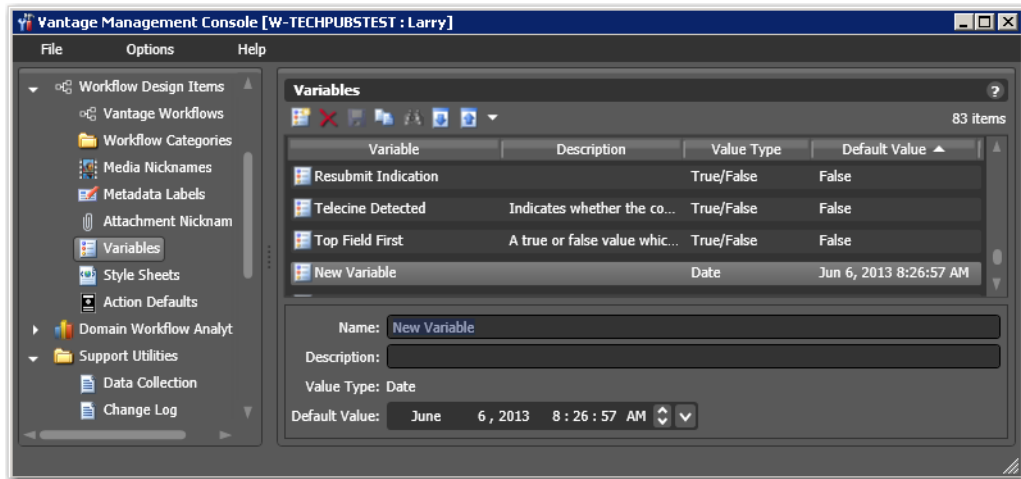
The Variables panel displays a list of variables, which includes default variables plus those created by Vantage users in this domain. You can use the default variables in workflows as-is, and you can create your own.


2. Select the *Curtailed* 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 locate a 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 Date variable called *File Modification Date*.

3. To start, 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 74.** 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 whose name can not be changed—*Priority*. This variable sets the priority of any actions that receive it when determining task balancing. Priority is a number, where larger numbers mean higher priority (for example, priority 10 is a higher priority than 1).

Aside from this special meaning, the Priority variable 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.

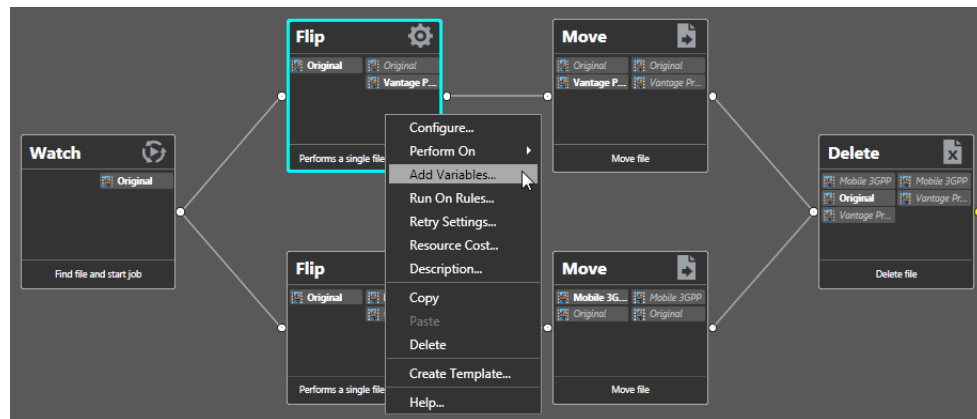


- From a **Compute action**, which can create variables from other variables. For example, Compute can add two number variables to create a new variable.
- As a pre-step to an action executing; any action can set the value of any variable prior to execution.
- As a pre-step to a server executing an action;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

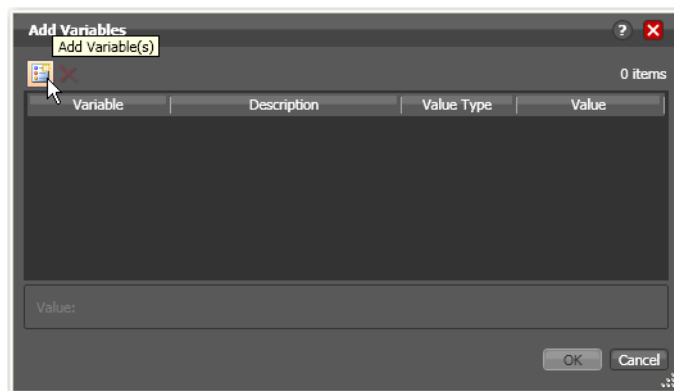
1. Open Workflow Designer, and duplicate the *Complex Transcode Delete* workflow as *Complex Transcode Tour 7*.

**Figure 75.** Adding Variables to an Action in a Workflow



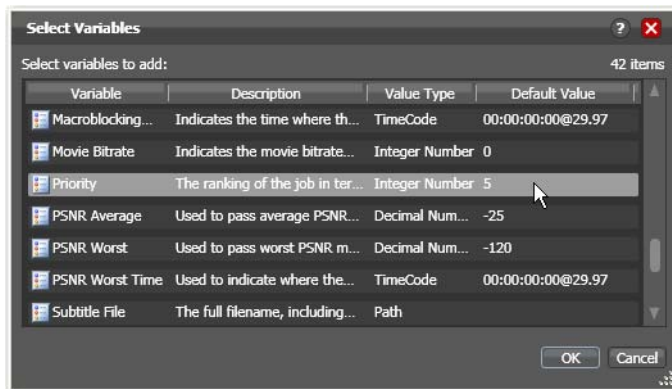
2. Right-click the QuickTime Flip action and select Add Variables from the context menu to display the Add Variables dialog.

**Figure 76.** Add Variables Dialog



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

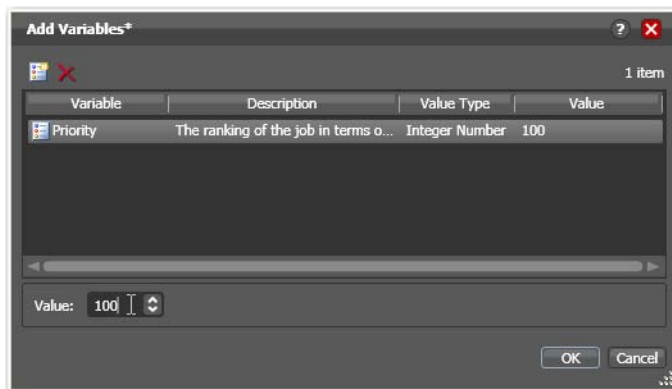
**Figure 77.** Selecting Variables Dialog



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 78.** Add Variable Dialog

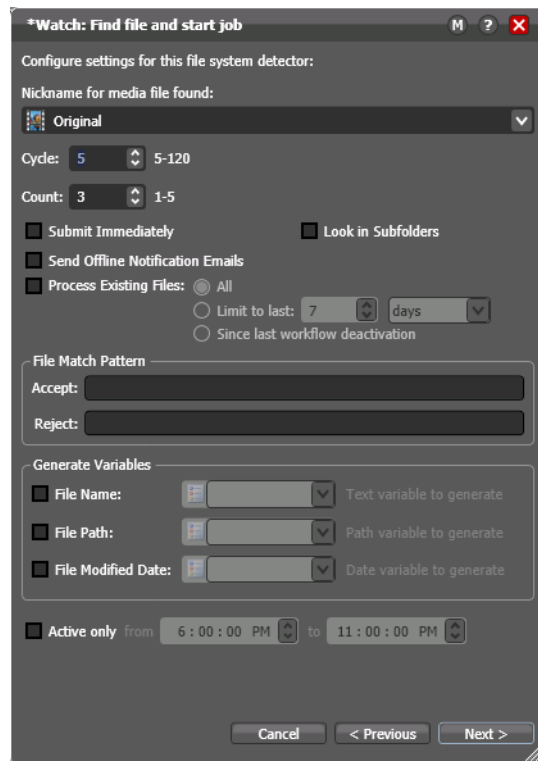


5. Enter a large number (for example, 100) and click OK to make this variable setting permanent.

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 79.** 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. 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 8: 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 pattern repeats throughout the execution of the entire workflow.

Action states also 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.

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 often specified at run-time, Decide enables you to perform an analysis and set its state at run-time as well—and thus, the workflows may behave differently for every job processed by the workflow. Decide is a powerful action allowing you to build data-driven processing 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

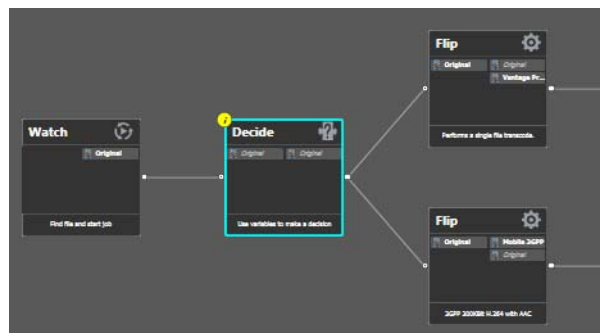
Let's look at an example (start Workflow Designer if it isn't already open).

1. Open the *Complex Transcode Tour 6* workflow and duplicate it as *Complex Transcode Tour 8*. 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 1<sup>st</sup>, 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 80.** Workflow Design Workspace, 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 1<sup>st</sup>, 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 1<sup>st</sup>, 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 81**).

**Figure 81.** 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 <= (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 9: 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.

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**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](mailto:sales@telestream.net).

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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).



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**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.

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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 variable browser 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.



# Managing Workflows

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

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

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

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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 Workspace](#)
- [Managing Workflows](#)
- [Constructing Workflows](#)
- [Configuring Actions and Specifying Action Settings](#)
- [Implementing Processing Logic in Workflows](#)
- [Managing Vantage Folders](#)
- [Troubleshooting Workflow Designer](#)

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**Note:** Vantage Transcode (a [licensed](#) Web-based workflow design option) can also be used to create simple transcoding workflows.

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## Starting Workflow Designer

To start Workflow Designer, do one of the following:

- Double-click its shortcut on your desktop
- Click Start > All Programs > Telestream > Vantage > Workflow Designer.

Next, select a domain and log in.

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**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 [Windows Client Program Management](#).

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## Understanding Workflows

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

- [Workflow Basics](#)
- [Understanding the Workflow Construction and Configuration Process](#)

## Workflow Basics

A *workflow* in Vantage is a set of connected [actions](#) (each of which performs a specific task). Vantage provides over four 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. While most workflows center around the process of decoding and encoding video, you can also construct workflows that—while still media-centric—don't flip media. Instead, they might process metadata files, or perform other tasks.

You construct and configure workflows in Workflow Designer using the Workflow Design workspace, 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](#).

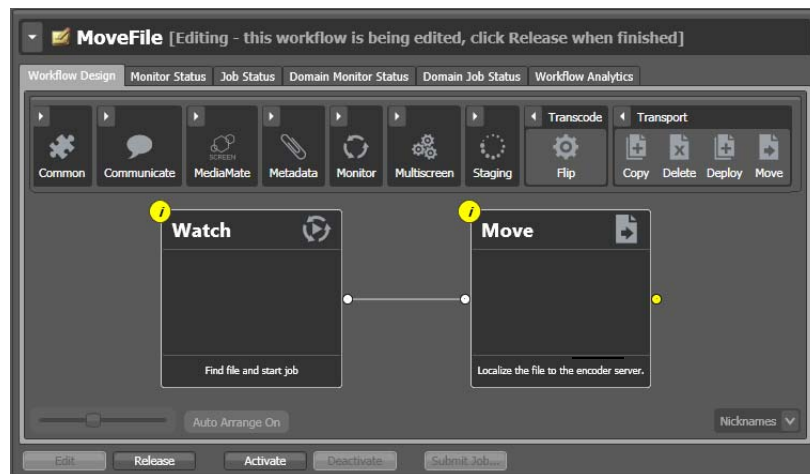
A valid workflow must start with an [origin action](#) (for example, a [Watch action](#), [Workorder action](#) or [Receive action](#)), and consist of at least two actions, which must be connected. Single actions that are not connected to another action do not execute—a single, disconnected action invalidates 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. Multiple origin actions permit different methods (or locations) in which to submit jobs to the same workflow.

Workflows are not required to end with a terminating action—an action without an output pin. The only formal 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 whenever a new file is discovered by the workflow's Watch (or other origin) action, or when you submit a [job](#) manually ([Submitting Files Manually in Workflow Designer](#)).

**Figure 82.** Workflow Design Workspace



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.

To activate, deactivate, edit, or release multiple workflows at one time, see [Performing Batch Workflow Operations](#).

## Understanding the 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 Workspace

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

- [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

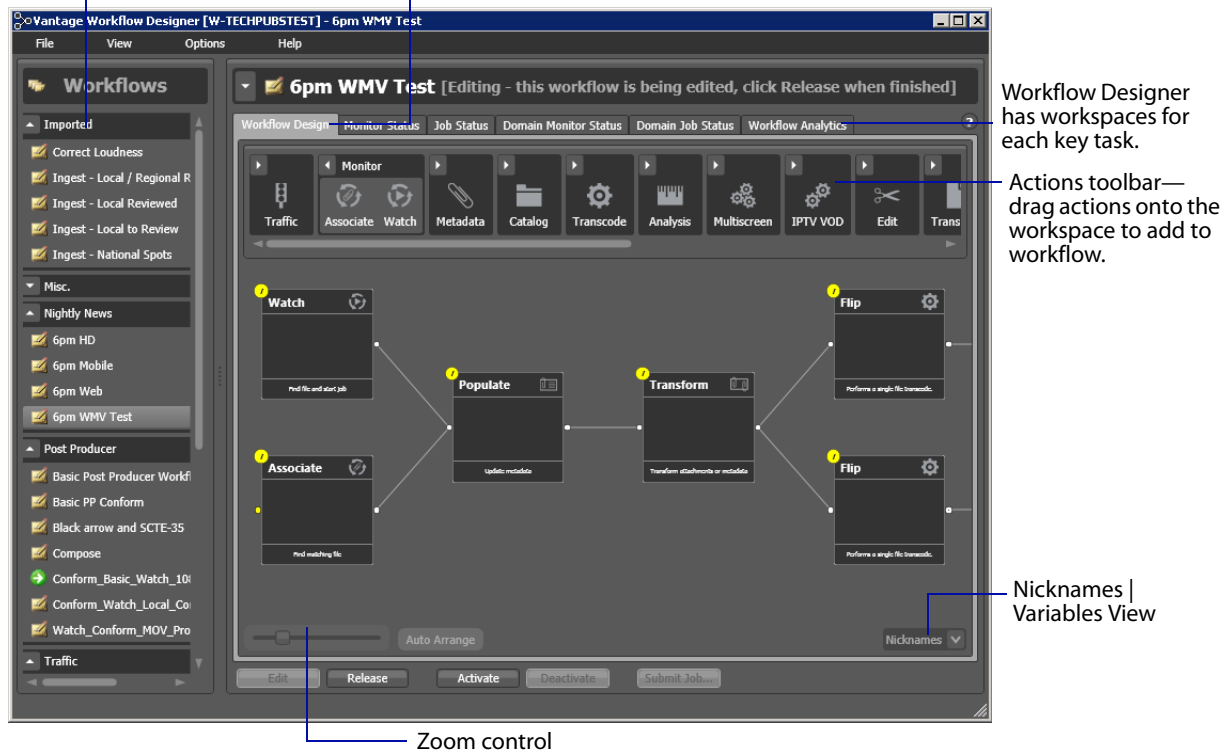
You use the Workflow Design workspace (click the tab or select File > Workflow Design) to view, construct, and configure **workflows**, and activate workflows for **job** processing.

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 83.** Workflow Designer Window, with Typical Workflow

Workflows panel—displays your workflows by category.

Use the Workflow Design workspace to construct and configure workflows.



At the top of the Workflow Design workspace 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

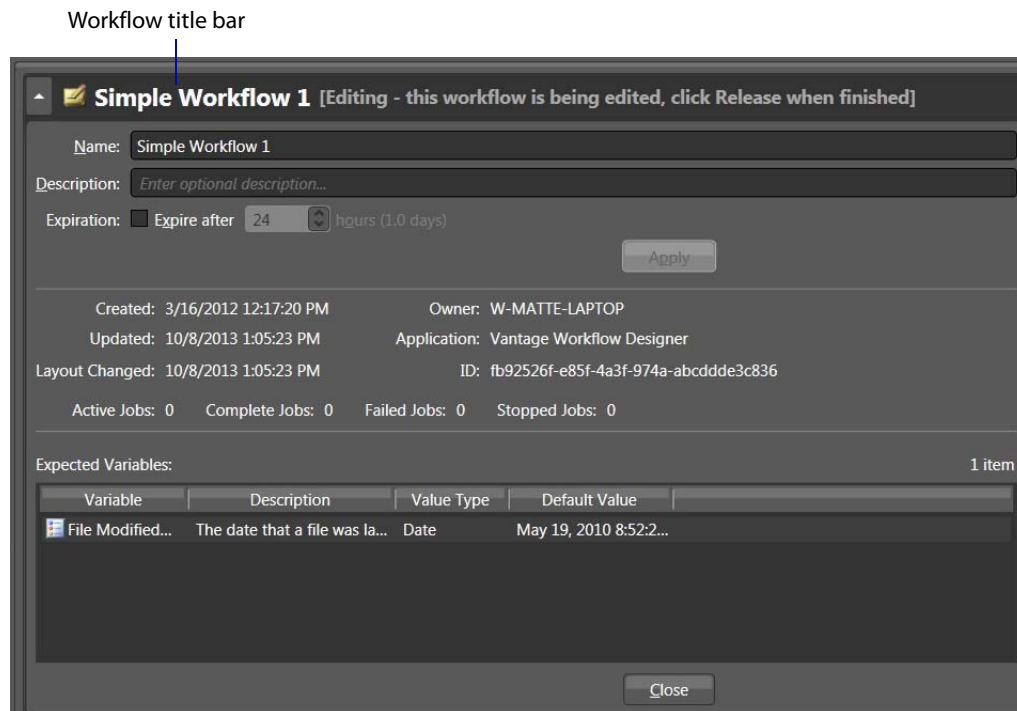
To display or hide the selected workflow's details panel, do one of the following:

- 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 displays details about the selected workflow as shown in [Figure 84](#).

**Figure 84.** Workflow Details Panel, Showing Workflow Title Bar



In the workflow details panel, 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. Details include creation and modification dates, and the workflow's GUID in the database.

---

**Note:** For SDK submission, you can select the GUID and then copy and paste it into other applications as required.

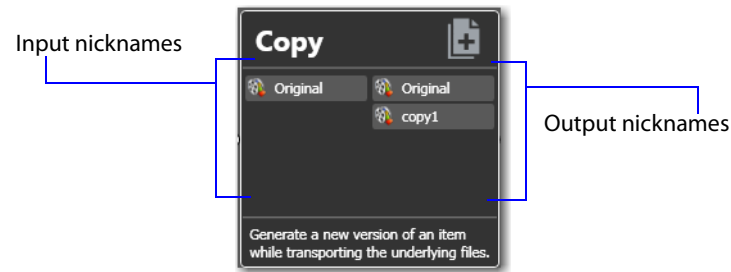
---

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 85.** 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.

---

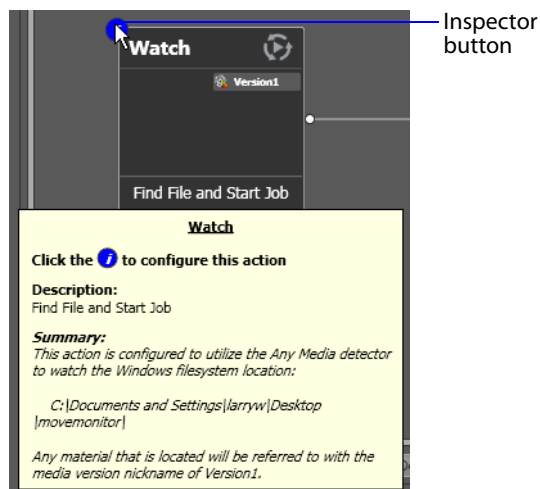
For example, if you configure an action to utilize nickname *Copy7* provided by an earlier action and then delete the action that created *Copy7*, then *Copy7* displays in red on the now-invalid action.

**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 86](#).

**Figure 86.** 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 release it when done.

## Centering a Workflow

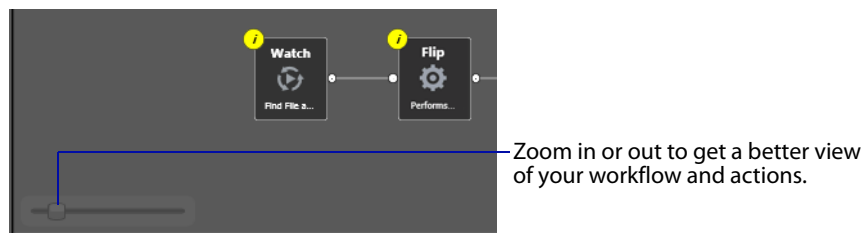
To center a workflow in your workspace, do one of the following:

- 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 87.** 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

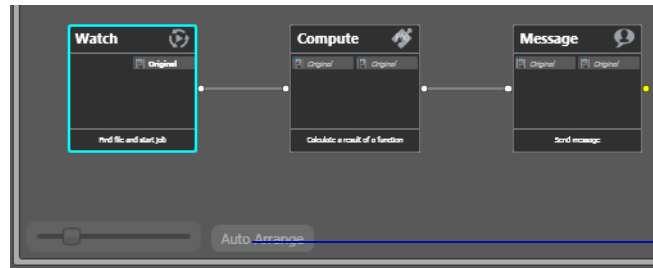
*Zooming Out*—To zoom out on a workflow so you can see more actions, do one of these actions:

- 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 88.** 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 workspace, 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.

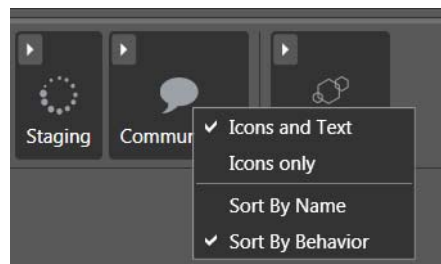
To disable workflow validation, select Options > Auto Validate Workflow. When Auto Validate Workflow is disabled, validation is deferred until you open an action inspector, activate the workflow, or switch workflows. In addition, an orange indicator displays at the bottom of the tab, which you can use 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 89.** 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](#).

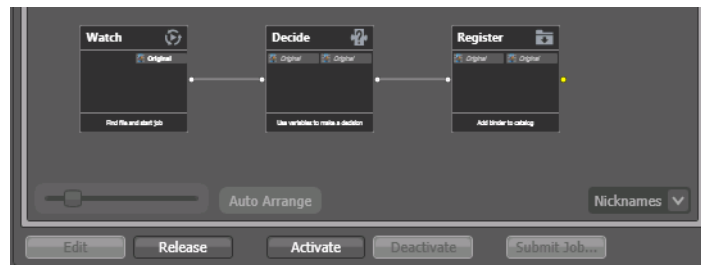
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*On a workflow*—Use this context menu to change the status of the target workflow. You can also perform a variety of operations on the workflow (see [Managing Workflows](#)), or manually submit a [job](#) if the workflow is activated.

## 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 90.** Changing a Workflow's Status



The process of editing and activating workflows is really the process of changing their state. You can place a workflow into an Edit, Idle, or Active state, and administrators can lock a workflow to limit what you can do to it.

Each state has a unique icon (or combination), as shown below, in Table 4, [Workflows States and Icons](#).

---

**Note:** If you are an administrator, you can lock workflows either in an idle or active state 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. Locked workflows can be activated and deactivated even when they are locked. However, they can't be edited or deleted.

---

*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. To edit or release multiple workflows at one time, see [Performing Batch Workflow Operations](#).

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. To edit or release multiple workflows at one time, see [Performing Batch Workflow Operations](#).







*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. To activate or deactivate multiple workflows at one time, see [Performing Batch Workflow Operations](#).

**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. To activate or deactivate multiple workflows at one time, see [Performing Batch Workflow Operations](#).

The table below shows the icon or icons associated with a given workflow state, and provides a general description.

**Table 4.** Workflows States and Icons

| Workflow State                  | Icon  | Description  |
|---------------------------------|---|--|
| Idle                            |    | Indicates that this workflow is not being edited, but it is not running either. To set the idle state, either click the Release button (when editing), or click the Deactivate button (when the workflow is active). |
| Editing                         |    | Indicates that the workflow is being edited by you. To edit a workflow, click the Edit button. When you are editing a workflow, it cannot accept media and others cannot edit it.                                    |
| Active                          |  | Indicates that the workflow's origin action is currently executing and the workflow will accept media and start jobs. When a workflow is active, it cannot be edited.  |
| Editing by other user           |  | Indicates that the workflow is being edited (and thus, owned) by a different user.   |
| Idle, locked by Administrator   |  | The workflow has been idled by the Administrator user. Only the Administrator can unlock it. Administrator-locked workflows can be activated and idled, but not edited.  |
| Active, locked by Administrator |  | The workflow has been activated by the Administrator user. Only the Administrator can unlock it. Administrator-locked workflows can be activated and idled, but not edited.  |

# Managing Workflows

This topic describes how to organize, add, rename, and delete workflows and categories, change their states, 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.

---

- [Managing Workflow Categories](#)
- [Creating a Workflow](#)
- [Renaming a Workflow](#)
- [Deleting a Workflow](#)
- [Moving Workflows Between Categories](#)
- [Duplicating a Workflow](#)
- [Exporting Workflows](#)
- [Importing Workflows](#)
- [Printing Workflows](#)
- [Performing Batch Workflow Operations](#)
- [Upgrading Actions After Upgrading to a New Version](#)

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

---

## 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 performed 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 91](#).

**Figure 91.** 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. 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.

---

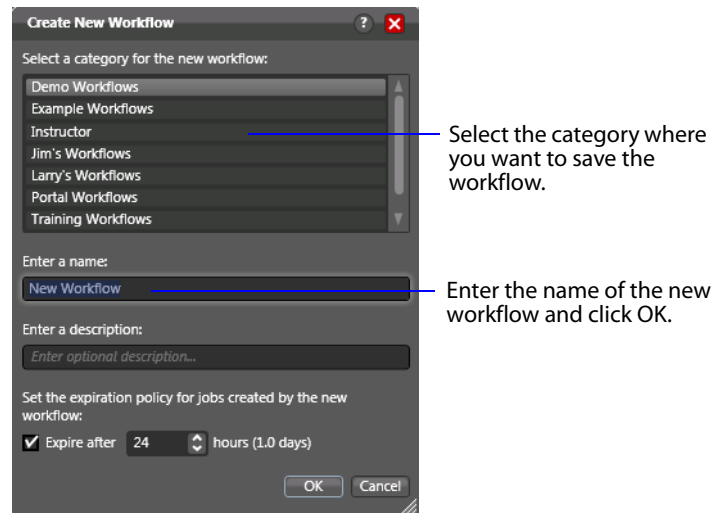
**CAUTION:** This action deletes all workflows in the category, and cannot be undone.

---

## 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 92.** 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 workspace 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.

To delete multiple workflows at one time, see [Performing Batch Workflow Operations](#).

---

**CAUTION:** This action deletes the workflow and its job history, and can't 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 and select Move. Workflow Designer displays a Category dialog. Select the category you want to move the workflow to, and click OK.

To move multiple workflows at one time, see [Performing Batch Workflow Operations](#).

## 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.

## Exporting Workflows

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

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

*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.

*Exporting Workflows by Category*—To export all workflows in a given category, select File > Export Workflows by Category. Workflow Designer displays a dialog with all



categories listed. Check the ones you want to export, and click OK. In the 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 which have been previously exported (as XML files) from this or other domains.

You can import workflows into your domain that have the same name as another workflow in 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. You can't have two workflows of the same name in the same category.

Importing a workflow can create a problem with duplicate variables: The variable already exists, but the imported variable has a different default value. When this happens, the original value remains intact.

---

**Note:** You cannot import a workflow that includes any action whose service is not running in the domain.

---

To import workflows, use any of the following options:

- [Importing Workflows into a Category You Select](#)
- [Importing Workflows by Category](#)
- [Importing Workflows into a Specific Category](#)

### Importing Workflows into a Category You Select

Use this method when you want to select the workflow or workflows, and then select a category or create a new one:

1. Select File > Import Workflows.

Workflow Designer displays a File System dialog.

2. Navigate to the directory where the previously exported workflows are located.
3. Select one or more workflows and click Open.

Workflow Designer displays the Import Workflow Category dialog.

4. Select the category or check Use Folder Name to create a new category and click OK.

Workflow Designer imported the selected workflows into the category.

### Importing Workflows by Category

Use this method when you want to import a category or categories of workflows (for example, when importing all workflows you've exported from another domain). The workflows you are import should be organized into folders, with the folder name being the name of the category you want to use or create.

To import workflows by category, follow these steps:

1. Select File > Import Workflows by Category.

Workflow Designer displays the File System dialog.

2. Navigate to the directory directly above the folders of exported workflows (where each folder is named the same as the workflow category) and click Select Folder.

Workflow Designer displays the Import Workflows by Category dialog.

3. Check each folder that you want to import the workflows from and click OK.

If a category already exists in this domain, the workflows in that folder are imported. If the category does not exist, a category of the folder name will be created, and the workflows imported.

## Importing Workflows into a Specific Category

Use this method when you want to import selected workflows directly into a specific category:

1. Right-click on the category title in the Workflows panel, and select Import Workflows.
2. Navigate to the directory where the previously exported workflows are located.
3. Select one or more workflows and click Open.

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).

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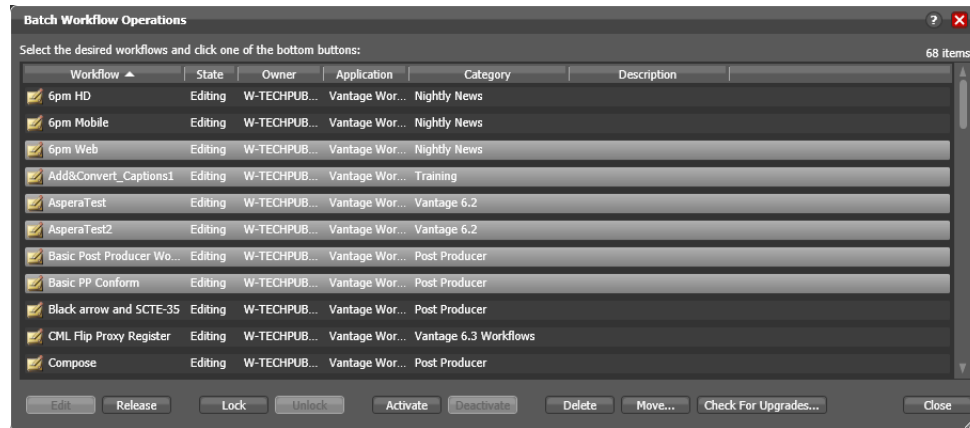
## Printing Workflows

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

You can select multiple workflows and initiate the following tasks: edit/release, lock/unlock, activate/deactivate, delete, move, or upgrade actions.

**Figure 93.** Performing Batch Operations on Selected Workflows



**Note:** This feature is enabled only by users with Administrator privileges.

To change the status of (or operate on) multiple workflows, 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 perform the task.
4. When you're done, click Close.

## Upgrading Actions After Upgrading to a New Version

During a Vantage upgrade (you are converting your domain to a newer version), some actions may have new or modified extensions—for example, a Flip action with an updated WMV encoder, or an Analyze action with a new filter. You can update the copies of these actions in your existing workflows as well, although you are not required to.

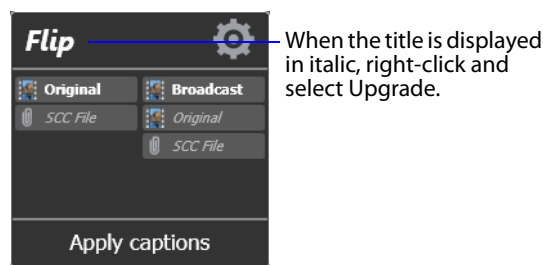
The following actions can be upgraded:

- Traffic
- Monitor
- Transcode

- Analysis
- Multiscreen
- IPTV VOD
- Edit

Actions with only changes to the action itself (a new check box, for example) upgrade automatically, when new versions are installed. When you open a workflow, Workflow Designer, checks to make sure that the actions are current. If not, the action's title displays in italic to indicate that you can upgrade it.

**Figure 94.** Upgrading an Action (Flip Shown as Example)



Right-click the action and select Upgrade to upgrade it. Or, right-click outside of an action and select Upgrade to upgrade all upgradable actions in the workflow. Then, open the inspector and review your configuration, making changes as appropriate, based on the action's new or changed controls.

The Upgrade menu item is hidden when there are no upgrades available (for any actions in the workflow). The Upgrade menu item is grayed out when upgrades are available, but can't be performed now (for example, when the workflow is not editable).

To upgrade multiple workflows at one time, see [Performing Batch Workflow Operations](#).

---

**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 creating 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

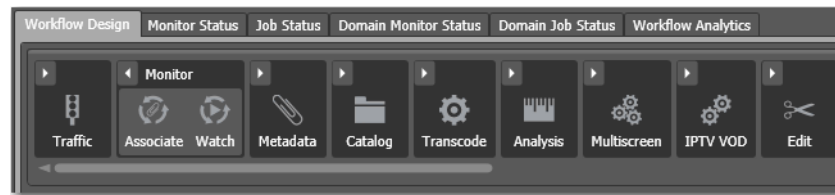
There are several ways to add actions to a workflow, depending on the situation.

*New action*—to add an un-configured action, open the appropriate category in the Actions toolbar and drag the desired action onto the design area. When you drag an action from the toolbar, it 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 95.** Opening a 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. To select multiple actions, control-click and drag across the desired actions in the design work space.

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

To paste an action's *configuration* into an action of the same type, right-click and select Paste—this configures 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, it's 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 executes, the [origin action](#) (at the far left) executes first to start the [job](#), and each action following the previous action executes 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.

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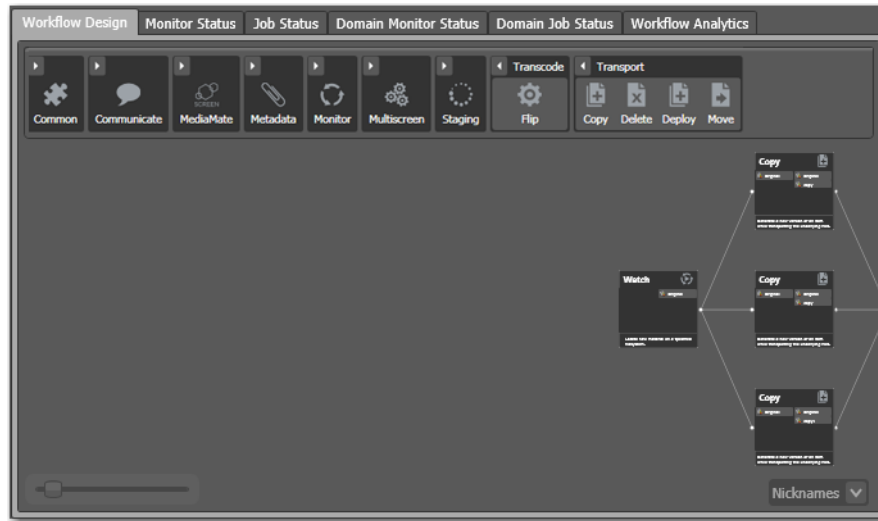
**Note:** When you connect actions by clicking and dragging a connection, Workflow Designer can display a popup message that provides connection details. To enable or disable this feature, select Options > Show Connection Helper.

---

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.

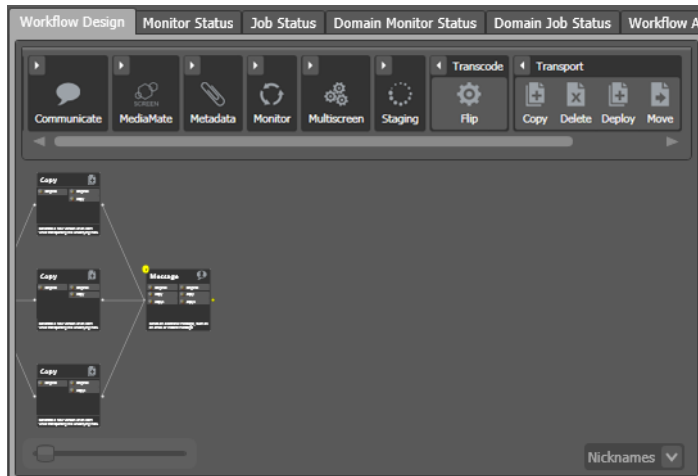
**Figure 96.** Multiple Actions Can Branch From a Common Action



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.

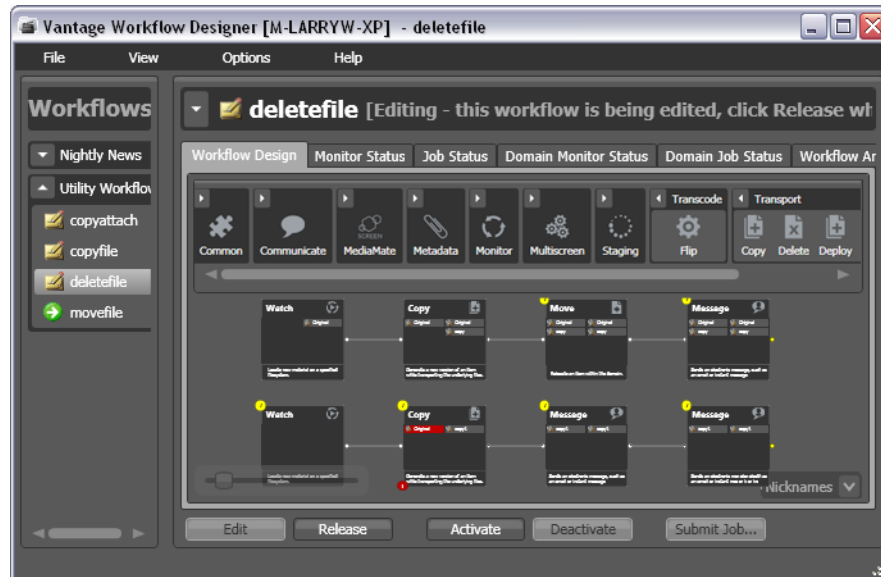
**Figure 97.** Multiple Action Branches Precede a Common Action



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 98.** 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 legitimate workflow, it is an unusual configuration. Typically, two completely independent processes 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, control-click each additional action or control-click and drag across them in the design work space. 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 or more of the actions up or down in the design area to the location where you want it. To select multiple actions, control-click each additional action or control-click and drag across them in the design work space. Workflow Designer adjusts the other actions to accommodate the manual placement of the other [action](#).

# Configuring Actions and Specifying Action Settings

The following topics describe how to configure actions, and specify action settings. These settings are all accessed by right-clicking the action and selecting the setting from the context menu.

- [Using the Action Inspector](#)
- [Setting Conditional Action Execution](#)
- [Adding Variables to an Action](#)
- [Binding Settings to a Variable](#)
- [Configuring an Action's Run On Rules](#)
- [Configuring an Action's Fallback Rules](#)
- [Specifying Retry Rule Settings](#)
- [Modifying Resource Costs for Cost-Based Task Balancing](#)
- [Generating Execution Metrics](#)
- [Changing Action Descriptions](#)
- [Creating Action Templates](#)
- [Exporting a Flip Action](#)

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**Note:** Not all actions provide each of these settings.

---

## Using the Action Inspector

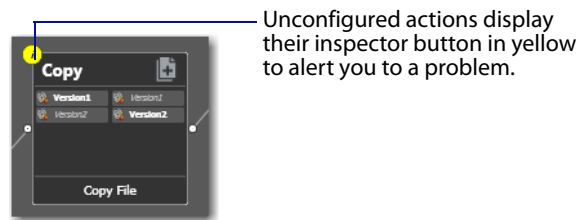
Each [action](#) (except the [Synchronize action](#)) has an action [Inspector](#)—a series of one or more dialogs—which you use to configure the action to perform its task in a particular way.

- [Displaying the Inspector](#)
- [Using the Filename Pattern Editor](#)

### Displaying the Inspector

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**.

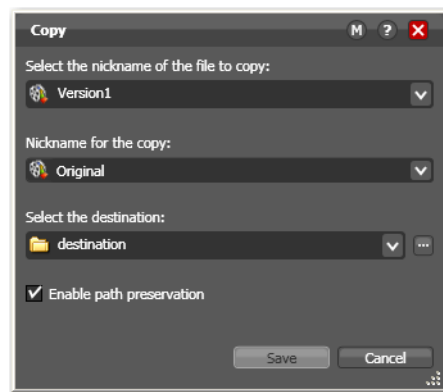
**Figure 99.** Action Inspector Button



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 100](#)).

**Figure 100.** 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*.

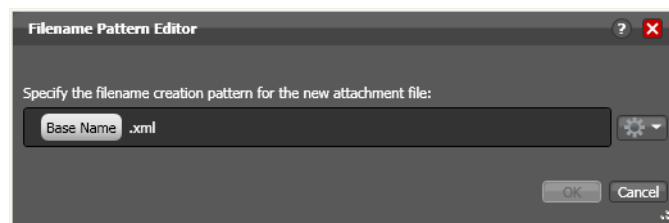
Detailed help is available on each panel in the inspector: Click the M button to display its man page or click the ? button to display this topic in the *Vantage User's Guide*.

## 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 101.** 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, variable (select your variable), date, and time.

---

**Note:** In Transform 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*.

---

## Setting Conditional Action Execution

You can configure most [actions](#) to only execute when the upstream action or actions pass a specific [action state](#) to the downstream action. You cannot test action states and set conditional execution in [origin actions](#)—Watch, Receive, Dublist, and Workorder, for example.

- [Action States](#)
- [Setting The Execution Action State](#)

### Action States

The [action state](#) describes the condition of an action during execution or after completion. During execution, an action may be in a variety of states (for a detailed list, see the jobs table's [State Column](#)). These keywords display in the Job Status workspace.

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 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.

### Setting The Execution Action State

To set the conditions (states) 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.

## 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.

- [Understanding Variables](#)
- [Adding Variables](#)
- [Creating New Variables](#)

### 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 creates a given variable, all downstream actions that use variables can access the variable and its current value.

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](#).

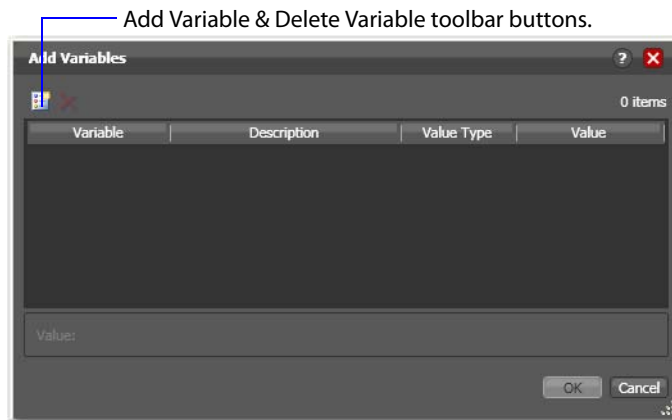
When a variable is set to a specific value, that variable value is only available to actions within the same branch as the one that set the variable and actions in downstream branches.

**Note:** If two branches merge to a [common action](#), and both have set a value for the same variable, then the last upstream action to finish executing will set the variable for the common action. The last action to finish can not be known from job to job.

## Adding Variables

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

**Figure 102.** 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 103.** 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](#).

---

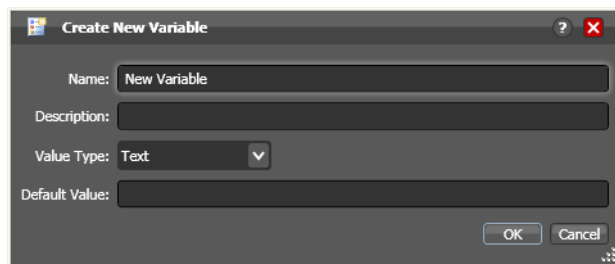
Next, with the variable selected, modify its default static value if necessary, and click OK to add it to the variable for use in the workflow.

## 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 104](#)).

**Figure 104.** Create New Variables Dialog

The image shows a 'Create New Variable' dialog box. It has a title bar with a question mark and a close button. The dialog contains four text input fields: 'Name' (with 'New Variable' entered), 'Description', 'Value Type' (a dropdown menu currently showing 'Text'), and 'Default Value'. At the bottom right, there are 'OK' and 'Cancel' buttons.

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.

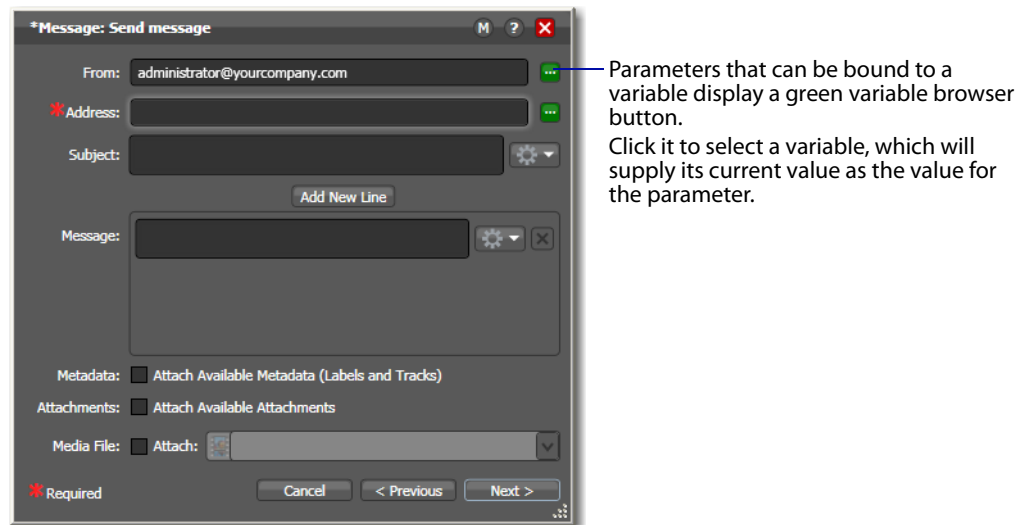
However, many **actions** also have settings whose values change from job to job—and thus, must be assigned a value when the job runs—typically, based on the media being processed.

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.

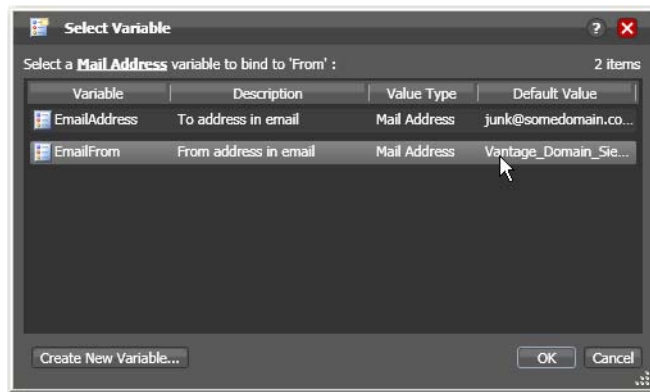
Settings that can be bound to a variable display a green variable browser button.

**Figure 105.** Message Action Inspector—Bindable Parameters



Click the variable browser button to display the Select Variable dialog (Figure 106).

**Figure 106.** 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.

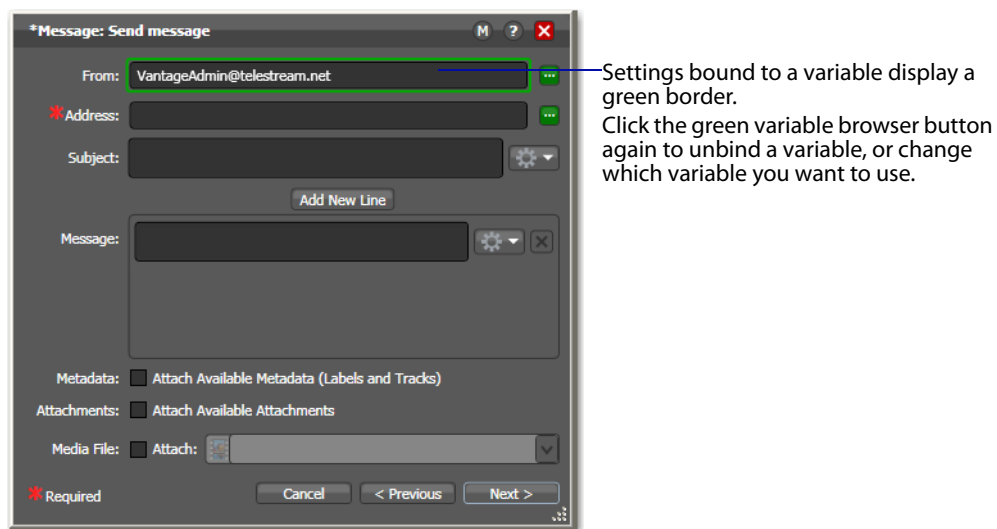
Select the variable to bind to this parameter, and click OK.

---

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

---

**Figure 107.** 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 or characteristics 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](#).

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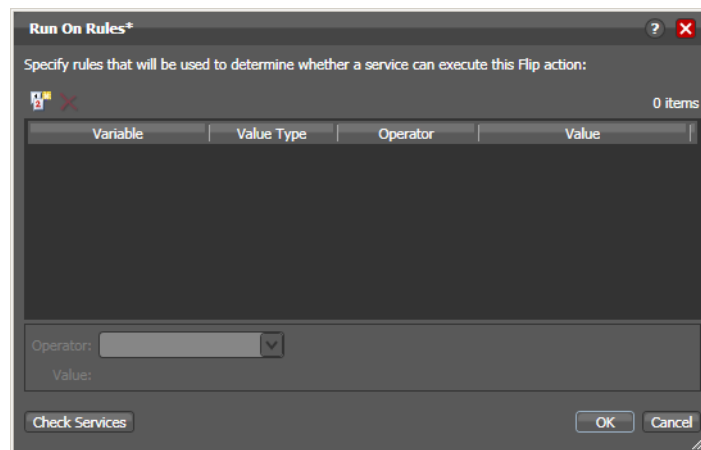
Run on rules provide you explicit control over which service can execute a particular action in a given workflow.

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, it's a server named *Vantage\_HD\_Transcoder*.

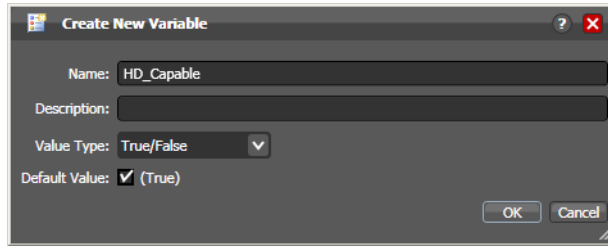
In Workflow Designer, open your HD workflow, right-click on your Flip action and select Run On Rules to display the Run On Rules dialog.

**Figure 108.** 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 109.** 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.

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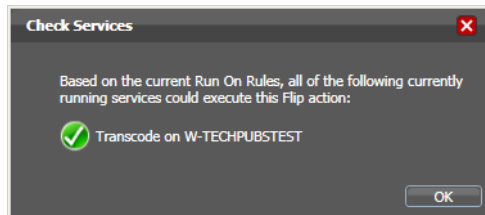
**Note:** When a variable is added to a service, that variable is added to the job if the service executes it. Be careful about which variables you use for [run on rules](#), and which are used for decision-making; generally you will want to use different variables. Run on rules *only* analyze variables 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 110.** Check Services Dialog





## Configuring an Action's Fallback Rules

Actions that have been configured to utilize the [Lightspeed Server](#) (for example, by selecting the Lightspeed Accelerated VPL), by default, will use the Legacy Telestream VPL when:

- No services are available to run the Lightspeed Accelerated VPL.
- The queue length of jobs waiting for Lightspeed Servers is larger than a configurable number. This setting is available only to customers who have purchased the Advanced Task Scheduling option.

To enable Lightspeed fallback rules, right-click on the action and select Fallback Rules to display the Fallback Rules dialog.

Check the Fallback if Queue Greater than option, and select the maximum number of actions already in queue you will accept, before running this action on a capable service running on a standard Vantage server. The rule will be activated if every capable service has a queue length greater than the number you have selected.

## Specifying Retry Rule Settings

Certain actions (typically, those that deal 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 parameters, called [retry rules](#).

**Table 5.** Actions with Retry Rules

|           |                 |                  |
|-----------|-----------------|------------------|
| Archive   | Delete          | Message          |
| Associate | Deploy          | Move             |
| Compare   | Examine         | Multiscreen Flip |
| Compose   | Faspex Delivery | IPTV Flip        |
| Conform   | Flip            | Notify           |
| Copy      | Gather          | Process MMF      |
| Chronicle | Identify        |                  |

### Overview

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.

Each time an action is executed, it is handled according to task 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.

### Configuration Details

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

**Figure 111.** Automated Retry Settings Dialog

**Automated Retry Settings\***

Specify the automated retry settings for this action in case of failure:

☐ No Retry

☒ Default  
The current default retry policy for Associate actions is:  
No Retry

☐ Custom Limited Retry

First retry: Delay: 10 seconds Priority: 10

☐ Second retry: Delay: 5 minutes Priority: 10

☐ Third retry: Delay: 1 hours Priority: 10

☐ Custom Recurring Retry

Every retry: Delay: 15 minutes Priority: 0

☐ Stop after 10 iterations

OK Cancel

The dialog in [Figure 111](#) 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 Task Balancing

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

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

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When cost-based task 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 task 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.

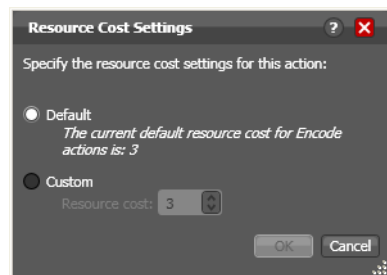
The [resource cost](#) is an integer value that has an ordinal relationship to the other action costs and to a *target resource usage* value defined by the domain administrator. A higher resource cost in an action means that fewer actions can run simultaneously on the same service. A lower resource cost 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 112](#).

**Figure 112.** Resource Cost Settings Dialog



2. Select Default, or select Custom and enter an integer value.

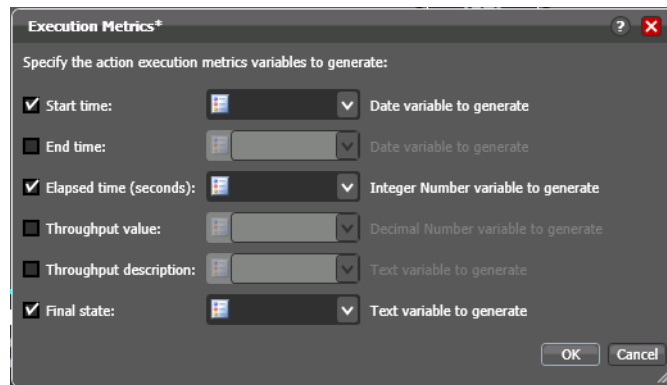
**3.** Click OK to save.

## 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 113.** 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.

## 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 then click away. This text is displayed only when Detailed Action View is enabled in the Workflow Design workspace.

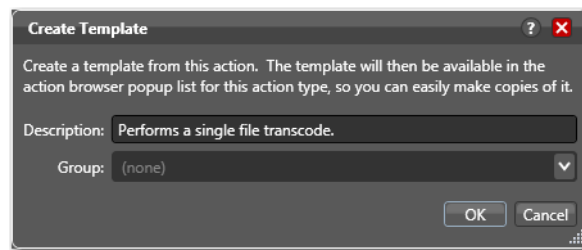
## Creating Action Templates

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 114.** 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.

## 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.

---



# Implementing Processing Logic in Workflows

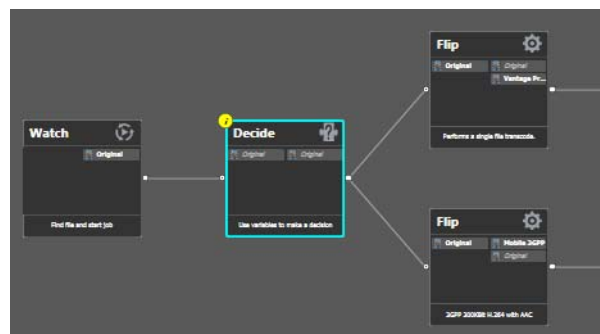
Many workflows consist of several actions connected in a single line—thus, each action is executed, in turn, for the entire workflow.

However, you may want to create branching workflows that are intelligent and flexible, so that they can process media files with differing output requirements automatically. These workflows 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 flow of media through 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 processing choices.

**Figure 115.** 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.

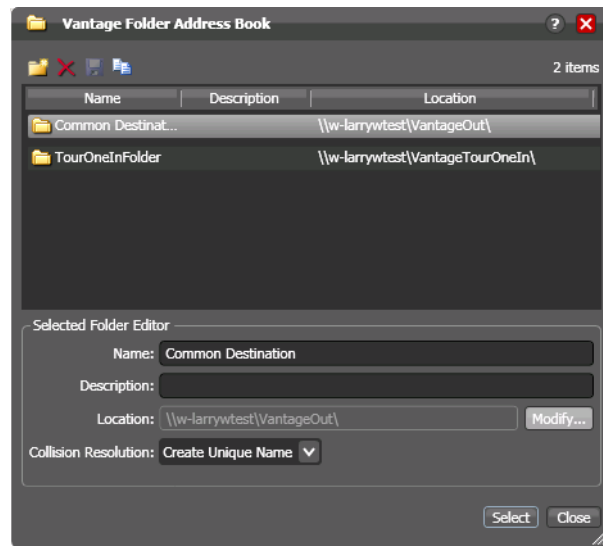
You can create Vantage folders in both the Vantage [Management Console](#) and in Workflow Designer.

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.

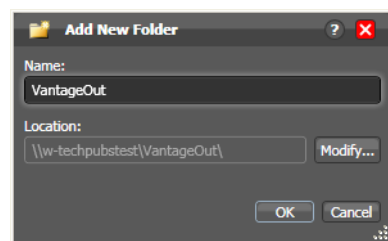
For example, open a Flip action and select Vantage Store/Folder to see a Browse button. Vantage displays the Vantage Folder Address Book (see [Figure 116](#)).

**Figure 116.** Vantage Folder Address Book



2. Click the Add Folder toolbar button (the new folder button at far left).

**Figure 117.** 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.



# Vantage 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.

Some actions require a specific license, and are noted appropriately.

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**Note:** For detailed, implementation-oriented help, open the [Inspector](#) on any action and click the M icon to display its man page.

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- [Agility Actions](#)
- [Analysis Actions](#)
- [Faspex Delivery Action](#)
- [Aurora Action](#)
- [Baton Action](#)
- [Catalog Actions](#)
- [Common Actions](#)
- [Communicate Actions](#)
- [Edit \(Post Producer\) Actions](#)
- [FileCatalyst Action](#)
- [IPTV Flip Action](#)
- [MediaMate Action](#)
- [Metadata Actions](#)
- [Monitor Actions](#)
- [Multiscreen Flip Action](#)
- [Nexidia Action](#)
- [Pulsar Action](#)
- [Signiant Delivery Action](#)
- [Staging Actions](#)
- [Traffic Actions](#)
- [Transcode Flip Action](#)
- [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.

## DPP Validate Action

Use the DPP Validate action to confirm compliance of a DPP metadata XML file. If the XML file passes validation, TRUE is generated; otherwise FALSE is generated. You can test the results of the action downstream to change the workflow's actions based on the validation results. Optionally, you can also generate a report.

## 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 examine and identify certain media characteristics, or 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.

## Faspex Delivery Action

Aspera servers and applications enable secure, high-speed batch file transfers of various file types, including media and metadata files. The Aspera action is an optional, [licensed](#) feature in Vantage; it is used to deliver media or other files to Aspera systems.

The Faspex Delivery action is 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 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 (which by default, deletes the associated binder). 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.

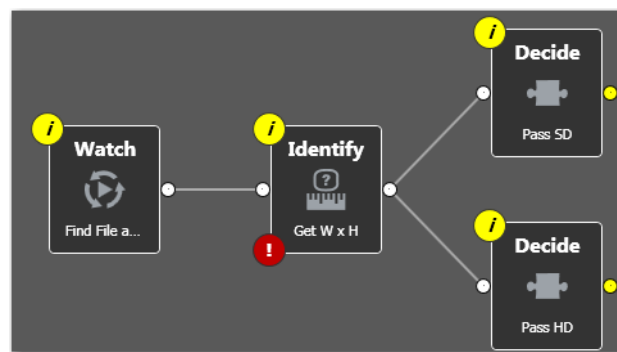
## Construct Action

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 118.** 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

The Receive action is similar to a Watch action in that it starts jobs. Unlike a Watch action, it allows you to ingest a file from an external source and submit it for processing.

Methods you can use to submit jobs to a Receive-based workflow:

- Another workflow
- An SDK-based application
- Workflow Portal
- Drag and drop a file on it.

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.

Other ways to submit media to a Receive-based workflow include manually submission 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 transfers [job](#) information to external systems via Web Services or other methods to transfer data. The job information may also be transferred via an XML file or files of other formats. You can also use the Notify action to invoke a command shell.

The Notify action is extensible, and can communicate with a wide variety of systems or produce various files, including:

- BXF Files
- Dolby DP600
- Dump XML Files
- External Command Shell
- Avid Interplay
- Civolution NexGuard
- SeaChange MVL
- Text/CSV Files
- General Purpose Web Services Notification
- Automation System Files

## 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](#)
- [Colocate Action](#)
- [Compose Action](#)
- [Conform Action](#)

### Chronicle Action

The Chronicle action converts a post-rendered Composition XML file into formats for use in other systems—ad-insertion systems, for example.

### Colocate Action

The Colocate action converts a Composition XML file with non-file-based URLs (for example, Amazon S3) and localizes the media and produces a modified CML file with the URLs converted to the localized file paths.

### Compose Action

The Compose action converts various media descriptor file formats: Anystream AN2, Final Cut Interchange XML, Simplified Avid AAF, QuickTime Reference, Adobe FC7XML, 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 instructions for the output file are all defined in a Composition XML file.

## FileCatalyst Action

The FileCatalyst action is an optional, [licensed](#) feature, which enables Vantage workflows to access and deliver files to FileCatalyst servers via integrated FileCatalyst client software.

## IPTV Flip Action

The IPTV Flip action (in the IPTV Flip category) is included with the Cable / IPTV version of TrafficManager. IPTV transcoding is designed for generating MPEG2 Transport Stream files and meeting multiplexing requirements. The IPTV Flip action is executed by the IPTV VOD Service, which can optionally run on a [Lightspeed Server](#) for GPU-accelerated x264/x265 encoding and video processing.

The IPTV Flip action and IPTV VOD 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 the 64-bit version of 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 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 and Transcode Connect [licenses](#). You can only use style sheets that have been imported into the [database](#); you cannot reference XSL files directly. 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](#)
- [Workorder Action](#)

### Watch Action

A Watch action is an [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.

The Watch action submits a [job](#) to the workflow which it is part of, when:

- A new file is discovered in the target folder
- You manually submit a file to the workflow
- You drag and drop a file on the Watch action 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 Action

An Associate action uses the Monitor Service to poll a target location (a directory, for example) on a device or file system (FTP, network folder, etc.) to discover new files in the context of a job.

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 a job has been submitted. 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.

---



## Workorder Action

A Workorder action is an [origin action](#); it uses the Monitor Service to regularly poll a target Windows directory for new workorder files to process. The Workorder action provides a simple and highly effective method of submitting multiple similar jobs without using the SDK.

A Workorder file is a comma-separated value (CSV) text file containing one or more work orders, or job descriptions. Each row in the CSV file specifies a job, and each column specifies either an input file or variable value. Workorder file configurations are specified in the Domain Management Console. At least one workorder scheme must be created in order to use a Workorder action.

When a new CSV file is discovered, the Workorder action submits one job for each row in the CSV file.

## Multiscreen Flip Action

The Multiscreen Flip action 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.

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.

## Nexidia Action

The Nexidia action is an optional, licensed feature in Vantage. It uses the Vantage Nexidia Service to interact with Nexidia QC servers running Nexidia QC software. The specified input files are passed to the Nexidia QC software where they are analyzed using the test profile selected.

## Pulsar Action

The Pulsar action is an optional, [licensed](#) feature which enables broadcasters to integrate the Pulsar suite of content verification components directly in Vantage workflows.

## 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. The Gather action is only enabled with the optional, licensed Metadata option.

### Gather Action

Use the Gather action to collect one or more files from a specified server and directory (and optionally, its sub-folders), and bring them into the workflow as [attachments](#). Use of a file matching pattern allows you to select only certain types of files. The Gather action is only enabled with the optional, licensed Metadata option.

# 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.

The Catch action submits a [job](#) to the workflow which it is part of, when:

- A new file is discovered in the target folder.
- You manually submit a file to 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.

---

## Dublist Action

Use the Dublist action (an [origin action](#)) to perform dublist processing in TrafficManager workflows. The Dublist action is part of TrafficManager, an optional, licensed feature of Vantage.

In the Dublist action's inspector, you can select a dublist system or server as the target, and configure the action to monitor it for new dublists, which it resolves with the standing dublist.

The Dublist action submits a [job](#) to the workflow which it is part of, when:

- A new file is discovered in the target folder
- You manually submit a file to 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.

---

The Dublist action uses the [binder](#) name as the unique identifier for the commercial, so it should be set to the Ad ID.

## Transcode 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 submit jobs, monitor workflows, and manage jobs in Workflow Designer.

- [Submitting Jobs to Workflows](#)
- [Checking Workflow Activation Status & History](#)
- [Monitoring and Managing Jobs](#)
- [Creating Job Reports](#)
- [Managing Job Report Formats](#)
- [Viewing Binders](#)
- [Controlling Action Execution in Jobs](#)
- [Viewing Action Status](#)

---

**Note:** In addition to submitting jobs in Workflow Designer, you can also submit jobs by dropping media files into target directories, or by using the Dublist Portal and the Workflow Portal clients. You can also submit jobs from other programs using the Vantage SDK.

---

---

**Note:** You can also monitor and manage jobs using the Job Status Views Web application. See [Using the Job Status Views Web Application](#).

---

## Submitting Jobs to Workflows

This topic discusses the various methods used to submit media or other files to Vantage workflows. You can submit jobs in the following ways:

- Directly in Workflow Designer using various methods. See [Submitting Files Manually in Workflow Designer](#), below.
- By adding files to monitored directories on supported platforms.
- By submitting a workorder file to a Workorder-based workflow.
- Using Workflow Portal and the Workflow Portal Web Application. See [Using Workflow Portal](#).
- From Dublist Portal. See the TrafficManager User's Guide.
- From the Transcode Web Application. See [Using Vantage Transcode](#).
- From third-part or custom programs using the Vantage SDK.

## Submitting Files Manually in Workflow Designer

To submit files manually to a workflow for processing directly in Workflow Designer (which starts a new [job](#) for each file submitted), do one of the following:

- Drag and drop the selected file or files from a Windows Explorer directory directly onto the [origin action](#) of the target workflow. See [Submitting Files via Drag and Drop](#).
- Select the workflow and click the Submit Job button to submit one or more files. See [Submitting Files via the Submit Button](#).

---

**Note:** The file you are submitting doesn't have to be a media file; though it usually is. You can manually submit any file that the workflow can process. It might be some form of XML (metadata, for example). Or, it might be a workorder file for a [Workorder action](#) workflow, for submitting several jobs at once. It might be some other form of file, based on your workflow.

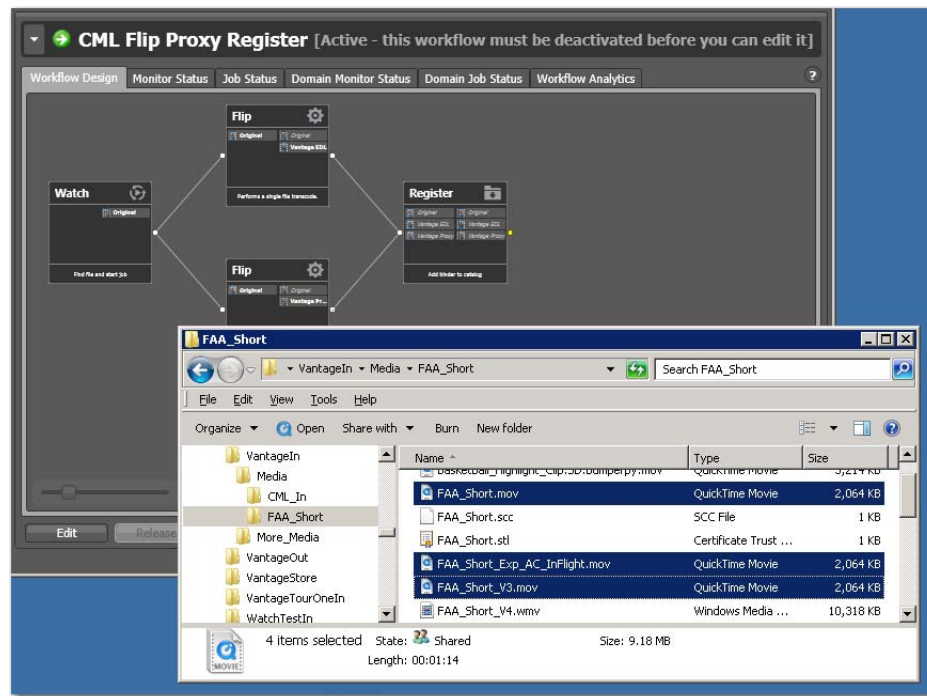
---

## Submitting Files via Drag and Drop

To submit files for processing using drag and drop, follow these steps:

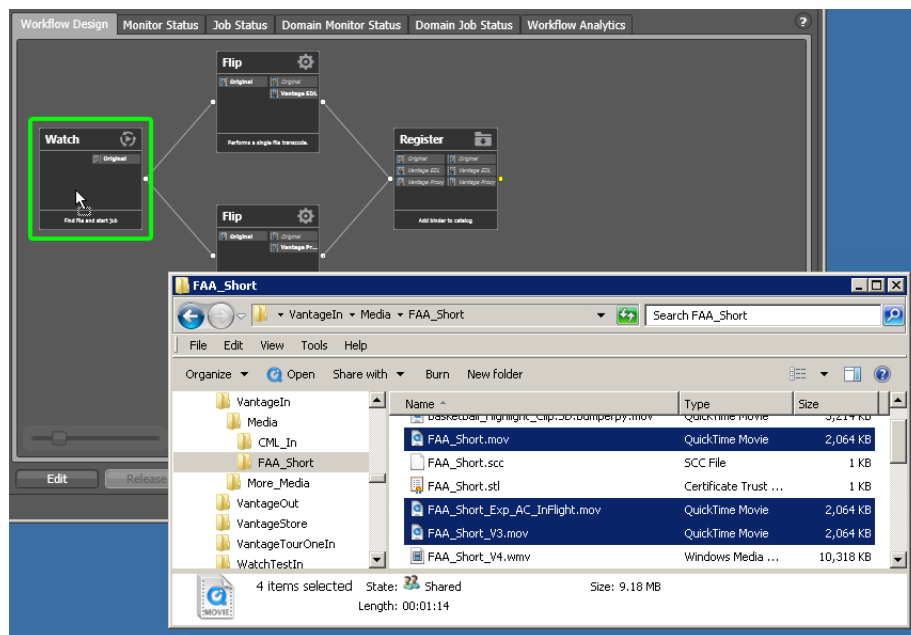
1. In Workflow Designer, select the target (active) workflow and display it in the Workflow Design workspace.
2. In Windows Explorer, navigate to the directory where the file or files that you want to process are stored.
3. Select one or more files and drag them over the origin action in the workflow.

**Figure 119.** Submitting Media via Drag and Drop



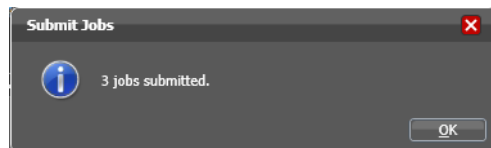
4. When the origin action highlights (displays a bright green border), drop them onto the action to submit them for processing.

**Figure 120.** The Origin Action Highlights to Indicate that you can Drop the Files



Vantage displays a confirmation dialog when all jobs have been submitted:

**Figure 121.** Job Submission Confirmation



Click OK to dismiss the dialog, and display the Job Status workspace to track your jobs.

## Submitting Files via the Submit Button

To submit a file to an activated workflow manually, follow these steps:

1. Select the target (activated) workflow in the Workflows panel.
2. Click the Submit Job button as shown below.

**Figure 122.** Using the Submit Job Button to Manually Submit Files

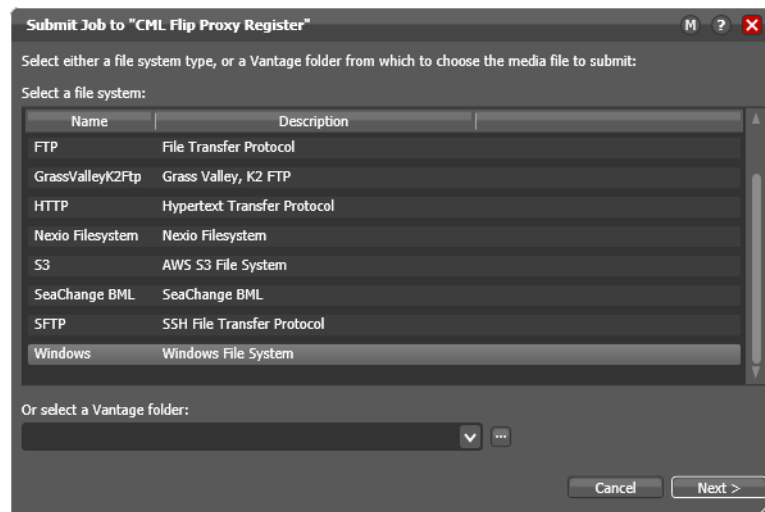


In a multiple origin action workflow, Workflow Designer displays a dialog that lists the origin actions.

3. Select the action you want to start the job, then click Next to continue.

Workflow Designer displays the Submit Job dialog:

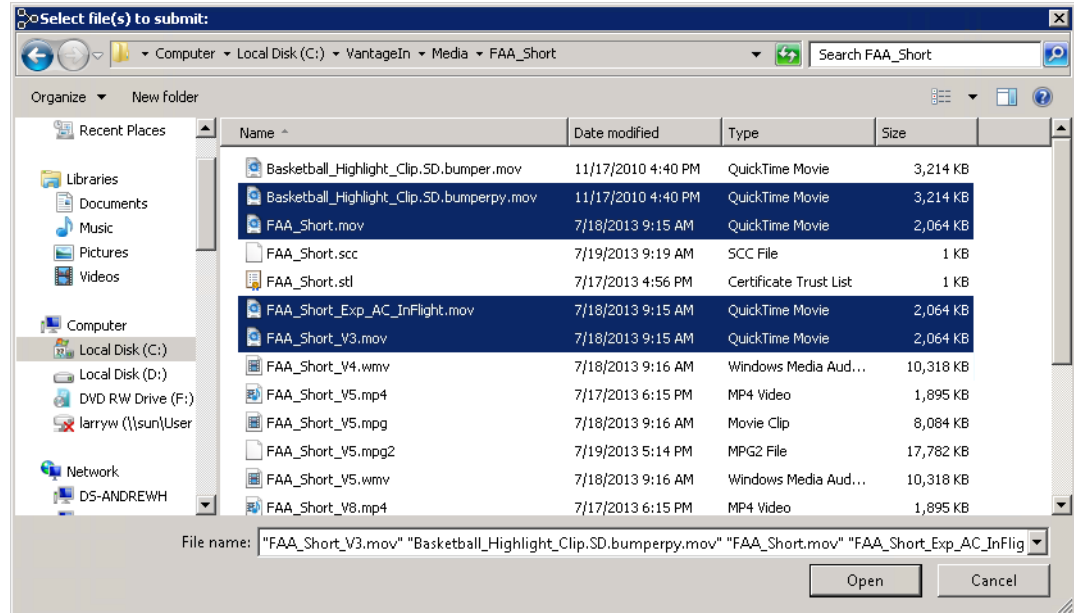
**Figure 123.** Submit Job Dialog's File System Selector Panel



4. Select the type of file system (or a Vantage folder) where the input file or files are stored, and click Next.

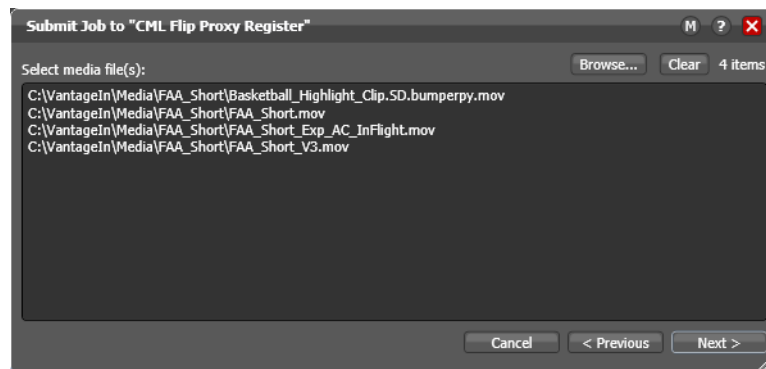
Workflow Designer displays the Windows Explorer window:

**Figure 124.** Selecting Media Files to Submit



5. Navigate to the server and directory, and select one or more directories and/or files for processing and click Open. Click Browse to add more files or click Clear to start over. As you select files, they are added to the list:

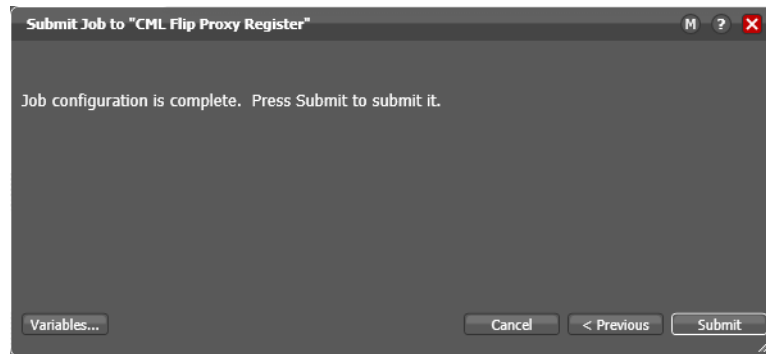
**Figure 125.** Submit Job Window, with Selected Media Files





6. When the list is correct and you're ready to submit them, click Next.

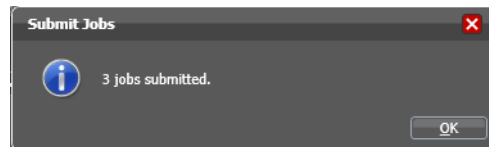
**Figure 126.** Submit Job Dialog, with Variables and Submit Buttons



7. Optionally, click Variables to manually add a variable with a static value to this [job](#). For details, see [Adding Variables to an Action](#).
8. Click Submit to submit the file(s) for processing.

Vantage displays a confirmation dialog when all jobs have been submitted:

**Figure 127.** Job Submission Confirmation



When you have submitted the job(s), you can view their progress in the Job Status workspace (see [Monitoring and Managing Jobs](#)).

## Checking Workflow Activation Status & History

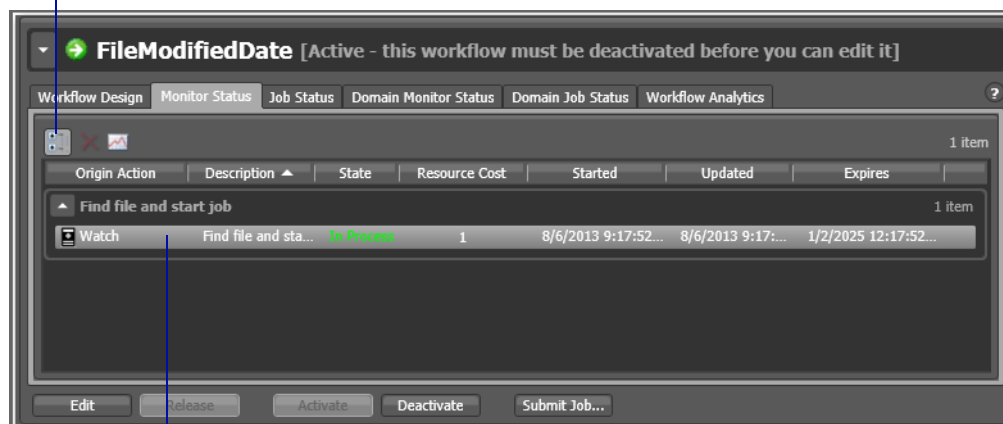
To check on the status and activity history of your workflows, use one of these tabs:

- Select a workflow and click the Monitor Status tab (or select File > Monitor Status).
- Click the Domain Monitor Status tab (or select File > Domain Monitor Status).

The Monitor Status workspaces are useful when you're performing operator-related tasks or when you're managing or performing domain-wide production media processing. The only difference between the two tabs is one of scope.

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 (for example, Watch actions) in the selected workflow, and indicates its current status.

**Figure 128.** Monitor Status Displays Activation Records for the Selected Workflow  
Monitor Status toolbar



Each row is an active origin action, indicating status and other details.

The Domain Monitor Status tab displays all of the monitors currently executing in the entire domain. Because the Domain Monitor Status tab displays all monitors in the domain, it also displays two additional columns of information not found in the Monitor Status tab: Workflow and Category.

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 Monitor Status Toolbar](#)
- [Viewing Origin Action Record Details](#)

## Using the Monitor Status Toolbar

The Monitor Status workspace provides the following buttons in the toolbar:

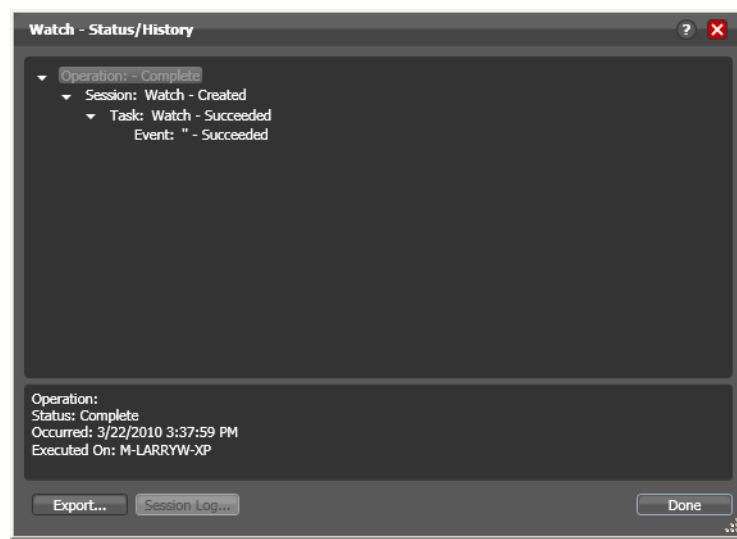
- Show in groups button —Click to organize records for the selected [action](#) by group, based on the primary column—the one selected. Click again to turn grouping off. For example, if you select State as the primary field in the table and display Groups, Workflow Designer sorts the records by state: 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 (the first) action for the selected workflow, double-click the row (or select a row and click the Status button ).

The Status/History dialog ([Figure 129](#) and [Figure 130](#)) provides details about the status of the [origin action](#).

**Figure 129.** Status/History Dialog, Showing Completed Action Status



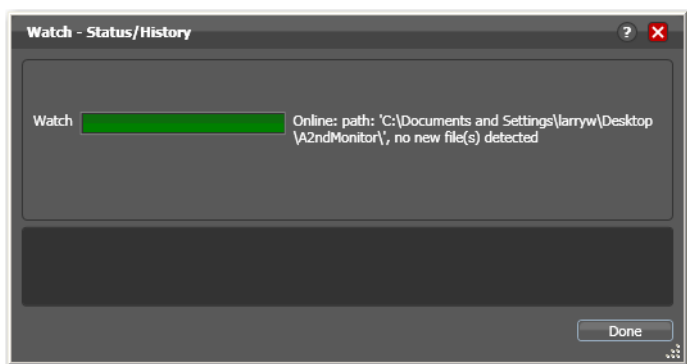
When an action is complete, the Status/History dialog displays information on each aspect of the action's execution. You can use this information to review details about its execution, and when an action fails, you can use this information to determine why and correct the problem.

The text 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.

Click the symbol to the left of the summary lines in the upper panel 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.

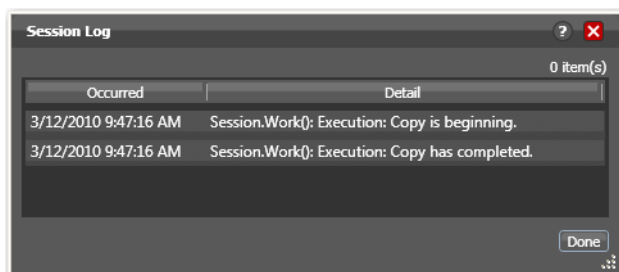
**Figure 130.** Status/History Dialog, Showing In-Process Action Status



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 131.** 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](#), display one of these two workspaces:

- Select a workflow and click the Job Status tab (or click File > Job Status)
- Click the Domain Job Status tab (File > Domain Job Status).

The Job Status and Domain Job Status workspaces each display a list of jobs and provide job details. Use these workspaces to monitor media processing, set priorities, view [binders](#) and associated files, and to pause and resume jobs in progress.

---

**Note:** When the Include Completed Jobs option is enabled in the Console (under Settings & Options), these tables also display all jobs that have completed.

---

These workspaces are useful when you're performing operator-related tasks, or when you're managing or performing domain-wide production media processing. The only difference between the two tabs is one of scope.

The Job Status workspace allows you to select a workflow in your user account and display all of this workflow's jobs. The Domain Job Status workspace displays all the jobs currently executing in the domain, plus all completed jobs.

**Figure 132.** Job Status Workspace

Job Status toolbar

Real-time view of transaction processing.

| Job               | State    | Progress | Started              | Updated              |             |
|-------------------|----------|----------|----------------------|----------------------|-------------|
| CRR_mpeg-ac3.wmv  | Complete |          | 6/7/2013 12:56:49 PM | 6/7/2013 12:56:58 PM | 6/8/2013 12 |
| CRR2_mpeg-ac3.wmv | Failed   |          | 6/7/2013 12:59:59 PM | 6/7/2013 1:02:01 PM  | 6/8/2013 1  |

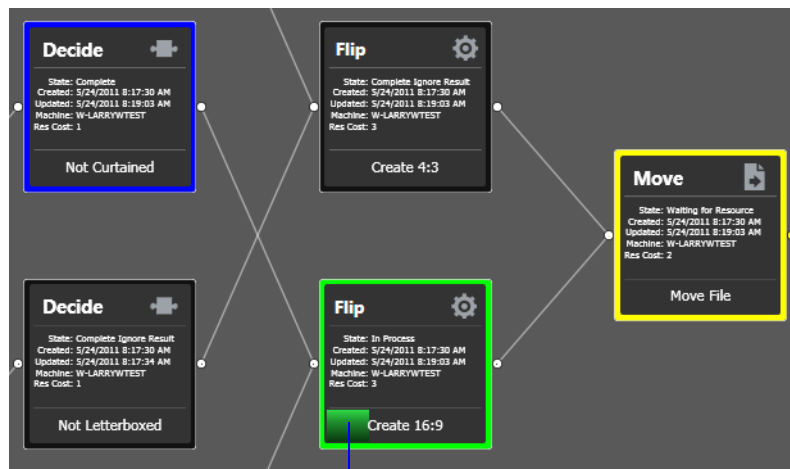
Each row is a job processed by the selected workflow, indicating status and other details.

Because the Domain Job Status workspace displays all of the jobs in the domain, the Jobs table also displays two additional columns of information not found in the Job

Status workspace: Workflow and Category. It also displays an Emergency Stop button in the bottom right-corner. For details, see [Stopping All Jobs in the Domain](#).

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. This indicator provides a relatively accurate prediction of how far along the total execution has progressed.

**Figure 133.** During Execution, each Action Displays a Progress Bar



The progress bar indicates progress for this action.

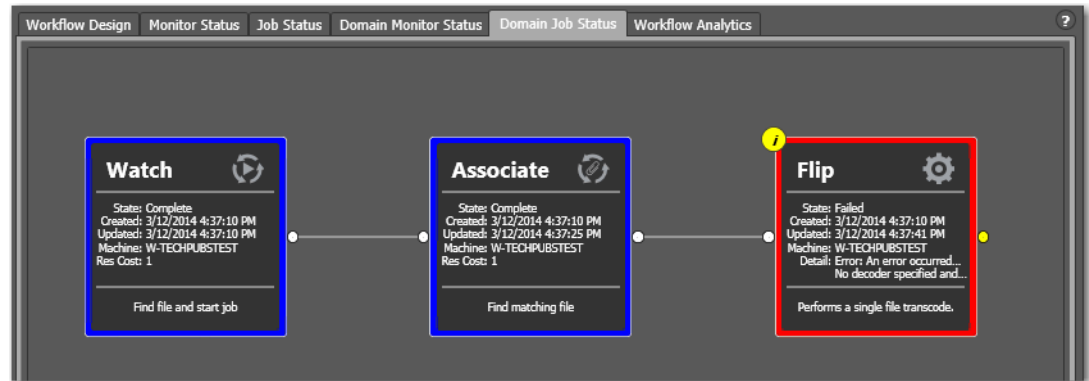
The following topics provide additional information for using the job status workspaces:

- [Viewing Actions in Detailed Action View](#)
- [Using the Jobs Table](#)
- [Using the Job Status Table's Toolbar and Context Menu](#)
- [Stopping All Jobs in the Domain](#)

## Viewing Actions in 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.

**Figure 134.** Actions, Displayed in Detailed View



## 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.

### Job Column

The Job column displays the name of the file submitted to start the job, and the type of submission: *Manual Submit*, for example.

### Workflow Column (Domain Job Status Only)

The Workflow column displays the name of the workflow that is processing or has processed this job.

### Category Column (Domain Job Status Only)

The Category column displays the category of the workflow.

### State Column

The state column displays color-coded key words to identify the status of the job.

- *Green*—In Process. The action is currently executing.
- *Blue*—Complete. The action completed successfully.
- *Red*—Failed. This action has failed or an upstream action failed.
- *Black*—Ignored. This action was not executed due to Perform On state mismatch.
- *Light Gray*—Paused or Suspended. An action is paused or suspended.
- *Magenta*—Stopped by User. An action was stopped by a user.
- *Orange*—Waiting to Retry. An action failed and is waiting to re-execute the action.
- *Purple*—Waiting for a Service. No service of the required type is running that can execute the action. For example, no Transcode Service is running and the Flip action is purple.
- *Light Green*—Waiting due to a run on rule that must be satisfied. For example, a Flip action requires a Lightspeed server, but no Lightspeed servers are present.
- *White*—The action is waiting to be assigned to a service. Upstream actions have not yet completed execution.
- *Yellow*—Waiting execution, because even though the action has been accepted by a service, there is no slot in which to run the action. Note that when an action is waiting to execute, it may be re-assigned to another service which can execute it.

---

**Note:** At any time before an action starts executing, it may be re-assigned (re-balanced) to another service which can execute it.

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*.

---

## Progress Column

The information displayed in the Progress column depends on the Detailed Job Progress setting in the Vantage Management Console.

If Detailed Job Progress is disabled, the Progress column displays the percentage of actions that are complete at the moment. For example, if you have a 10 action workflow and the 4th action is currently executing, Vantage will report the workflow as 30% complete.

If Detailed Job Progress is enabled, the progress column displays a percentage value of the current amount of time consumed compared to the total estimated time for the job to complete. Using the job's start time to determine how long the job has been executing, you can use the progress percentage to extrapolate the approximate completion time, assuming the load on the domain remains relatively constant.

---

**Note:** To change the Detailed Job Progress setting in the Vantage Management Console, start the console and click on Settings & Options > General Tab to set the Detailed Job Progress check box.

---

## Started Column

The Started column displays the time the job started by date and time.

## Updated Column

The Updated column displays the last time the job record was updated (typically, when the job ended) by date and time.











## Expires Column

The Expires column displays the time the job expires, and will be removed from the database (along with its binder). To change the expiration period for a workflow, select it and click on the title to display its detail panel, where the Expiration period is displayed. See [Viewing and Specifying Workflow Details](#).

## Using the Job Status Table's Toolbar and Context Menu

The toolbar and context menu provide a variety of commands for managing jobs. The toolbar is displayed directly above the table.

The context menu has the same set of commands, with the exception of the Jobs Filter button (at far right in the toolbar), which is not specific to the selected job. To display the context menu, right-click on any job in the table.

- *Show in groups* —Organizes [jobs](#) by group, based on the primary column—the one you have selected. Click again to turn grouping off.
- *Stop* —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* —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 expiration* —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* —Deletes the selected job row(s). Or, right-click and select Delete.
- *View Binder* —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](#).
- *View Job Errors* —Displays details about errors encountered in the job.
- *Job Report* —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* —This button only displays in the Domain Job Status workspace. To jump directly to the workflow for this job, select a job in the table and click the button.
- *Jobs Filter* —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.

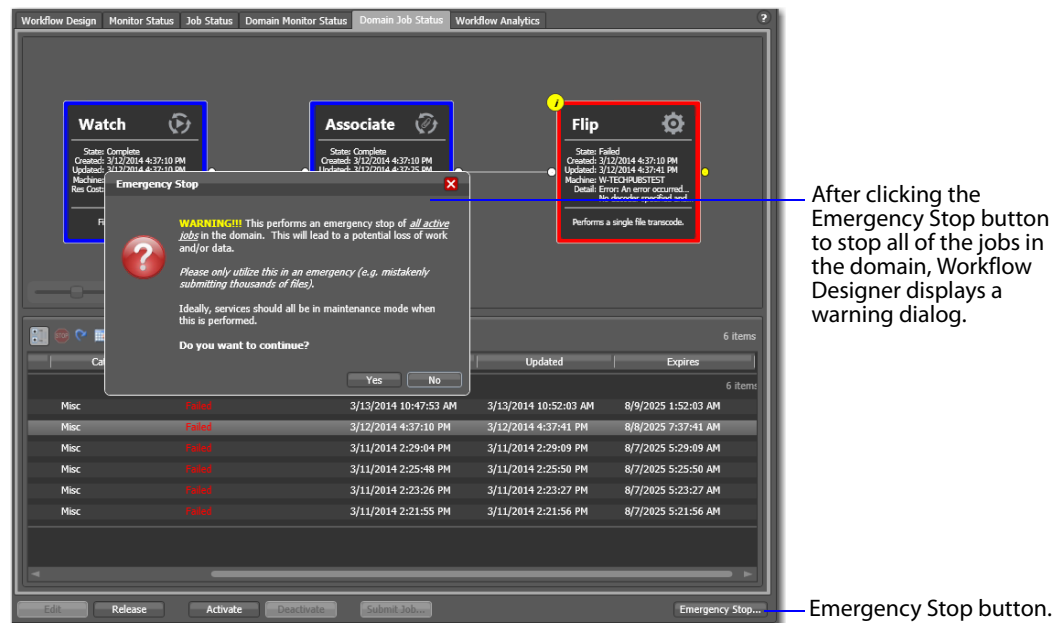
## Stopping All Jobs in the Domain

If you get in a situation where you need to immediately stop all running and queued jobs in the domain, you can use the Emergency Stop button, which is located in the bottom right corner of the Domain Job Status workspace.

**Note:** If possible, Telestream recommend using the Management Console to place the services in maintenance mode (or the Windows Services Console to stop the services) before using this command.

After issuing a command to stop all jobs, it may take several minutes to complete. The time to completion is dependent on the volume of affected jobs in the database and the consequent load on the computers in the domain.

**Figure 135.** Using the Emergency Stop Button to Stop all Jobs in the Domain



To stop all running and queued jobs in the domain using this button, follow these steps

1. Click the Domain Job Status workspace.
2. Click on the Emergency Stop button in the bottom right corner.  
Workflow Designer displays a warning dialog.

**WARNING:** The Emergency Stop button stops all active jobs in the domain, and can not be reversed. This will lead to a potential loss of work and/or data. You should only utilize this command in an emergency. (For example, mistakenly submitting thousands of jobs.) Ideally all services should be in maintenance mode before executing this command.

3. Click Yes to Continue.

Workflow Designer issues the Emergency Stop command to the domain database.

## 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](#)).

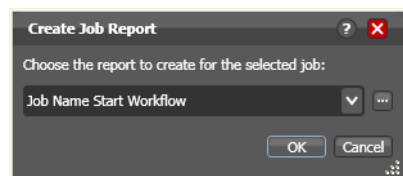
---

**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.

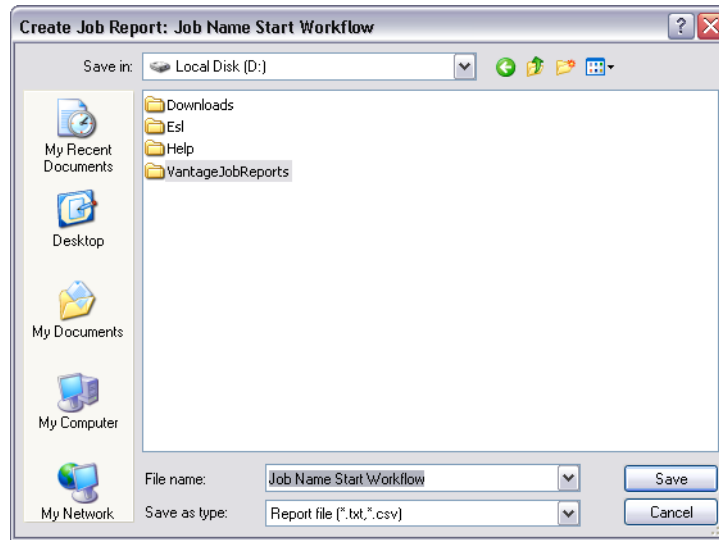
---

**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.

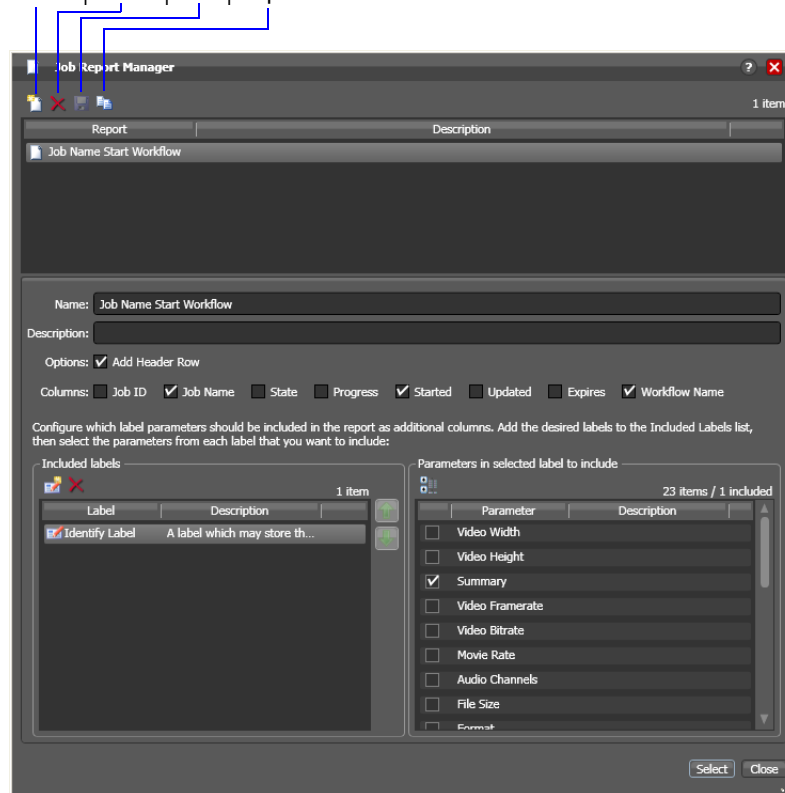
1. Display the Job Status or Domain Job Status workspace.
2. Click the Job Report button in the toolbar to display the Job Reports dialog.
3. Click the browse  button to the right of the popup menu.

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.

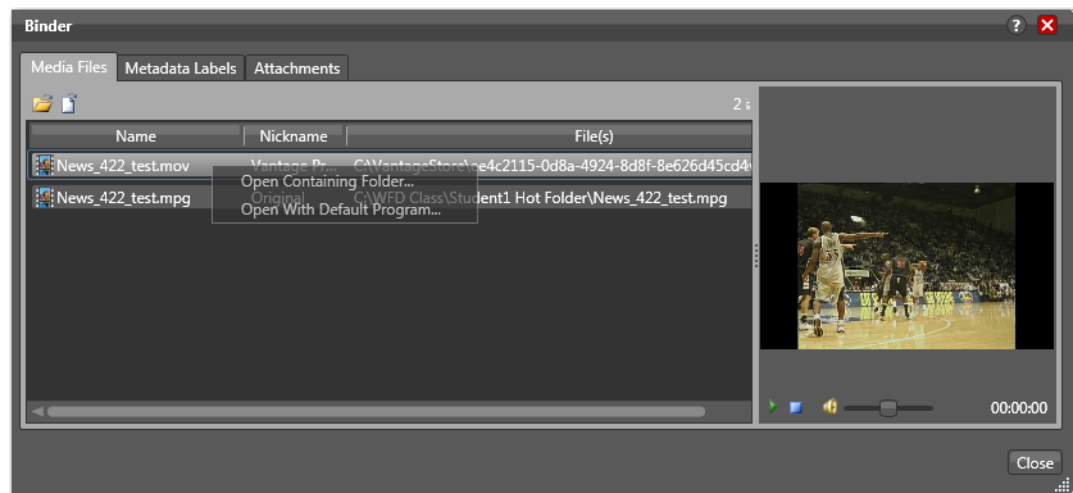
## Viewing Binders

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 tab: Media Files, Metadata Labels, and Attachments.

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).

Alternatively, you can right-click on any file and select one of two options:

*Open Containing Folder*—displays the Windows directory where the file is stored.

*Open With Default Program*—opens the file in the program specified as the default program to open these types of files.

---

**Note:** When running Workflow Designer on Windows Server 2008, unless the Desktop Experience feature is installed, you can't review media. For details, see Windows Server 2008 Requirements in the Vantage Domain Management Guide. See also [Configuring Server 2008 to Solve Display Problems for Vantage Programs](#).

---

*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. If a Transcode Service is saturated (that is, it is performing the maximum number of [jobs](#) it is set for); then Vantage will queue up incoming jobs 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 C is queued until either A or B completes, at which point C will execute).

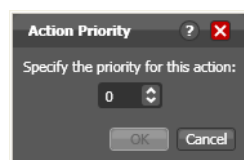
Pause for Priority comes into play if job C has a higher execution priority than job A or B. In this case, job A is paused and job C begins processing immediately. When Job C or B completes; then A (which was previously paused) returns to processing.

## 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 to display the Action Priority dialog.

**Figure 140.** Action Priority Dialog



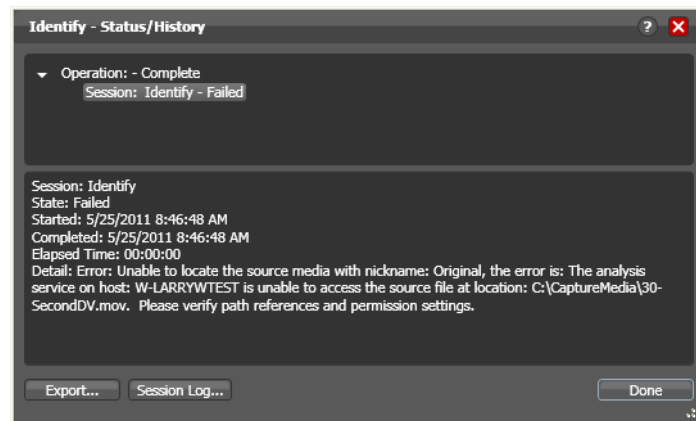
2. Change the priority value (larger numbers means higher priority), and click OK to modify the action's priority in this [job](#).

## 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 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.

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**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.

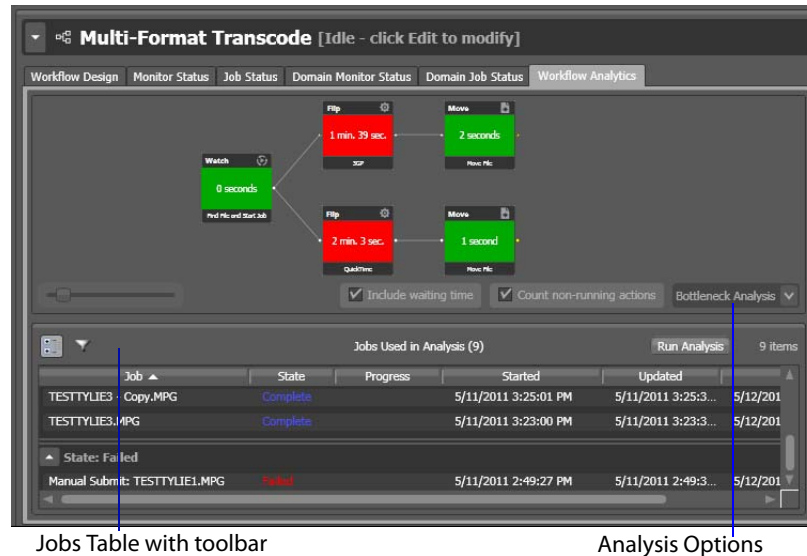


## Using the Workflow Analytics Panel

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).



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 de-select all jobs and return the table to its original state, select one record, then control-click to de-select 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—designed specifically for customizable, operator-driven media processing. Workflow Portal configurations allow you to control functionality and user interface components, and are created and configured in the Vantage Management Console, and loaded in the Workflow Portal application when it is launched.

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**Note:** Workflow Portal is an optional, licensed feature in Vantage. For details about Workflow portal licenses, see CWP Licensing in the Domain Management Guide.

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Workflow Portal is provided as a Windows program and as a Web application. The Windows client provides optimum performance and the full feature set. The Web client can be used on any computer with a supported Web browser (see [Web Application Browser Requirements](#)) and a network or Internet connection to your [Vantage domain](#). However, not all configuration types are usable in the Web client.

The following topics introduce and describe Workflow Portal:

- [Workflow Portal Overview](#)
- [Understanding Catalogs and Binders](#)
- [Workflow Design Guidelines](#)
- [Starting a Workflow Portal Session](#)
- [Changing or Reloading a Configuration](#)
- [Using Workflow Portal Configurations](#)
- [Performing Key Workflow Portal Tasks](#)
- [Selecting Binders](#)
- [Previewing Video in the Media Player](#)
- [Submitting a Job to Workflows](#)
- [Windows Client Menus](#)
- [Troubleshooting Workflow Portal](#)

Most topics apply to both clients. When a topic applies to only one client, it is noted.

## Workflow Portal Overview

Video processing workflows frequently require some form of operator intervention during media processing. For example, an operator might initiate processing, evaluate pre-processing results, scrub and set trim points, add/edit metadata, and submit media to a selected workflow for further processing.

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**Note:** For basic information on using Vantage client programs, see [Vantage Client Programs Overview](#).

On Windows Server 2008, you may have problems minimizing windows if you maximize them by dragging them to the top of the monitor (*AeroSnap*). To disable *AeroSnap*, go to *Control Panel > Ease of Access Center > Change how your mouse works*. Check *Prevent windows from being automatically arranged when moved to the edge of the screen*.

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- [Key Applications](#)
- [How Workflow Portal Works](#)
- [Key Workflow Portal Features](#)
- [Workflow Portal Configuration Types](#)
- [Implementing Workflow Portal-based Media Processing](#)

## Key Applications

Key applications of Workflow Portal include:

- *Highlight Extraction From Archive Files*—An operator marks in and out timecodes and chooses the timecode for a thumbnail.
- *Promo Preparation*—An 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*—An operator creates a playlist of clips and enters metadata. A subsequent workflow merges (*stitches*) the clips into a single media file and transforms metadata for distribution.
- *VOD Digital Ad Insertion*—An operator defines ad locations for dynamic ad insertion by the cable vendor, and submits jobs for assembly of CableLabs VOD content and provisions it for dynamic ad insertion (DAI).
- *TrafficManager*—An operator searches catalogs, then reviews and submits commercial inventory for processing to a specific workflow from several available.
- *DPP Package Preparation* - An operator enters DPP metadata, marks programme segments, and submits a job to a Vantage workflow. Vantage adds bars, generates slates, and encodes to the appropriate MXF format with full DPP metadata to create a DPP package.

## How Workflow Portal Works

Figure 143 depicts how Workflow Portal is typically used 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.



## Key Workflow Portal Features

Workflow Portal provides several features for performing operator-intervention of media processing workflows. Workflow Portal has a customizable user interface where components and features are controlled by a configuration file, created in the Management Console, and loaded in Workflow Portal when launched by an operator.

These features allow operators to:

- Browse Vantage catalogs for media (saved in [binders](#)) from completed [jobs](#) and submit them to workflows.
- Browse Windows servers for media and submit it to a workflow (Windows client only).
- Create an [Edit Decision List](#) (EDL) of clips for stitching with a Flip action workflow (Windows client only).
- Create a [Composition \(CML\) file](#) of clips for stitching with a Post Producer Conform action workflow (Windows client only).
- Create a DPP-compliant XML metadata file and a CML file to produce the program media file (using Post Producer) and transcoding to AS-11 with DPP metadata (Windows client only).
- Review/update metadata labels.
- Preview/scrub media proxies.
- Determine that all required files are present.
- Mark in/out trim points on an asset's timeline.
- Mark media as approved or rejected.
- Supply run-time values to variables to use in the next workflow.
- Submit media to target workflows for further processing.

## Workflow Portal Configuration Types

Regardless of its configuration details, each configuration is one of the following types, as specified in the console:

- *Browse Catalogs (copy binder)*—Copy Binder
- *Browse Catalogs (forward binder)*—Forward Binder
- *Browse Windows Network (create binder)*—Browse Windows Network
- *Create EDL from Catalogs (create binder)*—Create EDL
- *Create CML from Catalogs (create binder)*—Create CML
- *Create DPP from Catalogs (create binder)*—Create DPP

The names on the left in this list match the names a domain administrator sees when creating a Workflow Portal configuration in the console. The shortened names that appear after the dash are the common names used in this guide.

---

**Note:** Copy Binder and Forward Binder configurations can be used in the Workflow Portal Web client as well as the Windows client. The other configurations can only be used in the Windows client.

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The Copy Binder, Forward Binder, as well as the Create EDL, CML, and DPP configurations allow operators to browse Vantage [catalogs](#) for [binders](#) that have been registered by a previous job.

The Browse Windows Network configuration only allows operators to browse a Windows server (*not* a Vantage catalog) to select media files. When Workflow Portal only displays a file Browse button and workflow selection list, you know that you're working with a Browse Windows Network configuration.

Each type of configuration operates differently, to achieve its intended result. The operation of each type is explained in detail in [Using Workflow Portal Configurations](#).

## Implementing Workflow Portal-based Media Processing

Implementing Workflow Portal workflows in a Vantage domain requires planning and coordination by your Vantage administrator and workflow designer. To implement a Workflow Portal-based media processing workflow, a Vantage domain administrator must first use the Vantage Management Console to do the following:

- Enable the utilization of Workflow Portal.
- Configure one or more *Workflow Portal configurations*, which define the Workflow Portal feature set for specific applications, and the components, features and resources available to operators. This includes metadata and variables, and must be coordinated with the workflow designer to utilize the metadata and variables as appropriate for your application.

---

**Note:** Administrators who are responsible for creating Workflow Portal configurations should refer to the *Vantage Domain Management Guide* for details.

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Workflow designers use Workflow Designer to create and configure the required workflows, including required metadata and variables, and activate them when you want to use them in testing or production.

Typically, a given media processing workflow involves at least 2 Vantage workflows:

- An *ingest* workflow, which transcodes media and registers it in a catalog, and
- a *target* workflow, which processes the media the operator has selected and forwarded to a target workflow.

# Understanding Catalogs and Binders

Catalogs and binders are fundamental to the use and operation of workflows, jobs, and Workflow Portal. Catalogs and binders are general concepts that you may already understand. In the context of Vantage, catalogs and binders are implemented in specific ways to facilitate and simplify media processing applications.

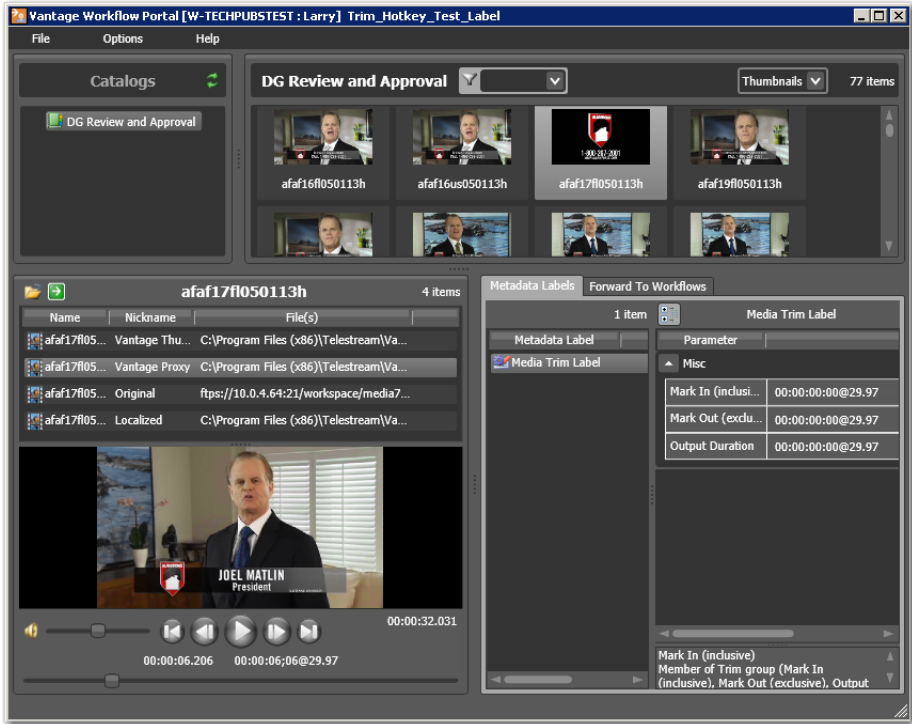
## Binders Overview

Each time you submit media to a workflow, it starts a [job](#) and Vantage executes it. Files, metadata, and variables related to each job are always recorded in a uniquely-named *binder*. Provided that the workflow has a [Register action](#), information related to each job is recorded in a user-specified Vantage [catalog](#). (Without a Register action, the binder is not easily accessible.)

A binder in the context of Vantage is simply a 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, variables that were used in the job, as well as other types of files that were used or created. Binders do not contain media files or [attachments](#); they only 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 how to view binders in a Review and Approval catalog. Each of these binders was registered in the catalog as a result of an ingest workflow job 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, each time the workflow ran (a job), it created a thumbnail file, a proxy file, and a media file (which is identical to the original file), all referenced in a uniquely-named binder, so that operators and workflows can access them and use them in other workflows. In addition, metadata may be presented and edited, along with variables (which are not shown).

## Vantage Catalogs Overview

Similar in concept to folders (or directories) in Windows, a Vantage *catalog* is a container that organizes and stores binders. *Catalog folders* are sub-containers that you can use to further 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 available catalogs and folders, just as you would browse through folders in Windows, to locate the binder you want to process.

As a Vantage operator, you can view only those catalogs that the domain administrator permits you to see. The following are some of the controls that determine which catalogs and binders you can view:

- Workflow designers and Vantage administrators create catalogs and folders.
- Workflow designers specify which catalog to register the binder in (using the [Register action](#)) when a workflow is executed.
- Vantage administrators define which Workflow Portal configurations you can access and which catalogs you can view.

Thus, Workflow Portal gives you access to only those binders that have been registered in a Vantage catalog to which you have access in Workflow Portal.

## Workflow Design Guidelines

This topic is for those who are designing and implementing workflows. It provides guidelines for creating workflows intended for use in Workflow Portal applications.

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 implements operator intervention for QA tasks, setting mark-in and mark-out points, and for adding/editing metadata prior to job submission for further processing.

For example, an *ingest* workflow can automatically analyze source media and detect media attributes and characteristics such as frame rate, dimensions, letterboxing, and macroblocking. You typically use [Register actions](#) in the ingest workflow, to create [binders](#) in Vantage [catalogs](#), where operators will look for files to process. 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 a single 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](#) so that operators can submit jobs to them (and they must be running). 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 create a [binder](#) in 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.

You can use the special nicknames *Vantage EDL*, *Vantage Proxy*, and *Vantage Thumbnail* in Workflow Portal ingest workflows Flip action for identifying specific-purpose files:

- *Vantage EDL*—in the Program Stream and Transport Stream encoders
- *Vantage Proxy*—in the QuickTime and the MP4 encoders
- *Vantage Thumbnail*—in the Keyframe encoder

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 proxy format for the Workflow Portal Windows client media viewer is H.264/AAC QuickTime encoded in the QuickTime encoder. Configure container settings to generate a timecode track—this supports the Use Clip Start Time feature.
- Use the Flip action to produce proxy media for previewing in the Workflow Portal Web client's HTML5 Media viewer, using these settings:

Encoder: MP4 Encoder

Video Codec: x264

Audio Codec: AAC

Container: MP4 File

Make sure that your encoded proxy file is the same frame rate and timecode notation as your production media.

- To enable a selected binder's media file to automatically display in the Workflow Portal media viewer, assign the *Vantage Proxy* file [nickname](#) to the media file.
- 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.

## Target Workflow Guidelines

Unlike ingest workflows, target workflows are publishing workflows; they can be designed and configured in almost any way you require. There is no limit imposed on the design of a target workflow that happens to be used by Workflow Portal.

When you configure target workflows, follow these guidelines:

- The target workflow must start with a [Receive action](#) so that an operator can submit media to it for processing.
- The target workflow must be configured to accept and process any metadata labels and variables that an operator enters.
- Add information here about the special nicknames for DPP



# Starting a Workflow Portal Session

The following topics describe how to start sessions with the Workflow Portal clients, and how to change configurations:

- [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, select the configuration you want to use for this session.

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 Applications](#).
2. If you are prompted to select a [Vantage domain](#), select a domain as described in [Logging into or Changing Domains from Web Applications](#).  
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 Applications](#).  
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, select the configuration you want to use for this session.

To change the Workflow Portal configuration, see [Changing or Reloading a Configuration](#), below.

## Changing or Reloading a Configuration

You can change Workflow Portal configurations while you are running Workflow Portal.

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 obtain the updated version, reload it when advised by the administrator.

- [Changing/Reloading a Configuration in the Windows Client](#)
- [Changing/Reloading a Configuration in the Web Client](#)

### Changing/Reloading a Configuration in the Windows Client

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.

### Changing/Reloading a Configuration in the Web Client

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.

# Using Workflow Portal Configurations

When you start Workflow Portal, you must select a configuration before you can process media. These configurations are defined by the Vantage domain administrator in conjunction with a workflow designer, so that the configuration—including catalogs, metadata, and variables—performs correctly with the ingest and target workflows' functionality.

Each Workflow Portal *configuration* is based on a specific type of configuration that determines fundamentally how a Workflow Portal session operates—which user interface components to display, and what features to enable or disable.

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**Note:** Once you have selected a configuration, each time you launch Workflow Portal it uses the configuration that was last used. (To switch configurations, see [Changing or Reloading a Configuration](#).)

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A Vantage administrator can make and use as many of each type of configuration as necessary, each configured to suit specific media processing application.

- [Using Copy Binder and Forward Binder Configurations](#)
- [Using Browse Windows Network Configurations](#)
- [Using Create EDL Configurations](#)
- [Using Create CML Configurations](#)
- [Using Create DPP Configurations](#)

## Using Copy Binder and Forward Binder Configurations

In a Copy Binder configuration, the operator browses a [catalog](#), selects a [binder](#), and submits the job—optionally reviewing/editing metadata variables—*after* clicking the Submit button. When the Submit button is clicked, the binder is duplicated—leaving the original binder intact in the catalog for future use or re-submittal. (If you may ever need to use the *copied* binder later—in case of an error, for example, you should also use a Register action in the target workflow to register the new binder in a catalog).

In contrast to a Copy Binder configuration, in a Forward Binder configuration, the operator browses a [catalog](#), selects a [binder](#), optionally reviews/edits metadata and variables—*before* clicking the Submit button. Workflow Portal submits the original binder—without making a copy. If you don't need the binder after processing, you can automatically or manually delete it.

Here are the differences between Copy Binder and Forward Binder configurations:

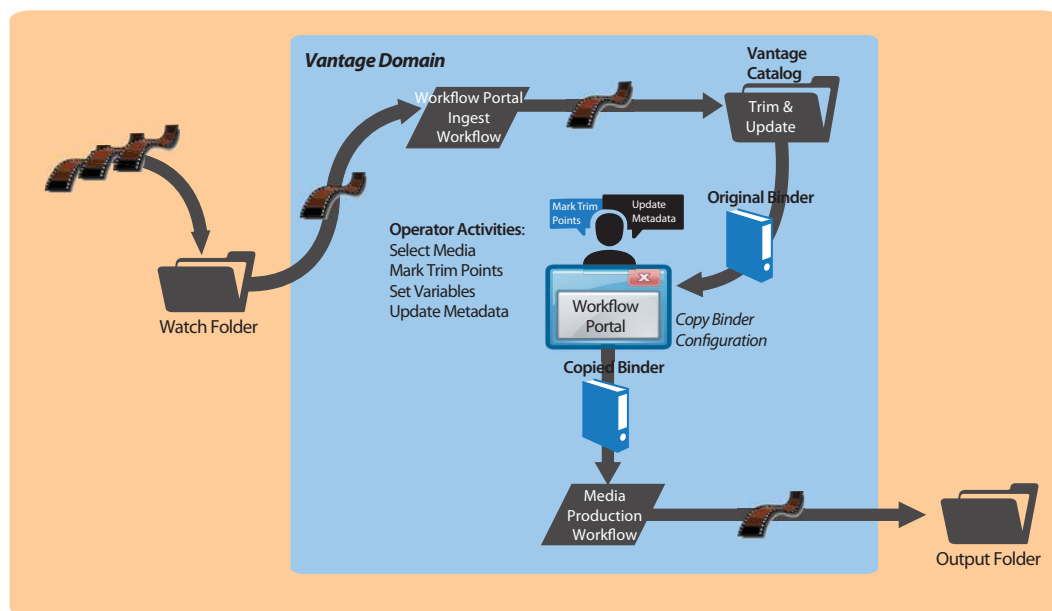
- *Copy Binder*—you click the Submit button *before* you edit metadata—because you're using a copy of the original binder, which is created when you click Submit.
- *Forward Binder*—you can select multiple binders and submit them at the same time (Windows client only) and you edit metadata before submitting the job.

Depending on how the configuration has been set up, there will be variations in the features that are enabled, and the tasks you can perform.

### Copy Binder Job Submittal Process

In the figure below, media is submitted to an ingest workflow, which registers the output media into a specific Vantage binder. The operator, in Workflow Portal, selects the binder, clicks Submit and performs tasks as appropriate.

**Figure 145.** Copy Binder Configuration Typical Workflow Process

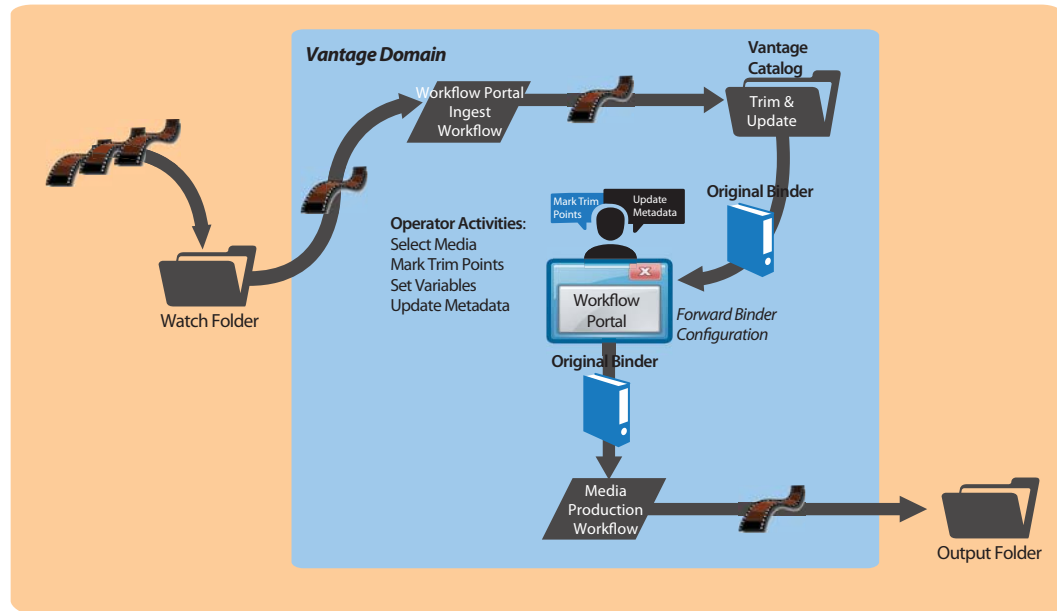


Next, the operator submits the job to a publishing workflow.

## Forward Binder Job Submittal Process

In the figure below, media is submitted to an ingest workflow, which registers the output media into a specific Vantage binder. The operator, in Workflow Portal, selects the binder, clicks Submit and performs tasks as appropriate.

**Figure 146.** Forward Binder Configuration Typical Workflow Process



Next, the operator submits the job to a publishing workflow.

## Job Submittal Steps

Whether you are using a Copy Binder or Forward Binder configuration to process media, an operator follows this general process to submit a job (for details, click on the link.):

1. Make sure that all target workflows are running (in Workflow Designer).
2. Browse catalogs to select a binder ([Selecting Binders](#)).
3. Check the workflow(s) you want to process the media with([Submitting a Job to Workflows](#)).
4. In a Copy Binder configuration, click the Submit button to display the Submit Jobs dialog.
5. Preview media and create mark-in/mark-out edits ([Previewing Video in the Media Player](#)).
6. In the Media Files tab, check the files to submit ([Specifying Media Files](#)).
7. In the Metadata tab, review/edit metadata ([Configuring Metadata Labels](#)).

8. In the Variables tab, enter values for each variable ([Specifying Variable Values](#)).
9. In a Forward Binder configuration, click the Submit button to submit the job.

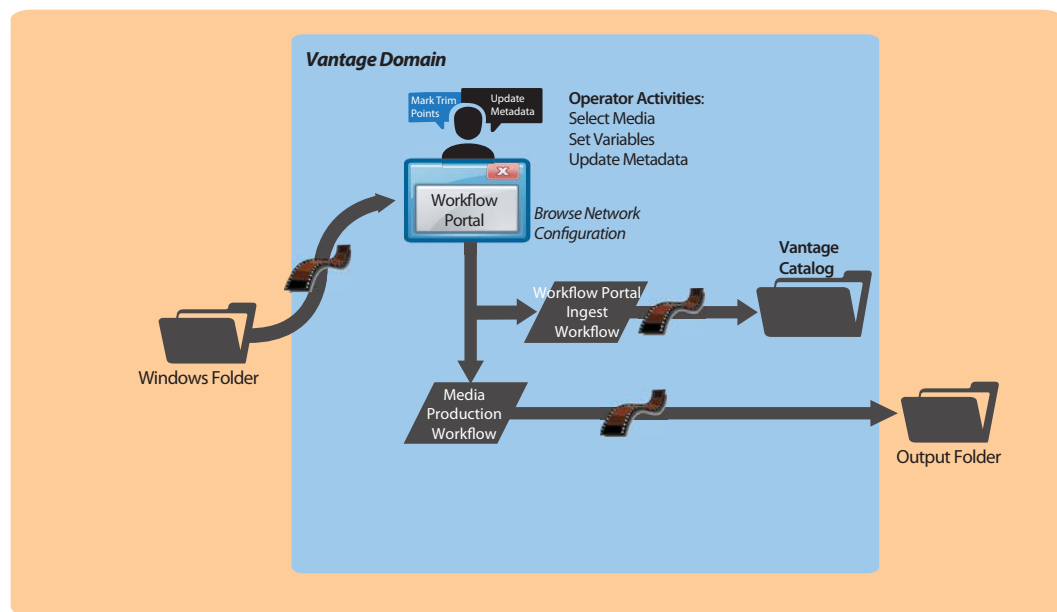
## Using Browse Windows Network Configurations

**Note:** This configuration can only be used in the Workflow Portal Windows client.

The Browse Windows Network configuration allows you to select one or more media files from servers on a Windows network and submit them to target 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.

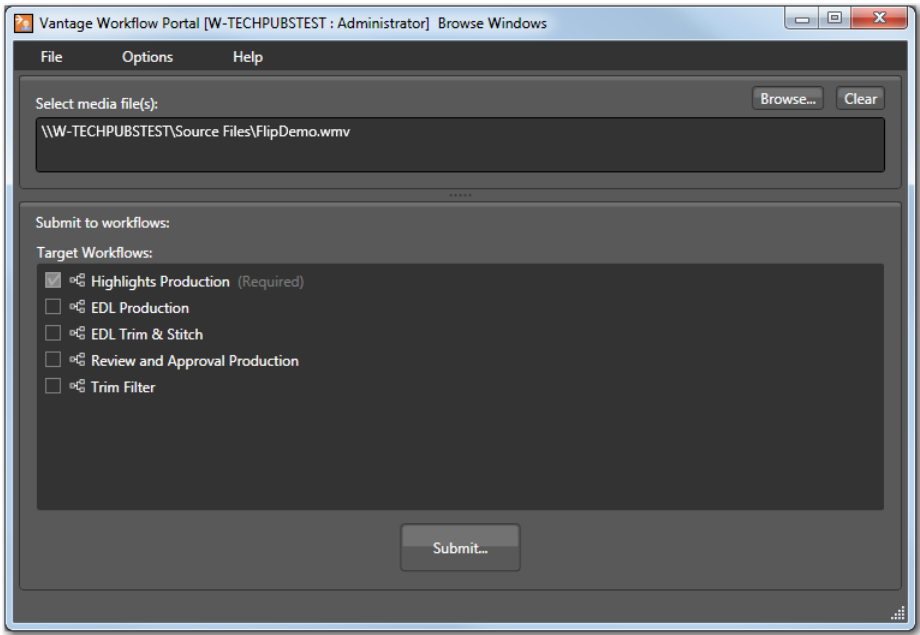
The Browse Windows Network configuration is a Create Binder style configuration. Because you are selecting a media file outside of Vantage, when you click the Submit button, Workflow Portal creates the binder and displays a workspace which allows you to proceed with the task of reviewing media, updating metadata, etc., before submitting the job. Browse Windows Network configurations can be set up to submit to required workflows or operator-selected workflows.

**Figure 147.** Browse Network Configuration Typical Workflow Process



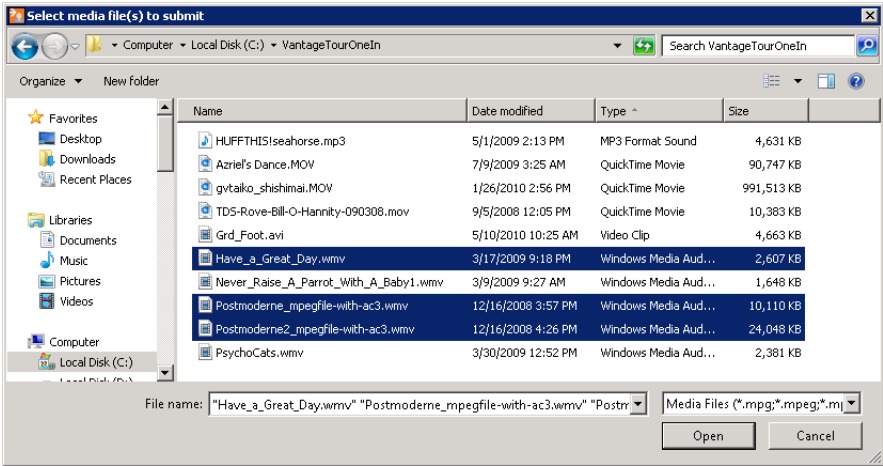
Workflow Portal displays a Browse button and a list of selected files—instead of a Vantage Catalog list—as shown in [Figure 148](#).

**Figure 148.** Browse Windows Network Configuration



- 1. Click the Browse button.  
Workflow Portal displays the *Select media file(s) to submit* dialog shown in [Figure 149](#).

**Figure 149.** Select Media Files to Submit Dialog



- 2. Use the *Select media file(s) to submit* dialog to select file(s).



**3. Click Open.**

Each file that you open displays in the *Select media file(s)* list.

Repeat the Browse process to select and add more files from multiple directories.

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.

**4. If check boxes are enabled in the Target Workflows list, check any target workflow to which you want to submit the media in the list.**

If a checked box is not editable, this is a required workflow for this configuration.

**5. Click Submit.**

If the configuration does not provide any additional configuration options, Workflow Portal submits the selected media files to each of the selected Target Workflows.

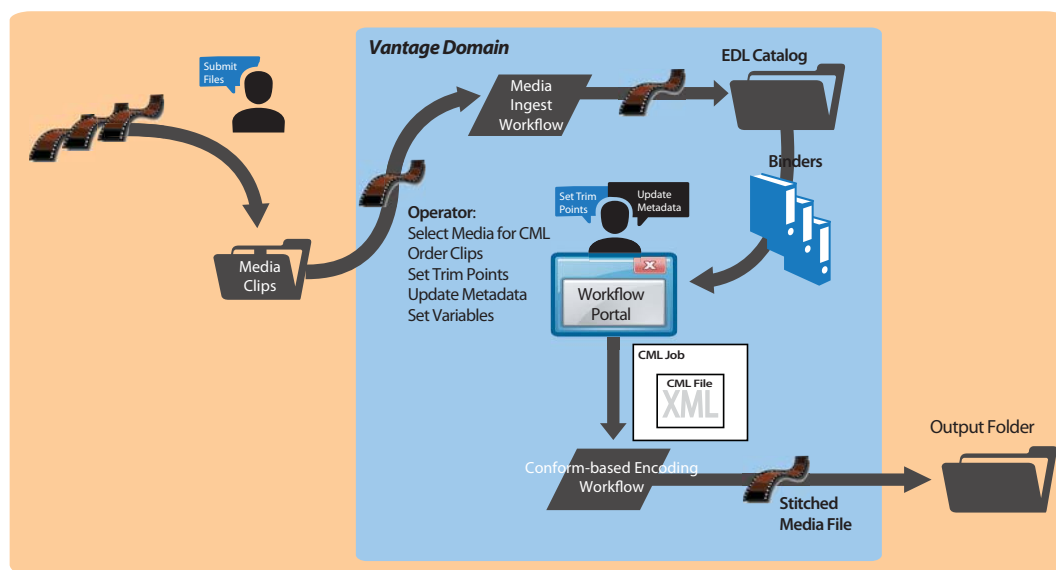
**6. If the configuration supports metadata labels or variables, Workflow Portal displays the Submit Jobs dialog with tabs for these options. For information on configuring these options, refer to [Configuring Metadata Labels](#) and [Specifying Variable Values](#).****7. When you are done preparing for submission, click Submit.**

## Using Create EDL Configurations

**Note:** Create EDL configurations can only be used in the Workflow Portal Windows client.

The Create EDL configuration enables you to create an [Edit Decision List \(EDL\)](#) which you submit to Flip-based workflows that processes the EDL. When creating an EDL, you select the clips to submit by browsing and selecting [binders](#) created from previously-completed jobs. You can mark start and end points to clip your input media files, and then stitch the selected clips together in the workflow to which you submit the EDL.

**Figure 150.** Create EDL Configuration Typical Workflow Process



The Create EDL configuration is a Create Binder style configuration: because a new binder must be created in order to submit the job, the operator clicks *Submit first* (to create the binder), then proceeds with the task of reviewing media, updating metadata etc., before submitting the job.

Stitching media using an EDL involves three steps:

1. [Preparing Media for Stitching](#)
2. [Creating the EDL](#)
3. [Stitching the Media](#)

After you have prepared all of the media you want to stitch, you open Workflow Portal with a Create EDL Configuration to create your EDL and submit it for processing. When submitted, the files are clipped to the EDL settings and merged together into a single output file by the target Vantage workflow.

## Preparing Media for Stitching

To prepare media for stitching via an EDL, create an ingest workflow to encode it as required and register it in a catalog, following these guidelines:

- All media must have the same frame rate, timecode notation, and frame size.
- Use a Flip action to encode your production media using one of these encoders:
  - MPEG-2 Program Stream
  - VOD/MPEG-2 Transport Stream
  - MXF

The output media must use the nickname *Vantage EDL*, so that the EDL configuration can identify which media file to use for stitching.

- Use a Flip action to encode your proxy media for previewing/clipping.
  - Encoder: QuickTime Encoder
  - Video Codec: H.264
  - Audio Codec: AAC
  - Container: MOV File

Assign the nickname *Vantage Proxy*, so that the media player can play it.

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**Note:** Be sure to encode proxies at the same rate and timecode notation as your production media. Clips that you mark use the proxy timecode—Workflow Portal applies it to the *Vantage EDL* media.

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- Use a Keyframe action to produce keyframes—configured with the Keyframe encoder. Assign the nickname *Vantage Thumbnail*.
- Register the job in your target catalog to make it available in Workflow Portal.

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**Note:** Create EDL configurations expect binders to have media identified as *Vantage EDL*, *Vantage Proxy*, and *Vantage Thumbnail*. If you don't follow these guidelines, the binders may not display in the catalog, you won't be able to view the proxy to set mark-in/mark-out points, view keyframes, and your stitch workflow may fail.

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## Creating the EDL

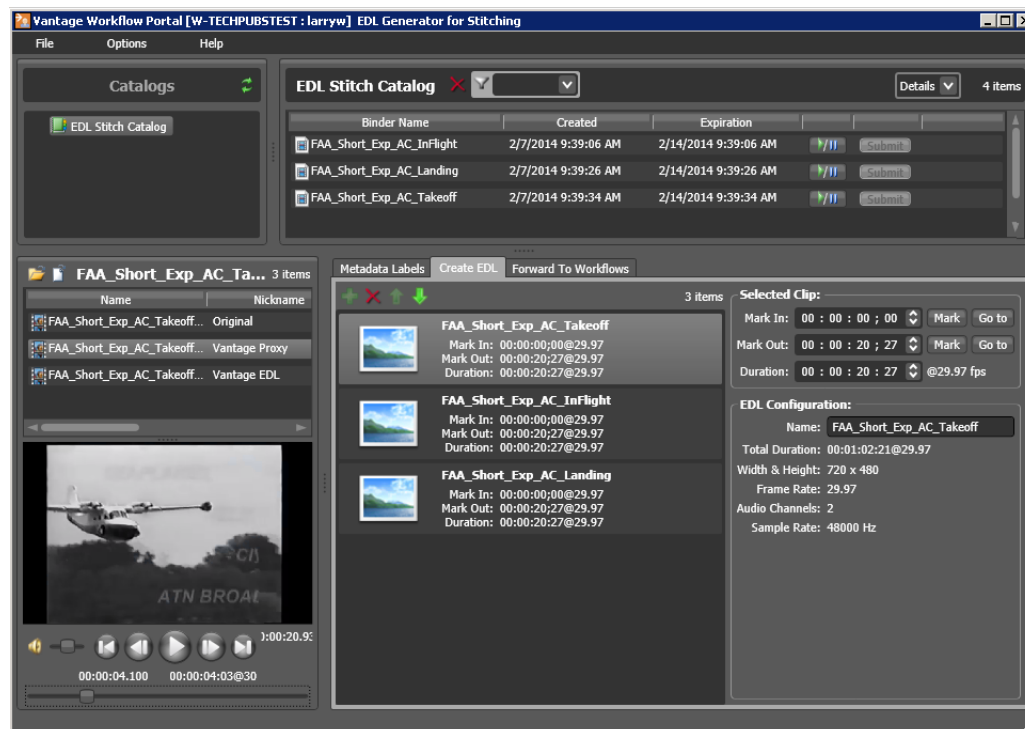
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**Note:** Microsoft User Account Control, by default, prevents Windows programs (such as the Workflow Portal Windows client) from writing files in certain protected folders. Workflow Portal writes files in Create EDL, Create CML, and Create DPP configurations. If you receive an error message that access to a particular Vantage store or folder is denied, contact your Vantage administrator. Solutions include changing the location of the store/folder or disabling UAC on Vantage Windows client computers.

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When you are using a Create EDL configuration, the Create EDL Workspace displays:

**Figure 151.** Workflow Portal in a Create EDL Configuration



To create an EDL, do the following:

1. Browse the binders in the selected catalog, and add clips to the EDL list.
2. Optionally, set the start and end times for each clip in the list.


The following topics describe how to create the EDL:

- [Adding Clips](#)
- [Evaluating Clip Content](#)
- [Editing Clip Start and End Times](#)
- [Deleting Clips](#)
- [Reordering Clips](#)

### Adding Clips

You can add multiple clips to an EDL, and you can add the same clip multiple times.

**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 the EDL, select the catalog, then select clip in the Binder list or the Nickname list and click the Add button  below the Create EDL tab.

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**Note:** An EDL must be comprised of media file clips that have the same frame size and frame rate.

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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 binder with 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 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.

### Reordering Clips

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.

### Deleting Clips

To delete a clip from an EDL, click on the clip and click the Delete button .

## Stitching the Media

The Edit decision list (EDL) files created in Workflow Portal are only processed by Flip action-based workflows. After creating your EDL, submit it using these steps:

1. Make sure that your stitching workflow is active.
2. Click on the Forward to Workflow tab, which lists all workflows that you are permitted to submit this file to for processing.
3. Click Submit. If variables are included in this configuration, Workflow Portal displays the Variables window, where you can supply run-time values.
4. Any nickname can be assigned to the TSEDL file to be picked up in the target publishing workflow.

## Using Create CML Configurations

The Create CML configuration is designed to allow you to select a [Composition \(CML\) file](#) which you submit to Post Producer workflows with a Conform action. The Conform action processes the compositions you submit, and renders a single media file as output, based on the specifications in the CML.

Workflow Portal also supports EDL processing (using the Flip action), with similar functionality. However, the primary difference—and advantage—of using a CML workflow is that you can reference clips with mixed essences. The EDL configuration requires that all clips have the same frame rate, frame size and video codec; CML does not have this restriction. Composition processing also improves VANC and caption processing.

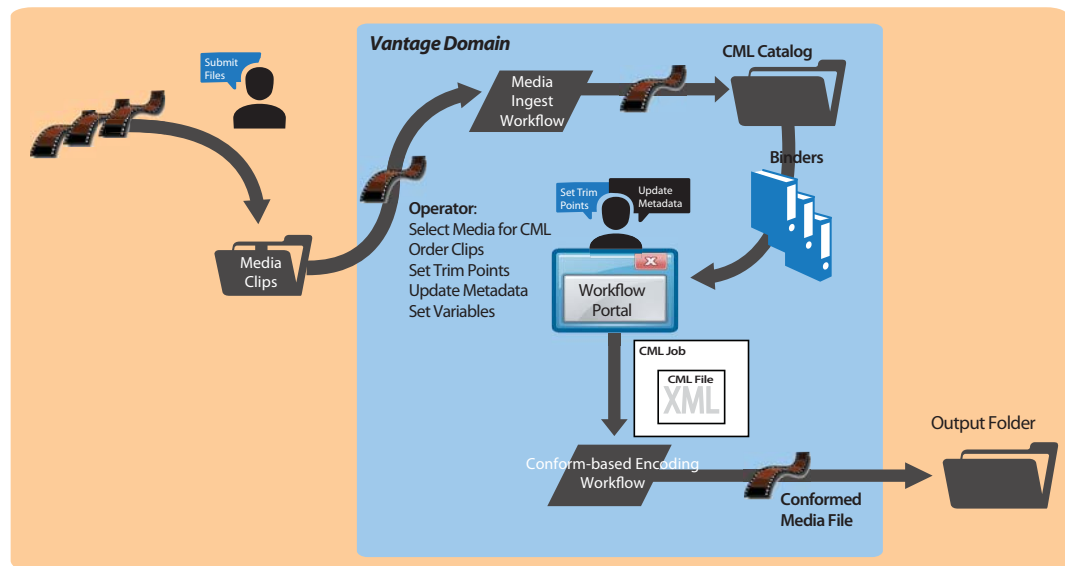
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**Note:** Create CML (Composition Markup Language) configurations can only be used in the Windows client. For details on using Post Producer and compositions, see the *Post Producer Developer's Guide*.

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The Create CML configuration is a Create Binder style configuration: because a new binder must be created in order to submit the job, the operator clicks Submit *first* (to create the binder), then proceeds with the task of reviewing media, updating metadata etc., before submitting the job.

**Figure 152.** Create CML Configuration Typical Workflow Process



To automatically create the CML, you select the clips to submit by browsing and selecting [binders](#) created from previously-completed jobs. You can mark start and end points on your input media files, and then submit the CML to a Conform action workflow to generate the output media.

Compositions (Composition Markup Language files)—or CMLs for short—should be created for stitching media when you want to use a Conform action to encode your final media, rather than using a Flip action. Use of the Conform action requires a Post Producer license.

Stitching media from a composition involves three steps:

1. [Preparing Media for Stitching](#)
2. [Creating the Composition](#)
3. [Stitching the Media](#)

After you have encoded all of the media you want to use for your composition, you open Workflow Portal with the proper Create CML configuration, select each clip and optionally mark them, and then submit the CML for processing. When submitted, the files are encoded together into a single output file by the target Vantage workflow.

## Preparing Media for Stitching

To prepare media for stitching using a composition, create an ingest workflow to encode the media as required and register it in a catalog, following these guidelines:

- Assign the output media the nickname *Original* so that the Create CML configuration can identify which media file to use when it generates the CML file.
- Since you can't use the same nickname on input and output media in the same action, simply assign the input file a nickname other than *Original*.
- Use a transcode action (the Flip action, typically) to encode your media into one of the supported Post Producer formats (which accepts a much broader set of video, audio, and container formats than the Flip action does for EDL processing). See *Post Producer Developer Guide Formats* in the Post Producer Developer's Guide or the [Products > Post Producer > Specs](#) page on the Telestream Web site.
- Use a Flip action to encode your proxy media for previewing/clipping.
  - Encoder: QuickTime Encoder
  - Video Codec: H.264
  - Audio Codec: AAC
  - Container: MOV File

Assign the nickname *Vantage Proxy*, so that the media player can play it.

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**Note:** Make sure that you encode the proxy at the same rate and with the same timecode notation as your production media.

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- Use a Flip action to create thumbnails.
  - Encoder: Keyframe Encoder
  - Video Codec: JPEG
  - Container: JPEG File

Assign the nickname *Vantage Thumbnail*, to display them in Workflow Portal.



- Register the media in your target catalog to make it available in Workflow Portal.

**Note:** If you don't follow these guidelines, the binders may not display in the catalog, you may not be able to set mark-in/mark-out points, and your stitch workflow may fail.

## Creating the Composition

**Note:** Microsoft User Account Control by default prevents Windows programs (such as the Workflow Portal Windows client) from writing files in certain protected folders. Workflow Portal writes files in Create EDL, Create CML, and Create DPP configurations. If you receive an error message that access to a particular Vantage store or folder is denied, contact your Vantage administrator. Solutions include changing the location of the store/folder or disabling UAC on Vantage Windows client computers.

When you are using a Create CML configuration, the Create CML Workspace displays:

**Figure 153.** Workflow Portal in a Create CML Configuration



To create a composition, do the following:

1. Browse the binders in the selected catalog, and add clips to the CML playlist.
2. Organize them in order by dragging them into place in the playlist.
3. Optionally, preview the clip and set the start and end times for trimming.

The following topics describe various tasks involved in creating a CML file:

- [Adding Clips](#)
- [Evaluating Clip Content](#)
- [Editing Clip Start and End Times](#)
- [Reordering Clips](#)
- [Deleting Clips](#)


### Adding Clips

You can add multiple clips to a composition, and you can add the same clip multiple times. When submitted, the clip files are trimmed to the CML settings and merged together into a single output file by the target Vantage workflow.

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**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 to Workflow, and then mark a new highlight without affecting the first one.

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To add a clip, select the clip in the Binder list or the Nickname list and click the Add button  below the Create CML tab.

### Evaluating Clip Content

After you select the first clip for a composition, Workflow Portal displays the clip information in the CML Configuration portion of the window. The CML 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 composition, click on any clip to display the clip information in the CML Configuration area.

### Editing 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 composition.

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.

### Reordering Clips

To change the order of a clip, click on the clip and click the up  and down  buttons to change the clip position.

### Deleting Clips

To delete a clip, click on the clip and click the Delete button .

## Stitching the Media

Composition (CML) files are processed by Conform-based workflows to generate the media, and it requires a Post Producer license. After creating your composition, submit it using these steps:

1. Make sure that your stitching workflow is active.
2. Click on the Forward to Workflow tab, which lists all workflows that you are permitted to submit this file to for processing.
3. Click Submit. If variables are included in this configuration, Workflow Portal displays the Variables window, where you can supply run-time values.

Variables are used to transfer run-time data into a workflow.

## Using Create DPP Configurations

The purpose of the DPP configuration is to enable operators to assemble and produce media files that conform to the current DPP standard, for broadcast in the UK market.

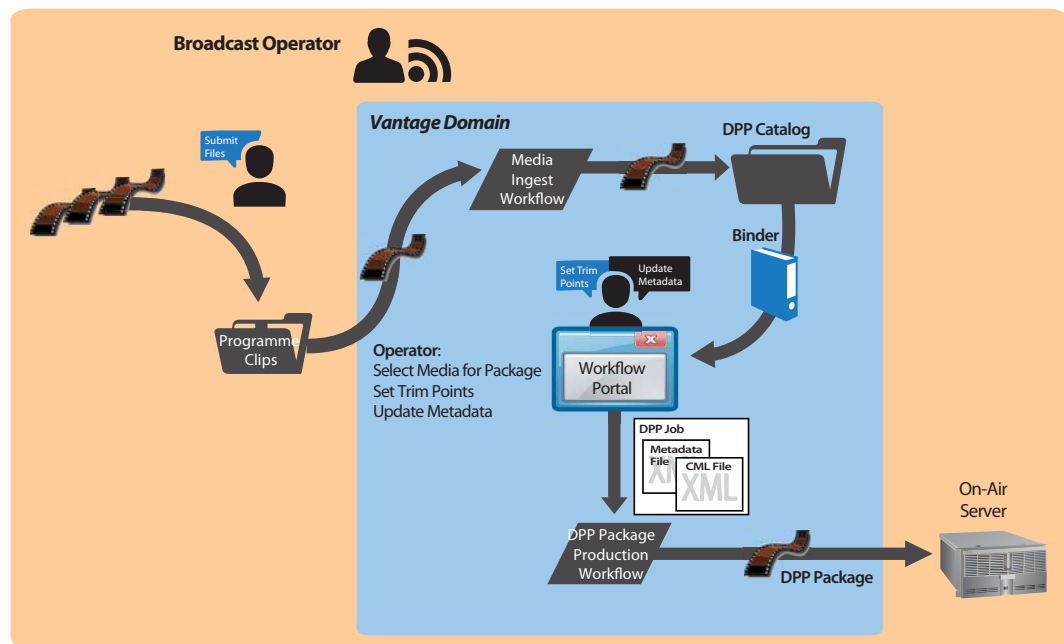
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**Note:** This configuration can only be used in the Workflow Portal Windows client.

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You use a Create DPP configuration to view and select [binders](#) from completed ingest workflows jobs, enter metadata and mark programme parts, then generate DPP-compliant media which comprises the programme. A Create DPP configuration defines each field of DPP metadata in the programme, may be given a default value, and may be marked as read-only. In addition, the portal may be configured for either SD or HD.

**Figure 154.** Create DPP Configuration Typical Workflow Process



The Create DPP portal is designed to allow you to:

- Create a DPP programme containing one or more segments
- Enter DPP metadata to accompany that programme
- Create a DPP XML file and a [Composition \(CML\) file](#) from which to generate the programme's media file (with Post Producer) and transcode to AS-11 with DPP metadata (with a Vantage Transcode Pro license).

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**Note:** You can add a DPP Validate action (located in the Analysis group) to your target workflow to validate metadata in a DPP package.

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The Create DPP configuration is a Create Binder-style configuration: because a new binder must be created in order to submit the job, the operator clicks Submit *first* (to

create the binder), then proceeds with the task of reviewing media, updating general and DPP metadata and DPP options, before submitting the job.

Creating a DPP-compliant media package involves these steps:

1. [Preparing Media for the Package](#)
2. [Creating the Composition](#)
3. [Stitching the Media](#)

After you have prepared the media you want to include in the package, you open Workflow Portal with the proper Create DPP configuration to create your DPP package, enter metadata as required, and submit it for processing. The files are submitted to the target Vantage workflow for producing the package.

## Preparing Media for the Package

To prepare media for stitching with a Composition, create an ingest workflow to encode the media as required and register it in a catalog, following these guidelines:

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**Note:** If you don't follow these guidelines, the binders may not display in the catalog, you may not be able to set mark-in/mark-out points, and your stitch workflow may fail.

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- All output media must have the same frame rate, timecode notation, and frame size.
- Use one of the transcode actions to encode your media into one of the supported Post Producer formats for the Conform action, in the frame rate you'll be encoding in the publishing workflow (typically, 50 mbps). See the *Post Producer Developer Guide Formats* chapter or the [Products > Post Producer > Specs](#) page on the Telestream Web site.
- The encoded media must use the nickname Original.  
Encode your production media with these requirements:
  - Frame rate must be 50i (you cannot use NTSC or film material).
  - Audio must be configured correctly for the DPP specification being published. For example, you must place Dolby Surround Sound on channels 1-6 if the output is audio configuration R123: 16d.
- Audio loudness correction must be applied.

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**Note:** These requirements may be met as part of an ingest workflow or met in some other manner external to Vantage, but they must be met prior to including the media in a DPP package.

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- VOD/MPEG-2 Transport Stream
- MXF

The output media must use the nickname *Vantage EDL*, so that the EDL configuration can identify which media file to use for stitching.

- Use a Flip action to encode your proxy media at 25fps, for previewing/clipping.
  - Encoder: QuickTime Encoder
  - Video Codec: H.264
  - Audio Codec: AAC
  - Container: MOV File

Assign the nickname *Vantage Proxy*, so that the media player can play it.

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**Note:** Make sure that you encode proxies at the same frame rate and timecode notation as your high resolution media, typically 25 fps.

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- Use a Keyframe action to produce keyframes—configured with the Keyframe encoder. Assign the nickname *Vantage Thumbnail*.
- Register the binder in your target catalog to make it available in Workflow Portal.

Compositions should be created for stitching media when you want to use a Conform action to encode your media, rather than using a Flip action.

## Creating the Composition

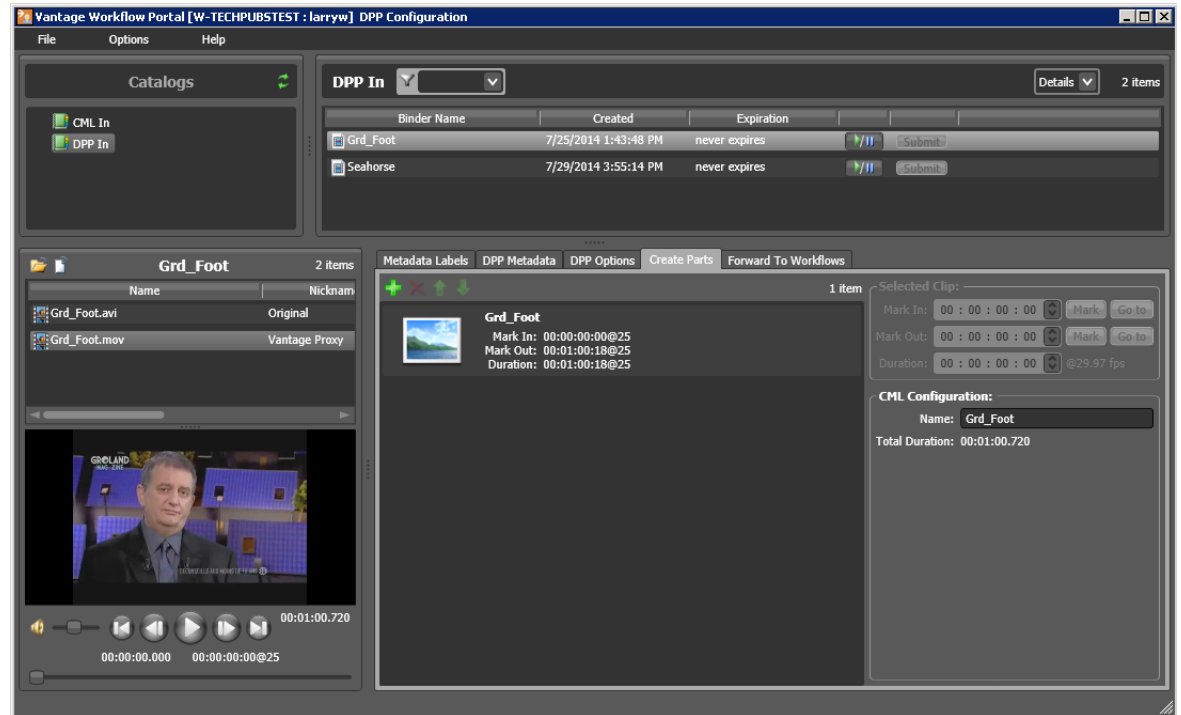
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**Note:** Microsoft User Account Control by default prevents Windows programs (such as the Workflow Portal Windows client) from writing files in certain protected folders. Workflow Portal writes files in Create EDL, Create CML, and Create DPP configurations. If you receive an error message that access to a particular Vantage store or folder is denied, contact your Vantage administrator. Solutions include changing the location of the store/folder or disabling UAC on Vantage Windows client computers.

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When you are using a Create DPP configuration, the Create DPP Workspace displays:

**Figure 155.** Workflow Portal in a Create DPP Configuration



You use the configuration to enter metadata and prepare the package. Each DPP file may contain one or more parts, or sections. If there are multiple parts, then the timeline will have a slate between each part. Metadata must be entered and validated before you can submit a job.

When you submit a job in the DPP Portal configuration, Workflow Portal creates a CML file for Post Producer, (nicknamed *DPP CML*) and an XML file with the DPP metadata, (nicknamed *DPP XML*). The CML file (via the Conform action) assembles the correct timeline for a DPP asset including a slate, bars, tone, and breaks between parts.

The XML is used by the AS-11 encoder to insert metadata into the output. The output must have a start timecode of 09:59:30:00@25.

Each part starts at one minute boundaries (the first part at 10:00:00:00, the second might be 10:06:00:00 or some other one-minute timecode).

To create a composition, do the following:

1. Browse the binders in the selected catalog, and add clips to the CML list to create the set of parts the comprise the media.
2. Set the start and end times for each clip in the list, as required.
3. Add/edit metadata for the DPP package.
4. Set your DPP options as required, optionally creating a custom slate
5. Submit the job to the appropriate publishing workflow.

The following topics describe how to create a CML file:

- [Adding Clips to a Composition](#)
- [Evaluating Clip Content](#)
- [Editing the Clip Start and End Times](#)
- [Deleting Clips from the Composition](#)
- [Reordering Clips in the Composition](#)


### Adding Clips to a Composition

You can add multiple clips to a composition, and you can add the same clip multiple times. When submitted, the clip files are trimmed to the CML 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, select the clip in the Binder list or the Nickname list and click the Add button  below the Create CML tab.

### Evaluating Clip Content

After you select the first clip for a composition, Workflow Portal displays the clip information in the CML Configuration portion of the window. The CML 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 composition, click on any clip to display the clip information in the CML 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 composition.

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 Composition

To delete a clip, click on the clip and click the Delete button .

### Reordering Clips in the Composition

To change the order of a clip, click on the clip and click the up  and down  buttons to change the clip position.

## Stitching the Media

Composition (CML) files can only be processed by Conform-based workflows, and requires a Post Producer license. After creating your composition, submit it using these steps:

1. Make sure that your stitching workflow is active.
2. Click on the Forward to Workflow tab, which lists all workflows that you are permitted to submit this file to for processing.
3. Click Submit.

## Performing Key Workflow Portal Tasks

The following topics describe how to use the major components that comprise Workflow Portal, to perform these key tasks:

- [Selecting Binders](#)
- [Previewing Video in the Media Player](#)
- [Configuring Metadata Labels](#)
- [Specifying Media Files](#)
- [Specifying Variable Values](#)
- [Submitting a Job to Workflows](#)
- [Initiating Binder Submission in the Windows Client](#)
- [Initiating Binder Submission in the Web Client](#)

## Selecting Binders

You can browse catalogs and select [binders](#) in all configurations except Browse Windows Network configurations.

---

**Note:** The binder list doesn't automatically update when binders are added or deleted. To update the list, click the Refresh button at the top of the Binder table.

---

Depending on your configuration, you may be able to perform the following:

- Manually delete binders
- Select specific media in a binder for submission
- Browse and select binders from multiple catalogs
- View the list of media in a selected binder

### Selecting a Binder

To select a binder, do the following:

1. If the Catalogs panel (in the top left corner of the window—see [Figure 156](#) for the Windows client or [Figure 157](#) for the Web client) displays, select the catalog or catalog folder you want to browse.

---

**Note:** The catalogs that you can access are specified in the configuration. The catalog browser may be hidden, when the configuration only allows access to one catalog, with no subfolders.

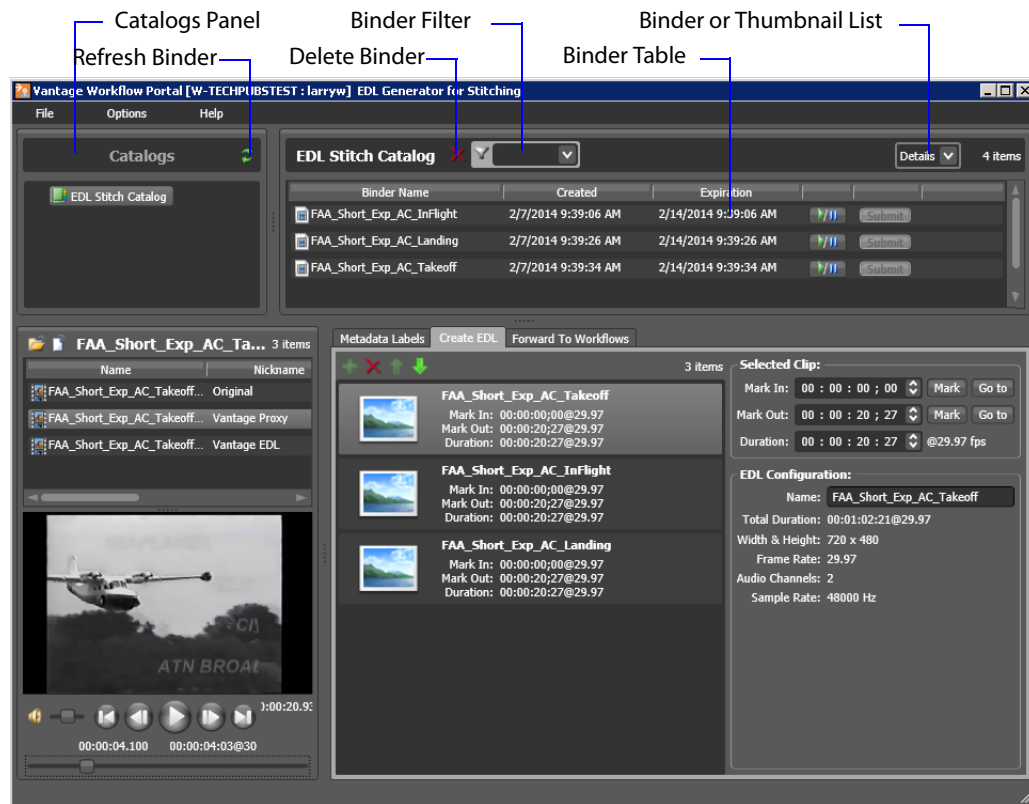
---

2. In the Binder table (directly above the tabbed workspace—upper right—displays the name of the catalog you are browsing), select the binder that you want to view.

In the Windows client (see below), use the Filter menu, located directly above the Binder Details panel, to help you filter binders. Use the Details menu (far right) to select Details or Thumbnails view.

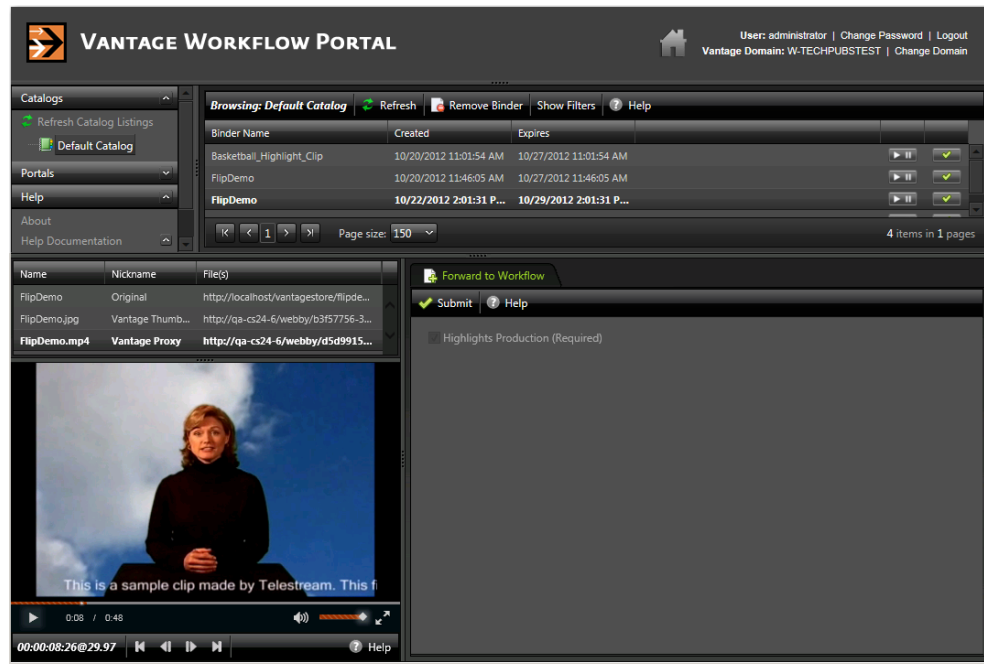
The columns that display in this table are controlled by the configuration, and may include Binder Name, Created, Expiration, and the Play button and Submit button, and others.

**Figure 156.** Windows Client—Catalog and Binder Components



In the Web client (see below), use the Filter menu (directly above the Binder Details panel) to help you filter binders. To return to an unfiltered list and display all binders, click the Filter icon again. Use the Details menu (far right) to select Details or Thumbnails view.

**Figure 157.** Web Client—Catalog and Binder Components



3. Select a binder. When a binder is selected, Workflow Portal display its contents in the Binder Details panel directly below the Catalogs panel.

## Using Binder Table Controls

The Binder table supports the following features:

### Filtering

Type text in the Filter field or select a previously-entered string from the menu to filter the binders in the currently-selected catalog. Delete the text to display all binders in the catalog.

### Sorting and Re-arranging Columns

Click on any column heading to sort the binder list, and click repeatedly to toggle the sort by ascending or descending order. Drag column headings to re-arrange the order.

### Playing/Pausing Video

If enabled in the configuration, you can click the Play/Pause button in a binder row to preview the media. Click Repeatedly to play or pause the video.

### Submitting a Binder

If enabled in the configuration, you can click the Submit button to display the Submit Jobs window.

### Details/Thumbnails View

Select Details or Thumbnails from the menu.

## Previewing Video in the Media Player

When you select a binder, Workflow Portal displays the file nicknamed *Vantage Proxy* in the media player. The contents of the binder may or may not display (directly above the media player), depending on the configuration.

The following topics describe how to preview the media:

- [Previewing Proxy Media in the Windows Client](#)
- [Previewing Proxy Media in the Web Client](#)
- [Previewing Non-proxy Media](#)

### Previewing Proxy Media in the Windows Client

When you preview proxy files in the Workflow Portal Windows client, you are utilizing the QuickTime Player. If you don't have the QuickTime Player installed, you will have to download and install the player before you can preview these MOV files.

**Figure 158.** Windows Client—Media Player Controls



You should create a QuickTime H.264/AAC MOV file for previewing/clipping in the Windows client version of Workflow Portal. Use the QuickTime encoder, and configure the container settings to generate a timecode track. Make sure that your encoded proxy file is the same frame rate and timecode notation as your production media. Assign the nickname *Vantage Proxy*, so that the media player automatically loads and displays your proxy.

Telestream suggests that SD proxies (4:3) be set to a 640 x 480 frame size. For HD proxies (16:9), Telestream suggests a 640 x 360 frame size.

When you select a binder, Workflow Portal displays any video file nicknamed *Vantage Proxy*, if present. When media appears in the preview window, you can use the window, keyboard, and mouse controls listed in [Table 6](#) to control playback. You can also preview other media in the nicknames list, if the QuickTime Player supports the format.

## Workflow Portal Keyboard Controls

The Windows client window, keyboard, and mouse controls are listed in [Table 6](#).

**Note:** Clicking in the playback controls area, or on the video focuses the preview player controls (indicated by the blue focus border). Focusing this area is necessary for the “JKL” controls, and also allows you to use the Ctrl hot keys without pressing Ctrl.

**Table 6.** Player Controls & Keyboard Shortcuts for Windows Client Media Viewer

| Function                   | Controls   |
|----------------------------|--|
| Play/Pause/Reverse         | <i>Ctrl+P or Ctrl+Space</i><br><i>J</i> (Reverse play—repeat for -1.5x, -2x, -5x, -8x)<br><i>K</i> (Pause)<br><i>L</i> (Play—repeat for 1.5x, 2x, 5x, 8x)<br><i>JK simultaneously</i> (Reverse play slow motion -1/8x; repeat for -1/4x, -1/2x)<br><i>KL simultaneously</i> (Forward play slow motion 1/8x; repeat for 1/4x, 1/2x) |
| Stop                       | <i>Ctrl+S</i>  |
| Forward Frame              | <i>Ctrl+F</i><br><i>Ctrl + Mouse Wheel</i> , one frame per wheel click<br><i>K held down + L</i> (Forward bump one frame)<br><i>L held down with K already pressed</i> (Forward bump repeat 1/4 speed)<br><i>Left Arrow</i> (Reverse bump one frame)<br><i>Right Arrow</i> (Forward bump one frame)                                |
| Forward/Reverse 10 Frames  | <i>Up Arrow</i> (Reverse bump 10 frames)<br><i>Right Arrow</i> (Forward bump 10 frames)  |
| Forward/Reverse One Second | <i>Mouse Wheel (no modifier keys)</i> —one second per wheel click  |
| 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+B</i><br><i>Ctrl + Mouse Wheel</i> , one frame per wheel click<br><i>K held down + J</i> (Reverse bump one frame)<br><i>J held down with K already pressed</i> (Reverse bump repeat 1/4 speed)   |
| Mark In                    | <i>Ctrl+I or Ctrl+E</i>  |



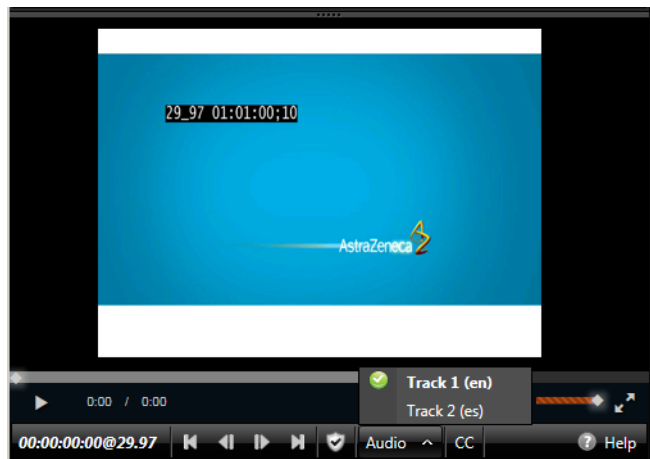
**Table 6.** Player Controls & Keyboard Shortcuts for Windows Client Media Viewer (Continued)

| Function                | Controls  |
|-------------------------|---|
| Mark Out                | <i>Ctrl+O or Ctrl+R</i>   |
| Go to mark in frame     | <i>Ctrl+Q</i>   |
| Go to mark out frame    | <i>Ctrl+W</i>   |
| Go to start             | <i>Ctrl+Home</i>  |
| Go to end               | <i>Ctrl+End</i>   |
| Audio Mute (toggle)     | <i>Ctrl+M</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>   |
| Duplicate selected clip | <i>Ctrl+T</i> (Selects the new clip and sets its mark in to the original clip's mark out, if appropriate) |

## Previewing Proxy Media in the Web Client

When you view proxy files in the Workflow Portal Web client, you are utilizing the native HTML5 Video Player in the Web browser.

**Figure 159.** Web Client—Typical HTML5 Player Controls



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**Note:** The appearance of captions in the proxy may vary, depending on the browser you're using. Try other supported browsers to find one that best suits your needs. When playing to the end of a proxy in Chrome, versions 35 and 36, Telestream has observed that the media player may display an incorrect duration as a result of a round-up error. This anomaly is cosmetic. If you set this frame as a mark-out point, the correct timecode is entered by Workflow Portal.

---

Use the Flip action to produce an MP4 proxy file for previewing in the Workflow Portal Web client's HTML5 Media viewer, using these settings:

- Encoder: MP4 Encoder
- Video Codec: x264
- Audio Codec: AAC
- Container: MP4 File

Make sure that your encoded proxy file is the same frame rate and timecode notation as your production media. Always use the *Vantage Proxy* [nickname](#) for the proxy file, so that the file automatically displays in the media player when you select a binder.

Telestream suggests that you generate SD proxies (4:3) at 640 x 480 frame size. For HD proxies (16:9), generate them at 640 x 360 frame size.

---

**Note:** You can right-click on the video to display a context menu with many player commands as an alternative to using the player controls or keyboard shortcuts. The available controls vary with the browser.

---

To view a proxy, select a binder and use the controls in [Table 7](#) to control playback.

## Previewing WebVTT Caption Files in the Web Portal Player

Vantage can process media containing closed captions and produce an output proxy file and an accompanying WebVTT caption file. The proxy may then be previewed with WebVTT captions in the Web Portal player within the Internet Explorer browser.



To create a proxy with WebVTT captions, follow these requirements:

- Use an Analyze action at ingest set to *Ancillary Data Detection > Publish > Generate WebVTT Attachment* to create a WebVTT file nicknamed *Vantage Caption Source*.
- Use a Flip action to transcode the file using the MP4 x264 encoder set for 1080i with closed captions enabled.
- Use a Register action to place the proxy and the WebVTT files in the same catalog.
- Display the proxy with captions in the Web Portal Player. Be sure to set the player caption control in the gear menu to enable Closed Captions.
- Only Internet Explorer supports this playback feature.








## Web Portal Keyboard Controls

The keyboard controls are dependent on the Web browser. (Most browsers provide fast forward, and some (such as Internet Explorer) provide reverse as well. Workflow Portal's playback rates aren't generally implemented in every step—usually only x2 and x8 are supported.


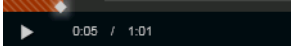



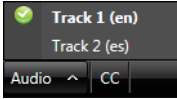
**Table 7.** Player Controls & Keyboard shortcuts for HTML5 Video Viewer

| Function | Controls   |
|----------|--|
| Play     |   (appears in binder list)<br>Press L x 1—play 1x speed (normal).<br>Press L x 2—play 2x speed.<br>Press L x 3—play 3x speed.<br>Press L x 4—play 5x speed.<br>Press L x 5—play 8x speed.<br><br>(IE only) Click in the video region, then tap the + (plus) key to accelerate the clip's play speed to the next level.<br>Press the - (minus) key to decelerate the clip's play speed down the next level. Using + and - keys may cause audio to mute. |

**Table 7.** Player Controls & Keyboard shortcuts for HTML5 Video Viewer

| Function       | Controls   |
|----------------|--|
| Reverse Play   |  <p>Press J x—reverse play.<br/>           Press J x 2—reverse play 2x speed.<br/>           Press J x 3—reverse play 3x speed.<br/>           Press J x 4—reverse play 5x speed.<br/>           Press J x 5—reverse play 8x speed.</p> <p>(IE only) Click in the video frame, then press the + (plus) key to accelerate the clip's play speed up to the next level. Press the - (minus) key to decelerate the clip's play speed down the next level. Using + and - keys may cause audio to mute.</p> |
| Stop/Pause     |  <p>Press K—pause.</p> <p>Press space bar— pause. (This only works when the play/pause button has focus—that is, you have previously clicked it.)</p>   |
| Forward Frames |  <p>Press K then L—step forward one frame.</p> <p>(IE only) Press the Right Arrow key—move forward 10 frames. (This only works when the video frame has focus—that is, you have previously clicked it.)</p>  |
| Reverse Frames |  <p>Tap K then J—move reverse one frame.</p> <p>(IE only) Press the Left Arrow key to move reverse 10 frames. (This only works when the video frame has focus—that is, you have previously clicked it.)</p>   |
| Go to start    |  <p>(IE only) When the video frame has focus, press the Home key.</p>   |
| Go to end      |  <p>(IE only) When the video frame has focus, press the End key.</p>  |
| Adjust Volume  |  <p>(IE only) Click in the video region, then:<br/>           Press the down arrow key—reduce volume.<br/>           Press the up arrow key—increase volume.</p>  |

**Table 7.** Player Controls & Keyboard shortcuts for HTML5 Video Viewer

| Function           | Controls  |
|--------------------|---|
| Mute audio         | <br>(IE only) Press the M key.   |
| Scroll media       |   |
| Full screen mode   | <br>Press this button to expand to full screen mode.   |
| Zoom mode          | (IE 11 only) Click in the video frame, then press Z to zoom in. Press Z again to zoom back out.   |
| Video-safe overlay | <br>Click to display/hide the video safe overlay frame, for SD and HD proxies.   |
| Closed captioning  | <br>Click to display closed captions, when provided by browser.  |
| Audio track menu   | <br>When multiple audio tracks are present, the Audio menu displays. Click to select the track you want to hear. (IE only). |

## Previewing Non-proxy Media

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**Note:** This feature is only supported in the Windows client and only when the binder detail display is enabled in the configuration.

---

Media with a nickname other than *Vantage Proxy* may be played under certain conditions. Select the media in the binder list (directly above the media player) and try these methods:

1. For QuickTime (.mov) files, select the file and use the media player controls to play the media file.
2. To play a QuickTime file outside the embedded media player, right-click the media and select Open With Default Program or click the file icon directly above the binder list to play the media file in the default program for MOV files.
3. If you don't have a default program assigned to handle MOV files, right-click the media asset, and select Open Containing Folder or click the folder icon directly above the binder list. The Windows folder containing the media opens, so you can right-click the file and play it using Open With to select a suitable program.
4. For files other than QuickTime, right-click the media and select Open With Default Program or click the file icon directly above the binder list to play the media file in the default program for the specified suffix of the file.
5. If you don't have a default program assigned to play this file type, right-click the media asset, and select Open Containing Folder or click the folder icon directly above the binder list. The Windows folder containing the media opens, so you can right-click the file and play it using Open With to select a suitable program.

## Configuring Metadata Labels

When the configuration permits it, you can view and update the metadata [labels](#) ingested, produced, updated, or passed through previous workflows in Workflow Portal.

**Note:** In a Forward Binder configuration, you edit metadata before submitting the binder to a publishing workflow. Changes are made in the binder you selected in the catalog. In a Copy Binder configuration, you click Submit and then enter metadata for the new binder you are creating. Your edits do not affect the original binder you selected from the catalog—only the new, copied binder.

When you submit a binder, all metadata [labels](#) are included. If the configuration supports metadata entry and editing, you can modify metadata labels before you submit. All metadata labels are applied to all media files that are being submitted.

The following topics describe how to edit metadata labels:

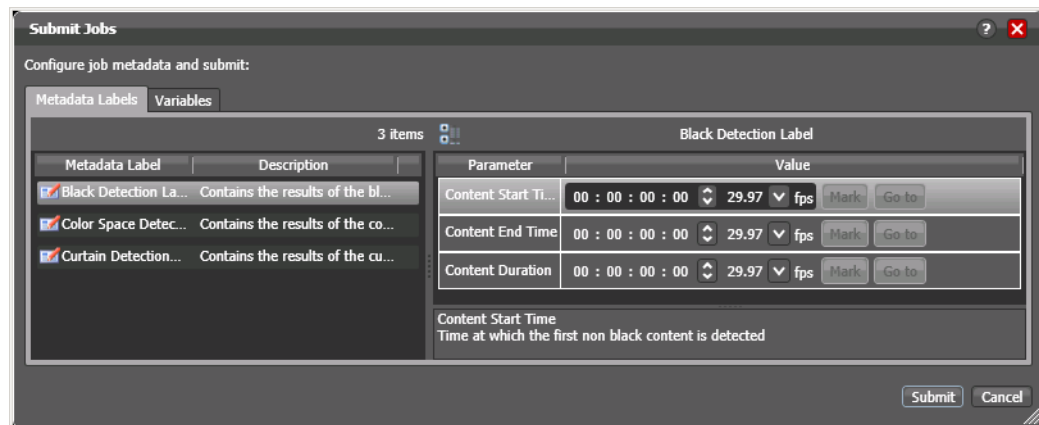
- [Editing Metadata Labels with the Windows Client](#)
- [Configuring Metadata Labels with the Web Client](#)

### Editing Metadata Labels with the Windows Client

If the configuration supports metadata editing, you can edit them as follows:

1. Initiate submit mode as described in the appropriate one of the following topics:
  - [Initiating Binder Submission in the Windows Client](#)
  - [Initiating Binder Submission in the Windows Client](#)
2. Select the Metadata Labels tab.

**Figure 160.** Submit Jobs Window, Browse Network Configuration



3. Select the label you want to edit from the Metadata Label list.
4. In the Parameter list to the right, edit the parameter values.

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.

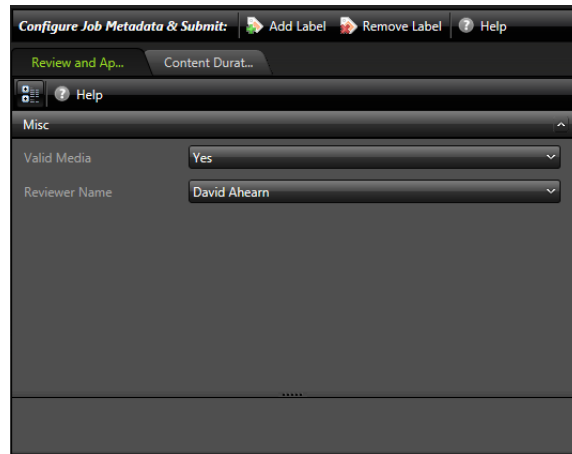


## Configuring Metadata Labels with the Web Client

If the configuration supports metadata editing, you can configure them as follows:

1. Initiate submit mode as described in [Initiating Binder Submission in the Web Client](#).

**Figure 161.** 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 edit 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 [Specifying Variable Values](#).
7. When you are done preparing for submission, click Submit.

## Specifying Media Files

When enabled in a configuration, you can select specific media to submit to a target workflow, to match what the workflow expects to ingest.

---

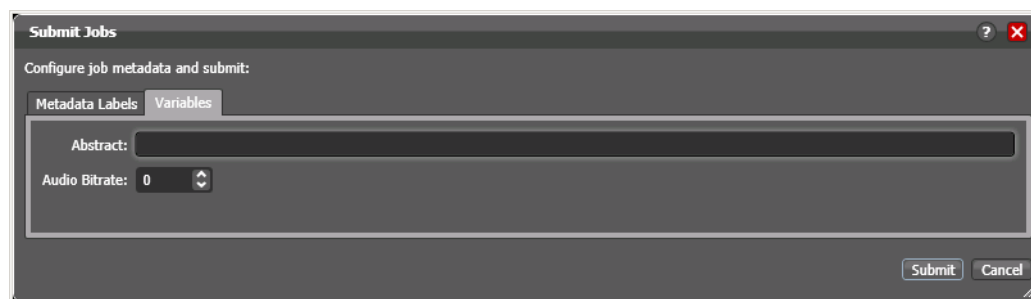
**Note:** When this feature is disabled, you can only submit a binder to a target workflow if the binder contains all of the labels, media, and/or attachments that are expected in the target workflow. This requirement must be considered during the workflow design phase.

---

Specify media to submit to the target workflow as follows:

1. On the Forward to Workflows tab, check the workflows to use, if permitted.
2. Click the Submit button to display the Submit Jobs dialog.
3. Display the Variables tab, as shown below:

**Figure 162.** Variables Tab, Windows Client



4. For each variable displayed, enter or select the run-time value as required.

## Specifying Variable Values

Variables and their values are not forwarded from one workflow to another, but a configuration may enable you to add variable values for use in a target workflow before you submit the media.

---

**Note:** In Copy Binder configurations, you specify values for variables (if any) *after* you click the Submit button.

---

Specify run-time values for variables as follows:

1. On the Forward to Workflows tab, check the workflows to use, if permitted.
2. Click the Submit button to display the Submit Jobs dialog.
3. Display the Variables tab, as shown below:

**Figure 163.** Variables Tab, Windows Client



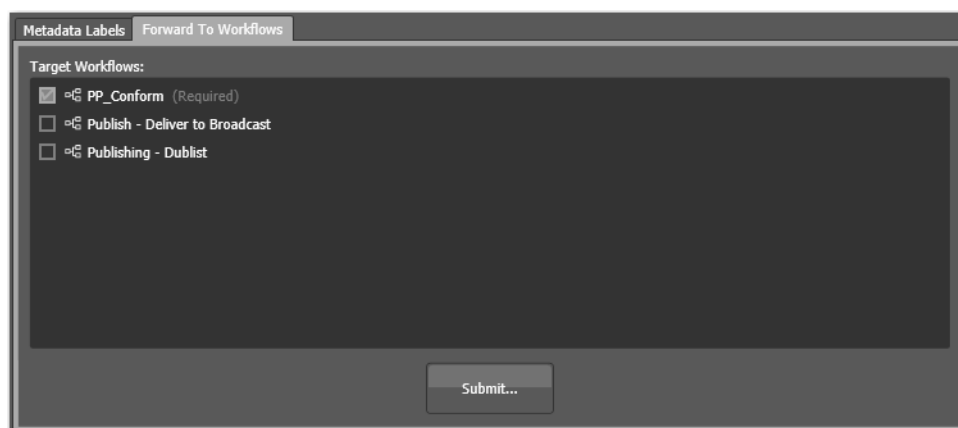
4. For each variable displayed, enter or select the run-time value as required.

## Submitting a Job to Workflows

Depending on how the configuration is set up, you may or may not be able to select workflows. If the Forward to Workflows tab is disabled, Workflow Portal does not display it. When you click Submit, the media is submitted to a pre-determined workflow or set of workflows, based on the configuration.

If the Forward to Workflows tab is displayed, you may be able choose which workflows you submit media to, as determined by the administrator.

**Figure 164.** Forward to Workflows Tab—Windows Client



To select which workflows to submit media to, display the tab and check optional workflows as appropriate. For each checked workflow, a job is submitted.

## Initiating Binder Submission in the Windows Client

A configuration may be set up to support submission to one workflow or to multiple workflows. And, it may display one or more required workflows, and it may display optional workflows.

If the configuration allows you to view the workflows to which you can submit, it displays a Forward to Workflows tab with a Submit button. If it doesn't, there is a Submit button at the bottom of the Workflow Portal window.

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 [Specifying Variable Values](#).
5. When you are done, click Submit.


## Initiating Binder Submission in 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 [Specifying Variable Values](#).
4. When you are done preparing for submission, click Submit.

# Windows Client Menus

Table 8 describes the menu selections in the Workflow Portal Windows client.

**Table 8.** Workflow Portal Windows Client Menus

| Menu    | Selection  | Description   |
|---------|--|---|
| File    | Change Vantage Domain                              | See <a href="#">Logging into or Changing Vantage Domains in Windows Client Programs.</a>  |
|         | Change Vantage User                                | See <a href="#">Changing Vantage Users in Windows Client Programs.</a>  |
|         | Change/Reload Application Configuration            | See <a href="#">Changing or Reloading a Configuration.</a>  |
|         | Exit   | Closes the Workflow Portal program.   |
| Options | Restore Tips & Warnings                            | Restores the display of Workflow Portal tips and warnings after the feature has been disabled.  |
|         | Hide Tips & Warnings                               | Hides Workflow Portal tips and warnings.  |
|         | Prompt for Login Next Time Application is Launched | When checked, Workflow Portal requires login each time the program is launched, to increase security.   |
|         | Use Clip Start Time                                | Toggle this feature. When a check displays, the preview window uses the start time defined in the proxy media. If no check displays, the start time begins at zero. |
| Help    | Contents   | Display a Windows help version of this guide.   |
|         | Index  | Display the index of this guide.  |
|         | Search   | Search for key words in this guide.   |
|         | Online Help  | Display the Vantage guides available on the Telestream Web site.  |
|         | About  | Display the Workflow Portal version information.  |

## Web Client Menus

Table 8 describes the menu selections and title bar options in the Web client.

**Table 9.** Workflow Portal Web Client Menus

| Menu              | Selection                | Description   |
|-------------------|--------------------------|---|
| Title bar options | Change Password          | See <a href="#">Changing Passwords in Windows Client Programs</a> .                       |
|                   | Logout                   | Log out the current Vantage user.   |
|                   | Change Domain            | See <a href="#">Logging into or Changing Vantage Domains in Windows Client Programs</a> . |
| 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.             |



# Troubleshooting Workflow Portal

Use the following topics to help you solve certain problems with Workflow Portal:

## Opening Workflow Portal the First Time

When opening Workflow Portal for the first time, depending on the design of your network and the location of your client workstation and Vantage domain server, the Domain login dialog may not display your Vantage domain. If this is the case, you may be able to log in by using the name or IP address of the Vantage domain server. For more details, see [Logging into or Changing Vantage Domains in Windows Client Programs](#).

## Difficulties Changing Configurations

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...

Either the domain is not licensed for running Workflow Portal or all available Workflow Portal licenses are in use. Workflow Portal will operate in unlicensed/demo mode, but 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 SelectSessionsByExecution...

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.

## Problems Playing Proxy Files

If you can't play proxy files in a binder, review these issues:

- In the Web client, the Wait cursor displays forever:  
Your virtual directory may not be implemented in IIS  
The location path may not be specified correctly, or it may be using a letter drive where a UNC path is required for remote client/service access  
The alias to the directory may not be specified in the store  
The alias path may be incorrect. For example, you used *localhost*, but the Web client is not running locally—you should supply the server name.
- In Workflow Portal, make sure that you create a QuickTime H.264/AAC proxy for previewing/clipping. Use the QuickTime encoder, and configure the container settings to generate a timecode track. Make sure that your encoded proxy file is the same frame rate and timecode notation as your production media. Assign the nickname *Vantage Proxy*, so that the media player in Workflow Portal automatically loads and displays your proxy.
- For previewing media in the Workflow Portal Web client's HTML5 Media viewer, make sure the video is encoded using the Flip action (and nicknamed *Vantage Proxy*), with these settings:  
Encoder: MP4 Encoder  
Video Codec: x264  
Audio Codec: AAC  
Container: MP4 File
- When using the Workflow Portal Web application on a Windows Server platform, you must install the Desktop Experience feature in order to view proxy media in the HTML5 Media Player.
- When playing to the end of a proxy in Chrome, versions 35 and 36, Telestream has observed that the media player may display an incorrect duration as a result of a round-up error. This anomaly is cosmetic. If you set this frame as a mark-out point, the correct timecode is entered by Workflow Portal.

## Configurations Don't Display in the Web Client

You've created a new configuration, but you can't select it in the Web portal.

- Perhaps it is not a Copy Binder or Forward Binder configuration—the other types are not designed to function in the Web client, only the Windows client.
- Perhaps you (your Vantage user) don't have permission to use it.

# 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 Overview](#).

---

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 application. See [Using the Job Status Views Web Application](#).

---

## About the Job Status Views Web Application

You can use the Job Status Views Web application to do the following:

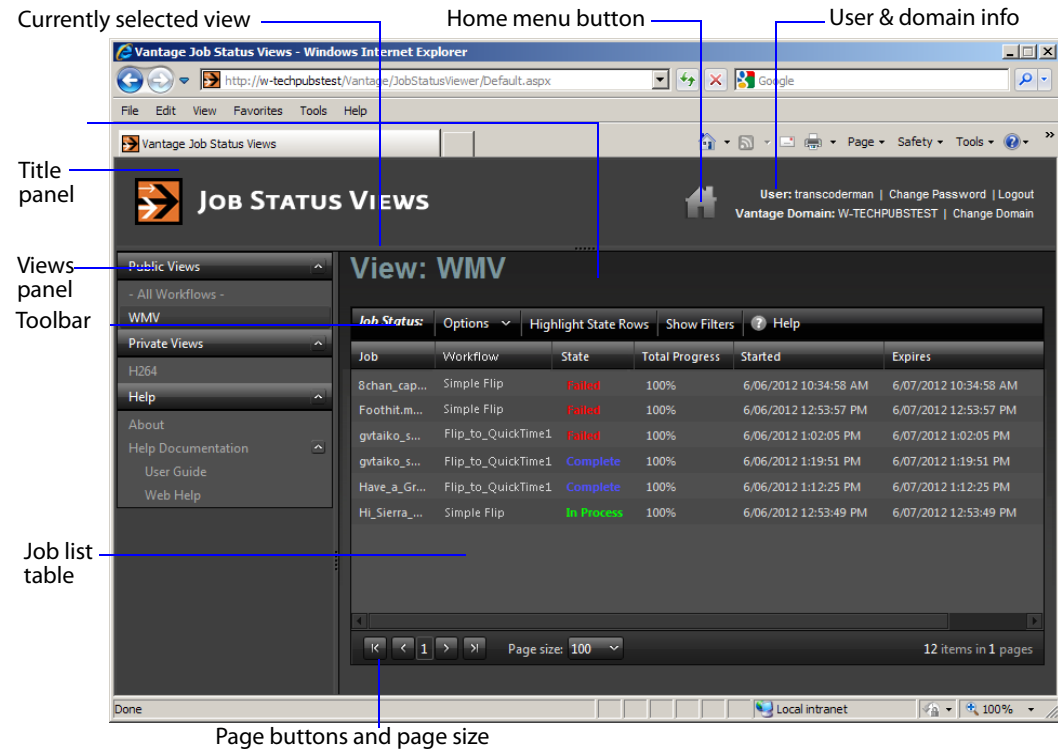
- Display information about submitted [jobs](#)
- Sort and filter job entries
- Highlight and identify jobs in different states
- Stop, restart, and delete jobs
- Troubleshoot job processing issues.

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 165.

**Figure 165.** 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 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 user name, private views display *None Available*.

The following sections describe how to use the Web application:

- [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 file submitted to start the job, and the type of submission: *Manual Submit*, for example.
- **State**—The current state of the job, which can be:

The state column displays color-coded key words to identify the status of the job.

- *Green*—In Process. The action is currently executing.
- *Blue*—Complete. The action completed successfully.
- *Red*—Failed. This action has failed or an upstream action failed.
- *Black*—Ignored. This action was not executed due to Perform On state mismatch.
- *Light Gray*—Paused or Suspended. An action is paused or suspended.
- *Magenta*—Stopped by User. An action was stopped by a user.
- *Orange*—Waiting to Retry. An action failed and is waiting to re-execute the action.
- *Purple*—Waiting for a Service. No service of the required type is running that can execute the action. For example, no Transcode Service is running and the Flip action is purple.
- *Light Green*—Waiting due to a run on rule that must be satisfied. For example, a Flip action requires a Lightspeed server, but no Lightspeed servers are present.
- *White*—The action is waiting to be processed by a service. Upstream actions have not yet completed execution.
- *Yellow*—Waiting execution, because even though the action has been accepted by a service, there is no slot in which to run the action.

These optional columns can be added to 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.
- *Workflow*—The name of the workflow that started the job.
- *Expires*—The date and time when the job expires and both the job entry and its binder 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 In Process Jobs*—Displays only **jobs** that are currently running.
- *Stop | Start | Delete*—Enables or displays the ability of the operator to manage jobs—stopping, restarting, and deleting them.



## 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 165](#).

## Sorting Jobs by Column

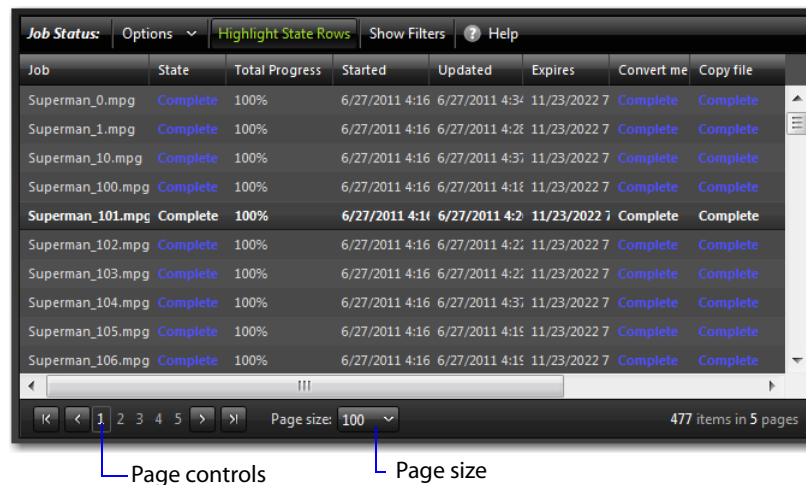
To sort the displayed [job](#) list according to the entries in any column, click that column label. Each time you click the column label, the sort changes in the following sequence: ascending order, descending order, and default sort order.

## 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 166](#) shows where the page controls appear in the job panel.

**Figure 166.** 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 167](#).

**Figure 167.** Job List, Showing Job Filters

| Job Status: Options Highlight State Rows Show Filters Help |            |                |                       |                       |
|--|------------|----------------|-----------------------|-----------------------|
| Job  | State      | Total Progress | Started               | Updated               |
|  | All States |                |                       |                       |
| 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 |
| Page size: 100 9 items in 1 pages                          |            |                |                       |                       |

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 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 transcoding workflows, using only a Web browser interface. 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 Overview](#).

---

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.

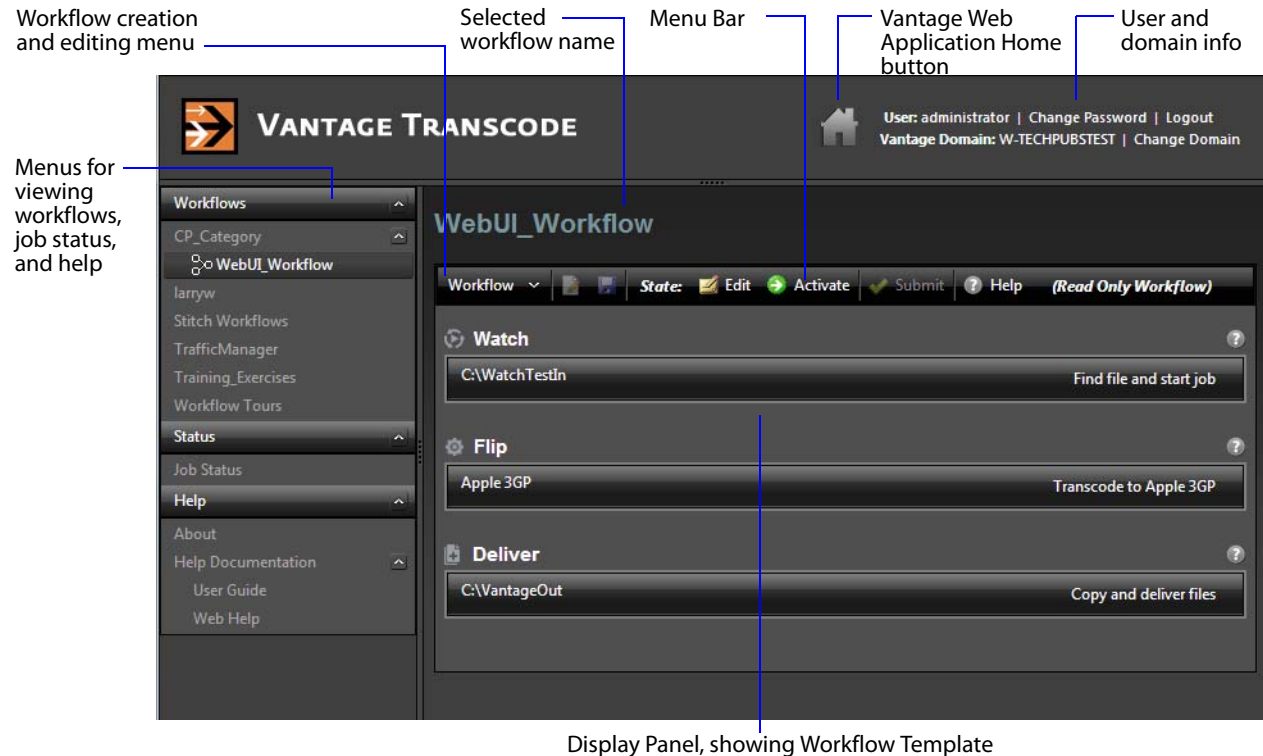
---

For designing complex, branching workflows with no restrictions, use the Vantage Workflow Designer. For basic, single-branch workflows, the Transcode Web application offers you a quick fixed-template workflow design alternative.

# Vantage Transcode Overview

After you log in, the Vantage Transcode Web application displays the workflow design window shown in [Figure 168](#).

**Figure 168.** Vantage Transcode Window



Display Panel, showing Workflow Template

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 Applications 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:

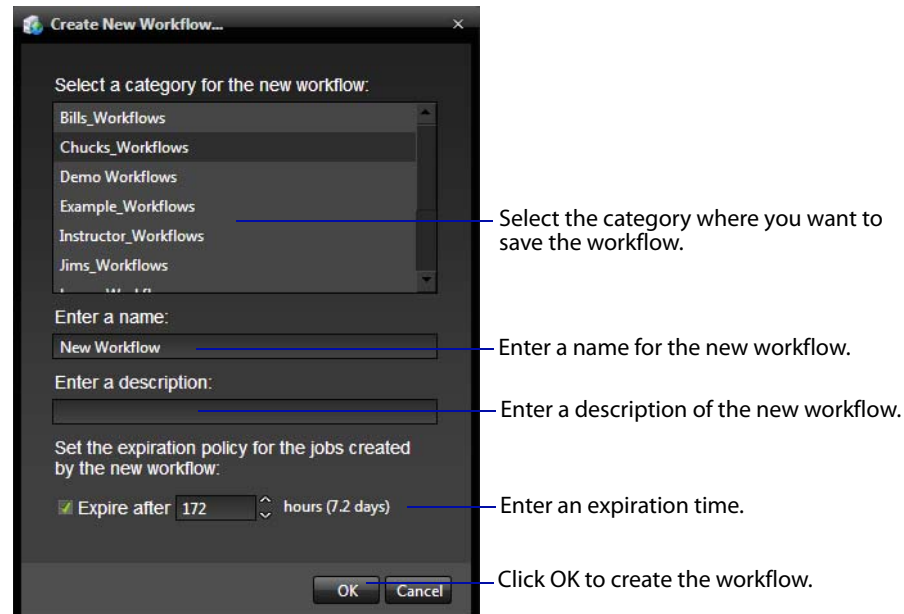
- [Creating a New Workflow](#)
- [Saving a Workflow](#)
- [Activating a Workflow and Submitting Files](#)
- [Deactivating a Workflow](#)
- [Editing a Workflow](#)
- [Duplicating a Workflow](#)
- [Deleting a Workflow](#)



## 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 169.** 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 Vantage automatically deletes job records from the [database](#) for this workflow, and deletes the associated binder. 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](#).

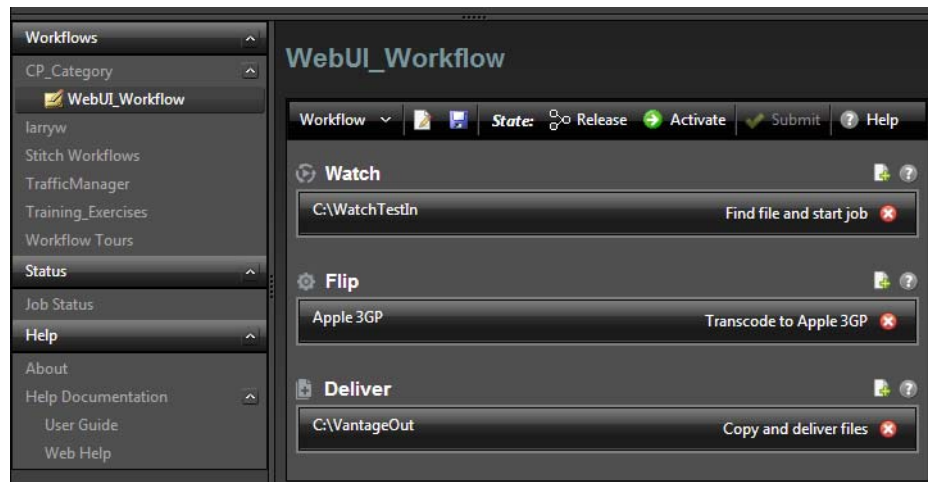
## Saving a Workflow

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 and Submitting Files

To activate a workflow, right-click it in the Workflows panel on the left and click the Activate button in the menu bar (Figure 170). When activated, the workflow displays a green arrow, and it can process jobs.

**Figure 170.** Activate a Workflow



When a workflow is activated, it monitors the selected Watch folder for new files to transcode. You can also manually submit a file for immediate transcoding.

To submit a file:

1. Click Submit in the menu bar above the workflow (Figure 171).
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 171.** Submitting a File



## Deactivating a Workflow

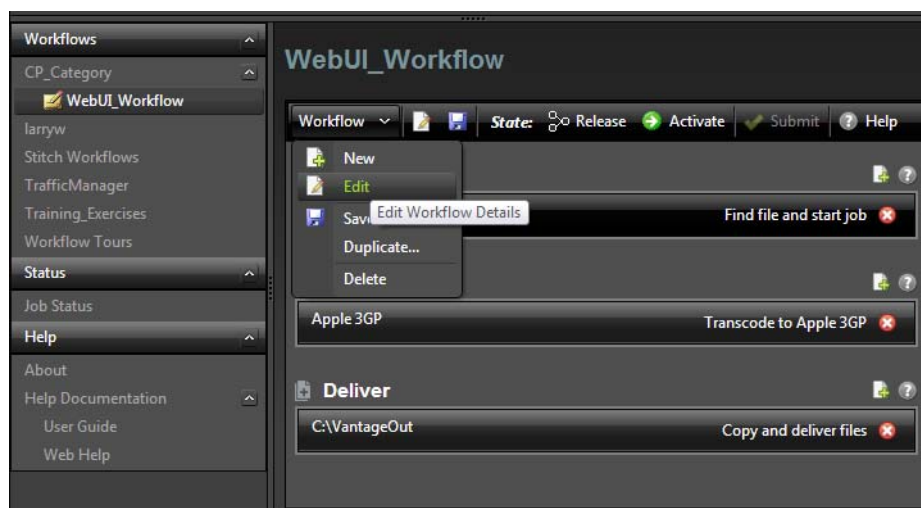
To deactivate an active workflow, right-click it in the Workflows panel on the left, and select Deactivate. When a workflow is deactivated, you can edit it, but you cannot process jobs with it.

## 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 172). 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 172.** 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.

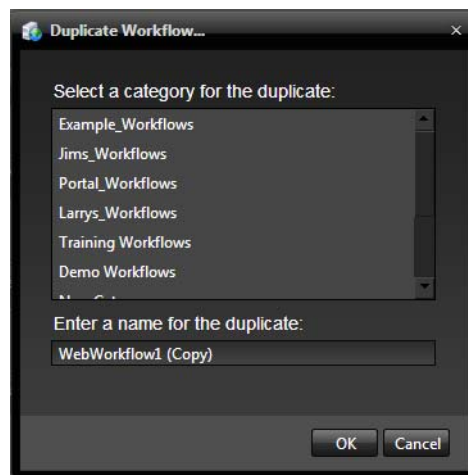
## Duplicating a Workflow

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 173.** 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.

---

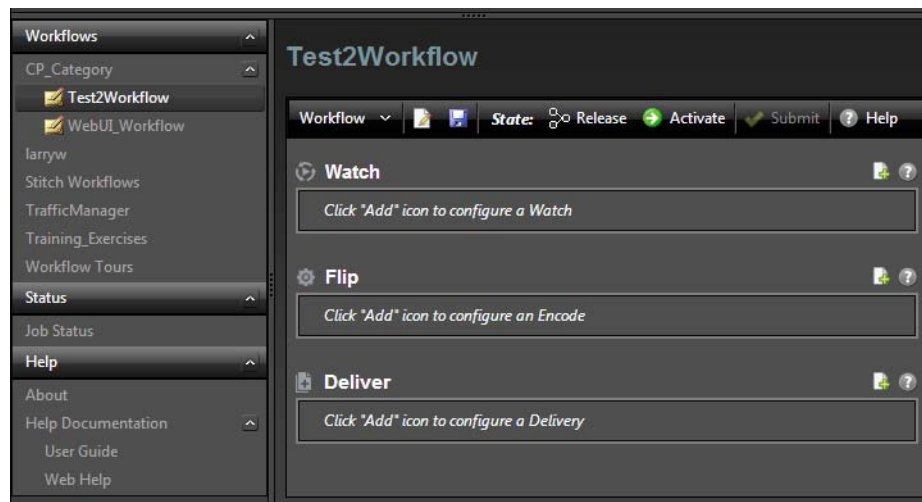
## Configuring Workflows

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 174.** 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 watch 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 watch 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 watch 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 Deliver 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 175).

**Figure 175.** Job Status and Actions Panels

Job Status panel

The screenshot displays the Vantage Transcode interface. On the left is a navigation menu with 'Status' expanded, showing 'Job Status' selected. The main area is divided into two panels. The top panel, 'Job Status', contains a table of jobs. The bottom panel, 'Actions', shows details for a selected job.

**Job Status Table:**

| Job         | Workflow     | Category      | State    | Started              | Updated              | Expires                |
|-------------|--------------|---------------|----------|----------------------|----------------------|------------------------|
| qaoa8290... | DG HD Cat... | TrafficMa...  | Complete | 5/24/2013 4:29:29 AM | 5/24/2013 7:32:35 AM | 10/19/2024 10:32:35 AM |
| qaoa8282... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:28:26 AM | 5/24/2013 7:28:23 AM | 10/19/2024 10:28:23 AM |
| qaoa8278... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:25:17 AM | 5/24/2013 7:23:34 AM | 10/19/2024 10:23:34 AM |
| qaoa8287... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:24:13 AM | 5/24/2013 7:16:05 AM | 10/19/2024 10:16:05 AM |
| qaoa8262... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:22:09 AM | 5/24/2013 7:11:12 AM | 10/19/2024 10:11:12 AM |
| qaoa8288... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:20:32 AM | 5/24/2013 7:03:50 AM | 10/19/2024 10:03:50 AM |
| qaoa8284... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:20:31 AM | 5/24/2013 6:58:56 AM | 10/19/2024 9:58:56 AM  |
| qaoa8281... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:17:22 AM | 5/24/2013 6:51:32 AM | 10/19/2024 9:51:32 AM  |
| qaoa8275... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:15:17 AM | 5/24/2013 6:46:40 AM | 10/19/2024 9:46:40 AM  |
| qaoa8272... | DG HD Cat... | TrafficMan... | Complete | 5/24/2013 4:14:11 AM | 5/24/2013 6:39:20 AM | 10/19/2024 9:39:20 AM  |

Page size: 100 177 items in 2 pages

**Actions Table:**

| Action  | State    | Progress | Machine      | Resource Cost | Created              | Updated              |
|---------|----------|----------|--------------|---------------|----------------------|----------------------|
| Catch   | Complete | 100%     | W-TECHPUB... | 1             | 5/24/2013 4:29:29 AM | 5/24/2013 4:29:29 AM |
| Copy    | Complete | 100%     | W-TECHPUB... | 2             | 5/24/2013 4:29:29 AM | 5/24/2013 4:29:29 AM |
| Examine | Complete | 100%     | W-TECHPUB... | 2             | 5/24/2013 4:29:29 AM | 5/24/2013 4:29:29 AM |
| Flip    | Complete | 100%     | W-TECHPUB... | 3             | 5/24/2013 4:29:29 AM | 5/24/2013 4:29:29 AM |

Actions panel

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's 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.

## Displaying Items in Views

Two items of information are always displayed as columns in a view:

- **Job**—The name of the file submitted to start the job, and the type of submission: *Manual Submit*, for example.
- **State**—The current state of the job, which can be:

The state column displays color-coded key words to identify the status of the job.

- *Green*—In Process. The action is currently executing.
- *Blue*—Complete. The action completed successfully.
- *Red*—Failed. This action has failed or an upstream action failed.
- *Black*—Ignored. This action was not executed due to Perform On state mismatch.
- *Light Gray*—Paused or Suspended. An action is paused or suspended.
- *Magenta*—Stopped by User. An action was stopped by a user.
- *Orange*—Waiting to Retry. An action failed and is waiting to re-execute the action.
- *Purple*—Waiting for a Service. No service of the required type is running that can execute the action. For example, no Transcode Service is running and the Flip action is purple.
- *Light Green*—Waiting due to a run on rule that must be satisfied. For example, a Flip action requires a Lightspeed server, but no Lightspeed servers are present.
- *White*—The action is waiting to be processed by a service. Upstream actions have not yet completed execution.
- *Yellow*—Waiting execution, because even though the action has been accepted by a service, there is no slot in which to run the action.

These optional details 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.
- **Workflow**—The name of the workflow that started the job.
- **Expires**—The date and time when the job expires and both the job entry and its binder will be deleted.

## 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 job start date and time within a 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's 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* 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.

### **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 [Vantage 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, Workflow Portal 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 [Exist 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 Colocate, Compose, and Conform actions, are part of the optional, licensed Post Producer feature in Vantage. The Chronicle action uses the Edit Service to convert post-rendered Composition XML files into formats for use in other systems—ad-insertion systems, for example.

### Colocate action

The *Colocate action*, along with Chronicle, Compose, and Conform actions, are part of the optional, licensed Post Producer feature in Vantage. The Colocate action uses the Edit Service to ingest Composition XML files with references to non-file-based URLs (for example, Amazon S3), localize the files, and convert the media references in a copy of the CML into paths to the localized 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.

### Compose action

A *Compose action*, along with Chronicle, Colocate, 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 (Anystream AN2, Final Cut Interchange XML, Simplified Avid AAF, QuickTime Reference, Adobe FC7XML, and Telestream TSEDL) into a Composition XML file so that it can be used by the Conform action to compose media) into a Composition XML file so that it can be used by the Conform action to compose media.

**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.

**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 Colocate, 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](#).

**DPP Validate Action**

A *DPP Validate* action is executed by the Analysis service. You can use the DPP Validate action to confirm compliance of a DPP metadata XML file. If the XML file passes validation, TRUE is generated; otherwise FALSE is generated. You can test the results of the action downstream to change the workflow's actions based on the validation results. Optionally, you can also generate a report.

**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 Dublist action uses the [binder](#) name as the unique identifier for the commercial, so it should be set to 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 the Workflow Portal program to create EDLs.

### **Edit Service**

The *Edit Service* executes the Playlist actions: [Colocate action](#), [Conform action](#), [Chronicle action](#), and [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.

### **FileCatalyst action**

The *FileCatalyst action* is an optional, licensed feature, which enables Vantage workflows to access and deliver files to FileCatalyst servers via integrated FileCatalyst client software.

### **FileCatalyst Service**

The *FileCatalyst Service* implements the FileCatalyst action for Vantage.

### **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 Service which can optionally run on a [Lightspeed Server](#) for GPU-enhanced x264/x265 encoding and video processing. The IPTV Flip action and IPTV VOD 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.

### IPTV VOD Service

The *IPTV VOD Service* is the Vantage component that executes the [IPTV Flip action](#). This service (which can optionally run on a [Lightspeed Server](#) for H264 and HEVC 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.

### 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, or Ad-ID and other metadata values; this set of metadata is collectively called a Spot metadata label. Metadata labels can be 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/x265 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.

### MediaInfo action

The *MediaInfo 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 MediaInfo 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.

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**Note:** The MediaMate action is only supported on 64-bit Windows Server 2008.

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### 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/HEVC 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](#).

### **Multiscreen Service**

The *Multiscreen Service* is the Vantage component that executes the [Multiscreen Flip action](#). This service (which can optionally run on a [Lightspeed Server](#) for H264 and HEVC encoding and video processing), supports the features required to handle varying adaptive bit-rate encoding and packaging requirements.

### **Nexidia Action**

The Nexidia action is an optional, licensed feature in Vantage. It uses the Vantage Nexidia Service to interact with Nexidia QC servers running Nexidia QC software. The specified input files are passed to the Nexidia QC software where they are analyzed using the test profile selected.

### **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 to interface 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.

TrafficManager-centric extensions are presented here for backward compatibility.

### **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.

### **Pulsar Action**

The Pulsar action is an optional, licensed feature which enables broadcasters to integrate the Pulsar suite of content verification components directly in Vantage workflows.

### **Pulsar Service**

The Pulsar service implements the Pulsar action for Vantage.

### **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 [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 also be automatically submitted to a workflow starting with a Receive action from another 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. Transcoding for the Flip action is



performed by the Telestream Media Transcode and Analysis Engine on behalf of Vantage.

**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. 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, Workflow Portal operators search through the visible catalogs and folders, just as they might sort through folders in a file system.

**Vantage Cloud Manager**

The *Vantage Cloud Manager* enables Vantage system administrators to effectively configure cloud service provider accounts, start, stop, and configure domains, and monitor domain status.

**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 using the QuickTime encoder in H.264/AAC as QuickTime movies or MP4 files with H.264/AAC, 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 Workflow Portal.

See [media nickname](#).

### **Vantage Transcode Web application**

*Vantage Transcode Web application*—a Web application which allows users to quickly and easily build transcoding workflows, based on a Watch > Transcode > Deliver template. The Vantage Transcode Web application 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 via the Internet.

**Web Dashboard**

The *Web Dashboard* is an optional, licensed Web app which 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 Workflow Portal, they select the configuration appropriate to the task at hand, and Workflow Portal dynamically display the user interface components specified in 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.

**Workorder action**

A *Workorder action* is an [origin action](#); it uses the Monitor Service to regularly poll a target Windows directory for new workorder files to process. The Workorder action provides a simple and highly effective method of submitting multiple similar jobs without using the SDK.

A Workorder file is a comma-separated value (CSV) text file containing one or more work orders, or job descriptions. Each row in the CSV file specifies a job, and each column specifies either an input file or variable value. Workorder file configurations are specified in the Domain Management Console. At least one workorder scheme must be created in order to use a Workorder action.

When a new CSV file is discovered, the Workorder action submits one job for each row in the CSV file.

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