



# Tempo

Guide



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# Tempo 6.3 Guide

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# Introduction to Tempo

## What's In This Guide?

This guide provides an overview of what Tempo is, how to create Tempo workflows and compositions, and how to use the Tempo Portal to produce re-timed media assets.

The guide includes these chapters:

- [Introduction to Tempo](#)
- [Configuring Tempo](#)
- [Tempo Workflows](#)
- [Using Tempo](#)

## What's In This Chapter?

This Introduction chapter includes these topics:

- [What Is Tempo?](#)
- [How Does Tempo Work?](#)

## What Is Tempo?

Tempo™ is a complete solution designed specifically for re-timing file-based content—intelligently decreasing or increasing the running time of shows and segments by 1% to 10%. Tempo comes packaged as a turnkey system, including a Lightspeed Server, preinstalled Vantage system, and preconfigured Tempo option.

Using new time compression algorithms, Tempo can re-time the complete asset, not just the beginning, to deliver superior quality and faster turn-around times. Instead of throwing away frames as other technologies do, Tempo intelligently interpolates the time change over the content duration, resulting in a pristine output with no noticeable visible or audible artifacts.

Tempo runs on the Vantage media processing platform and Lightspeed Server, providing unparalleled media quality:

- Tempo is a turnkey system consisting of Tempo software running on the latest Vantage media processing platform and Telestream Lightspeed Server hardware. Tempo includes Vantage Transcode Pro.
- Tempo connects seamlessly to other Vantage or third-party systems to create a powerful automated workflow – all under unified system control.
- Tempo can shorten or lengthen an existing asset's running time from 1% to 10% without noticeable loss of video or audio quality.

## How Does Tempo Work?

The following topics describe briefly how Tempo works. This information will give you the background needed to understand Tempo workflows and to use the Tempo Portal.

### Video

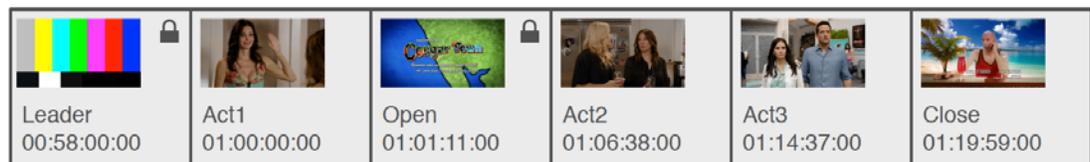
Tempo begins the re-timing process by analyzing each interpolated frame and predicting which elements can be adjusted for time compensation. Then it applies the re-timing over the duration of the content, or to the segments you identify for retiming. Since the entire file (or segment) is analyzed to determine the best candidate frames for adjustment, the desired time compression is applied longitudinally rather than at random intervals.

### Segmentation

Tempo changes are applied to either the entire duration of a clip, or to individual segments from the source file which are then assembled in a specific sequence to create the target file. By default the content consists of a single segment spanning the entire duration of the source file.

Segmentation identifies sections of the file that are eligible or ineligible for tempo changes. A section may be considered ineligible if any of these criteria apply:

- A Tempo change is not required (for example, bars, slate, etc.)
- A Tempo change is not permissible (for example, barter spots).
- A Tempo change would introduce unacceptable artifacts.



Segmentation allows the target file to contain a subset of the source file. This capability allows a segment to be excluded (for example, to remove an existing commercial) or inserted (such as to replace a texted shot with a textless version).

Segmentation identifies which sections of the file contribute to the source program duration. Tempo changes are then applied to each eligible segment in order to achieve the target program duration.

The target program duration may be specified as either an absolute value (such as 00:30:00;00) or a value relative to the source duration (such as +/- 00:01:00).

### Audio

Tempo performs compression operations on audio with equivalent timing for the video. Pitch correction is applied using a special synchronous technique that preserves the original sound pitch.

## Captions

Caption data (608 and 708) is redistributed to maintain the original presentation times without exceeding bandwidth limitations.

## Formats

Tempo supports many input and output formats and wrappers. For a list, consult the Vantage Transcode [encode](#) and [decode](#) format sheets on the [Telestream.net](http://Telestream.net) web site.

# Configuring Tempo

This chapter explains how to configure a Tempo Portal, catalogs, and binders so that your media proxies can be made available for configuring in the Tempo Portal. You will need to complete these configuration tasks to make Tempo fully ready to use.

This chapter includes these configuration topics:

- [Licensing Tempo](#)
- [Configuring Tempo](#)
  - [Add Vantage Users](#)
  - [Create Vantage Stores](#)
  - [Set the Tempo Session Limit](#)
  - [Create Catalogs](#)
  - [Create Proxies and Thumbnails](#)
  - [Create a Tempo Portal Configuration](#)
  - [Deploy Portals on Client Machines](#)

## Licensing Tempo

Tempo normally comes as a turnkey system installed and fully licensed on a Lightspeed K80 Server. If you purchased a turnkey system, skip this topic and go on to the next one.

If you are adding the Tempo option to an existing Vantage system, get the Tempo license from Telestream Sales at [enterprisesales@telestream.net](mailto:enterprisesales@telestream.net) or phone 530-470-1300, and install the license as explained below.

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**Note:** Tempo can be licensed only on a Lightspeed K80 Server. The license will not function on any other server type.

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To install a Tempo license, follow these steps summarized from the [Vantage Domain Management Guide](#):

1. Place a copy of the license file in a location accessible to the Tempo Server.
2. Start the Vantage Management Console by double-clicking its desktop icon.
3. In the Vantage Management Console left panel, select *Licenses*.
4. In the right panel, click the *Add License* button to display the Add/Update License dialog.
5. Navigate to the license location, select the license, and click *Open*.  
If this computer has an Internet connection, Vantage prompts you to accept the license agreement. If an error message appears, see *Troubleshooting License Installation Problems* in the [Vantage Domain Management Guide](#) to activate the license without an Internet connection.
6. Click *I Accept...* if you agree to the license terms, and click *OK*.
7. Read the Licensing Changed dialog and click *OK*.

This completes license installation. The Vantage Tempo feature should now be enabled.

# Configuring Tempo

Configuring a Tempo system is essentially a subset of the tasks required to set up a Vantage system, including creating stores, catalogs, binders, portal configurations, workflows, and deploying the Tempo Portal on client machines.

If you are familiar with those tasks, you may be able to skip the detailed steps presented below and simply skim each topic for any special details before performing the task. If you are not familiar with these tasks, detailed steps are provided to guide you.

The following topics describe the Portal configuration tasks:

- [Add Vantage Users](#)
- [Create Vantage Stores](#)
- [Create Catalogs](#)
- [Create Proxies and Thumbnails](#)
- [Create a Tempo Portal Configuration](#)
- [Deploy Portals on Client Machines](#)

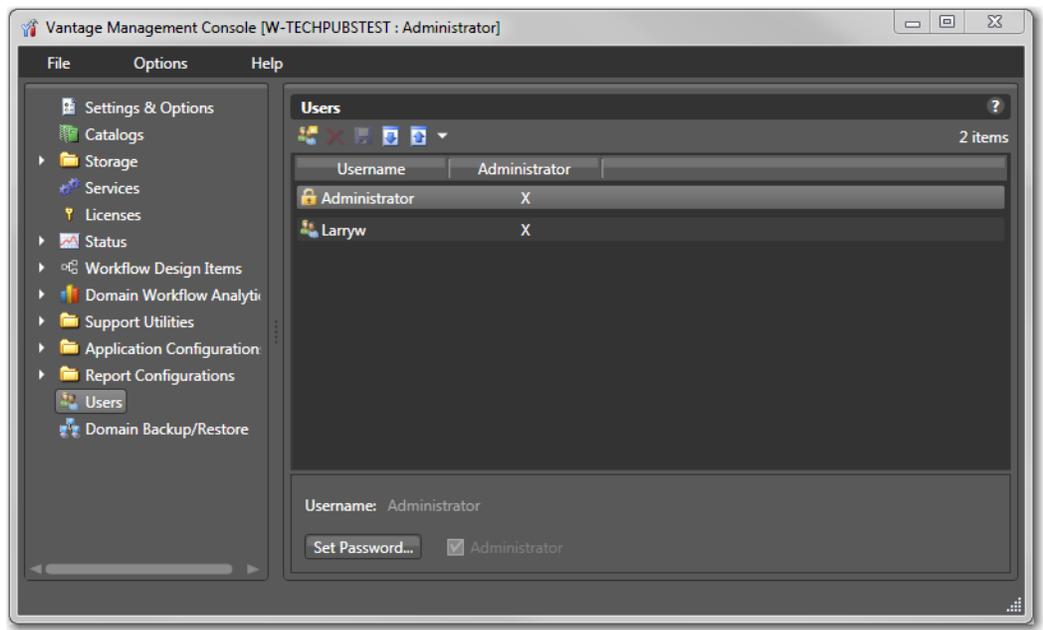
## Add Vantage Users

Before anyone can use the Vantage Tempo system, you must add them as users:

1. Start the Vantage Management Console by double-clicking the desktop icon.
2. In the Settings & Options > General panel, check *Enable user administration*, which must be enabled in order to manage users. You can also select *Use Windows Active Directory for Users* to allow logging in using Windows accounts.
3. In the components panel, select *Users*.

Vantage displays the Users detail panel shown in [Figure 1](#).

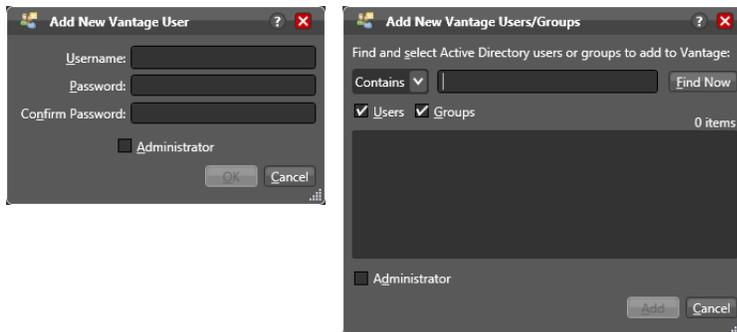
**Figure 1.** Users Detail Panel



## Adding Users

The procedure to add users differs slightly depending on whether you use Windows Active Directory or not. [Figure 2](#) shows the two different Add User windows.

**Figure 2.** Add User Dialogs



## Adding Users Without Windows Active Directory

To add a new user without using Windows Active Directory, follow these steps:

1. Click the *New User* button  or right-click and select *New User*.
2. Enter the username and password (and confirm the password) in the dialog box.
3. Check the *Administrator* check box if you want the new user to be an administrator.
4. Click *OK* to add the user, and then click *Save*  to save your changes.

## Adding Users With Windows Active Directory

The Vantage Active Directory feature allows you to create users and groups in Windows Active Directory and add them as users with or without administrator privileges:

1. Click the *New User* button  or right-click in the empty user list and select *New User*.
2. Enter part or all of the user name in the blank field and click *Find Now* to search for and list users whose names match the text you entered.  
The drop-down menu lets you select a filter for your search, and the *Users* and *Groups* check boxes allow searching for users, groups, or both (default).
3. Select a user in the displayed list.
4. Check the *Administrator* check box if you want the new user to be an administrator.
5. Click *Add* to add the user, and then click *Save*  to save your changes.

## Setting Passwords

To set the password of a user, click the *Set Password* button (or right-click the user in the list and click *Set Password*). When the dialog box displays, enter the password (and confirm the password) of the user. Click *OK* to close the dialog box, then click the *Save* button  to save your changes.

## Removing Users

Users can be removed by selecting the user in the *Users* list and clicking the *Delete* button  at the top of the *User Management* panel (or right-click the user and select *Delete*).

## Importing and Exporting Users

User lists can be imported and exported. To import a list of users, click the *Import* button , navigate to the XML file containing a list of users, and click the *Open* button. To export a list of users, click the *Export* button  (or right-click the list and select *Export*), enter an XML filename for the list of users, and click the *Save* button.

## Create Vantage Stores

Before you can begin configuring Tempo, you must have a fully configured Vantage system with Vantage Stores (folders) for holding interim results of Vantage and Tempo workflow processing. The stores are where Tempo will place temporary output media and other files that it produces before you use other workflows to move them to their final destination, such as a media or broadcast server.

If you have not already done so, create Vantage Stores as follows (or skip this topic if your stores are already configured). For additional details about stores, See *Managing Vantage Stores* in the [Vantage Domain Management Guide](#).

---

**Note:** When creating a store to hold proxy files viewed in the Tempo Portal, you may want to reference the store with a UNC path. Some SAN clients do not allow frame-accurate representation of proxies when using shared drives.

---

1. Start the Vantage Management Console by double-clicking the desktop icon.
2. In the components panel, select Storage > Vantage Stores.  
A list of Vantage Stores opens in the right panel.
3. Click the New Vantage Store button  in the toolbar to display the Add New Store dialog (or right-click and select New Vantage Store).
4. Type a name for the store in the Name text box.  
The name that you enter here is the name that appears in Workflow Designer when an action is configured to access a media file or attachment.
5. Specify the store root directory with a UNC path (recommended):
  - a. Click Modify to display the Browse for Folder dialog box.
  - b. Open Network, open the computer name, and select the root directory for the store.
  - c. Click OK.You can also type a UNC path in the Location text box. For example, `\\Computer-Name\Sharename`.

---

**Note:** If the Vantage store is on a different computer, you must publish a share and grant access to the appropriate Windows users before it will appear in the Browse for Folder dialog. For more information, see *Windows Authentication Guidelines* in the [Vantage Domain Management Guide](#).

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6. To specify the store root directory with a drive letter path, do the following:
  - a. Click Modify to display the Browse for Folder dialog box.
  - b. Select a local folder.
  - c. Click OK.You can also type a drive letter path in the Location text box. For example, `C:\folder\folder`.

---

**Note:** If you use a physical drive letter to specify a directory, only Vantage services and clients on the same computer can access the store. For more information, see *Understanding Path Specifications for Vantage Storage* in the [Vantage Domain Management Guide](#).

---

7. Click OK.
8. Click the Save button  to save the new store.

## Set the Tempo Session Limit

The Session Limit for each Vantage service determines the maximum number of concurrent sessions for a service. This value is displayed in the Vantage Management Console > Services > Session Limit display column.

The recommended Session Limit for Tempo is 2. The default Session Limit is 4.

To change the Session Limit:

1. Access the Vantage Management Console > Services panel.
2. Right-click the Edit service, and select Enter Maintenance Mode.
3. Select the Setup tab at the bottom of the window.
4. Click the Service Limits Configuration Item, and set the Session Limit to 2.
5. Click Apply.
6. Right-click the Edit service again, and select Exit Maintenance Mode.

---

**Note:** Changing the Edit service Session Limit affects all Edit actions (Conform, etc.).

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## Create Catalogs

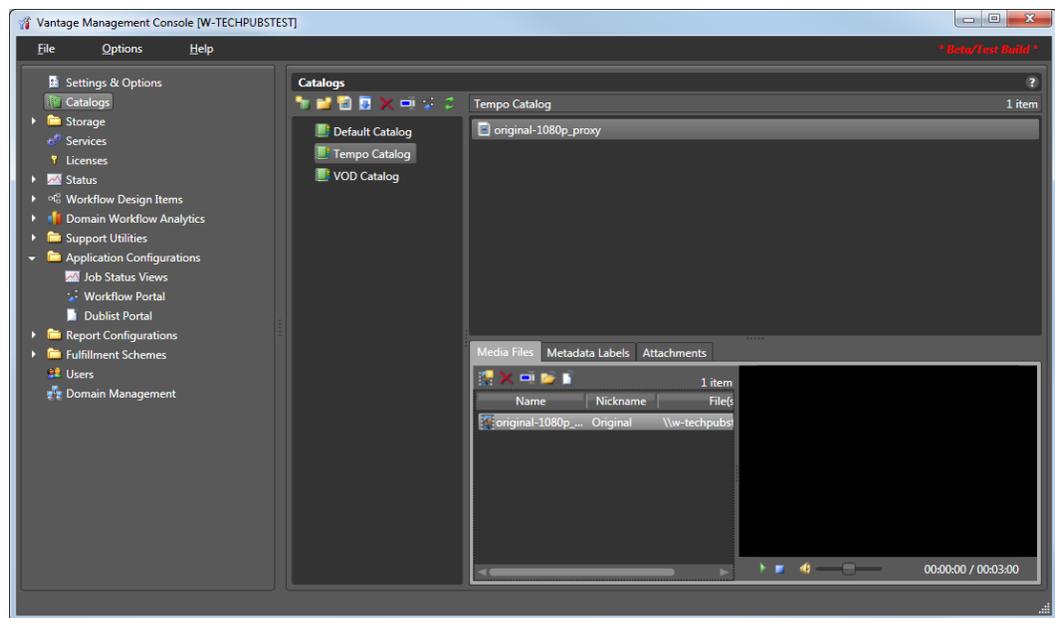
The starting point for organizing Tempo media assets is the catalog. Operators access media in the Tempo Portal by first specifying catalogs and then selecting binders (media files with metadata and variables) from the catalogs.

Using the Vantage Management Console, you need to create at least one catalog to contain proxy and thumbnail files:

1. Start the Vantage Management Console by double-clicking the desktop icon.
2. In the components panel, select Catalogs.

Vantage displays the Catalogs details panel shown in [Figure 3](#).

**Figure 3.** Catalogs Details Panel



3. Click the New Catalog button  in the toolbar (or right-click in the empty catalog space and select New Catalog).  
The Management Console adds a new catalog in the catalog tree with its name highlighted so you can change it.
4. Type a name for the new catalog and then click on the background to set the name.  
You may want to choose an easily recognizable name such as "Tempo Catalog."

## Adding Folders

Inside each catalog, you can create as many folders as you need to organize the media in this catalog. Folders can be created in a hierarchy, and you can drag them around to re-organize them.

1. Click the catalog or folder where you want to create a new folder.

2. Click the Add Folder button  in the toolbar (or right-click and select New Folder).  
The Vantage Management Console displays a new folder in the catalog explorer panel and also in the Folders panel, with the default text selected.
3. Type a name for the new folder and click on the background to set the name.

## Setting the Folder Expiration Policy

A catalog or folder expiration policy defines the default expiration policy for *all* binders in the catalog or folder. If you change the expiration for existing binders in a catalog or subfolder, the same policy applies to new binders added to that catalog or folder.

The catalog/folder expiration policy can be overridden by a binder expiration policy.

To configure the binder expiration policy, do the following:

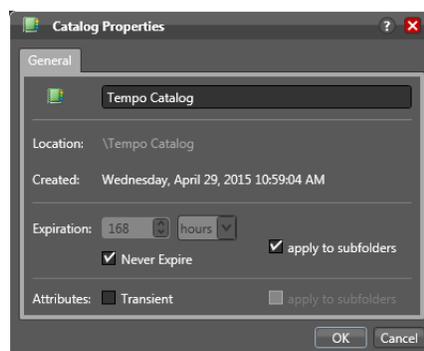
1. Right-click a catalog or folder to configure, and select Properties (Figure 4).
2. Edit the binder expiration date or check the Never Expire checkbox. Checking *apply to subfolders* applies the expiration date to all folder levels in the catalog.
3. Check *Transient* if you want a catalog or folder to be deleted when all binders it contains expire, leaving it empty. If *Transient* is not checked, the catalog or folder is not deleted when empty.
4. Check *apply to subfolders* to apply the *Transient* attribute to all folder levels in the catalog, or leave it unchecked to apply the attribute only to the current level.
5. Click OK.

---

**Note:** The expiration policy can be set for individual binders when they are registered in a catalog; this is done using the workflow Register action.

---

**Figure 4.** Catalog Properties



## Create Proxies and Thumbnails

Before media files can be re-timed using the Tempo Portal, they must first be processed by an ingest workflow that performs these operations:

- Ingests the original media file for processing via a Watch action
- Flips the media file to create thumbnail, proxy, and duplicate media files
- Registers the thumbnail, proxy, and duplicate media files into a catalog

Vantage Tempo uses all these files in the Tempo Portal as follows:

- A proxy is a small QuickTime duplicate of an original file that is faster to process:
  - Use the QuickTime encoder to create a QuickTime H.264/AAC MOV proxy file with a timecode track included in the container.
  - The encoded proxy file must have the same frame rate and timecode notation as your original production media.
  - For SD proxies (4:3) use a 640 x 480 frame size. For HD proxies (16:9) use 640 x 360.
  - Assign the nickname *Vantage Proxy*, which the player automatically recognizes.
- A thumbnail is a JPEG snapshot of key frames in the original file displayed in the Tempo Portal Catalog binder list to visually represent the binders (media clips).
- Duplicate media files are created and processed so that the original is not altered.

### To create and register proxies, thumbnails, and media into catalogs:

1. Use an ingest workflow from Telestream or created to suit your own needs to process all media assets you plan to re-time in Tempo.

An example [Ingest Workflow](#) is described in the [Tempo Workflows](#) chapter of this guide. The ingest workflow you use must create and register proxies, thumbnails, and media files in your Tempo catalogs.
2. Access your Tempo catalogs by selecting Catalogs in the Vantage Management Console to verify that the catalogs contain the expected proxies, thumbnails, and duplicate originals. You can use the preview player to examine the media files in the Media Files list, if necessary.
3. Add any Metadata Labels or Attachment files using the provided tabs and toolbars.

Metadata labels allow you to specify information about the media that can be passed on to workflows for use downstream. Attachments can be sidecar files used downstream, such as closed captioning files.

  - a. Click the Add button in the Metadata Labels or Attachment panel.
  - b. Select the label or attachment in the pop-up window and add information.

Once the necessary files are created and registered into catalogs, other workflows can use them and operators can access them in the Tempo Portal to re-time them.

## Create a Tempo Portal Configuration

Before you can use Tempo, you will need to configure the Vantage Workflow Portal to convert it into a Tempo Portal. As you make configuration selections according to the following instructions, you are modifying the Workflow Portal panels and labels. These topics are covered:

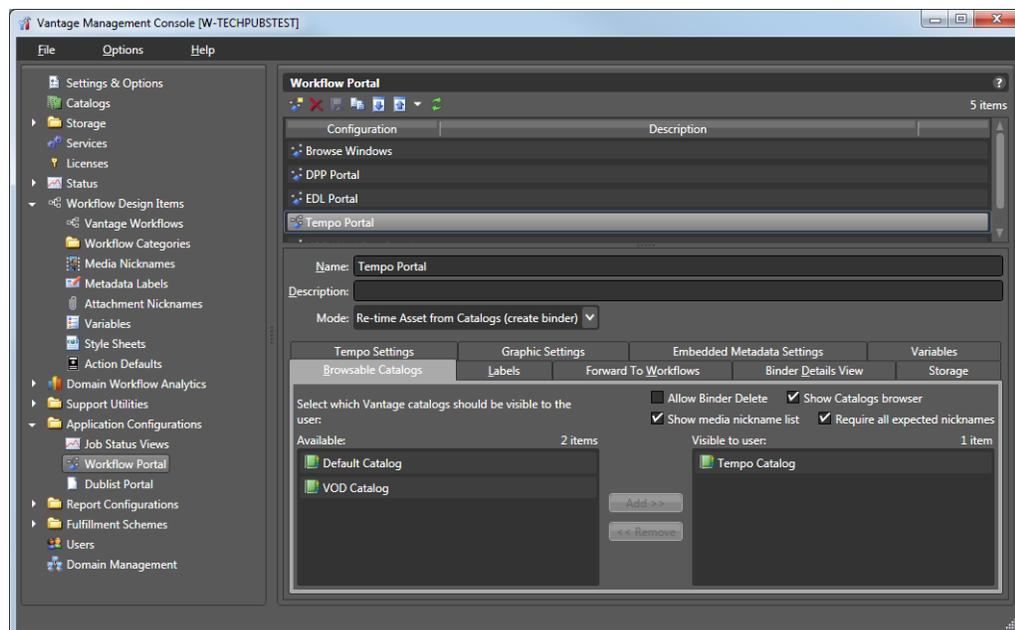
- [Selecting the Tempo Configuration Mode](#)
- [Configuring Tempo Settings](#)
- [Setting Browsable Access to Catalogs](#)
- [Configuring the Binder Details View](#)
- [Configuring Labels Visibility](#)
- [Configuring Variables Visibility](#)
- [Configuring Graphic Settings](#)
- [Configuring Embedded Metadata](#)
- [Configuring Workflow Forwarding](#)
- [Configuring Storage](#)
- [Managing Configurations](#)

To configure the Workflow Portal to create a Tempo Portal, follow these steps:

1. Start the Vantage Management Console and connect to the Vantage domain.
2. Select Application Configurations > Workflow Portal.

As shown below, the Workflow Portal panel displays the options for Vantage Workflow Portal configurations.

**Figure 5.** The Tempo Portal Configuration Panel



3. Click the *Create* configuration button .
4. Click in the *Name* field, and name the new configuration *Tempo Portal*.
5. Click the *Save* button  to save your new Tempo Portal configuration.

The Tempo Portal configuration is added to the Configuration list. If you want to make changes to the configuration later, select the configuration in the Configuration list, make your changes, and click Save to resave the configuration.

## Selecting the Tempo Configuration Mode

The Workflow Portal can be configured for various modes that arrange Portal controls according to the tasks to be performed. Selecting the Mode essentially creates the type of Portal available to you.

Set the Mode as follows to create a Tempo Portal:

1. Select the Tempo Portal configuration in the Configuration list.
2. Select *Re-time Asset from Catalog (create binder)* from the *Mode* drop-down menu.
3. Click the *Save* button  to save your new Tempo Portal configuration.

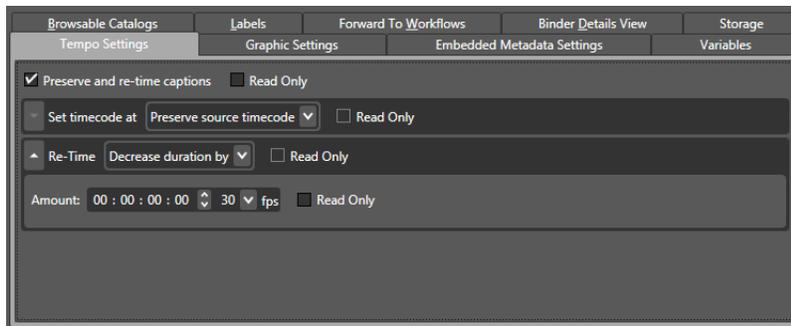
This selection makes the Workflow Portal into a Tempo Portal.

## Configuring Tempo Settings

The Tempo Portal includes a tab and panel for Tempo Settings where you can specify standard settings to use for increasing or decreasing media duration:

1. Select the Tempo Portal configuration in the Configuration list.
2. Select the Tempo Settings tab ([Figure 6](#)).

**Figure 6.** Tempo Settings Tab



3. Select re-timing default settings in the Tempo Portal:
  - **Preserve and re-time captions:** Includes captions in the retiming process. Check Read Only to disallow changing this setting in the Portal.
  - **Set timecode at:** Determines where to start timecode for the re-timed output. You can preserve existing source timecode, start timecode at the first or last frame of the program, or the first or last frame of the output file.
  - **Re-Time:** Retimes the media to increase or decrease its duration by the *Amount* selected or to match an overall target duration for the entire program.
  - **Amount:** Allows setting the amount of re-timing in frames per second. The display shows the hours, minutes, seconds, and frames setting.
4. Click the Save button  to save your changes.

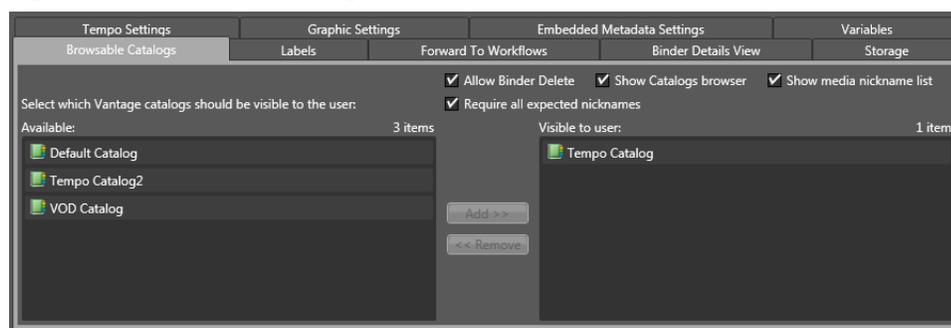
## Setting Browsable Access to Catalogs

Tempo allows you to specify which catalogs (and their binders) are accessible to users of the Tempo Portal:

1. Select the Tempo Portal configuration in the Configuration list.
2. Select the Browsable Catalogs tab (shown in the previous figure).
3. To make a catalog visible to Portal users, select the catalog in the *Available* list in the left panel, and click *Add*. This moves the catalog to the *Visible to user* list on the right.
4. To remove a catalog from the *Visible to user* list, select the catalog and click *Remove*.
5. Click the Save button  to save your changes.

Only catalogs (and their binders) in the *Visible to user* list on the right can be seen by Tempo Portal users.

**Figure 7.** Browsable Catalogs Tab



### Selecting the Show Media Nicknames List Option

The media list displays the media files for a binder/job that you select in the binder list. For example, the media list might include the original media submitted to a workflow and the output media from that workflow. When the media list is visible, operators can play the media or view the contents of the folder that contains the media.

To display the media list, check the *Show media nickname list* check box in the Browsable Catalogs panel.

Click the Save button  to save your changes.

### **Selecting the Require All Expected Nicknames Option**

When you create a catalog-based configuration, Vantage allows you to define whether or not media files, labels, and attachments referenced in the target workflow are required in the ingest workflow. If you require these assets, Vantage does not process ingest workflows that are missing these items. If you do not require these assets, Vantage does not check the ingest workflow for the assets and attempts to process the ingest workflow.

---

**Note:** A target workflow can fail if required assets are not provided by the ingest workflow.

---

To configure asset requirements for ingest workflows, check the *Require all expected nicknames* check box in the Browsable Catalogs panel.

Click the Save button  to save your changes.

### **Enabling and Disabling Binder Deletions**

By checking the *Allow Binder Delete* check box, you are allowing operators to remove binders from the catalog after the associated jobs are submitted, leaving only binders that have not yet been processed. This effectively makes the catalog a manually-managed task list that operators can control at their discretion.

If you prefer to save binders and do not want operators to delete them, uncheck the Allow Binder Delete check box.

---

**Note:** Binder deletion is also controlled by expiration times defined in the workflow Register action or catalog configuration.

---

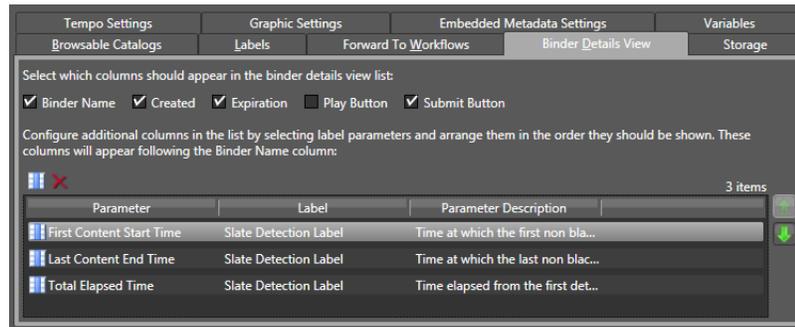
Click the Save button  to save your changes.

For more information about how binders are handled, see *Understanding Binders* in the [Vantage Domain Management Guide](#).

## Configuring the Binder Details View

Vantage allows you to control the columns and metadata label parameters displayed in the Portal binder list by making selections in the Binder Details View panel (Figure 8).

**Figure 8.** Binder Details View Tab



1. Select the *Binder Details View* tab in the Tempo Portal Configuration.
2. Select each check box to display the item, or clear the check box to hide it:
  - **Binder name:** Displays the name assigned to the binder when it was created.
  - **Created:** Displays the date and time the binder was created.
  - **Expiration:** Displays the date and time the binder expires.
  - **Play button:** Displays a button that the operator can use to play or pause the selected job.
  - **Submit button:** Displays a button to submit a job to another workflow.

---

**Note:** Vantage allows you to hide *all* columns in the binder list, which also causes no binders to appear in the list. You should configure at least one column to display so that binders show up in the list.

---

**Note:** The play button operates only when the workflow has generated and registered a proxy file (see the *Using Workflow Portal* topic in the [Vantage User's Guide](#)). The Submit button appears only when target workflows are selected on the Forward to Workflows tab.

---

3. Click the Column button .
4. For each metadata label parameter you want to display in a column:
  - a. Select a metadata label in the *Labels* panel.
  - b. Select the check box for the metadata label parameter in the *Parameters* panel.
  - c. When you are done making changes, click OK.
5. For each metadata label parameter you want to remove from the binder view:
  - a. Select the parameter you want to delete in the parameter list.
  - b. Click the Delete button  and confirm the deletion.

6. To change the displayed order of parameters:
  - a. Select a parameter in the list (Ctrl-click or Shift-click for multiple selections)
  - b. Use the green up  and down arrow  buttons to move the variables.
7. Click the Save button  to save your changes.

## Configuring Labels Visibility

Vantage allows operators to view and set metadata labels when they submit jobs to a workflow. These labels can be used by the workflow to customize job processing.

---

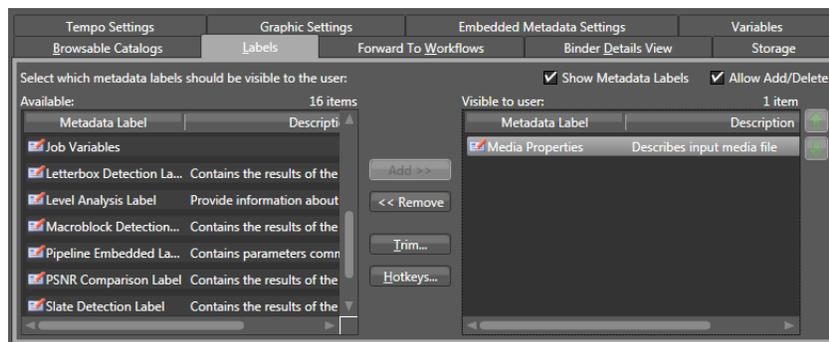
**Note:** Before a metadata label can be made available to users, it must be defined using the Vantage Management Console. See *Creating Metadata Labels* and also *Understanding Metadata Labels* in the [Vantage Domain Management Guide](#).

---

Only those labels are visible that are set in the workflow and configured to be visible in the portal configuration:

1. Select the Labels tab ([Figure 9](#)) in the Tempo Portal Configuration.
2. To enable visibility of metadata labels, select the *Show Metadata Labels* check box.
3. To allow operators to add and delete metadata labels to binders, select the *Allow Add/Delete* check box.
4. To make metadata labels available to operators, select labels in the *Available* panel. (Ctrl-click or Shift-click to select multiples) and click Add.
5. To change label order, select labels in the *Visible to user* list (Ctrl-click or Shift-click to select multiples) and use the green up  and down arrows  to move the labels.

**Figure 9.** Labels Tab



6. Click the Save button  to save your changes.

## Configuring Variables Visibility

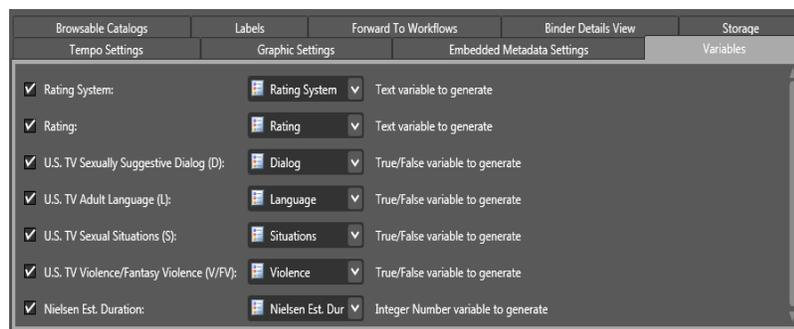
Vantage allows operators to save values and settings in the portal as variable values. These values may then be passed to the workflows specified in the Forward to Workflows tab to affect downstream processing.

**Note:** For an introduction to Vantage variables, see *Understanding Variables* in the [Vantage Domain Management Guide](#).

To enable operator use of variables, follow these steps:

1. Select the Variables tab (see [Figure 10](#)) in the Tempo Portal Configuration.

**Figure 10.** Variables Tab



**Note:** Before a variable can be made available to an operator, it must be defined using the Vantage Management Console as described in *Creating Variables* in the [Vantage Domain Management Guide](#).

2. To make variables available to operators, select their check boxes. Variables not checked will not be available.

**Note:** When all variables are hidden from operators, the Variables tab does not show.

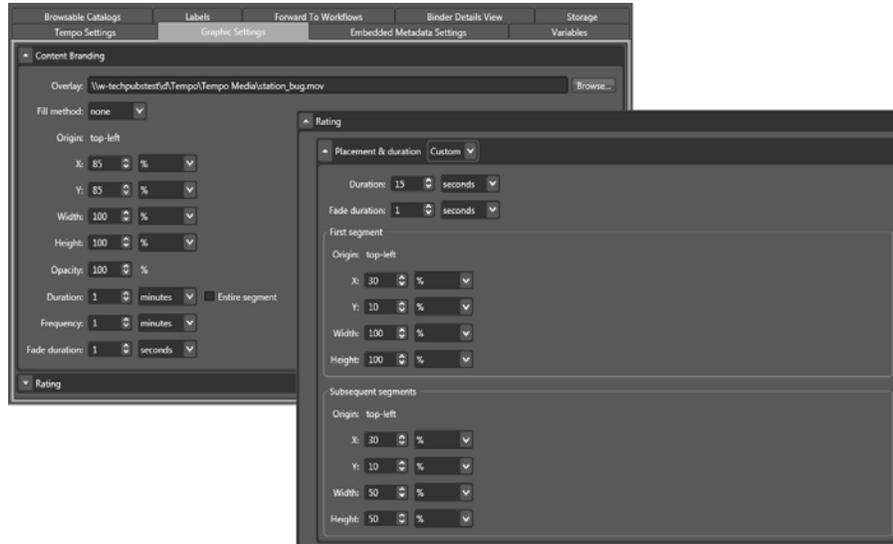
3. Select the variables to generate from the drop-down menus on the right.
4. Select the *Embedded Metadata Settings* tab, and select variable features. The available features will vary depending on the variables you selected.
5. Click the Save button to save your changes.

**Note:** If you are testing your Vantage Workflow Portal configuration, variables are only visible to operators after they select a binder and target workflow and click Submit.

## Configuring Graphic Settings

The Graphic Settings tab allows you to select and set the display parameters for a station branding logo (bug) and for a content rating image. The branding logo can be added to a segment in the Tempo Portal by checking the *Branding during segment* check box for that segment. The content rating image is displayed by checking the *Rating graphic at start* check box for that segment.

**Figure 11.** Graphic Settings Tab



### Content Branding Logo or Rating Image Configuration

To configure the Content Branding logo or Rating image, follow these steps:

1. Click the *Content Branding* or *Rating* drop-down menu to access the settings.
2. Click *Browse* to specify the path to the logo, or click *Placement & duration* and select *Custom* to change settings for the Rating image. (Note that not all settings listed below for the logo are available for the Rating and vice versa.)

### 3. Modify the positioning and appearance settings:

The origin or default starting point for the logo or image is in the top left corner.

- **Fill Method:** Specify how a video overlay logo (such as a .MOV file) should be displayed if it is shorter than the branding duration.
  - None** - Overlay logo video plays once and disappears.
  - Hold** - Overlay logo video plays once and freezes on the final frame for the remaining branding duration.
  - Loop** - The overlay logo video repeats for the branding duration.
- **X, Y:** Enter x and y coordinates for the graphic location. Select units in percentage or pixels from the drop-down menu.
- **Width, Height:** Enter graphic dimensions. Select units in percentage or pixels.
- **Opacity:** Enter the percentage of logo opacity.
- **Duration:** Enter the length of time that the graphic will appear in the segment in minutes, seconds, or frames. Check *Entire segment* if you want the logo on throughout the segment.
- **Frequency:** Enter how often the logo will appear in minutes, seconds, or frames.
- **Fade duration:** Enter graphic fade in and fade out duration in seconds or frames.

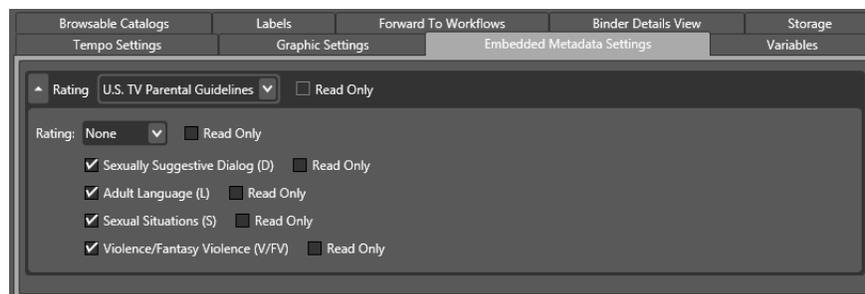
## Configuring Embedded Metadata

The Embedded Metadata tab allows you to configure default content ratings that you want to show up in the Tempo Portal Embedded Metadata panel:

- Select the default *Rating* system (MPA, US TV, Canadian English, Canadian French)
- Select the default *Rating*.
- Check the content descriptions you want checked by default.

Select *Read Only* for any item you do not want the Tempo Portal operator to be able to change.

**Figure 12.** Embedded Metadata Tab



## Configuring Workflow Forwarding

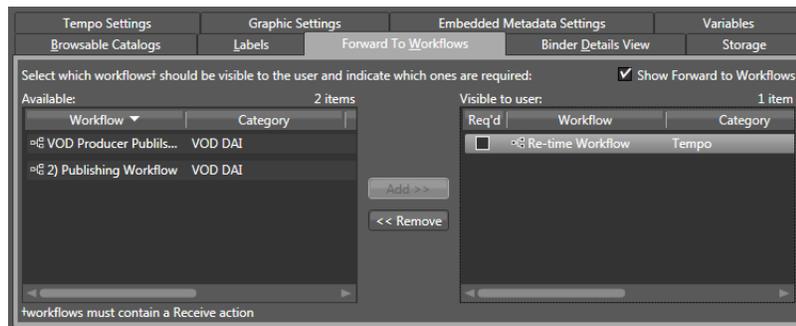
Tempo Portal operators complete the re-timing process by forwarding the XML re-timing composition file to the Tempo re-timing workflow where the re-timing process actually occurs.

Operators can forward to any visible target workflow by selecting the workflow on the Forward to Workflows Portal tab and clicking Submit. If a target workflow is required, it is automatically selected on the Forward to Workflows tab and the binder is forwarded to the required workflow when the operator clicks Submit.

For workflows to be visible to the operator, they must be added to the *Visible to user* column in the Forward to Workflows tab.

1. Select the Forward to Workflows tab (Figure 13) in the Tempo Portal Configuration.

**Figure 13.** Forward to Workflows Tab



2. To enable operator viewing of target workflows, select the *Show Forward to Workflows* check box.

---

**Note:** If you disable operator viewing of target workflows, you also disable operator forwarding to target workflows, if “Req’d” is not checked. When “Req’d” is checked, operators can submit to the required workflows even though they can’t see them.

---

3. To make target workflows available to operators, select one or more workflow names in the *Available* panel and click *Add*.

---

**Note:** To accept forwarded binders, the target workflow must contain at least one Receive action. The *Available* panel only displays workflows that contain a Receive action.

---

4. To specify whether a target workflow is required for forwarding or optional, check the *Req’d* check box next to the workflow in the *Visible to user* panel.
5. Click the Save button  to save your changes.

## Configuring Storage

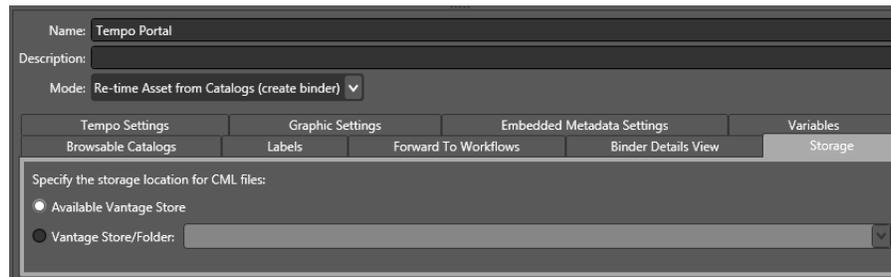
The XML composition files created by the Tempo Portal can be stored in any Vantage store or folder. The Storage tab lets you select the storage location.

**Note:** The Microsoft User Account Control (UAC) feature may deny access to Vantage stores or folders that are placed in protected locations. If Vantage users report that access to a Vantage store or folder is denied, do one of the following:

1. Place the store or folder in a directory that is not protected by UAC.
2. Use the procedure below to specify a different store or folder.
3. Disable UAC on the Vantage server that hosts the store or folder.

1. Select the *Storage* tab in the Tempo Portal Configuration.
2. Choose an option:
  - a. To store files in any available Vantage store, select *Available Vantage Store*.
  - b. To store the files in a specific Vantage store or folder, select *Vantage Store/Folder*, and choose a Vantage store or folder from the drop down list.
3. Click the Save button  to save your changes.

**Figure 14.** Storage Tab



## Managing Configurations

Once your Portal configuration is complete, you can manage it in these ways by selecting the configuration in the list and using the following toolbar buttons:

- Click the Refresh button  to refresh the configuration list.
- Click the Delete button  to delete the configuration.
- Click the Duplicate button  to create a copy of a configuration.
- Click the Export button  to export a single configuration as an XML file, or select *Export all* from the Export button drop down menu to export all configurations.
- Click the Import button  to import a previously exported configuration XML file.
- Click the Save button  to save configuration changes.

You can also right-click on a configuration or in the blank area below the configurations to open a context menu providing access to the same tools described above.

## Deploy Portals on Client Machines

As a Vantage domain administrator, you can make it easier for operators to start using the Tempo Portal by doing the following:

1. Install the Vantage client programs on operator workstations.
  - a. Log on to the target workstation with a local administrator account, and make sure that virus-checking software and Windows Firewall is off.
  - b. Copy the *Vantage 6.3 Client Application.msi* installer or the *Vantage\_6.3\_Setup.exe* installer to the workstation, or make the installer available on a network share.
  - c. Run the *Vantage 6.3 Client Application.msi* installer or the *Vantage\_6.3\_Setup.exe* installer, and select the Vantage Workflow Portal and any other desired clients for installation.
2. Launch and configure the Vantage Workflow Portal for the first time:
  - a. Select the Vantage domain (*File > Change Vantage Domain*).
  - b. Load the Tempo Portal configuration (*File > Change/Reload Application Configuration...*)
  - c. Select the Tempo catalogs, which will make the Tempo clips (binders) available for selection and processing by the operator.

Tempo is now ready for use. The next steps are to import or create Tempo workflows as explained in the [Tempo Workflows](#) chapter and to begin using the Tempo Portal as explained in the [Using Tempo](#) chapter.

# Tempo Workflows

## Overview of Tempo Workflows

This chapter presents typical Tempo example workflows to give you a head start in deploying Tempo in your environment.

A minimum of two workflows are required to re-time media using Tempo:

- An [Ingest Workflow](#) is needed to ingest media, create proxy and thumbnail files, and register the files into the catalog used in the Tempo Portal.
- A [Tempo Re-Timing Workflow](#) is required to receive the Portal XML composition document that identifies the original media file to re-time and provides re-timing instructions. The workflow output is a re-timed media file.

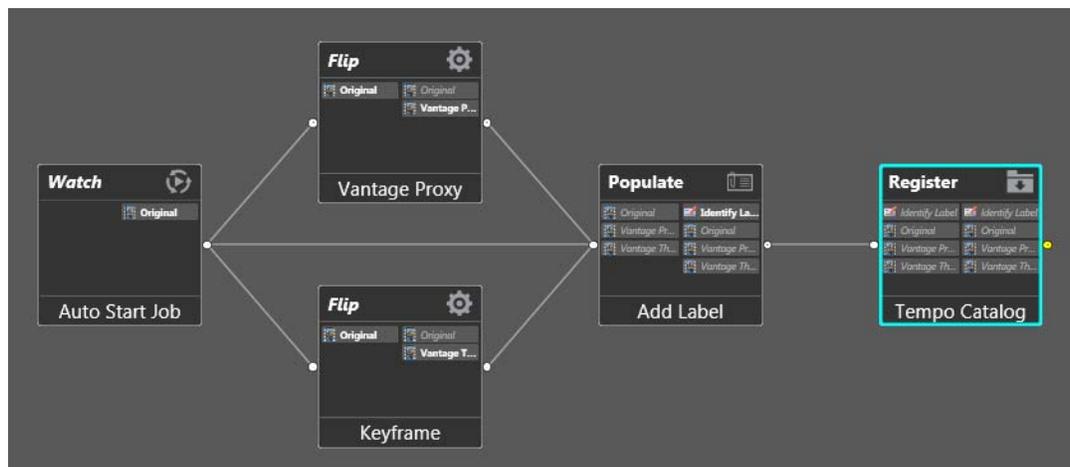
## Ingest Workflow

Any simple ingest workflow can be used that receives an original media input file, creates a proxy file and a thumbnail file, and registers the files into a catalog. The ingest workflow shown in [Figure 15](#) includes these actions:

- A Watch action receives the incoming media file from a watch folder.
- Two Flip actions transcode the incoming media file into a smaller, faster-processing QuickTime proxy file and a keyframe JPEG image to use for the thumbnail view.  
The Flip action that generates the proxy file should be configured as follows:
  - Use the QuickTime encoder to create a QuickTime H.264/AAC MOV proxy file with a timecode track included in the container.
  - The encoded proxy file must have the same frame rate and timecode notation as your original production media.
  - For SD proxies (4:3) use a 640 x 480 frame size. For HD proxies (16:9) use 640 x 360.
  - Assign the nickname *Vantage Proxy*, which the player automatically recognizes.
- A Populate action populates a label with helpful information about the media—its height, width, frame rate, etc.
- A Register action registers the binder (original, proxy, and keyframe thumbnail) into the Tempo catalog (which must have been created previously).

Once the Tempo catalog contains all the necessary files, you can select it for configuring in the Tempo Portal. The Tempo Portal, in turn, allows you to submit the configured job to a Tempo workflow for re-timing.

**Figure 15.** Tempo Ingest Workflow

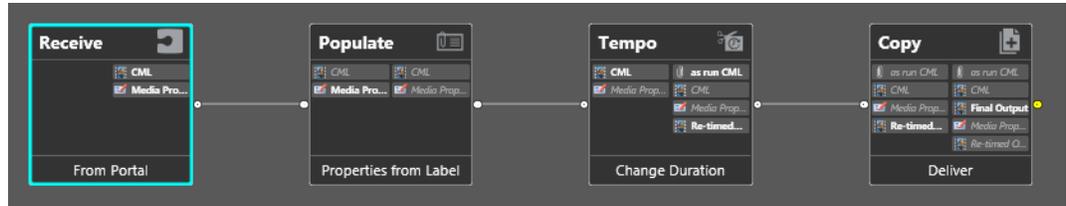


## Tempo Re-Timing Workflow

A simple example Tempo workflow is shown in the [Figure 16](#). At a minimum, a Tempo workflow must contain these actions:

- A Receive action to receive the XML composition file (CML) from the Portal
- A Tempo action to re-time the original media, producing a re-timed output media file

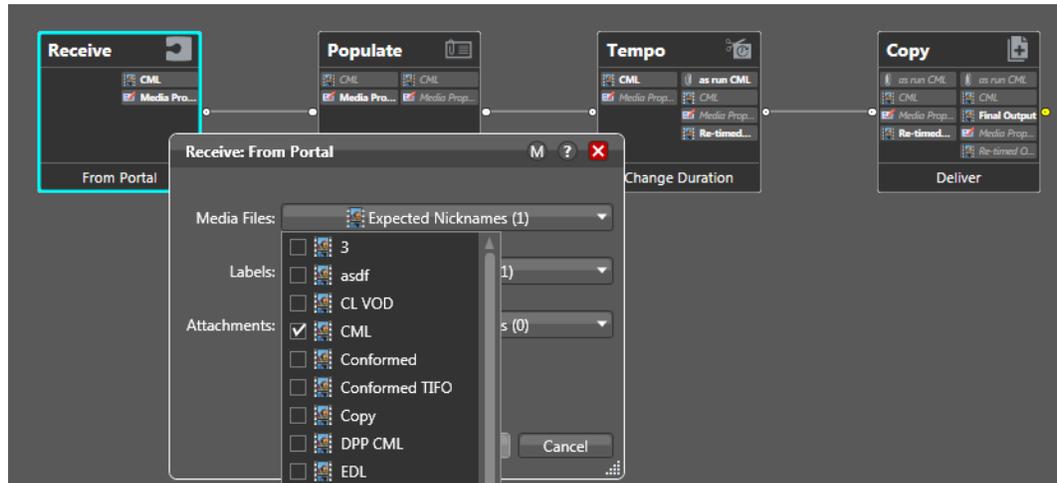
**Figure 16.** Simple Tempo Workflow



### Receive Action

The Receive action is set up to receive the XML composition file from the Portal. *Expected Nicknames* must be set to *CML* as shown below.

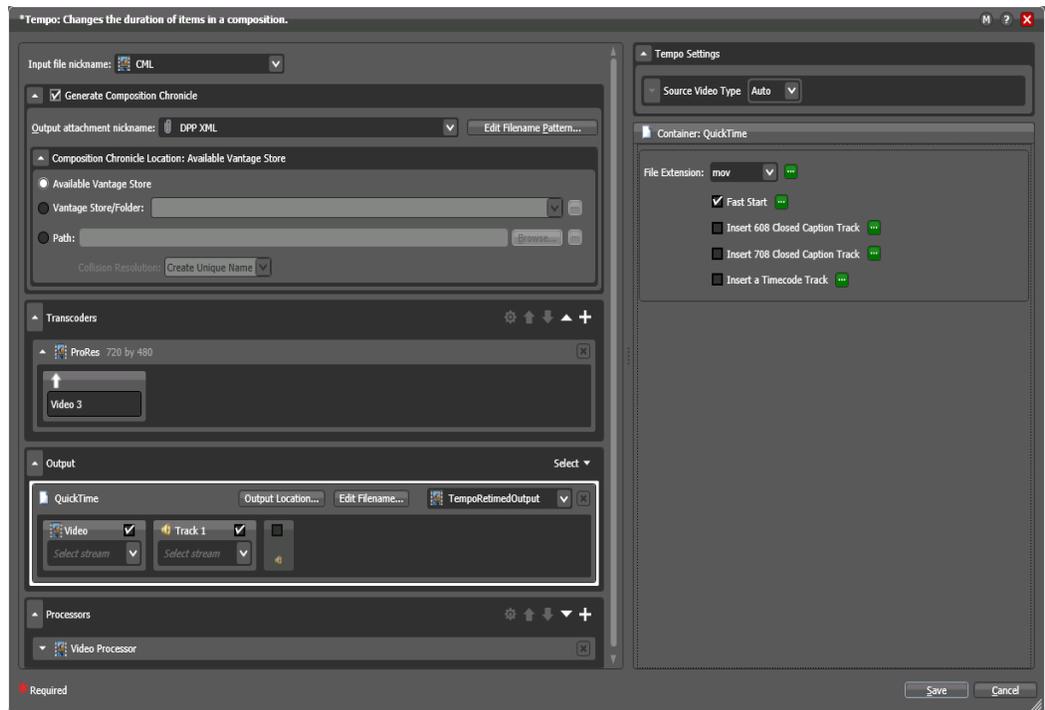
**Figure 17.** Configuring the Receive Action



## Tempo Action

The Tempo action accepts as its initial input an XML document from the Portal describing the segmentation of the source program. This XML document is recognized by selecting *CML* as the Input File Nickname (upper left corner of the following figure).

**Figure 18.** Configuring the Tempo Action



You can further configure the action by expanding each section, selecting the items in the sections, and making detailed selections in the right panel. For example, the figure shows the QuickTime output selected on the left and the details that apply to it on the right. For descriptions of specific fields, click the M (man page) icon in the upper right corner, which brings up the appropriate manual page.

The Tempo action produces the re-timed target media item by either compressing or expanding the duration of the program according to the instructions in the XML composition file.

Note that Tempo cannot change the fundamental qualities of the video such as its height, width, and frame rate. To do that, you should create an additional transcoding workflow to convert the re-timed media to another format.

When configuring the Tempo action, one set of controls deserves deeper discussion. When you set Source Video Type to Interlaced, the following selections are available to specify the rules for converting interlaced fields to progressive frames:

- **Motion Adaptive Deinterlacing/“Smooth Interpolation” turned on** (default) — This is recommended for processing most Interlaced files.

- **Advanced Motion Adaptive Deinterlacing**—Functions the same as motion adaptive deinterlacing, but allows control over thresholds for what constitutes motion.
- **Zero-Motion Compensated Deinterlacing**—Frame based may be slow and may blur text.
- **Motion Compensated Deinterlacing**—Frame based may create jagged artifacts on straight lines.

Re-timing in Frame mode with Motion Adaptive Deinterlacing is the preferred mode for handling static text overlays. Re-timing in Field mode may introduce motion in static text overlays.

You can adjust these settings to find the best compromise between video quality and clarity of burned in subtitles or static text. When you select Interlaced, sources are treated as interlaced even when encoded as progressive.

Here are detailed descriptions of the Interlaced selections:

**Table 1.** Interlaced Source Video Type Selection Descriptions

Deinterlacing Method	Description
Motion Adaptive Deinterlacing (default)	Converts every field into a progressive frame. This is accomplished by keeping the original field, then examining each pixel in the other field to determine whether or not it is moving, and then choosing to either discard it (if it is moving, to avoid field artifacts), or keeping it (if not, to preserve detail).
Advanced Motion Adaptive Deinterlacing	When using default settings, functions the same as motion adaptive deinterlacing, but allows control over thresholds for what constitutes motion. Values are measured in luma value differences between pixels; lower values will result in less detail, but fewer field motion artifacts.
Zero-Motion Compensated Deinterlacing	Converts every field into a progressive frame. This is accomplished by keeping the original field, then performing block matching to determine whether a given region is moving or not. The noise threshold indicates how sensitive the algorithm should be to noise; higher values cause the algorithm to treat noise as actual object motion. This method is slower relative to other methods, and can blur burned-in text, which it perceives as motion.
Motion Compensated Deinterlacing	Converts every field into a progressive frame. This is accomplished by keeping the original field, then performing a full motion-vector search to determine whether a region of video is in motion, or not. If a motion vector is found, it will be used to synthesize missing information between fields. This algorithm provides the highest quality, but also requires the most processing time. It can create jaggies on straight lines.

## XML Composition File

The Tempo feature describes program segmentation using an automatically created XML composition document constructed by the Tempo Portal. The composition file describes the sequence of media segments, each segment representing a portion of the overall program (leader, act, commercial, etc.). The sequence forms a timeline in which the time of each segment is determined by the accumulated duration of the preceding segments. Tempo supports a single top-level sequence.

The Tempo Portal forwards the composition document to the Tempo re-timing workflow when the Portal operator selects *Forward to Workflow*. Like an edit decision list (EDL), the composition document supplies all the information that the re-timing workflow needs to find and process the original media and create re-timed output.

## Populate and Copy Actions

Populate and Copy actions shown in the example are optional.

The Populate action can create a label containing pertinent information about the media, including its video height, width, and frame rate. The Tempo Portal can display the label information in the Metadata Labels tab.

The Copy action simply copies the re-timed output to any location you prefer.

# Using Tempo

## Introduction to Using Tempo

The Vantage™ Tempo feature includes a Tempo Portal that you can use to identify source media that you want to re-time, mark segments to include or exclude from re-timing, and specify how much time expansion or compression to apply from 1% to a maximum of 10%. When configuration of re-timing is complete, the Portal generates an XML document to describe that processing. The operator selects a Tempo workflow to receive the XML document, and the Tempo action in the workflow implements the re-timing of the media file.

These topics explain how to use Tempo:

- [Overview of the Tempo Portal](#)
- [Tempo Quick Start](#)
- [Using the Tempo Portal](#)

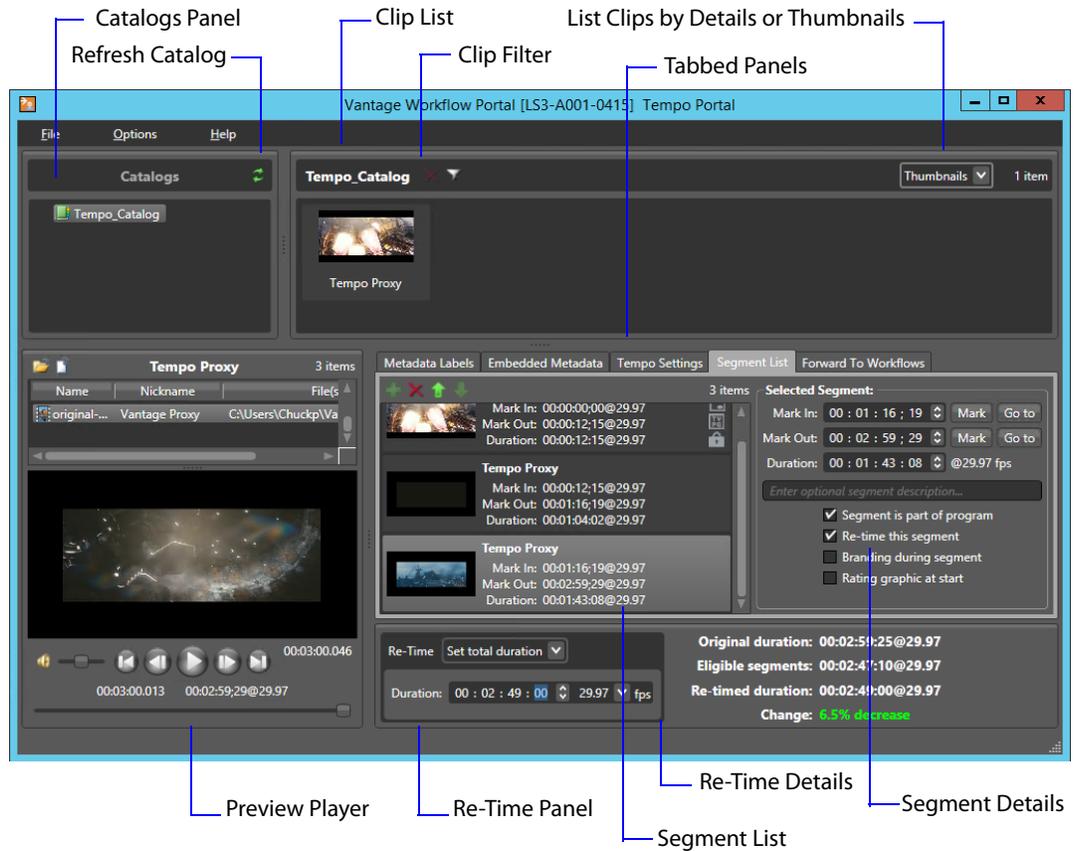
## Overview of the Tempo Portal

Tempo includes a specially designed portal user interface for re-timing media assets. The Tempo Portal configuration is created in the Vantage Management Console Workflow Portal Configurations window. This configuration transforms the standard Workflow Portal into a Tempo Portal.

The Tempo Portal comprises these main sections (Figure 19):

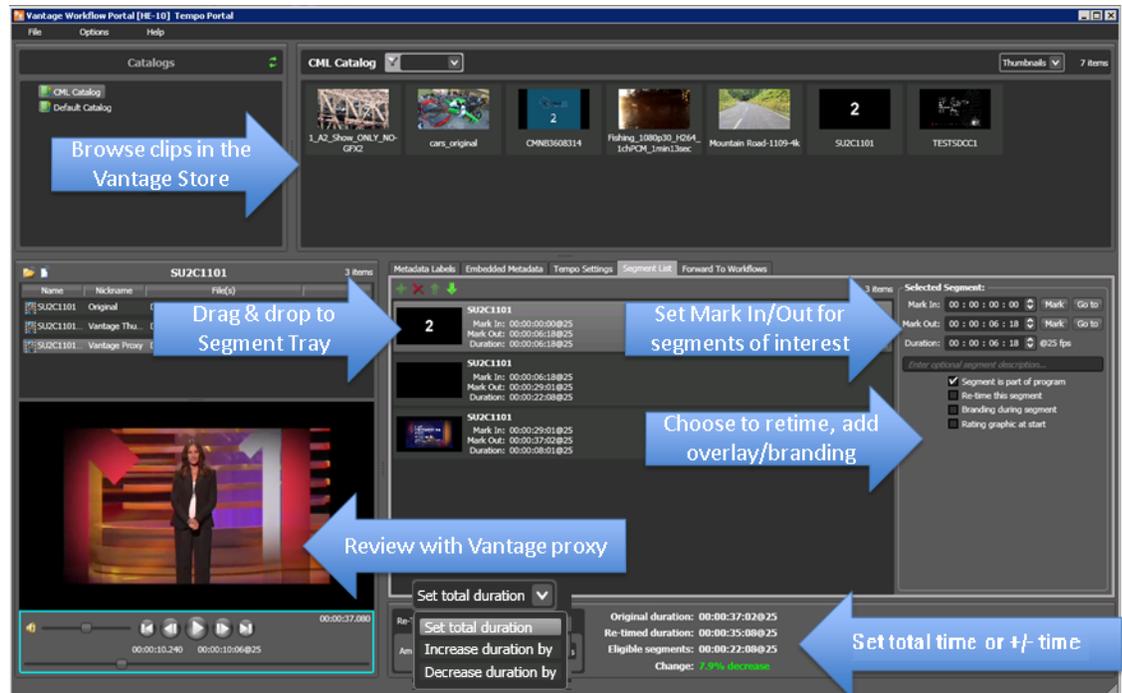
- **Catalogs panel:** Lists catalogs available in the Tempo configuration.
- **Clip List:** Shows media clips (binders) in the catalog available for re-timing.
- **Preview Player:** Plays media clips. Includes standard player controls
- **Tabbed panels:** Includes Segment List for configuring segment re-timing and other tabs for Metadata Labels, Embedded Metadata, Tempo Settings, and Forwarding to Workflow for sending the completed project to be re-timed.
- **Re-time panel:** Sets the type and duration or amount of retiming and shows re-timing details.

**Figure 19.** Tempo Portal Main Panels



When populated with catalogs and clips, the Tempo Portal includes these capabilities:

- Browse clips in the selected Vantage catalog.
- Drag clips into a segment list and view them in a built-in video player.
- Mark In/Out to identify clip segments and include/exclude them from re-timing.
- Add a graphic overlay (bug) and/or content rating graphic to one or more clips.
- Set exact overall clip duration, or increase/decrease clip time by a percentage.



# Tempo Quick Start

This topic describes the entire Tempo operational process from start to finish in just a few pages. If you follow the steps as you read them, you will have completed your first Tempo project when you reach the last step. If you are looking for detailed descriptions of the Tempo Portal controls, see [Using the Tempo Portal](#) later in this chapter.

## Steps to Produce a Tempo Project

To process your media files using Tempo, you need to follow a sequence of operations employing workflows and using the Tempo Portal. The overall process follows the order of the topics listed below:

- [Configure the Tempo Portal](#)
- [Create Tempo Catalogs](#)
- [Ingest and Register Media, Proxies, and Thumbnails](#)
- [Create a Tempo Re-Timing Workflow](#)
- [Launch and Configure the Portal](#)
- [Configure Proxies for Retiming](#)
- [Forward to the Tempo Workflow](#)

These steps are described briefly in the following topics. For detailed specifics about using the Tempo Portal, see [Using the Tempo Portal](#) later in this chapter. For details about Tempo workflows, see the [Tempo Workflows](#) chapter.

### Configure the Tempo Portal

Before you can use the Tempo Portal to set up media for re-timing, use the Vantage Management Console to create a Workflow Portal configuration. The configuration makes the Workflow Portal into a Tempo Portal.

Also be sure to set the Edit action Session Limit to 2.

For complete instructions, refer to the [Configuring Tempo](#) chapter.

### Create Tempo Catalogs

Your media files must be gathered into Vantage catalogs for use in the Tempo Portal. Use the Vantage Management Console Catalogs panel to create as many catalogs as you will need. For details, see [Create Tempo Catalogs](#) in the [Configuring Tempo](#) chapter.

## Ingest and Register Media, Proxies, and Thumbnails

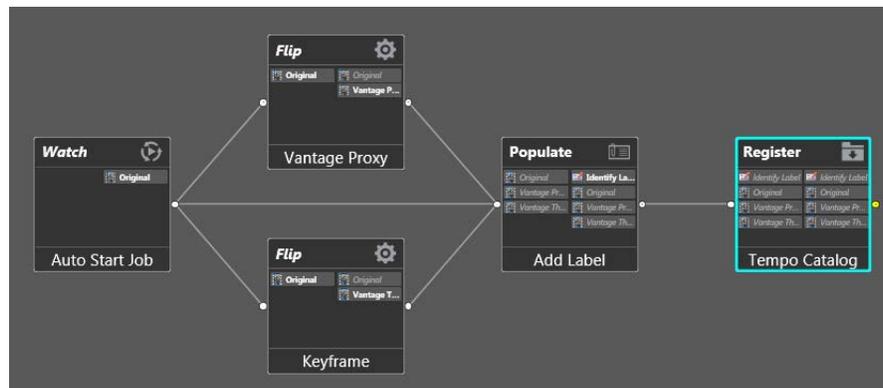
Next, create a standard Vantage ingest workflow to perform these tasks:

- Ingest the media you want to re-time
- Create a smaller proxy duplicate of the original file that is faster to process
- Create a thumbnail image of a scene to represent the media in the portal (optional)
- Register the original, proxy, and thumbnail into a Vantage catalog

A typical *Ingest Workflow* is presented in the *Tempo Workflows* chapter.

After creating the workflow, run all of the media you plan to re-time through the workflow to register the media files, proxies, and thumbnails into Tempo catalogs.

**Figure 20.** Typical Ingest Workflow



## Create a Tempo Re-Timing Workflow

The next step is to create a re-timing workflow using the Tempo action. This is the workflow to which you will forward re-timing instructions from the Tempo Portal. The workflow will then process and output the re-timed media file.

The minimum workflow contains a Receive action configured to receive the XML composition file (Expected Nicknames = CML) from the Tempo Portal and a Tempo action configured to do the re-timing. For an example *Tempo Re-Timing Workflow*, see the *Tempo Workflows* chapter.

**Figure 21.** Tempo Retiming Workflow



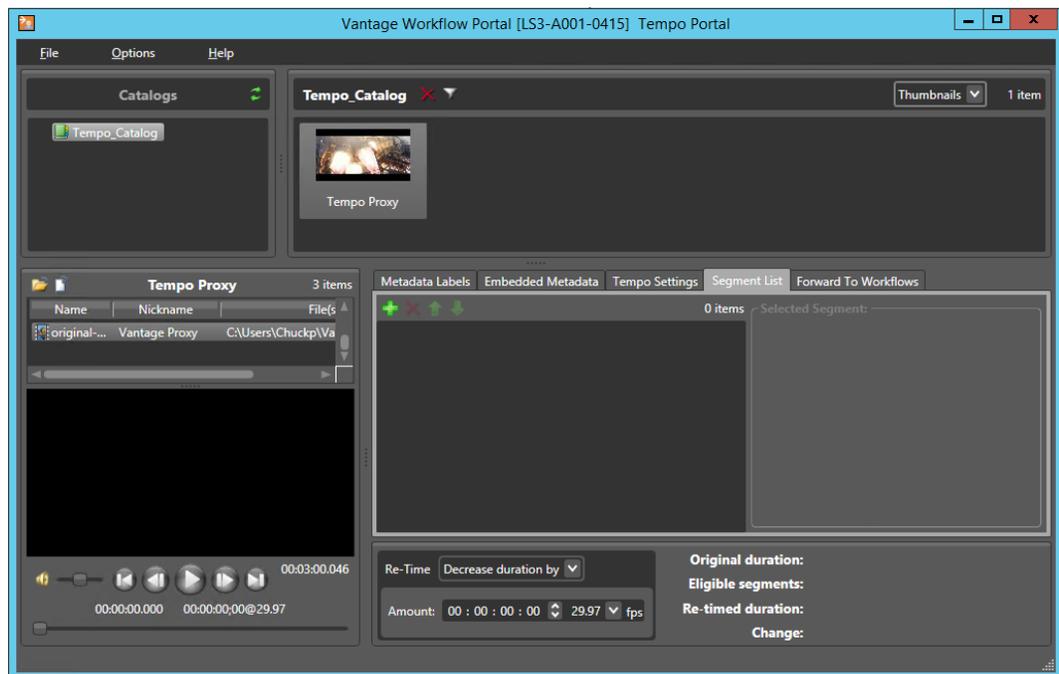
## Launch and Configure the Portal

After completing the preparatory steps, you can begin to use the Tempo Portal:

1. Launch the Workflow Portal by double-clicking the desktop icon.
2. Select *File > Change Domain* to select your Vantage domain.
3. Select *File > Change/Reload Application Configuration* and choose the Tempo configuration you created in the Vantage Management Console.

The Workflow Portal will be reconfigured into a Tempo Portal, ready to re-time your media files.

**Figure 22.** Tempo Portal



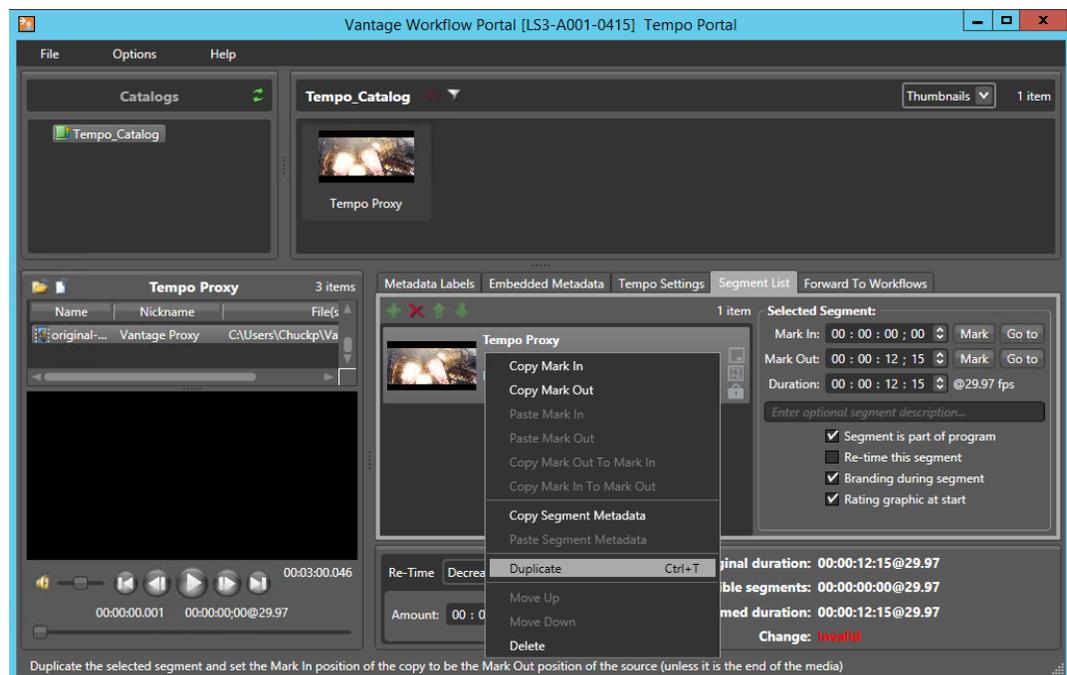
## Configure Proxies for Retiming

The Tempo Portal is now ready for configuring your media files to re-time them:

1. Click the catalog in the Catalogs list. The catalog's proxy media will appear as clip icons in the panel to the right of the catalog.
2. Click the Segment List tab to show the list in the lower right panel.
3. Click and drag the clip you want to configure from the media list to the Segment List (or right-click the + (plus) button in the Segment List to browse for the media).
4. Click the clip in the Segment List to highlight it. The clip will open in the preview player in the lower left panel.

5. In the player, scrub to the point in the clip where you want the first segment to end, and click the Mark Out *Mark* button in the *Segment List Selected Segment* panel.  
You can also enter the timecode directly in the Mark Out display, and click *Mark*. Notice that you can also modify the Mark In point and the duration, and you can use *Go to* to set the preview player to a previously set point.
6. Check the desired functions at the bottom of the *Selected Segment* panel.
  - a. Select *Segment is part of program* if you want to include the marked segment in the re-timed program's duration. Uncheck this option to exclude the segment.
  - b. Select *Re-time this segment* if you want to include it in re-timing. Uncheck this option to leave it its duration unchanged.
  - c. Select *Branding during segment* if you want a graphic bug, such as a network logo, displayed during the segment. (The graphic display is configured in the Management Console > Application Configurations > Workflow Portal > Tempo Configuration > Graphic Settings.)
  - d. Select *Rating graphic at start* to insert a maturity rating graphic in the segment. This graphic is also specified in Management Console > Application Configurations > Workflow Portal > Tempo Configuration > Graphic Settings.
7. Right-click the segment, and select Duplicate to create the next segment with Mark In timecode starting where the previous segment ends.

**Figure 23.** Duplicating the Configured First Segment

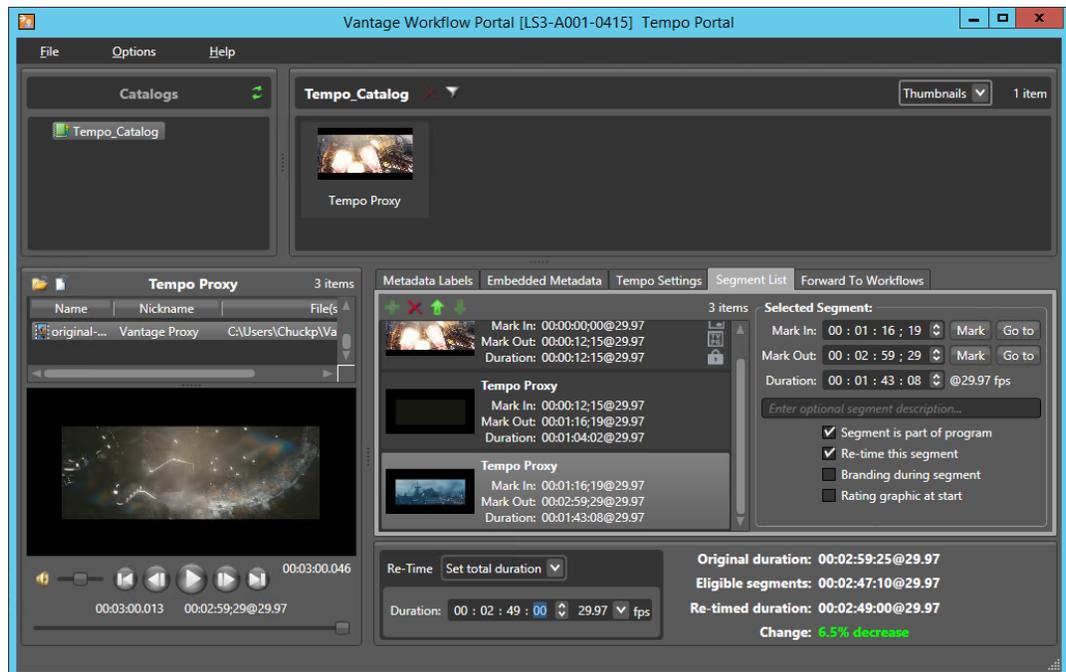


8. Repeat the preceding steps to configure the next segment and to create and configure additional segments.  
When finished, you should have divided the whole clip into segments and marked them for inclusion/exclusion and re-timing or not.

9. Select the type of re-timing at the bottom of the window, and set the duration or amount of change using the timecode controls. These are the choices:
  - Select *Set total duration* to set the overall program to the duration entered from 1% to 10% longer or shorter than the original.
  - Select *Increase duration by* to increase the overall program duration by the amount entered.
  - Select *Decrease duration by* to decrease the overall program duration by the amount entered.

The *Change* line shows how much re-timing you have specified. Green indicates an acceptable amount (1% to 10%). Red indicates a change percentage that is not permitted. If red, change the re-timing timecode entry until the line turns green.

**Figure 24.** Segment Configuration Completed



## Forward to the Tempo Workflow

After re-timing configuration is complete, the final step is simply to submit the result to the Tempo re-timing workflow:

1. Activate the Tempo re-timing workflow you created earlier.
2. Select the Forward to Workflow tab in the Tempo Portal.
3. Check the Tempo re-timing workflow that you want to use, and click *Submit*.

This completes the re-timing process. When the workflow completes, your re-timed media will appear in the Vantage Store or location you specified.

# Using the Tempo Portal

This topic describes the Tempo Portal menus and controls in detail:

- [Browsing Catalogs and Clips](#)
- [Using the Preview Player](#)
- [Viewing Metadata Labels](#)
- [Viewing and Updating Embedded Metadata](#)
- [Specifying Tempo Settings](#)
- [Configuring the Segment List](#)
- [Adjusting Re-timing](#)
- [Forwarding to Workflows](#)

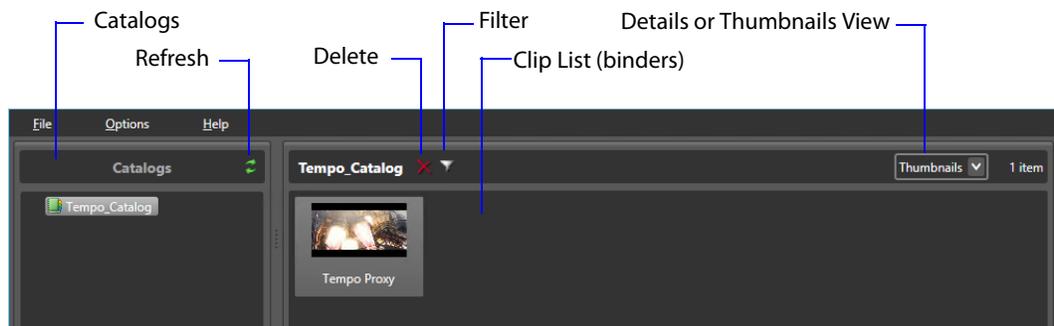
## Browsing Catalogs and Clips

You can browse catalogs and media clips as follows (Table 2 and Figure 25):

**Table 2.** Catalog and Clip Functions and Controls

Function	Controls
Select catalogs	Click a catalog in the Catalogs panel to select it and show its clips.
Filter clips 	Click the funnel icon, enter text, and press Enter to display clips matching the text. Delete the text and press Enter to clear the filter and display all clips.
Refresh the clip list 	The catalog and clip list doesn't automatically update when jobs change catalog contents. To update the list, click the green Refresh arrows.
Delete clips 	Click the clip and click the red X Delete button.
View by Details or Thumbnails	Select Details or Thumbnails from the drop-down menu to list clips by icon or text. The detail fields are defined in the Management Console > Tempo Portal Configuration > Binder Details View.
Sort or rearrange columns	Click any column heading to sort the clip detail list, and click repeatedly to toggle the sort by ascending or descending order. Drag column headings to re-arrange the order.
Select a clip for re-timing	Select a clip for re-timing by dragging it from the Clip List and dropping it onto the Segment List.
Play a clip	When you select a clip or segment, its proxy is loaded into the player ready for playing.

**Figure 25.** Catalog and Clip Controls



## Using the Preview Player

The following topics describe how to preview media in the Tempo Portal:

- [Previewing Proxy Media](#)
- [Previewing Non-proxy Media](#)

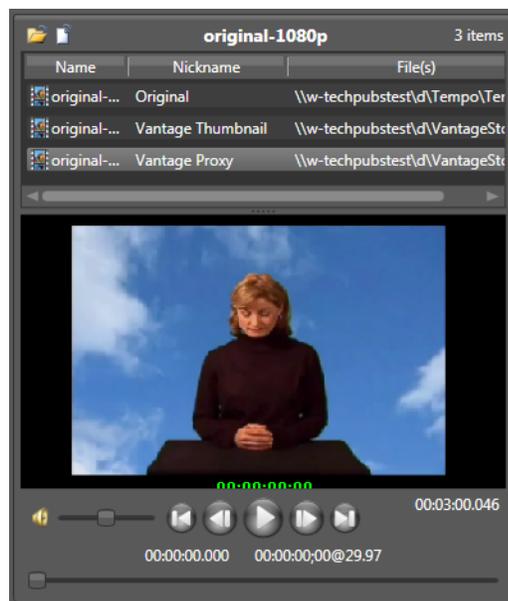
### Previewing Proxy Media

The preview player uses the QuickTime Player behind the scenes to play .MOV proxy files, which means that you need to install the QuickTime Player if you don't have it.

Additional Portal configuration steps should already have included using an ingest workflow to create and register proxy files into your Tempo catalogs, as follows:

- Use the QuickTime encoder to create a QuickTime H.264/AAC MOV proxy file with a timecode track included in the container.
- The encoded proxy file must have the same frame rate and timecode notation as your original production media.
- For SD proxies (4:3) a 640 x 480 frame size is recommended. For HD proxies (16:9), a 640 x 360 frame size works best.
- Assign the nickname *Vantage Proxy*, so that the player automatically recognizes and displays the proxy file.

**Figure 26.** Preview Player Controls



When you select a clip (binder), the player displays any video file nicknamed *Vantage Proxy*, if present. The *Vantage Proxy* file name is listed directly above the player so you know which file you're playing.

When media appears in the preview window, you can use the window, keyboard, and mouse controls listed in [Table 3](#) to control playback. You can also preview other media in the nicknames list, if the QuickTime Player supports the format.

## Portal Player Keyboard Controls

The Windows client window, keyboard, and mouse controls are listed in [Table 3](#).

---

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

<b>Function</b>	<b>Controls</b>
Play/Pause/Reverse	<i>Ctrl+P or Ctrl+Space</i> <i>J</i> (Reverse play—repeat for -1.5x, -2x, -5x, -8x) <i>K</i> (Pause) <i>L</i> (Play—repeat for 1.5x, 2x, 5x, 8x) <i>JK simultaneously</i> (Reverse play slow motion -1/8x; repeat for -1/4x, -1/2x) <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> <i>Ctrl + Mouse Wheel</i> , one frame per wheel click <i>K held down + L</i> (Forward bump one frame) <i>L held down with K already pressed</i> (Forward bump repeat 1/4 speed) <i>Left Arrow</i> (Reverse bump one frame) <i>Right Arrow</i> (Forward bump one frame)
Forward/Reverse 10 Frames	<i>Up Arrow</i> (Reverse bump 10 frames) <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> <i>Ctrl + Mouse Wheel</i> , one frame per wheel click <i>K held down + J</i> (Reverse bump one frame) <i>J held down with K already pressed</i> (Reverse bump repeat 1/4 speed)
Mark In	<i>Ctrl+I or Ctrl+E</i>
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 Non-proxy Media

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

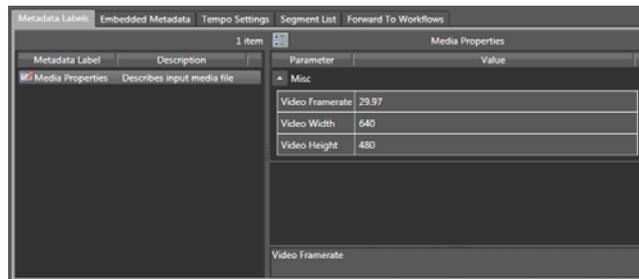
1. For QuickTime (.mov) files, select the file and use the preview player to play it.
2. To play a QuickTime file outside the embedded media player, right-click the media and select Open With Default Program or click the file icon directly above the binder list to play the media file in the default program for MOV files.
3. To play MOV files when a default program is not set up to play them, right-click the media asset, and select Open Containing Folder or click the folder icon above the binder list. You can then right-click the file in the Windows folder and play it using Open With to select a program.
4. To play 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 file type.
5. If you don't have a default program assigned to play a particular file type, right-click the media asset, and select Open Containing Folder or click the folder icon above the binder list. You can then right-click the file in the Windows folder and play it using Open With to select a program.

## Viewing Metadata Labels

When the configuration permits it, you can view metadata labels forwarded by a workflow. The label information can be helpful during configuration. For example, the Media Properties label shows the video frame rate, width, and height. The metadata displayed changes depending on the label.

When you submit a clip, all metadata labels are included.

**Figure 27.** Metadata Labels Tab and Panel



## Viewing and Updating Embedded Metadata

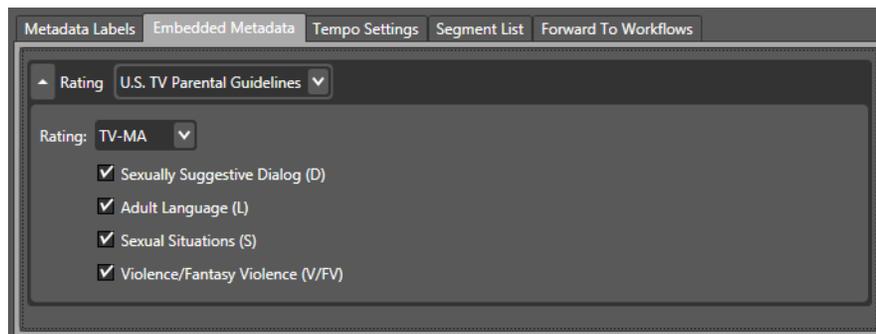
When enabled in a configuration, you can view and update the default Embedded Metadata defined by the Tempo Portal Configuration (in the Management Console). Your configuration may also allow viewing but not changing.

The following (Table 4 and Figure 28) shows the Embedded Metadata Rating panel. This panel allows you to select the content rating system from a drop-down menu, the specific Rating from another drop-down menu, and check the rating text to display.

**Table 4.** Embedded Metadata Rating Controls

Function	Controls
Rating (system)	Selects the rating system to use: <ul style="list-style-type: none"><li>- Not Set</li><li>- US TV Parental Guidelines</li><li>- Canadian English Language Rating</li><li>- Canadian French Language Rating</li></ul>
Rating (for this program)	Selects the rating to apply to this program. The ratings available change with the rating system.
Rating Text	Check the box for the rating text that applies. Rating text options change with the rating system.

**Figure 28.** Embedded Metadata Tab and Panel



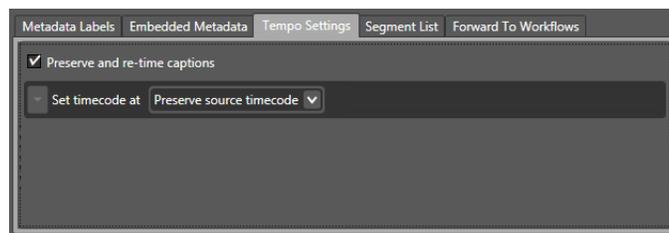
## Specifying Tempo Settings

The Tempo Settings panel (Table 5 and Figure 29) allows you to set options related to caption processing and the start of timecode.

**Table 5.** Tempo Settings Controls

Function	Controls
Preserve and re-time captions	Selects whether to include and re-time captions together with the re-timed media.
Set timecode at	Selects the starting point for re-timed timecode: <ul style="list-style-type: none"> <li>- Preserve source timecode</li> <li>- First frame of program</li> <li>- Last frame of program</li> <li>- First frame of output file</li> <li>- Last frame of output file</li> </ul>

**Figure 29.** Tempo Settings Tab and Panel



## Configuring the Segment List

The Segment List (Table 6 and Figure 30) provides the palette for assembling your re-timed program. You drag the clip to the list and duplicate it (right-click Duplicate) to divide it into multiple segments.

As segments are created, view them in the player and mark their in and out points to assemble a complete program. To locate in and out points, use the player scrubber. The in/out timecode displays for the selected segment update automatically as you scrub.

A *Part of program* check box allows you to set whether a segment is part of the program or not (perhaps you want to remove black segments, for example). A *Re-time this segment* check box lets you include or exclude the segment from re-timing. Check boxes also allow you to include or exclude a station bug and rating graphic.

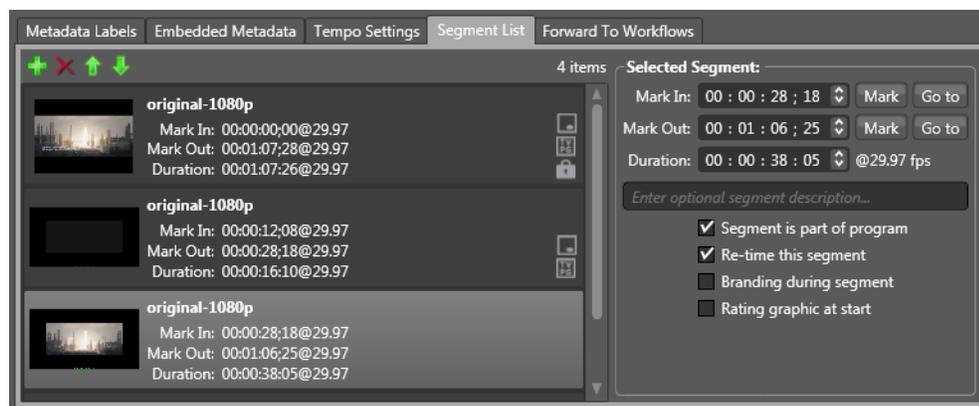
**Table 6.** Segment List Controls

Function	Controls
Add segment (+) 	Click to copy the selected clip from the Catalog clip list to the Segment List. You can also drag and drop.
Delete (X) 	Click to delete the selected segment.
Up arrow 	Click to move the selected segment up in the list.
Down arrow 	Click to move the selected segment down in the list.
Mark In 	Mark the in point in the selected segment by direct entry, by using the arrows, or by scrubbing in the player, and pressing Mark.
Mark Out 	Mark the out point in the selected segment by direct entry, by using the arrows, or by scrubbing in the player, and pressing Mark.
Go to 	Click to set the player position of the selected segment to the current Mark In or Mark Out point (shown in the timecode display).
Duration	Set the duration of the selected segment by direct entry. Automatically displays duration as Mark In and Mark Out are changed.
Segment description	Enter a text description of the segment (optional).
Segment is part of program	Check to include the selected segment in the re-timed program, or uncheck to exclude.

**Table 6.** (Continued) Segment List Controls

Function	Controls
Re-time this segment	Check to re-time the selected segment, or uncheck to exclude.
Branding during segment	Check to display the station branding logo during the selected segment. The logo is imported in the Management Console portal configuration.
Rating graphic at start	Check to display the rating graphic during the selected segment. The rating is set up in the Management Console portal configuration.

**Figure 30.** Segment List Tab and Panel



## Adjusting Re-timing

The Re-time panel (Table 7 and Figure 31) allows you to specify how and how much to re-time a program.

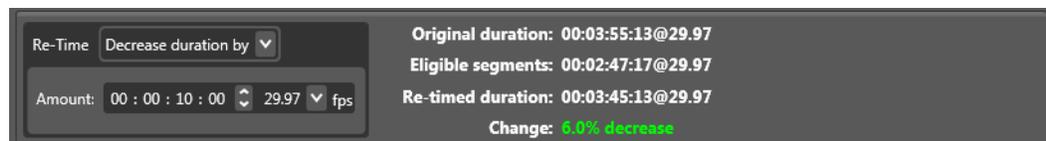
After setting up the overall program by marking segments, select whether to re-time by changing the total program duration to a specified new duration or by increasing or decreasing the duration by a percentage. Then enter the new duration or the amount of change by direct entry in the timecode display.

If the Change line is green after you set the duration/amount, your program is ready for re-timing. If the Change line is red, you must alter the duration/amount until the line turns green. The minimum re-timing change allowed is 1% and the maximum is 10%.

**Table 7.** Re-time Panel Controls

Function	Controls
Re-time	Select how to re-time: <ul style="list-style-type: none"> <li>- <i>Set total duration</i>: Re-times a clip to an overall duration set in the Duration (timecode) display.</li> <li>- <i>Increase duration by</i>: Increases overall clip duration by the time set in the Amount display.</li> <li>- <i>Decrease duration by</i>: Decreases overall clip duration by the time set in the Amount display</li> </ul>
Duration/Amount	Specify the overall duration or the amount of duration change by timecode direct entry.
Timecode displays	<ul style="list-style-type: none"> <li>- <i>Original duration</i>: Original clip total duration.</li> <li>- <i>Eligible segments</i>: Total duration of segments selected for re-timing.</li> <li>- <i>Re-timed duration</i>: Projected total duration of segments selected for re-timing after re-timing is done.</li> <li>- <i>Change</i>: Percentage of duration increase or decrease. Green indicates an acceptable percentage (1 to 10%). Red indicates a disallowed percentage, requiring that you change the re-timing duration/amount.</li> </ul>

**Figure 31.** Re-Time Panel



## Forwarding to Workflows

The Forward to Workflows tab and panel (Table 8 and Figure 32) lets you select re-timing workflows to which you can submit your finished re-timing project. (This panel may not be present if *Show Forward to Workflows* is unchecked in the Management Console Tempo configuration. In that case, the Submit button is on the main panel.)

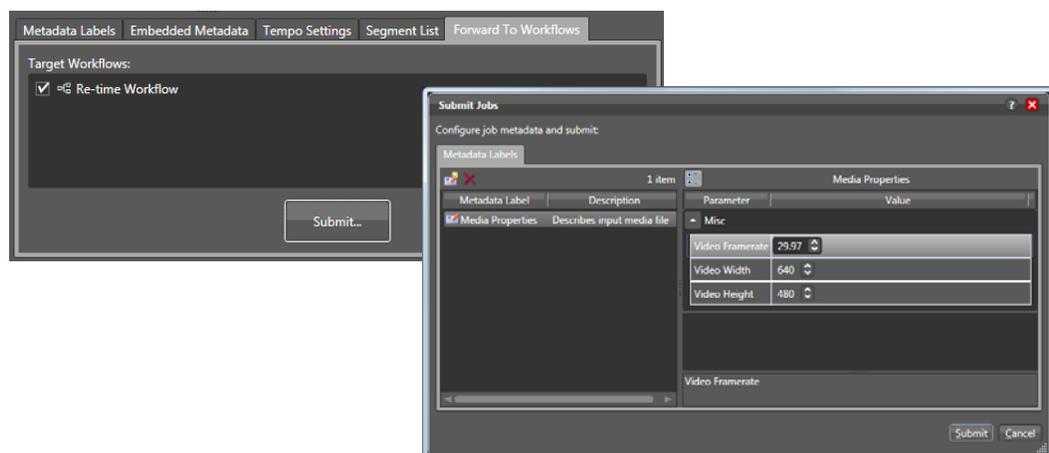
1. Check the workflows to which you want to submit media for re-timing, and press the *Submit* button.
2. Make any Metadata Label changes in the Submit Jobs window.
3. Press *Submit* in the Submit Jobs window.

The workflows must be activated and ready to process, and they must include Receive and Tempo actions as described in the *Tempo Workflows* chapter. Otherwise, an error message indicates that the workflow is not running or doesn't exist.

**Table 8.** Forward to Workflows Submit Jobs Controls

Function	Controls
Add Metadata Label 	Click to browse and select a label from among the labels available with the original media.
Delete (X) 	Select a label from the list and click Delete to delete a label.
List and Parameters	Added labels appear in a list on the left, and their parameters appear on the right.
Categorize 	Click to expand categories in the label parameters list. Click again to close.
Submit 	Submits the project to the selected workflows.

**Figure 32.** Forward to Workflows Tab and Panel



You can monitor the re-timing workflow in the Vantage Workflow Designer Job Status tab. After the re-timing workflow completes, you can find the re-timed media in the Vantage Store or other output location specified by the workflow.

# Tempo Portal Menus

Table 9 describes the menu selections in the Tempo Portal.

**Table 9.** Workflow Portal Windows Client Menus

Menu	Selection	Description
File	Change Vantage Domain	Opens a window for selecting a domain from all the domains on the network.
	Change/Reload Application Configuration	Opens a window for selecting the Tempo Portal configuration.
	Exit	Closes the Tempo Portal program.
Options	Restore Tips & Warnings	Restores Portal tips and warnings display after the feature has been disabled.
	Hide Tips & Warnings	Hides Portal tips and warnings.
	Prompt for Login Next Time Application is Launched	When checked, the Portal requires login each time the program is launched, to increase security.
	Use Clip Start Time	When checked, the preview window uses the start time defined in the proxy media. When unchecked, the start time is zero.
Help	Contents	Displays a help guide.
	Index	Displays the index of the help guide.
	Search	Searches for key words in the guide.
	Online Help	Displays the Vantage guides available on the Telestream web site.
	About	Displays the Portal version information.

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