Viz Mosart Web Applications

Version 2.5

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- **Real-Time Scanning:** Keep it enabled, but exclude any performance-sensitive operations involving Vizrt-specific folders, files, and processes. For example:
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  - C:\ProgramData\[Product Name]
  - Any custom directory where [Product Name] stores data, and any specific process related to [Product Name].
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2025/09/19

Contents

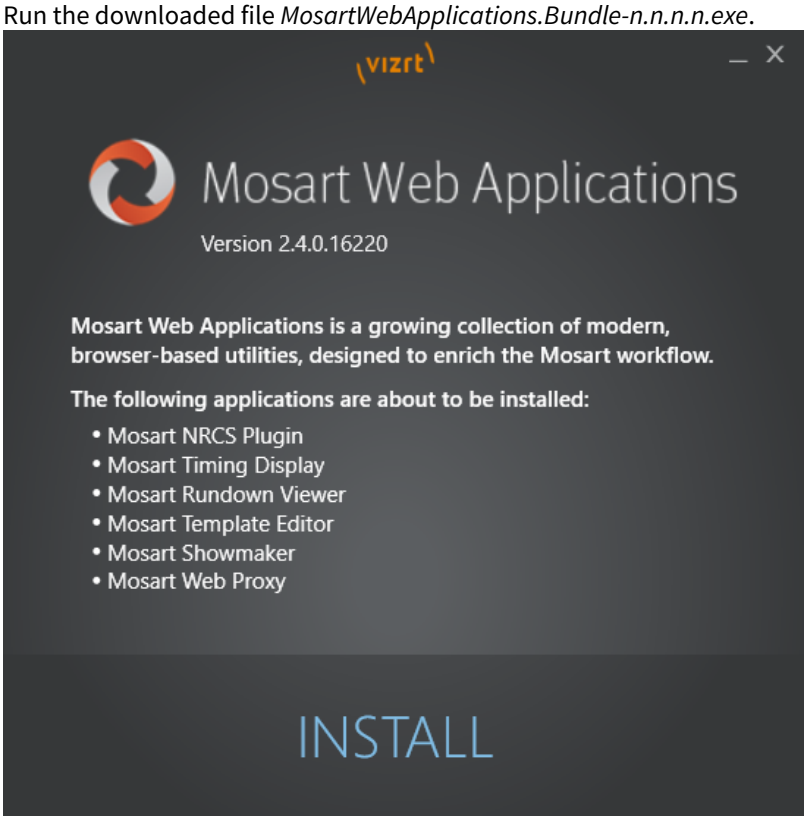
Mosart Web Applications are value-adding utilities and plugins that simplify working with Viz Mosart. They are *not* part of a standard Viz Mosart delivery.

1 Getting Started

1. Collect the latest software bundle from Vizrt's customer FTP at https://download.vizrt.com/ by navigating to /products/VizMosart/Latest Version/WebApplications/.

Note: If *upgrading*, make sure an existing instance of the Mosart Web Applications Configuration Tool is **not** open.

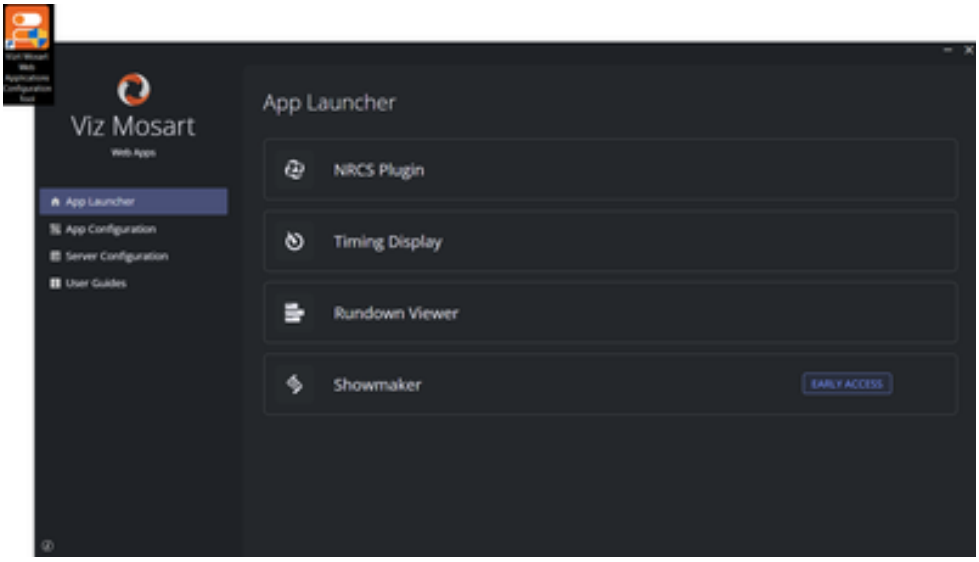
2. Run the downloaded file *MosartWebApplications.Bundle-n.n.n.n.exe*.



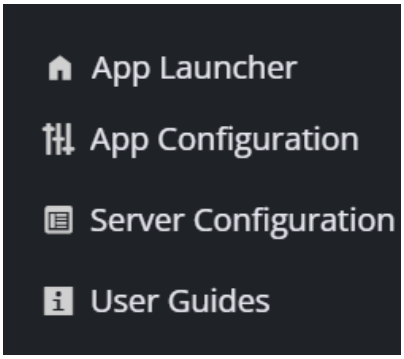
The web applications that will be installed are listed.

Info: The Installer places these services and applications on the target machine:
1. **Mosart Web Applications**: A Windows service that serves the Mosart Web Applications.
2. **Mosart Web Proxy**: Caddy2 bundled within the Mosart Web Apps installer, running as a Windows service.
3. **Mosart Web Applications Configuration Tool**: A desktop web application for configuring and launching the web applications.
4. **The set of Mosart Web Applications** listed on the Installer.

3. Click **Install**.
Any previously installed version of the Mosart Web Applications is automatically upgraded. All configurations and preferences are retained and you complete the installation by clicking **Finish**.
4. After successful installation, the **Mosart Web Applications Configuration Tool** displays, together with a desktop shortcut for quick access.



5. From the left panel, select one of the following:

	**App Launcher**
	App Configuration
	Server Configuration
	User Guides

- If your system is *already configured*, click **App Launcher** and select from:
  NRCS Plugin
  Timing Display
  Rundown Viewer
  Showmaker (Early Access)
  Template Editor (Early Access).
- If this is your *first running* of the Configuration Tool, you must make some one-time configurations, as described in section Mosart Web Applications Configuration Tool.

1.1 User Guides

Links to a recent version of the documentation.

Tip: The onboard descriptions are often early drafts. For *latest documentation*, visit the online resources at the Viz Mosart Documentation Center.

2 Related Documents

- *Viz Mosart User Guide*: Operating Viz Mosart in a live production.
- *Viz Mosart Administrator Guide*: Configuring and customizing Viz Mosart and pre-production show design.

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- Vizrt Documentation Center
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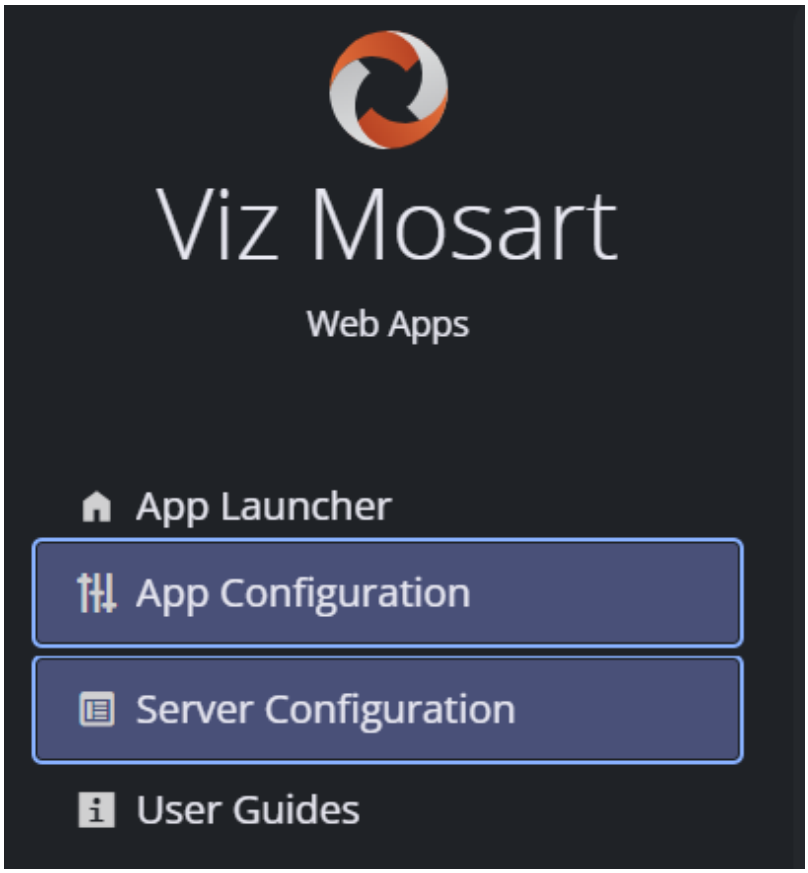
4 Configuration Tool



The Configuration Tool enables rapid setup and management of all your the Mosart Web Applications.

- If your setup is already configured, use **App Launcher** for *NRCS Plug*, *Timing Display*, *Rundown Viewer* and *Showmaker*.

However, on *first run*, you must perform all necessary one-time setups for all the Mosart Web Apps from two menus:

- App Configuration
- Server Configuration.

4.1 App Configuration

- NRCS Plugin
- Showmaker (Early Access)
- Template Editor (Early Access)

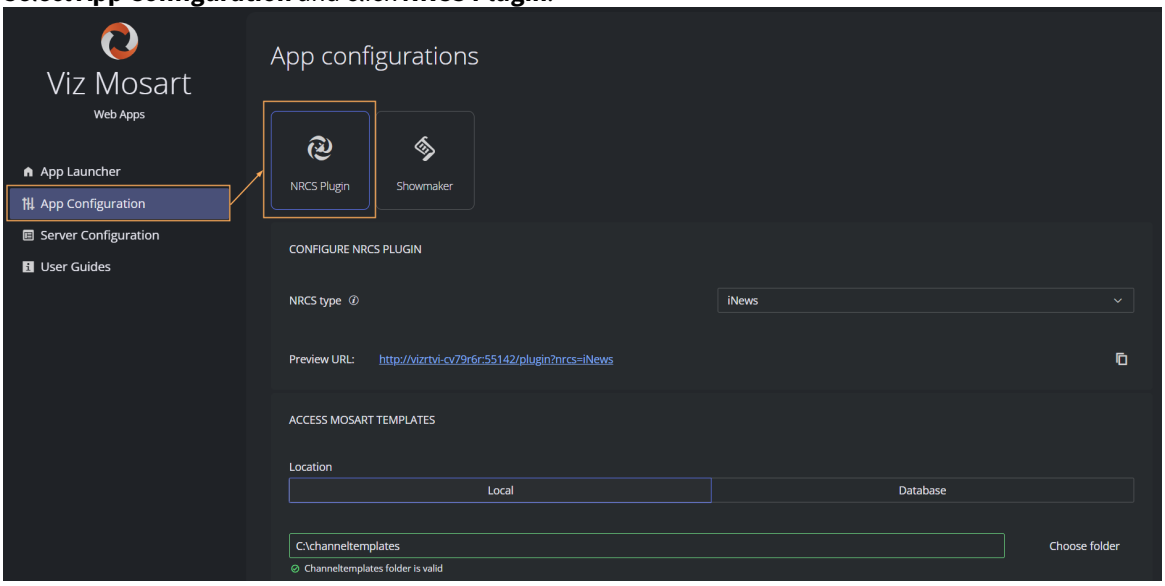
Settings here are needed when you:

- Use the NRCS Plugin or Showmaker (Early Access) for the first time.
- Installed the Mosart Web Apps bundle on *a separate server* to the Viz Mosart server.

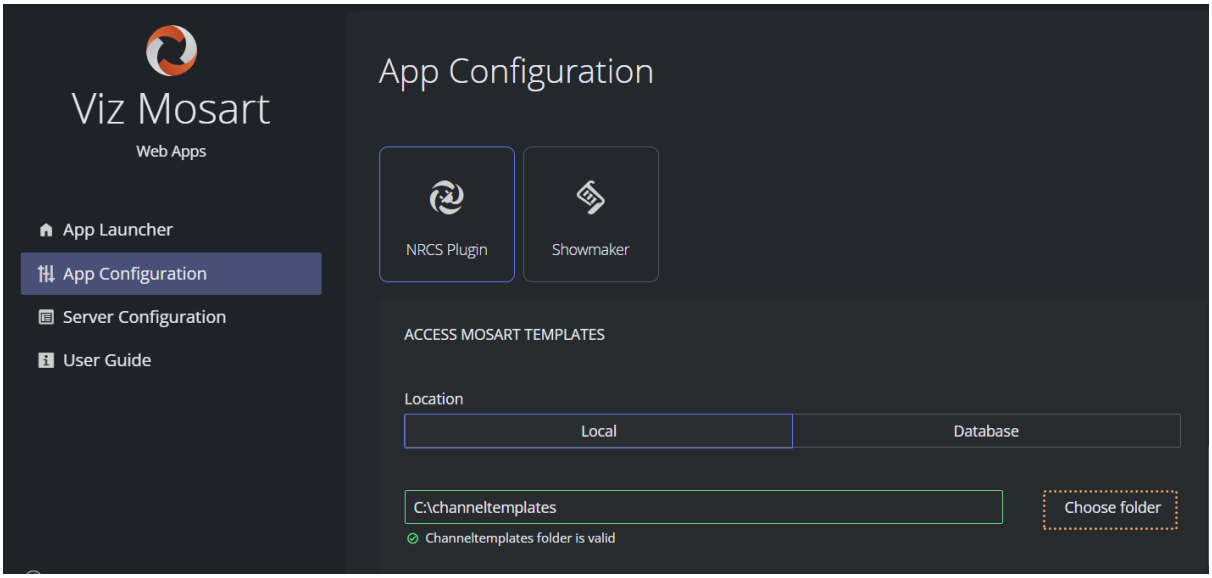
4.1.1 NRCS Plugin

To configure the NRCS Plugin

1. First perform the Getting Started (Installation) procedure.
2. Select **App Configuration** and click **NRCS Plugin**.



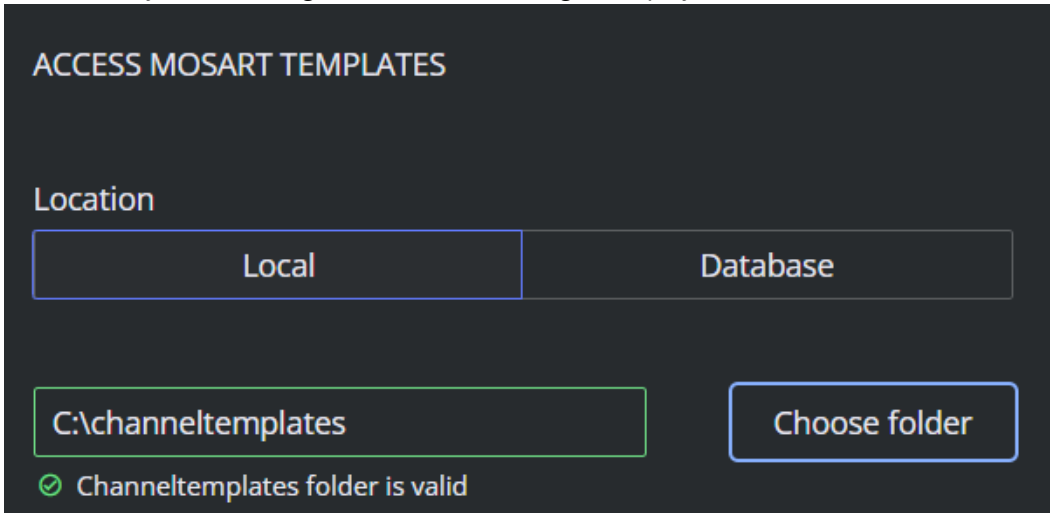
3. From the **NRCS type** drop-down menu, select your newsroom system type.
4. (If *iNEWS* is selected **NRCS type**, ignore this step)
   Enter **Mos ID**.
   This is a mandatory field if you select NRCS type *ENPS*, *Octopus* or *Other*.
   To find your Mos ID
   a. In the Manus Administrator console, type *settings*.
   For more details, see the *Viz Mosart Administrator Guide*, section *Manus Administrator > Settings Editor MOS > NRCS Configuration*.
5. Back in the Web Apps Configuration Tool **App Configuration** page for the NRCS Plugin, in section **ACCESS MOSART TEMPLATES**, specify the location of your Viz Mosart templates.



This can be either

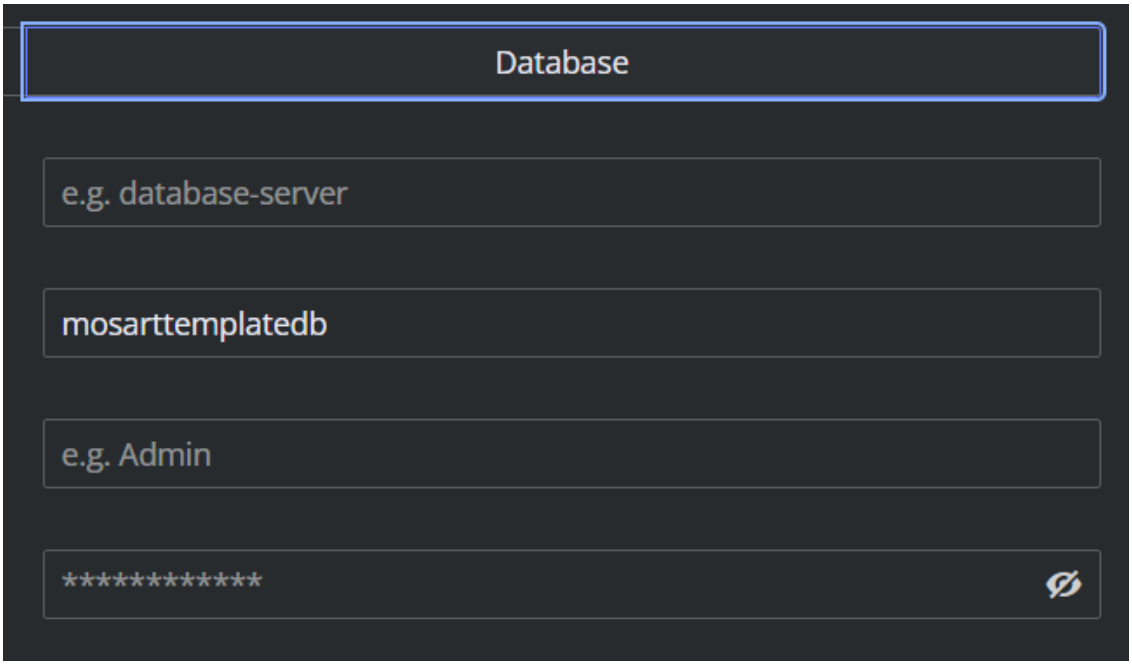
a. **Local**: By default, this is a local folder C:\channeltemplates. The tool will automatically scan for three files:
   - channeltemplates.xml
   - avconfig.xml
   - newsroomsettings.xml

   If successfully identified, a green validation message is displayed.



b. **A network folder**: When your template folder is on a network drive
   i. Click **Choose folder** and navigate to the target folder.
   ii. Ensure the network folder has adequate permissions.

c. **Database**: If template details are stored in a database, enter host access and authentication details.



6. Click **Save**.

> **Note**: To complete the NRCS Plugin setup, you will also need to visit the **Server Configuration** page, presented below.

4.1.2 Showmaker (Early Access)

Showmaker can run standalone, as a rundown (running order) creation tool.

If you wish to use Showmaker with Viz Mosart, follow these instructions, that depend on whether Showmaker is installed on the Viz Mosart server or another machine.

MOS COMMUNICATION SETTINGS

The following configurable properties define the communication.

Property	Description
NRCS ID	This is the Newsroom System ID for Showmaker. Set this ID on any MOS-enabled device to establish communication with Showmaker. For Viz Mosart, this value must be set in Viz Mosart Manus Admin. *Default*: **SHOWMAKER.MOS**.
MOS Device ID	This is the ID of a MOS device configured to communicate with Showmaker. For Viz Mosart, copy this value from Manus Admin *settings > MOS* section . *Default*: **MOSART.MOS.SHOWMAKER**.

Property	Description
MOS Device URL	The URL for connecting to a MOS device. For Viz Mosart server, the URL is ws://mosart-server-host:10540/mos/mosartsocket. The port in the URL (10540) is the MOS lower port configured in the Settings menu of Manus Admin, under the *MOS* section. *Default*: ws://localhost:10540/mos/mosartsocket.

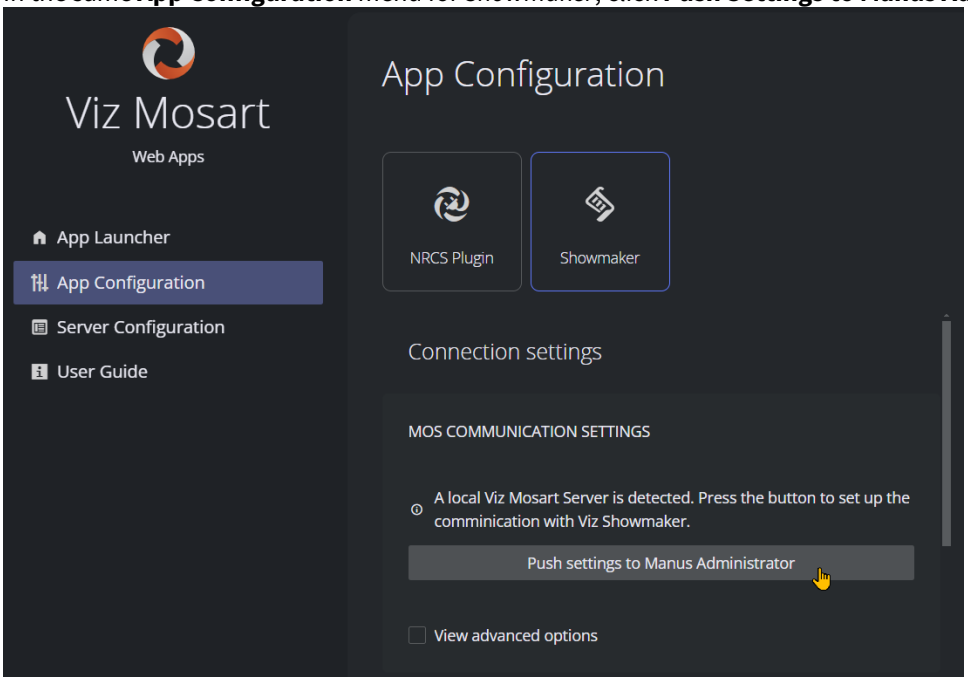
To establish communication between a MOS device and Showmaker

There are two alternative, depending on your network type.

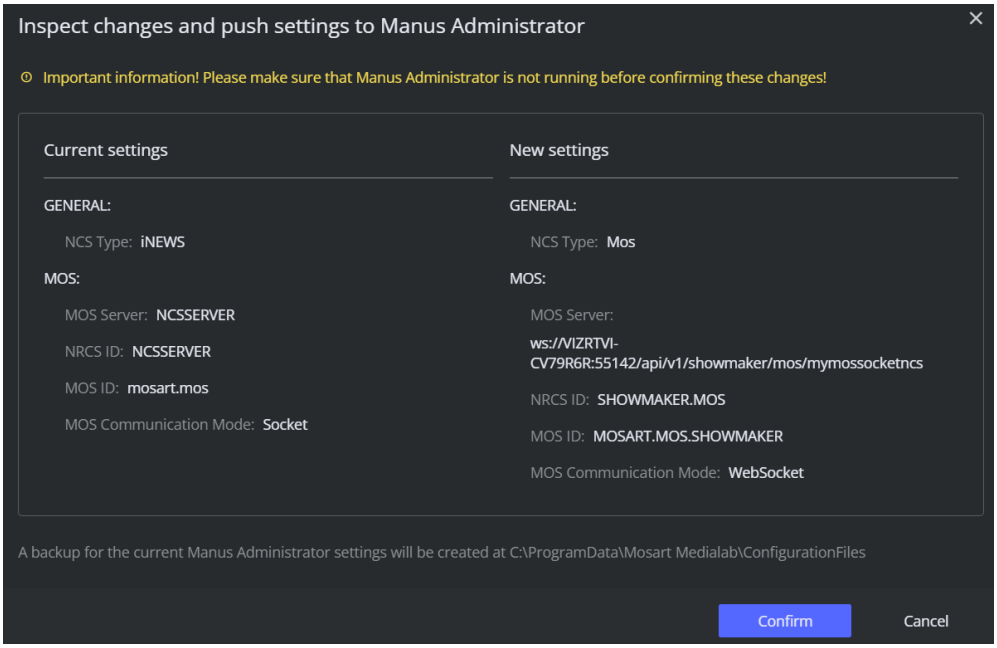
- Showmaker is installed on the same server as Viz Mosart.
- Showmaker is installed on separate server to Viz Mosart.

Showmaker is installed on the same server as Viz Mosart

1. If you are running Showmaker on the *same* server as the Viz Mosart server, the Configuration Tool provides a way to automatically configure Viz Mosart to establish communication with Showmaker.
2. From the **App Configuration** page, under *Showmaker*, tick **View advanced options** and review settings. If necessary, adjust the default values as described in the table above.
3. In the same **App Configuration** menu for *Showmaker*, click **Push Settings to Manus Administrator**.



4. A warning message reminds that Manus Administrator shall *not* be running at this point. Ensure Manus Admin is closed before continuing.

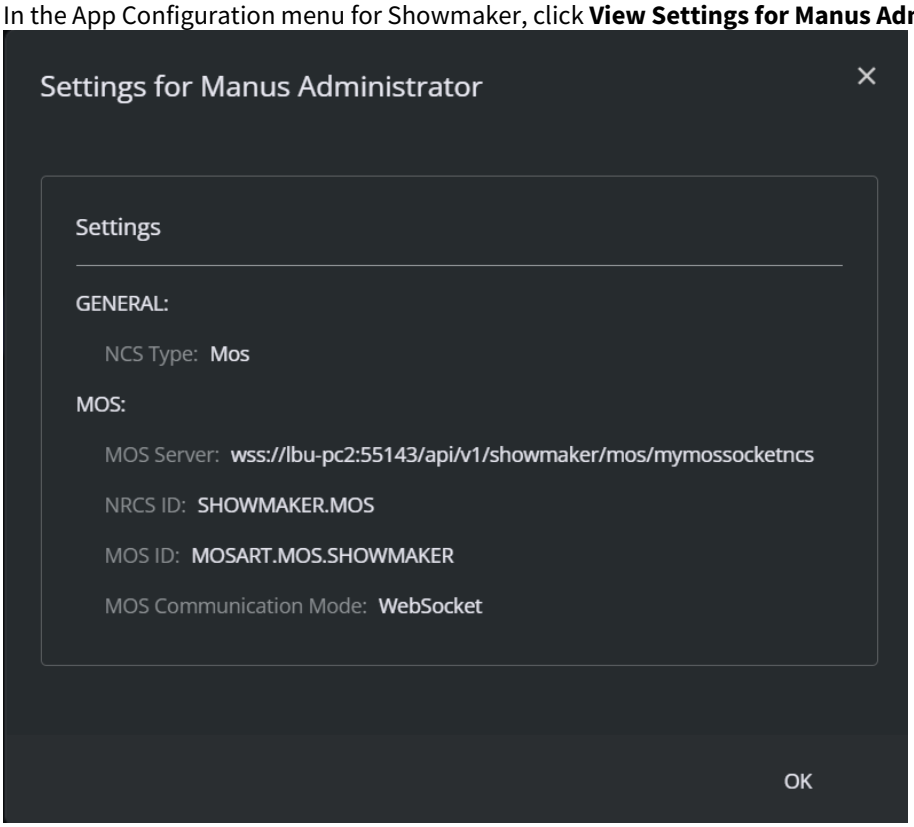


5. To complete the action, click **Confirm**.

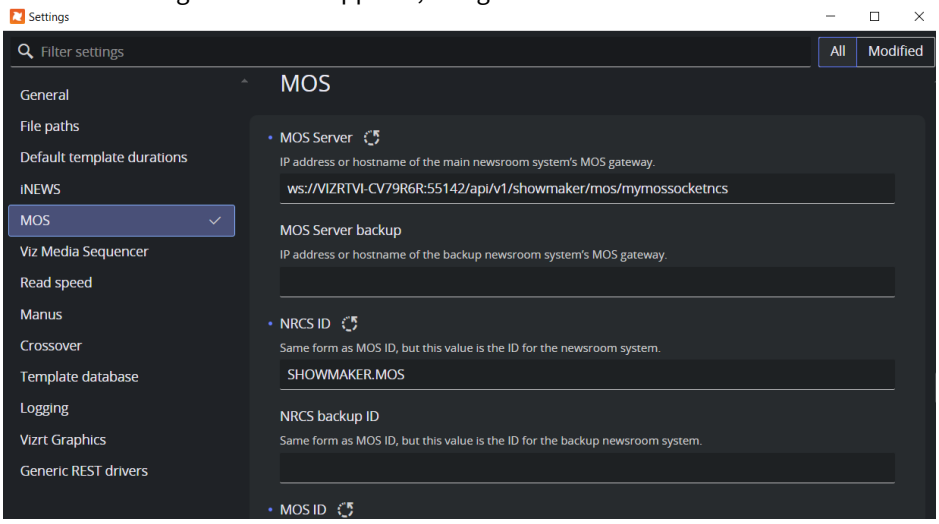
Showmaker is installed on separate server than Viz Mosart

If you are running Showmaker *on another server than the Viz Mosart server*, Viz Mosart must be manually setup to connect to Showmaker.

1. Review the advanced options and, if necessary, adjust the default values as described above.
2. In the App Configuration menu for Showmaker, click **View Settings for Manus Administrator.**



3. On the Viz Mosart server, in the Viz Mosart Manus Admin console, type *settings*
4. From the Settings menu that appears, navigate to the section **MOS**.



5. Configure the MOS settings as presented in the pop-up menu **Settings for Manus Administrator** (shown above) in the Web Apps Configuration Tool.
6. Click **Save**.

Assets integrations settings

If you use either Viz Pilot or Viz Flowics to provide assets for your show, you need to configure some one-time settings.

Viz Pilot

1. If you will run Showmaker with assets from Viz Pilot, click **VIZ PILOT GRAPHICS AND ELEMENTS**.
2. By following the on-screen information (ⓘ icon), provide values for
    a. Application URL (where Viz Pilot Edge is running)
    b. MOS Plugin ID.
3. Click **Save**.

Viz Flowics

1. If you will run Showmaker with assets from Viz Flowics, click **VIZ FLOWICS GRAPHICS**.
2. Ensure you have your Viz Flowics (cloud application) credentials to hand.
3. By following the on-screen information (ⓘ icon), provide values for
    a. Integration token
    b. Application URL (where Viz Flowics is running)
    c. MOS Plugin ID.
4. Click **Save**.

⚠ **Note**: To complete the Showmaker setup, you will also need to visit the **Server Configuration** menu, as described below.

4.1.3 Template Editor (Early Access)

- Please refer to the section Setup and Administration of Template Editor.

4.2 Server Configuration

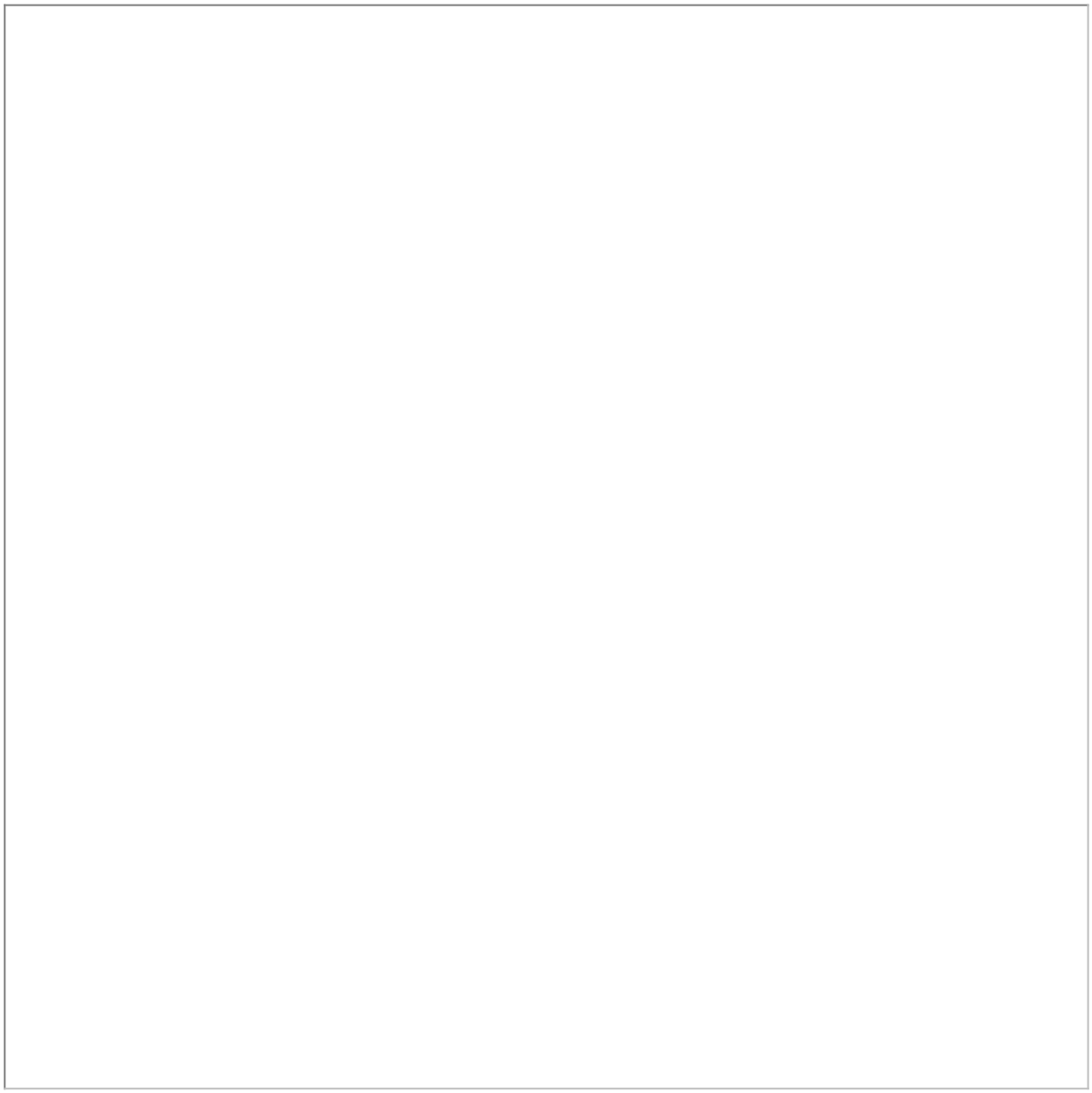
Most settings here are needed when you

- Install the Mosart web Apps bundle on *a separate server* to the Viz Mosart server.
- Move the Web Apps to a different server.
- Need to define the Viz Mosart backup server.
- Need to set up HTTPS across the Mosart network.

4.2.1 Proxy Setup Method

Mosart Web Apps communicates through a proxy server that must be configured.

You can choose to use the onboard proxy bundled with Viz Mosart or an external proxy.



Click either

- **Automatic proxy setup** - to use the onboard proxy server (Caddy v2).
  or
- **Manual proxy setup** - to use your own proxy server.

4.2.2 Automatic Proxy Setup

To set up the automatic proxy server

1. You can use the onboard proxy web server where configurations are automatically generated based on the settings displayed on the **Server Configuration** page.

2. All default settings are already pre-filled and *no further action should be necessary*.
   However, if you need to change any values see the settings below:
   a. **PROXY WEB SERVER**
      i. **Address**: Hostname or IP address of the machine where the Mosart Web Applications are installed. The system attempt an auto-detect. If the *FQDN is required* (for example, by a certificate), provide this instead.
   b. **MOSART MAIN SERVER**
      i. **Address**: By default, this field will contain the address of the Mosart Web Applications. Please enter the hostname, IP address, or FQDN of the main Viz Mosart server *if located on another machine*.
   c. **MOSART BACK-UP SERVER**
      When running Viz Mosart with a backup for redundancy, provide the backup server address.
      i. Select the **MOSART BACK-UP SERVER** check-box.
      ii. **Address**: Enter the hostname, IP address, or FQDN of the backup Viz Mosart server.
3. Click **Save**.

HTTPS

In this *Automatic proxy setup*, selecting HTTPS automatically configures both the Mosart Web Applications and the Mosart Web Proxy (Caddy). The hosts included in the certificate are validated against the web proxy server defined in the field **WEB PROXY SERVER > Address**.
For the Mosart Web Proxy, the configured private key is used to automatically generate an unencrypted PEM-format required by Caddy, which is saved in `C:\ProgramData\Mosart Medialab\Mosart Web Apps`.

Note: If the Mosart Web Proxy and the Mosart Web Applications are configured with *HTTPS*, you must also configure **HTTPS for the Mosart servers** (Main and Backup, if applicable).
See Enabling Updates from the Mosart Server over HTTPS.

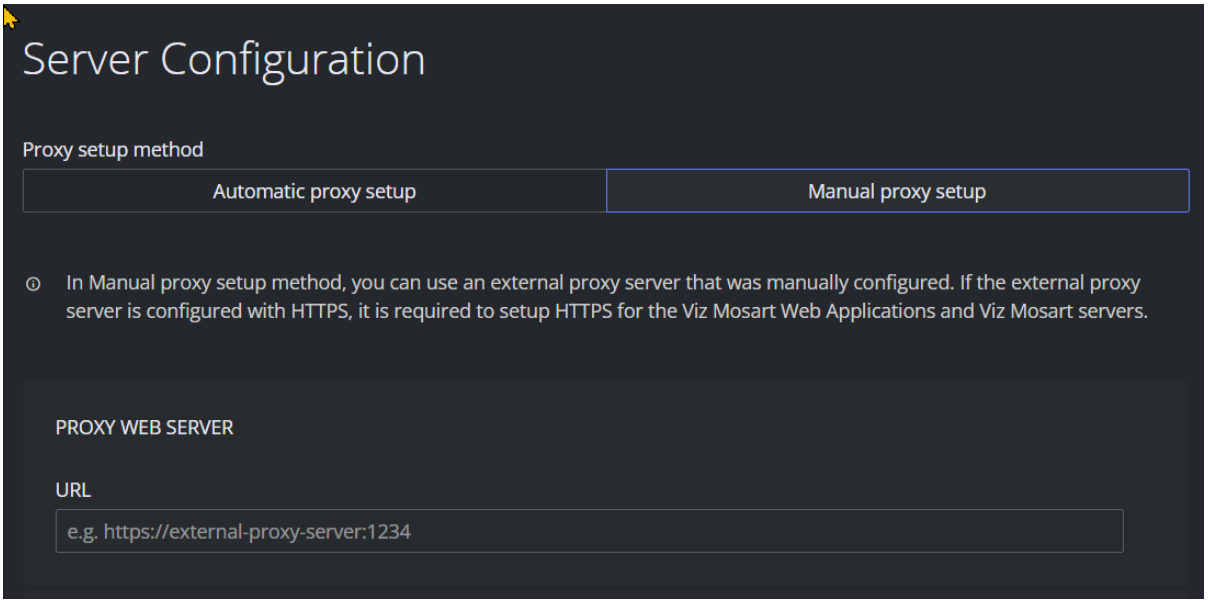
4.2.3 Manual Proxy Setup

You can use an external proxy server, but it must be manually configured.
If the external proxy server is configured with *HTTPS*, you must also set up HTTPS for the Viz Mosart Web Applications and Mosart servers.

Tip: You can examine the Caddy file generated when *Automatic proxy setup* is selected to understand how to set up an external proxy. This Caddy file resides at C:\ProgramData\Mosart Medialab\Mosart Web Apps.

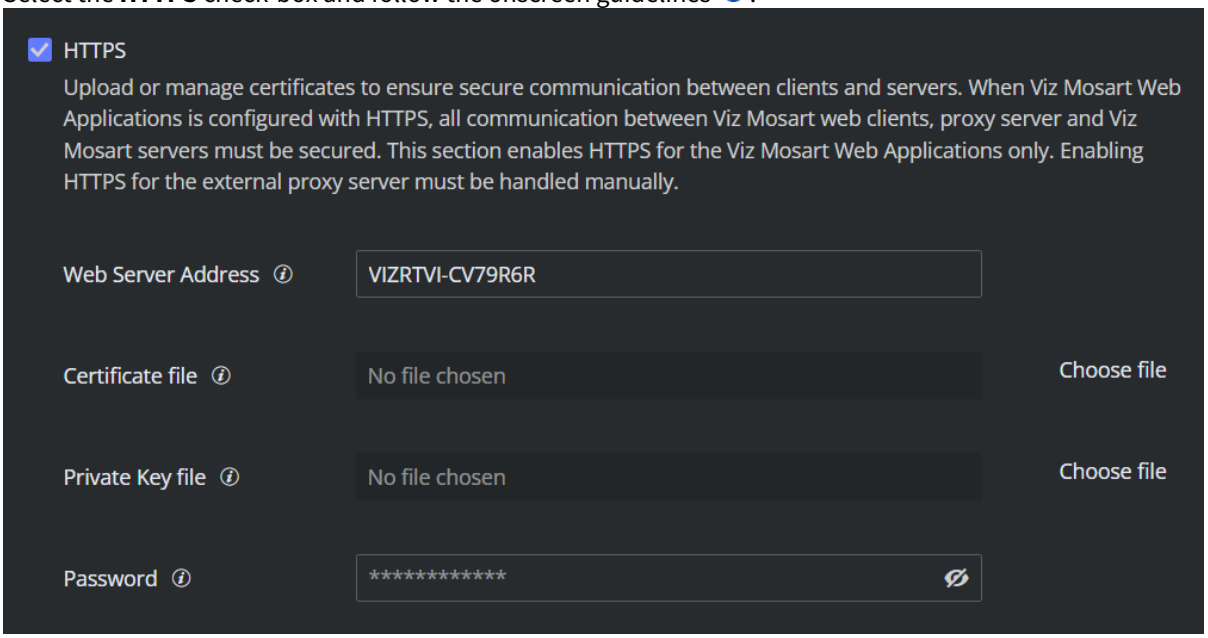
To set up a proxy server manually

1. From the **Server Configuration** page, select **Manual proxy setup**.



2. Under section **PROXY WEB SERVER** in field **URL**, enter the URL address to the external proxy server. This must be a valid web URL starting with http or https.

   HTTPS
   In *Manual proxy setup*, the certificate is only for the Mosart web server. The hosts included in the certificate are validated against the Mosart web server address field (under the **HTTPS** section).
   If you are using *HTTPS*, continue with steps **3** to **5** below.
3. Select the **HTTPS** check-box and follow the onscreen guidelines ''.



4. **Web Server Address**: The IP or the hostname of the Viz Mosart web server. The system attempt an auto-detect. If the *FQDN is required* (for example, by a certificate), provide this instead.
5. **Certificate file**: The certificate in encrypted PEM format. If FQDN is specified in the certificate file, the Mosart web server address must also be a FQDN.
6. Click **Save**.

4.2.4 Enabling Updates from the Mosart Server over HTTPS

If using *HTTPS* with the NRCS Plugin, Rundown Viewer or Timing Display, you need to configure the Mosart Remote Dispatcher Service to allow continuous rundown updates between the Viz Mosart server and the web applications.

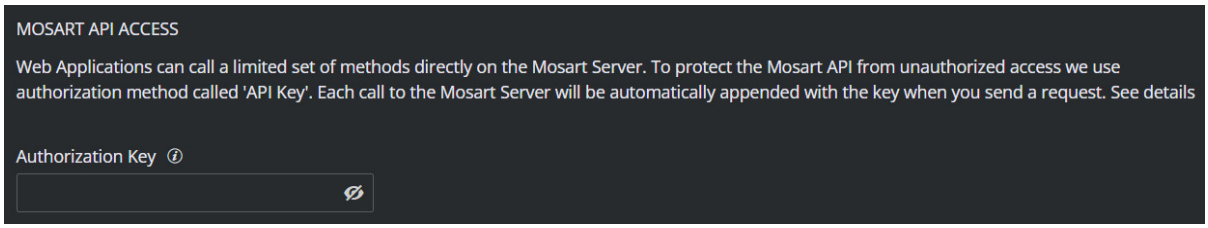
To turn HTTPS on in Mosart Remote Dispatcher Service

1. On the Viz Mosart server machine, copy the file *C:\Program Files (x86)\Mosart Medialab\Mosart Server\ConfigurationFiles\RemoteDispatcherServiceConfig.xml" to "C:\ProgramData\Mosart Medialab\ConfigurationFiles*.
2. Fill in the following fields:
   - **SignalRUseHttps**: *true*
   - **SignalRCertificatePath**: *<Certificate File for Viz Mosart server>*
   - **SignalRCertificateKeyPath**: *<Private Key file* for Viz Mosart server>
   - **SignalRCertificatePassword**: *<Password as configured for the private key>*

```
<item name="SignalRUseHttps" value="true" />
<item name="SignalRCertificatePath" value="C:\CODE\server2.cer" />
<item name="SignalRCertificateKeyPath" value="C:\CODE\server2.key" />
<item name="SignalRCertificatePassword" value="password" />
```

3. Restart the Remote Control Service.

4.2.5 Mosart API Access

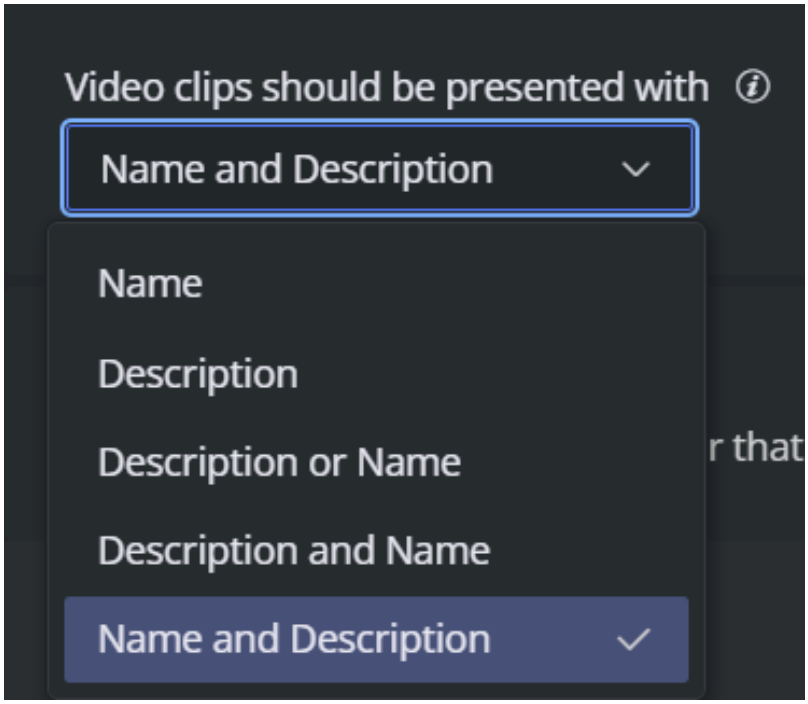


The Authorization Key entered here is essential for accessing methods provided for special features. For example, *clip search* utilities in the NRCS Plugin request lists of clips from the Viz Mosart Media Administrator. This requires a special secure call to the Viz Mosart server through the Mosart Remote Control Service (RCS). RCS contains the special key-value item in its configuration file RemoteDispatcherServiceConfig.xml, where the **RestApiKey** entry is the value that must be entered here as Authorization Key.
See also: Mosart REST API (below).

4.2.6 Video Clips

This setting affects only Timing Display. Video clips (PACKAGE templates) can be presented with various details.

- Select what to display from the dropdown menu.



4.2.7 Template Editor

By default, the Template Editor is not available. Select the checkbox to enable it.

4.3 Mosart REST API

Mosart Web Applications can now be used as a proxy to call the Mosart REST API on the current active server.

4.3.1 API Documentation

- With Web Apps running, you can browse the API documentation at http://[web-apps-machine:port]/mosart/swagger.

4.4 HTTPS Usage Notes

When Mosart Web Applications are configured with HTTPS, all communication between clients, proxy servers, and content servers must be secured. This includes the following components:

- Mosart web clients (*Rundown Viewer*, *NRCS Plugin*, *Timing Display etc.*).
- Mosart web server (*Mosart Web Applications* service).
- Proxy server (internal, i.e. *Mosart Web Proxy* service, or external).
- Mosart Server (*Mosart Remote Control Service*).

4.4.1 Certificate Requirements

- **Type**: X.509 certificates.
- **Format**: PEM-encoded certificates and private keys.
    - For the Mosart Web Proxy (Caddy), the key must be in unencrypted PEM format, which is automatically generated by Mosart from the provided encrypted key file.
- **Encryption**: Private keys must be encrypted and provided with the corresponding password. You can verify if the key is encrypted by opening it in an editor and checking that it starts with "-----BEGIN ENCRYPTED PRIVATE KEY-----" and ends with similar text.
- **Host coverage**: The certificate must include the host where the Mosart Web Applications are installed. The hosts provided in the Mosart Web Config tool will be validated against the certificate (case sensitive). If the hosts in the certificate are the Fully Qualified Domain Name (FQDN), then the hosts provided in the Mosart Web Config Tool must be the FQDN as well. If the same certificate and key files are used across all Mosart components (Mosart Web server, Mosart web proxy, Mosart server main, Mosart server backup), the certificate must specify all relevant hosts or their FQDNs.

4.4.2 Certificate Installation

Certificates must be trusted on any machine where Mosart Web Apps are used. Ensure the certificates are installed on:

- Mosart Web Applications / Mosart Web Proxy.
- Any Mosart Server.
- Any machine running Mosart web clients.

If the certificate is not installed on a machine using a Mosart Web App, the browser will warn of insecure connection, suggesting you proceed at your own risk. However, if the Mosart Web App is integrated as a plugin within other applications (for example, into ENPS), there may be no warning, and you experience issues like a blank page.

4.5 Authentication

Viz Mosart Web Applications supports authentication using *OpenID Connect*.

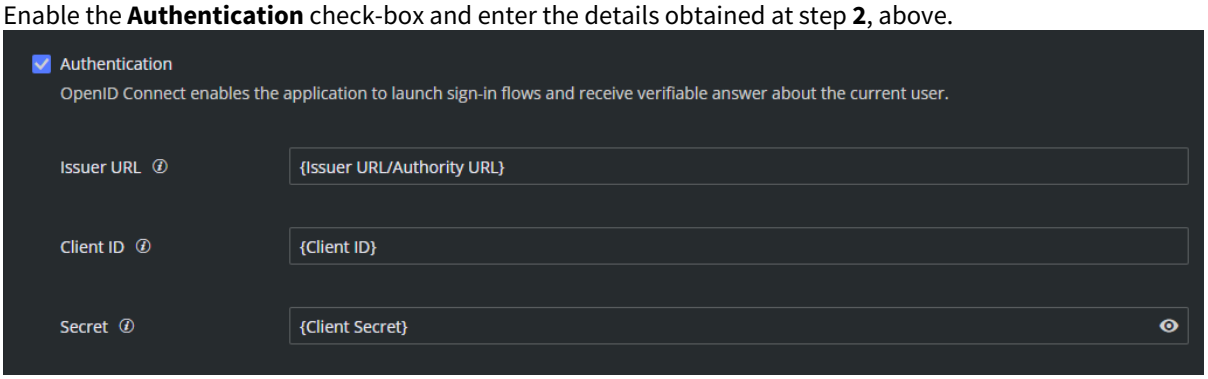
4.5.1 Prerequisites

- HTTPS has to be configured to use authentication.
- You need a third party OpenID Connect authentication service, such as Keycloak, Okta, or Microsoft Entra ID. (If you are already using Viz One you should already have a Keycloak authentication server).

4.5.2 Setup

1. Create a new Client/App registration in your authentication provider and add a *Client Secret*.
    a. Keycloak guide
    b. Entra guide
    c. Okta guide.

2. Your authentication provider must provide
   - Issuer URL/Authority URL
   - Client ID
   - Client Secret.
3. Open the Mosart Web Application Configuration Tool and select **Server Configuration**.
4. Enable the **Authentication** check-box and enter the details obtained at step **2**, above.



5. Click **Save**.

Authentication is now enabled.

4.5.3 Provider-specific Newsroom Authentication

iNEWS

Authentication will only work if you are using the NRCS plugin with the NRCS plugin *iNEWS Client Addon*. Authentication will not work by hosting the Plugin as a regular HTML plugin.

ENPS

To use the NRCS plugin with ENPS, first add your ENPS server machine to the list of allowed frame-ancestors in the Content Security Policy on your Authentication Provider.

Typically this is a simple edit of the Content Security Policy:
From

```
frame-src 'self'; frame-ancestors 'self'; object-src 'none';
```

to

```
frame-src 'self'; frame-ancestors 'self' {Your ENPS server}; object-src 'none';
```

- **Keycloak**: Go to **Realm Settings > Security Defenses**.
- **Okta**: Follow this Okta guide.
- **Entra**: Since you cannot edit the Content Security Policy for Microsoft Entra ID, authentication with Entra ID for the NRCS plugin in ENPS is not supported.

Octopus

NRCS plugin authentication is not currently supported with Octopus.

4.6 Troubleshooting

See section Troubleshooting.

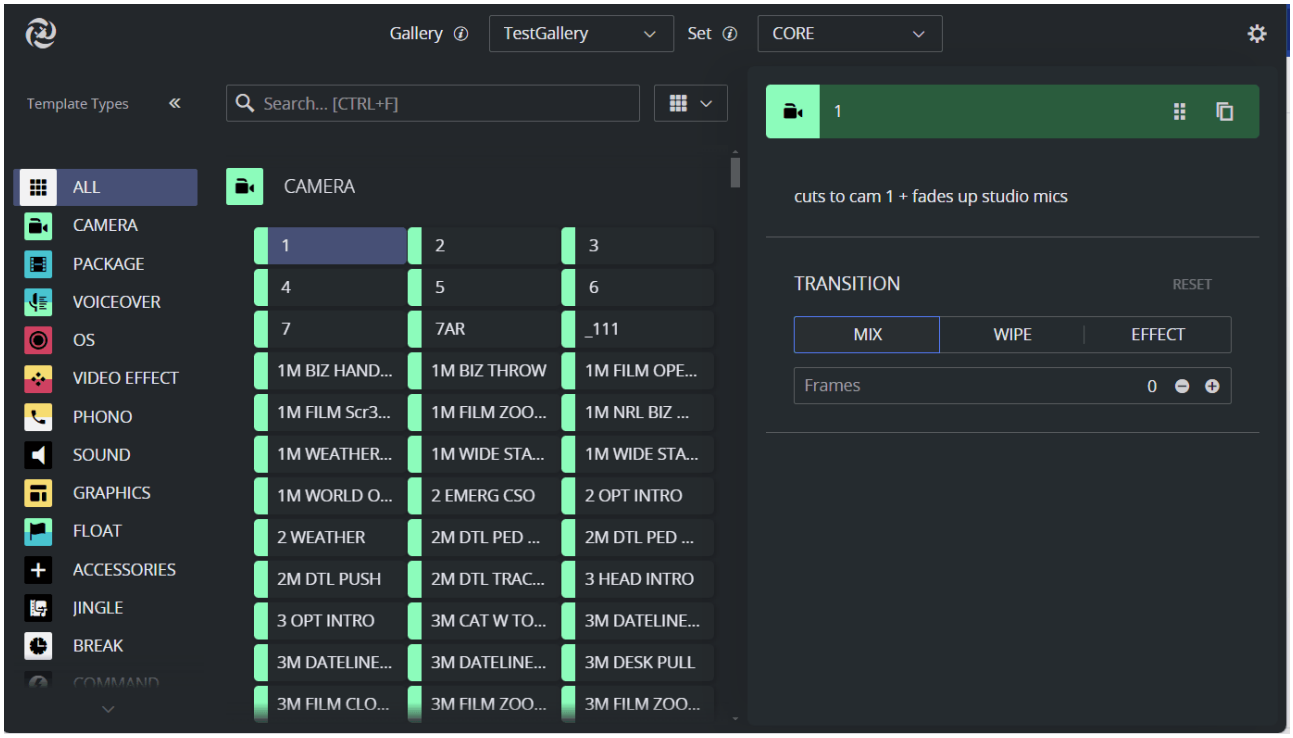
5 NRCS Plugin

The NRCS Plugin is an effective drag and drop tool for reliably adding Viz Mosart template instructions to an NRCS story.

- Working with the NRCS Plugin
- NRCS Plugin in Pilot Edge
- Setup and Administration

Note: For news-breaking details on the **Mosart NRCS Plugin**, please refer to the *Mosart Web Apps Release Notes* for your version of Viz Mosart at the Vizrt Documentation Center.

Tip: This document contains *animated graphics*. If you are viewing as PDF, we recommend browsing the web version.



5.1 Working with the NRCS Plugin

The NRCS Plugin delivers the functionality previously provided by the legacy *Viz Mosart ActiveX* Plugin.

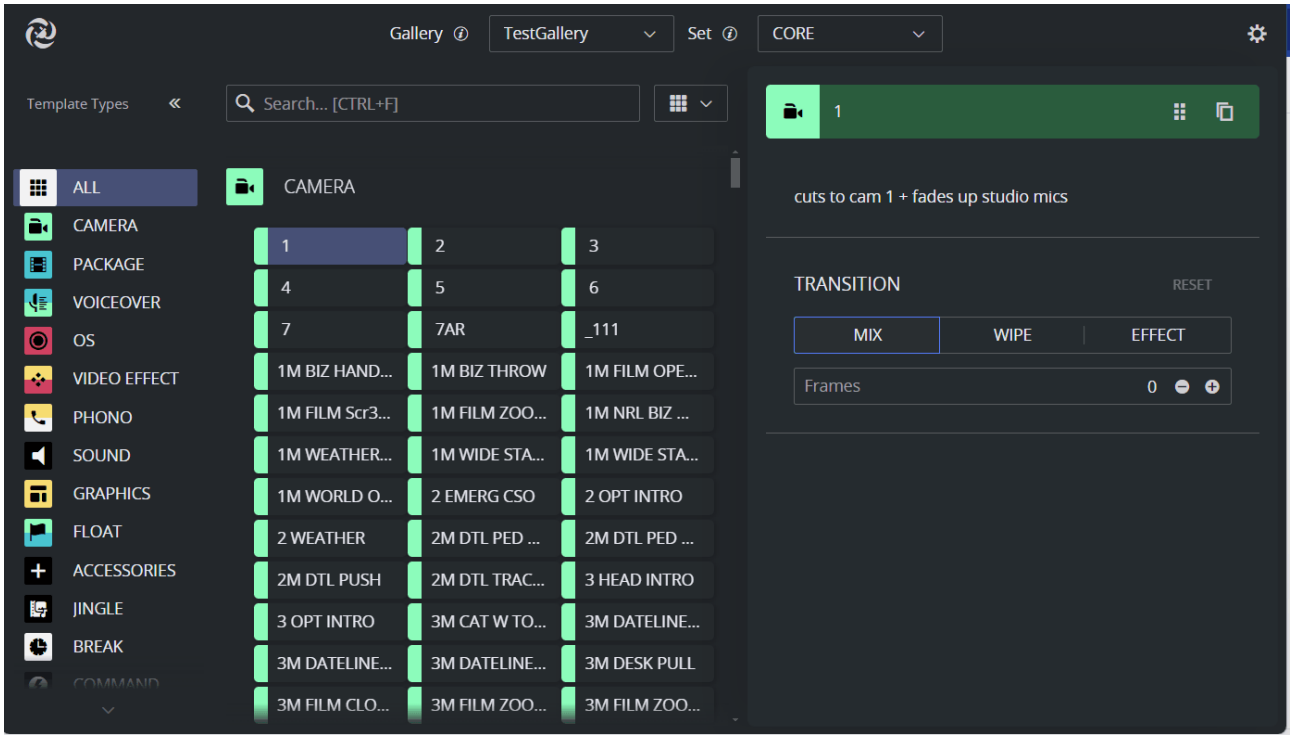
- User Operations
- Getting Help
- Error Handling
- API Documentation

5.1.1 User Operations

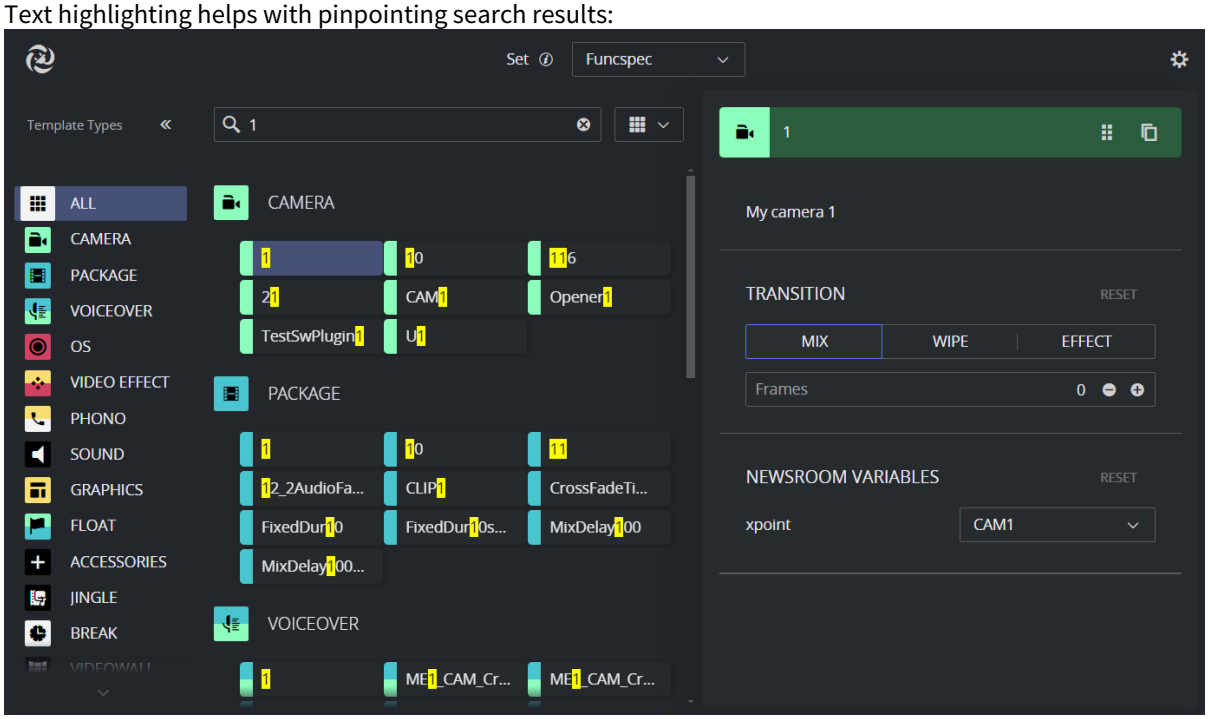
- Searching for a Template
- Modifying a Template
- Adding Template Details to the NRCS
- Refreshing Template Changes
- Optimizing Your NRCS Plugin Workspace
- Copying the MOS Object Details
- Modifying Existing MOS Objects

Searching for a Template

Locate a template by selecting a *template set* and typing a *variant* or *template type* in the Search box. Auto-suggest will display search results as you type. If the application is configured to use a template database, you will also need to select a *gallery*. If the application uses templates from a file, there will be only one gallery, so no gallery selection is required.



Text highlighting helps with pinpointing search results:



Modifying a Template

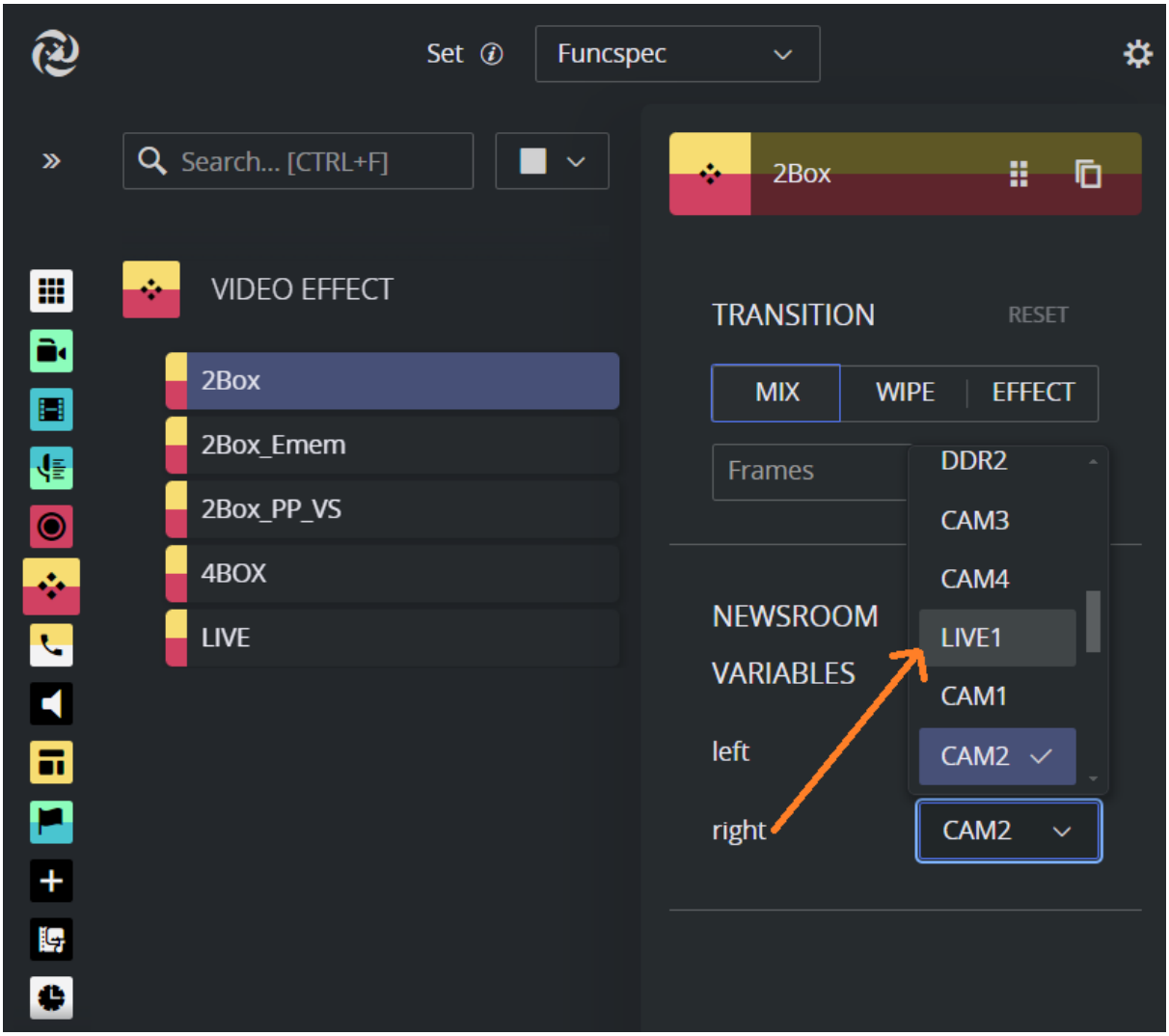
To modify production characteristics

Variables

- Click on a template in the search listing. Properties (called *Variables*) that have been added to the template (using Viz Mosart's Template Editor) appear to the right.

> ⚠ **Note**: *Variables* are called *Newsroom tags* in the Viz Mosart Template Editor.

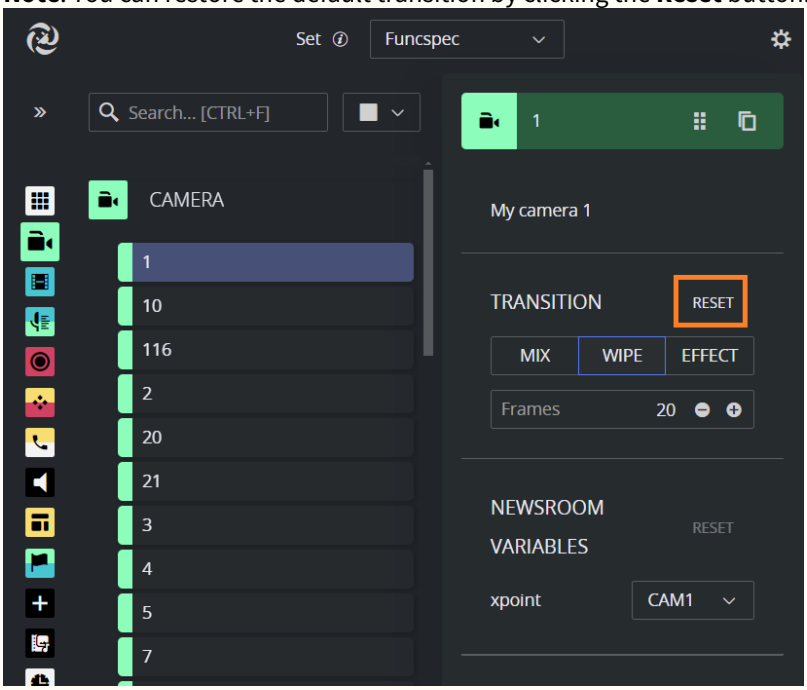
- You can temporarily override any defaults, and add new variables.
  For example, in a *Video Effects* template, you may wish to change the source of the second input:



Transitions

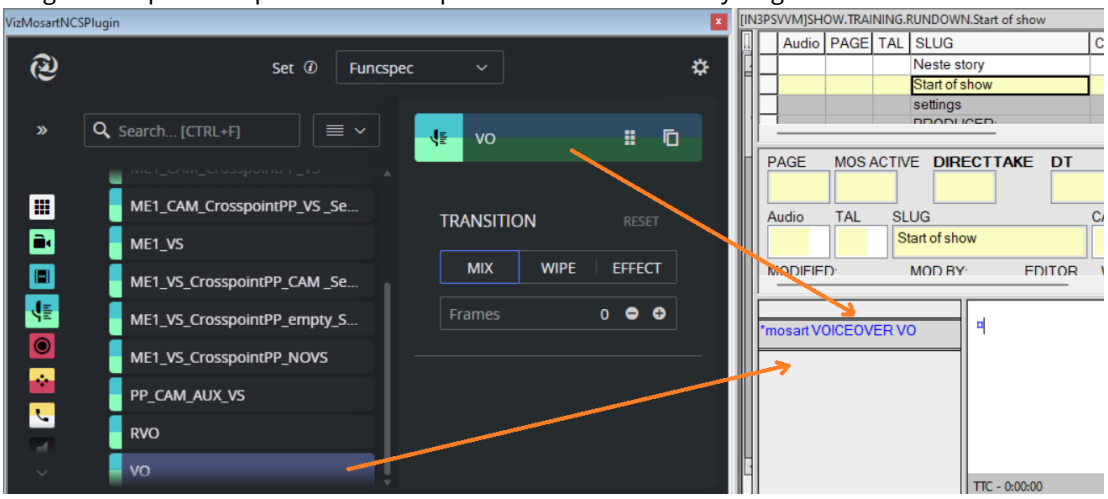
- The **Transition** field initially displays the *default* transition type. This value indicates the most significant template behavior.
- You can temporarily *modify* this transition type, and then later restore the default transition (as originally set in the Template Editor).

Note: You can restore the default transition by clicking the **Reset** button.

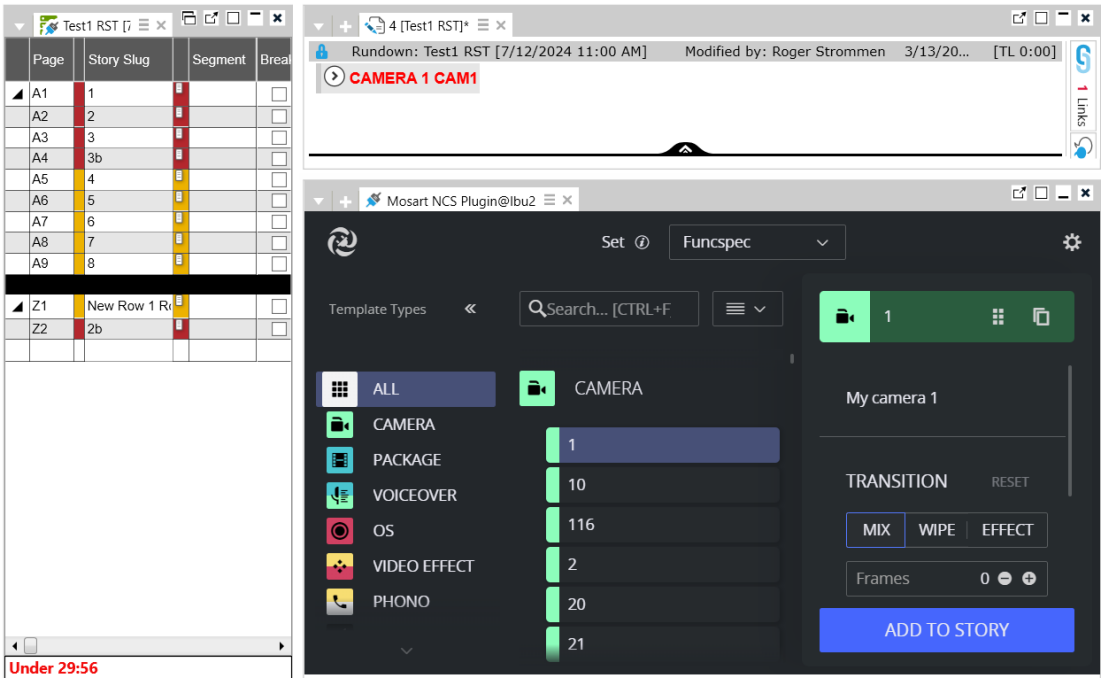


Adding Template Details to the NRCS

- Drag and drop the template into the required location of the story slug.



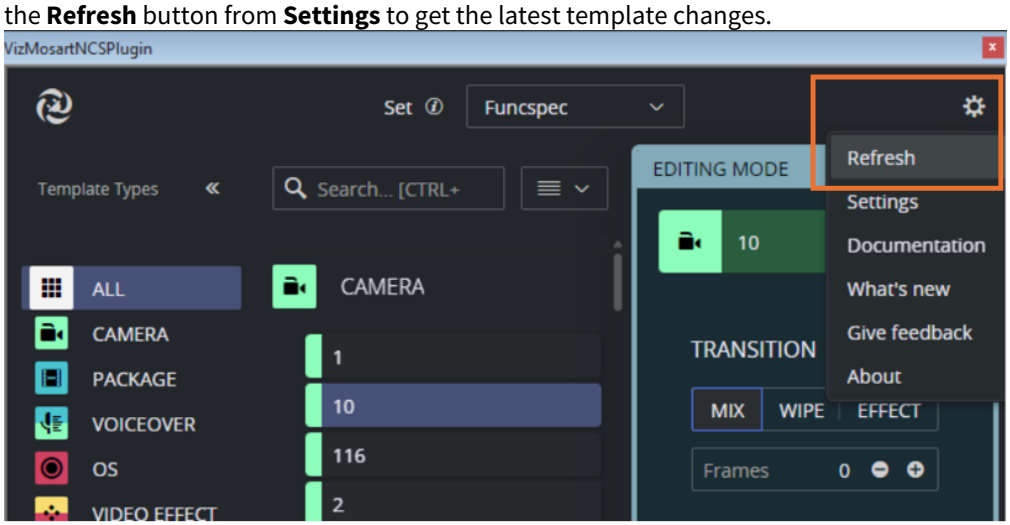
- In a MOS-based NRCS, in addition to drag and drop, the **Add to Story** button can be used to add a template to a story.



Note: The names of both the *gallery* and the *template set* of your selected template are always included with the MOS object that you store as a story item in your NRCS rundown.
Any future use of this NRCS MOS item will always point to exactly the same template (same *gallery*, *template set* and *template name*) when it displays in the Mosart NRCS Plugin.

Refreshing Template Changes

If changes are being made to the active template set (by another operator using Viz Mosart's Template Editor), click the **Refresh** button from **Settings** to get the latest template changes.

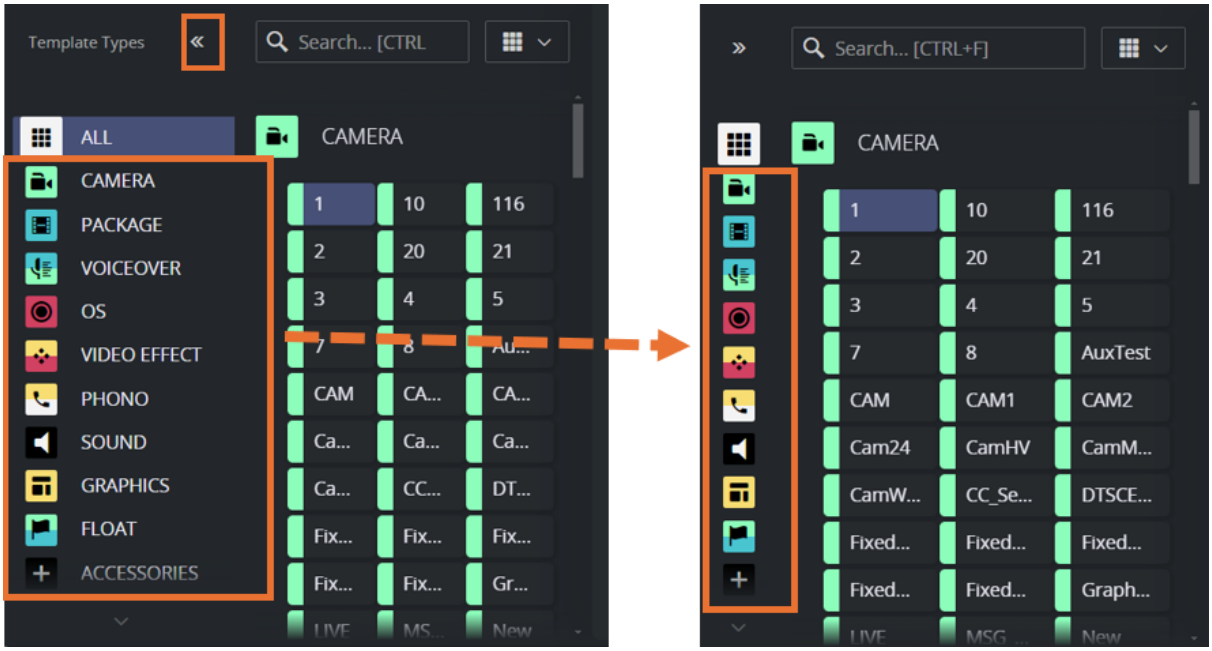


Optimizing Your NRCS Plugin Workspace

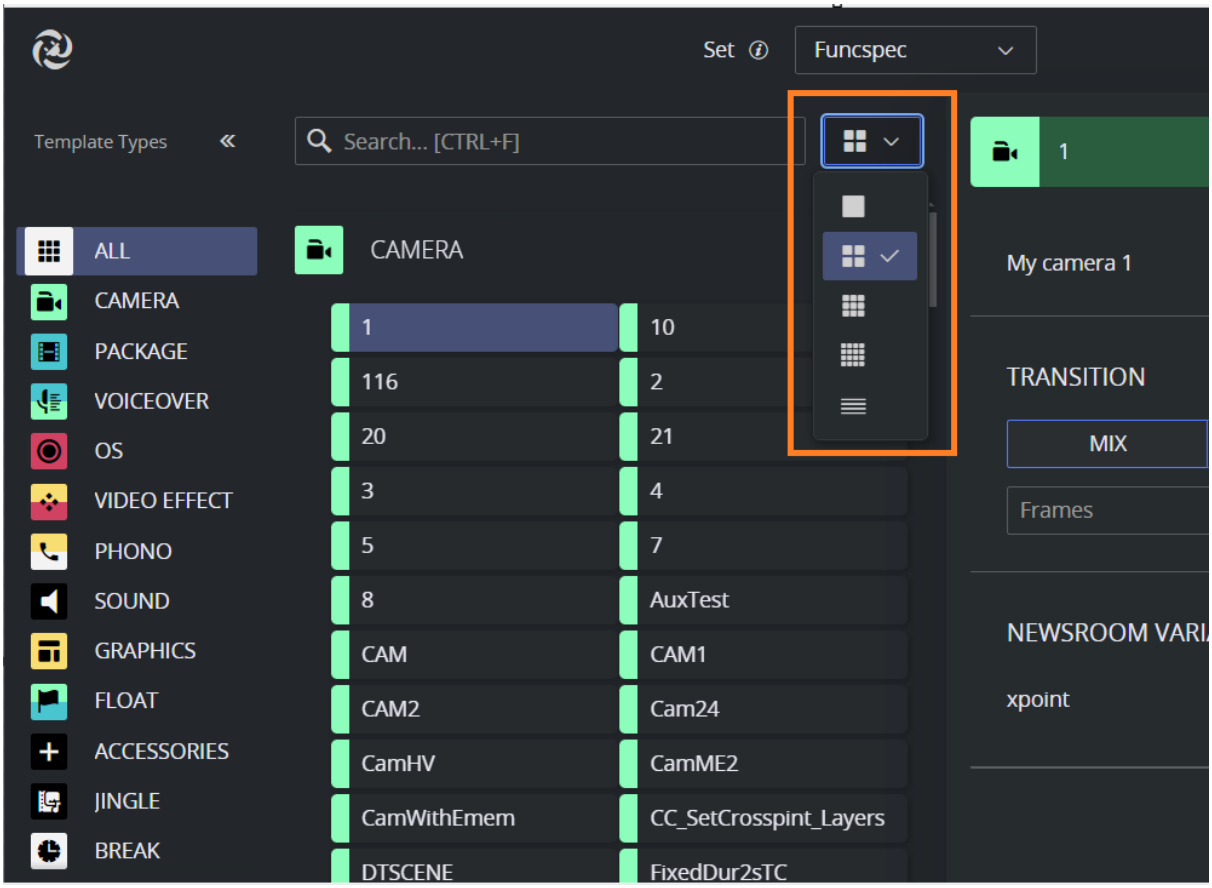
Collapsing the Type listing

You can save some screen space taken by the Mosart NRCS Plugin by collapsing the **Template Types** panel:

- Click the **Collapse** button.



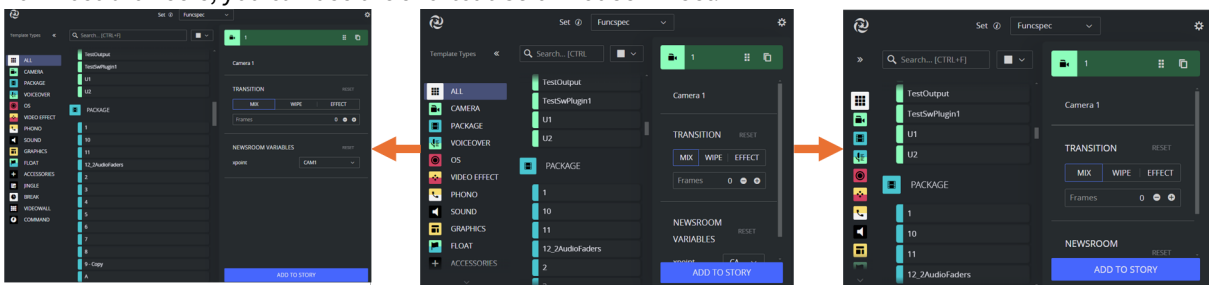
- You can customize the number of columns to adjust the template list size. Selecting the last option will automatically fit the number of columns to the window size.



Scaling the View

As the Plugin is a web application, you can set your preferred scale by *zooming in and out*.

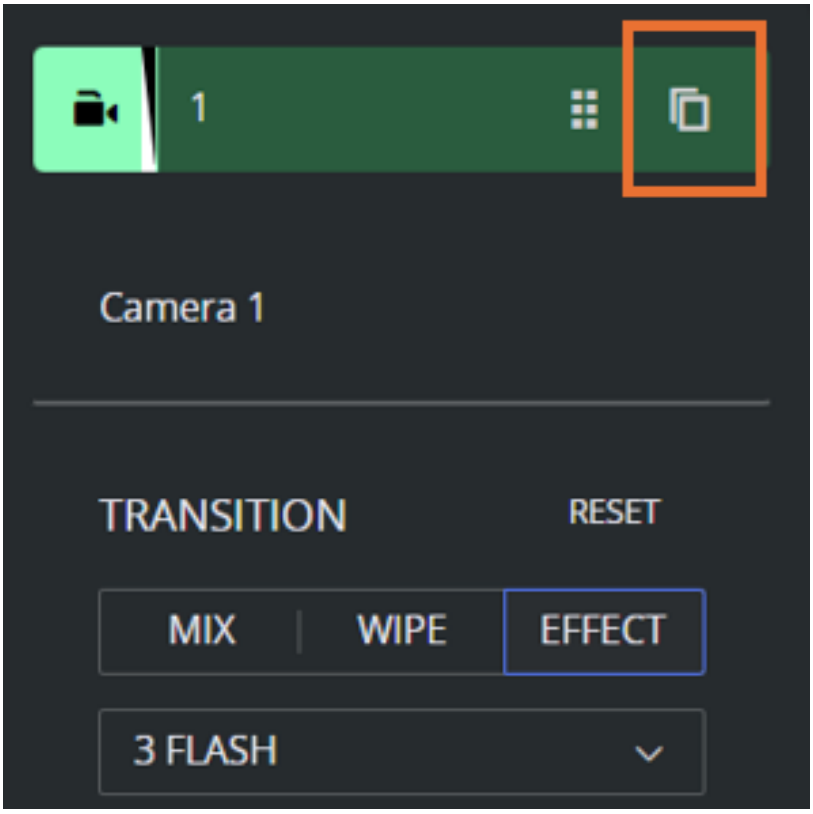
- For most browsers, you can use the shortcut **Ctrl+mouse wheel**.



Copying the MOS Object Details

You can work with the template's raw MOS data by first copying it to your PC's clipboard.

- From a selected template, click **Copy MOS** icon.

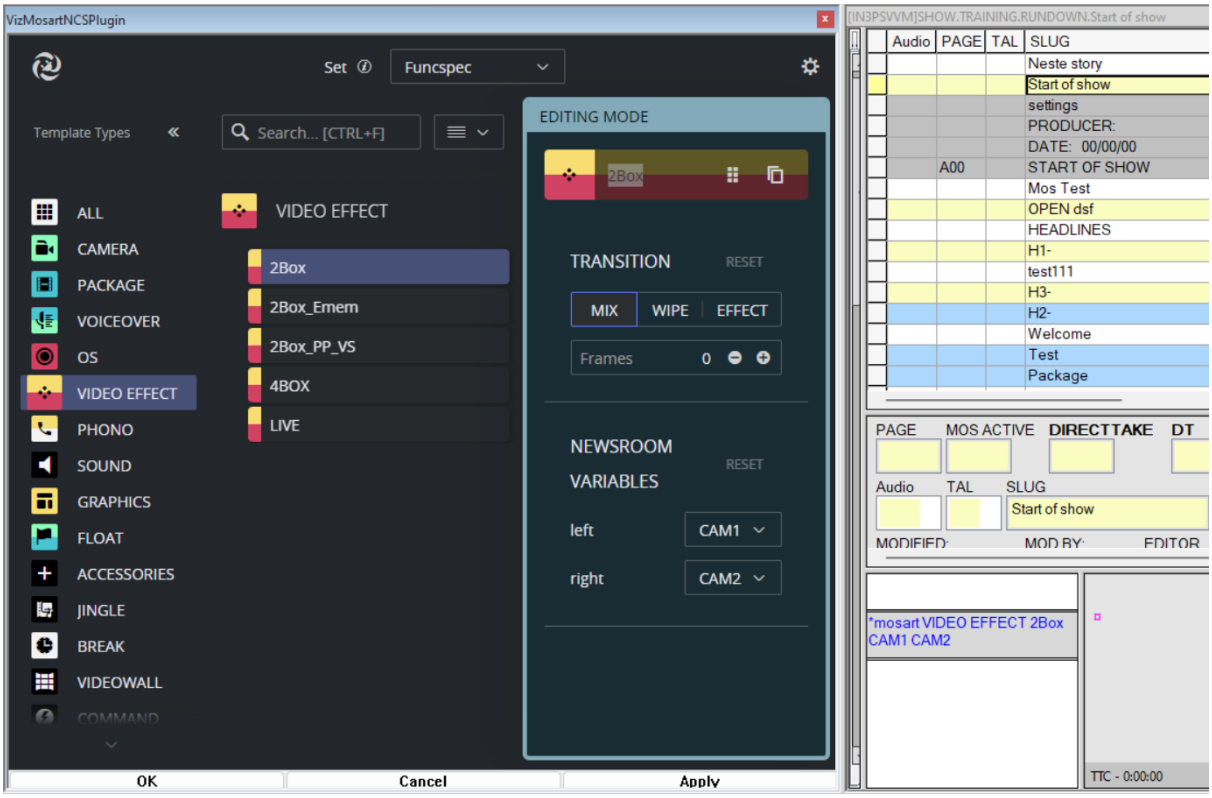


Modifying Existing MOS Objects

Your rundown will usually contain slugs with MOS objects that have been created with either this Mosart NRCS Plugin or the legacy component, Viz Mosart ActiveX.

To modify an existing MOS object

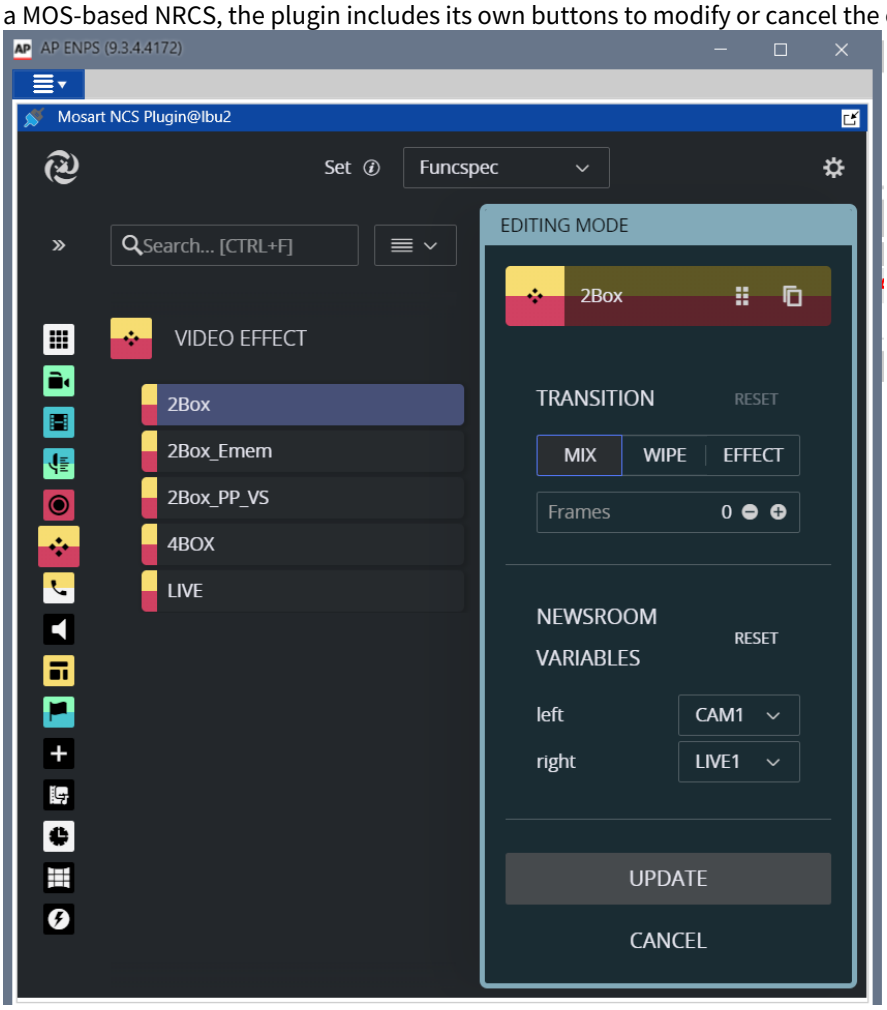
1. On the selected rundown story, double-click the slug or grommet that holds the story's MOS object.
2. The corresponding Viz Mosart template, along with control details such as *newsroom tags*, *crosspoints*, *transitions*, and *timings*, is displayed in the Viz Mosart NRCS Plugin.



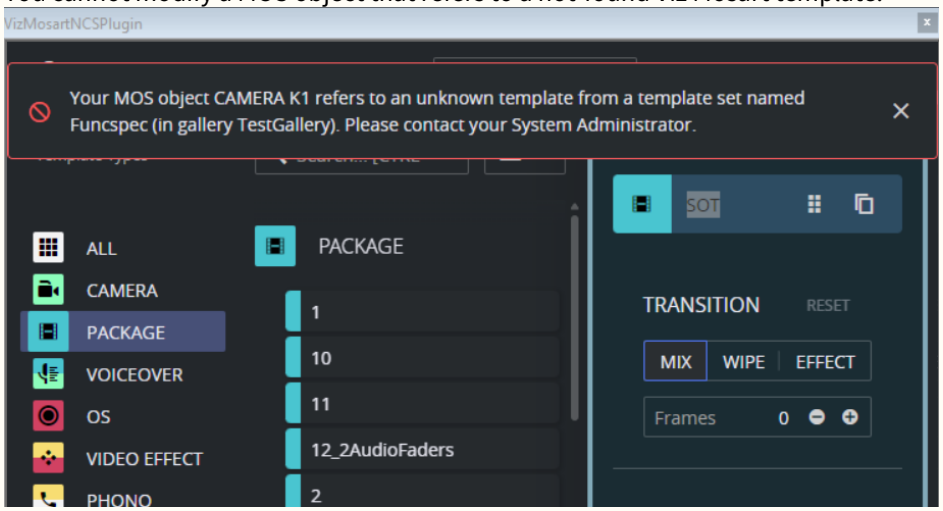
Make the modifications directly in the Mosart NRCS Plugin window.

3. When finished editing, apply the changes. In the iNews newsroom system, use the **OK**, **Apply**, or **Cancel** buttons (specific to iNews) to modify and close, modify without closing, or cancel the editing, respectively. In

a MOS-based NRCS, the plugin includes its own buttons to modify or cancel the editing.



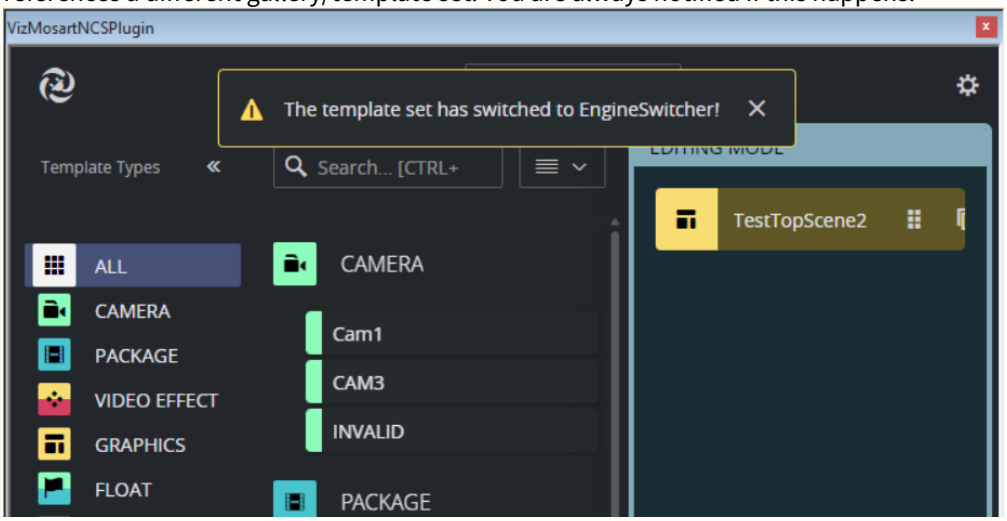
You cannot modify a MOS object that refers to a not-found Viz Mosart template.



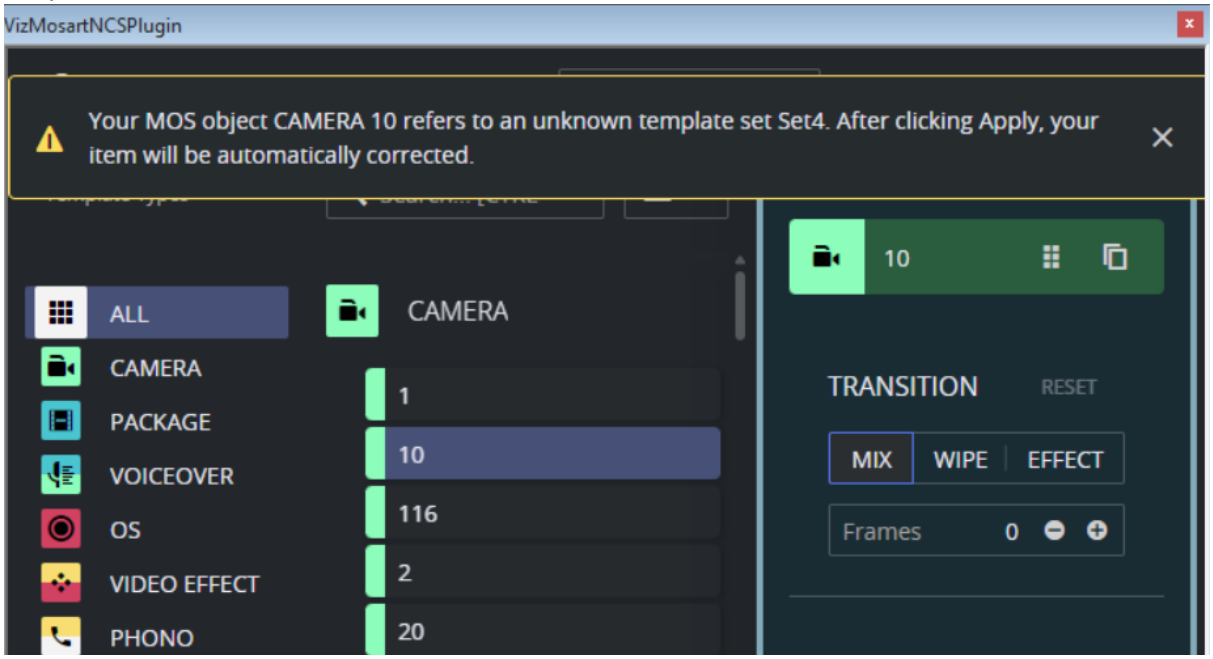
To modify MOS objects created with the Mosart NRCS Plugin

- MOS objects created by the Mosart NRCS Plugin include references to the *gallery* name and *template set* name.

⚠ The active *Gallery* and/or *Template set* name may automatically change if your selected MOS object references a different gallery/template set. You are always notified if this happens.



- If your rundown item refer to a template set that cannot be found in the gallery, the Mosart NRCS Plugin checks the active gallery and template set for a corresponding template. This valid reference is then applied to the MOS object, when you click **Update** (in MOS-based NRCS) or **OK/Apply** (in iNews) on the replacement template.



- Alternatively, you can manually search gallery/template sets to locate a similar template.
  After editing and applying the changes, the new (active) gallery and template set name are stored in your rundown MOS object.

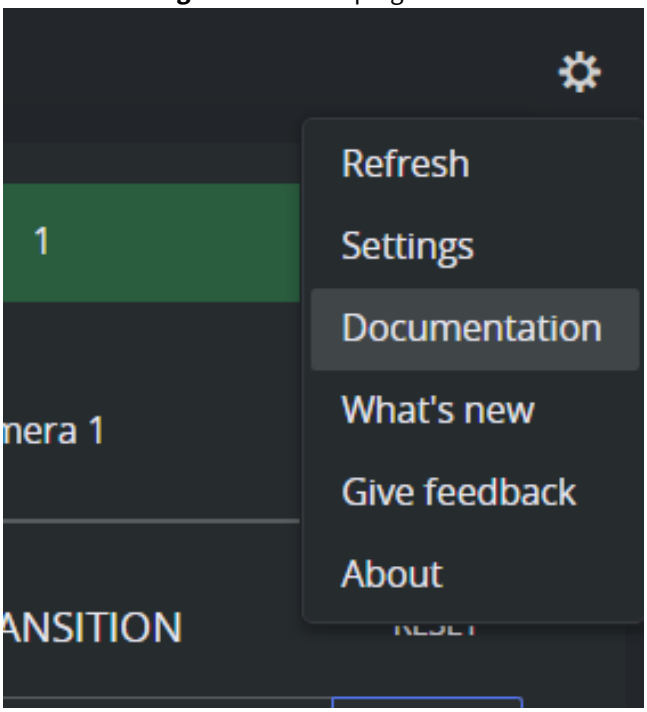
To edit MOS objects created by ActiveX

When working with MOS objects that were created with Viz Mosart's legacy NRCS Plugin (Mosart Active-X) the currently selected gallery name and template set name will always be used as template source.
In the Plugin, ensure to select correct gallery and template set before you start editing.

5.1.2 Getting Help

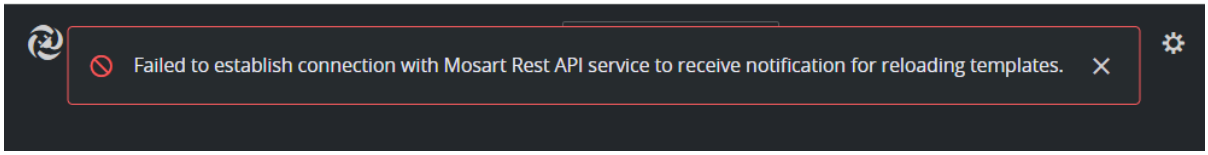
The NRCS Plugin documentation is continually updated and available online. This includes both this User Guide and the Release Notes.
You can also send your feedback directly to the Mosart NRCS Plugin design team.

- Click the **Settings** icon at the top right:



5.1.3 Error Handling

While navigating through templates, if there are exceptional conditions, the Mosart NRCS Plugin displays an error message.
See the example below:



Please refer to the Troubleshooting or contact Vizrt Support if you encounter any error messages.

5.1.4 API Documentation

The NRCS Plugin also installs the Mosart REST API. Details about the API endpoints are provided in the open API documentation (Swagger Open API (OAS) documentation) at:
http://localhost:55142/docs

> **Note**: Replace *localhost* with the IP address of the computer on which the API is installed.

Examples

- Retrieve *all* galleries:
  http://localhost:55142/api/v1/galleries
  (A list of gallery names is obtained)
- Choose a gallery name from the list obtained in the previous example. For the sake of this example, assume that *Local* was on the list. (If not, choose some other gallery name.)
  To retrieve the template sets for the gallery named *Local*:
  http://localhost:55142/api/v1/galleries/**Local**/templatesets.

5.2 NRCS Plugin in Pilot Edge

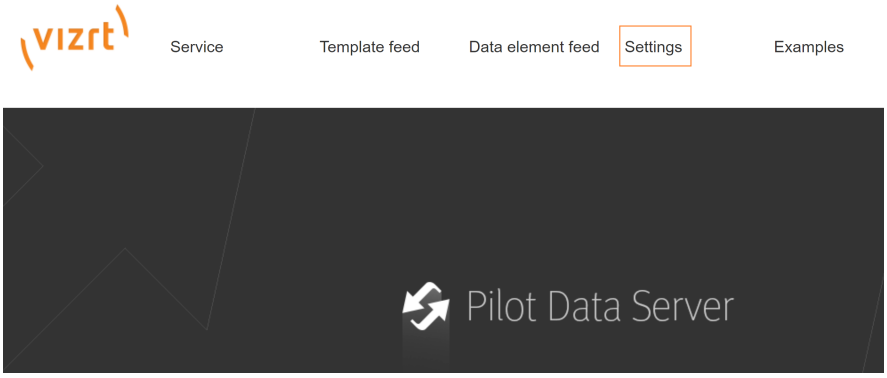
If you are using the Pilot Edge version 3.0 or later, you can host the NRCS Plugin within the Pilot Edge Plugin.

5.2.1 Hosting NRCS Plugin within Pilot Edge

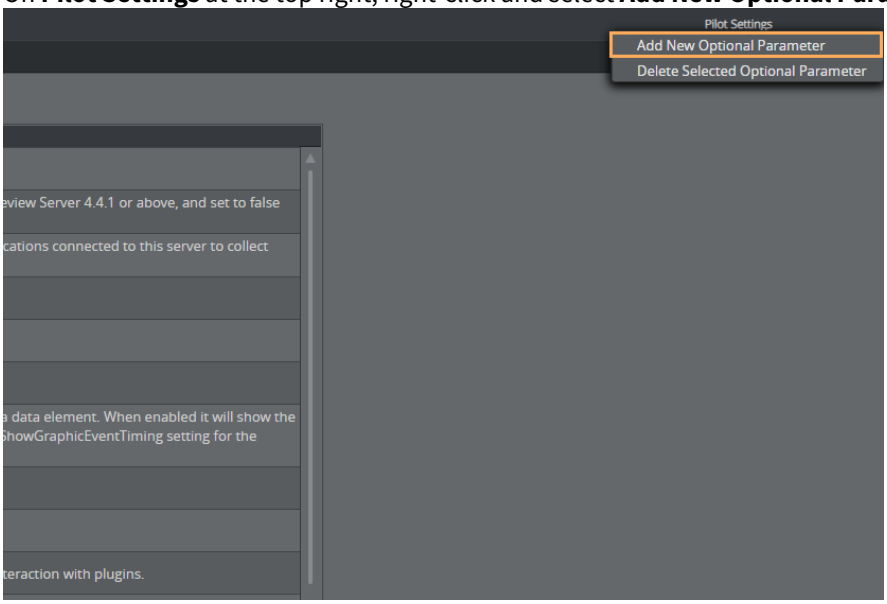
Set Up

To activate the NRCS Plugin in Pilot Edge

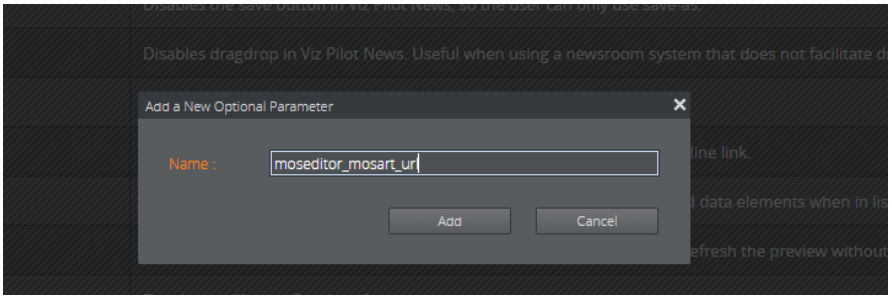
1. Open your Pilot Data Server.
2. In the menu bar, click **Settings**.



3. On **Pilot Settings** at the top right, right-click and select **Add New Optional Parameter**.



4. In the **Name** field, add the name *moseditor_mosart_url*.

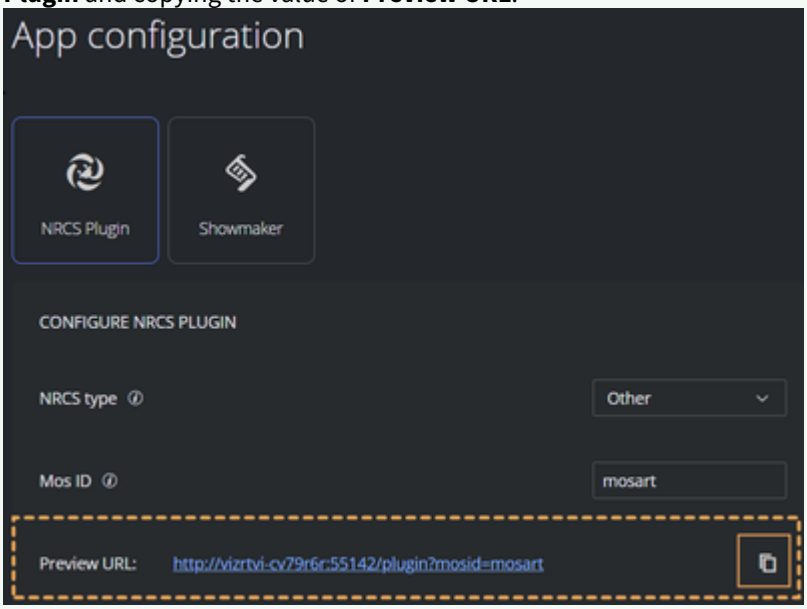


This now appears under the **Name** column:

Name	Value	Description
mos_legacy_template		If true, legacyTemplate e MOS Item is sent.
mos_plugin_url	https://bgo-wonderland.vizrt.internal/pds/app/pilotedge/PilotEdge.html	URL of the Pilot MOS HT that use redirection (HT latter that needs to be s
moseditor_arc_url	https://bgomsevizarc:9005/mos-plugin	Custom parameter.
moseditor_mosart_url		Custom parameter.
mse_script_runner		Parameter can be used
	https://v1poc.vizrtapps.com/taskui/?form-columns=4&theme=viz	

5. Under the **Value** column, enter the URL to your Mosart NRCS Plugin.

Tip: You can fetch this address from the Configuration Tool by selecting **App Configuration > NRCS Plugin** and copying the value of **Preview URL**.



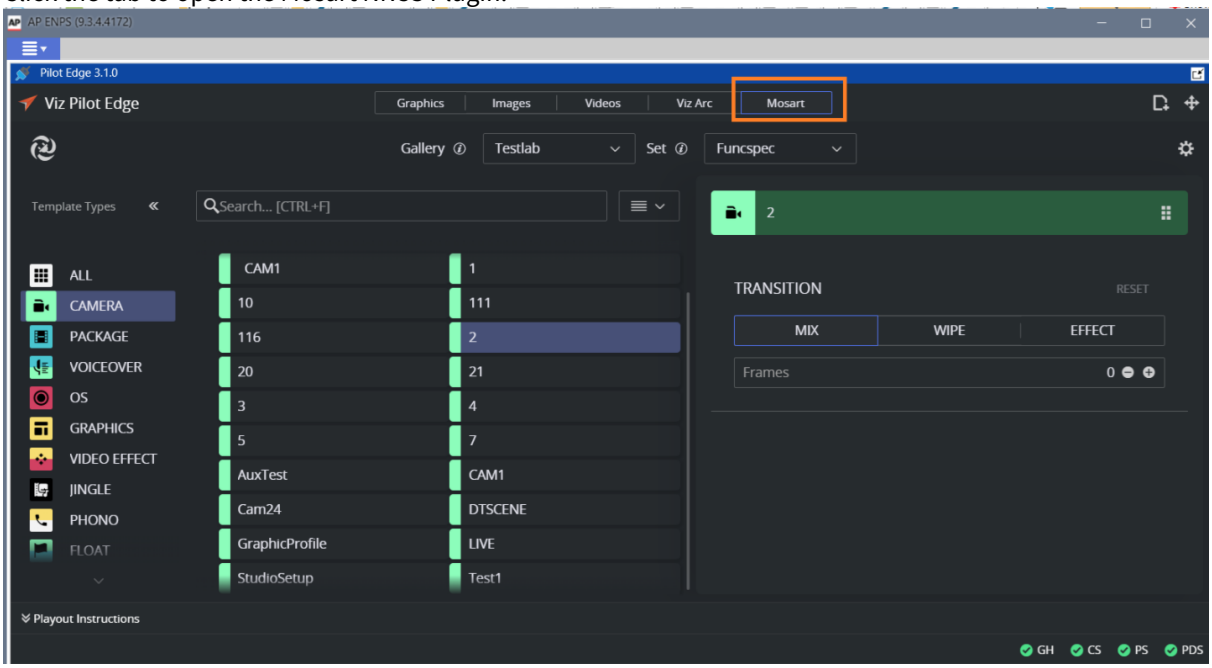
Name	Value	Description
mos_legacy_template		If true, legacyTemplate MOS Item is sent.
mos_plugin_url	https://bgo-wonderland.vizrt.internal/pds/app/pilotedge/PilotEdge.html	URL of the Pilot MOS H that use redirection (H latter that needs to be
moseditor_arc_url	https://bgomsevizarc:9005/mos-plugin	Custom parameter.
moseditor_mosart_url	https://localhost:55143/plugin/?nrcs=iNews	Custom parameter.
mse_script_runner		Parameter can be used

6. At the top left, click **Save**.

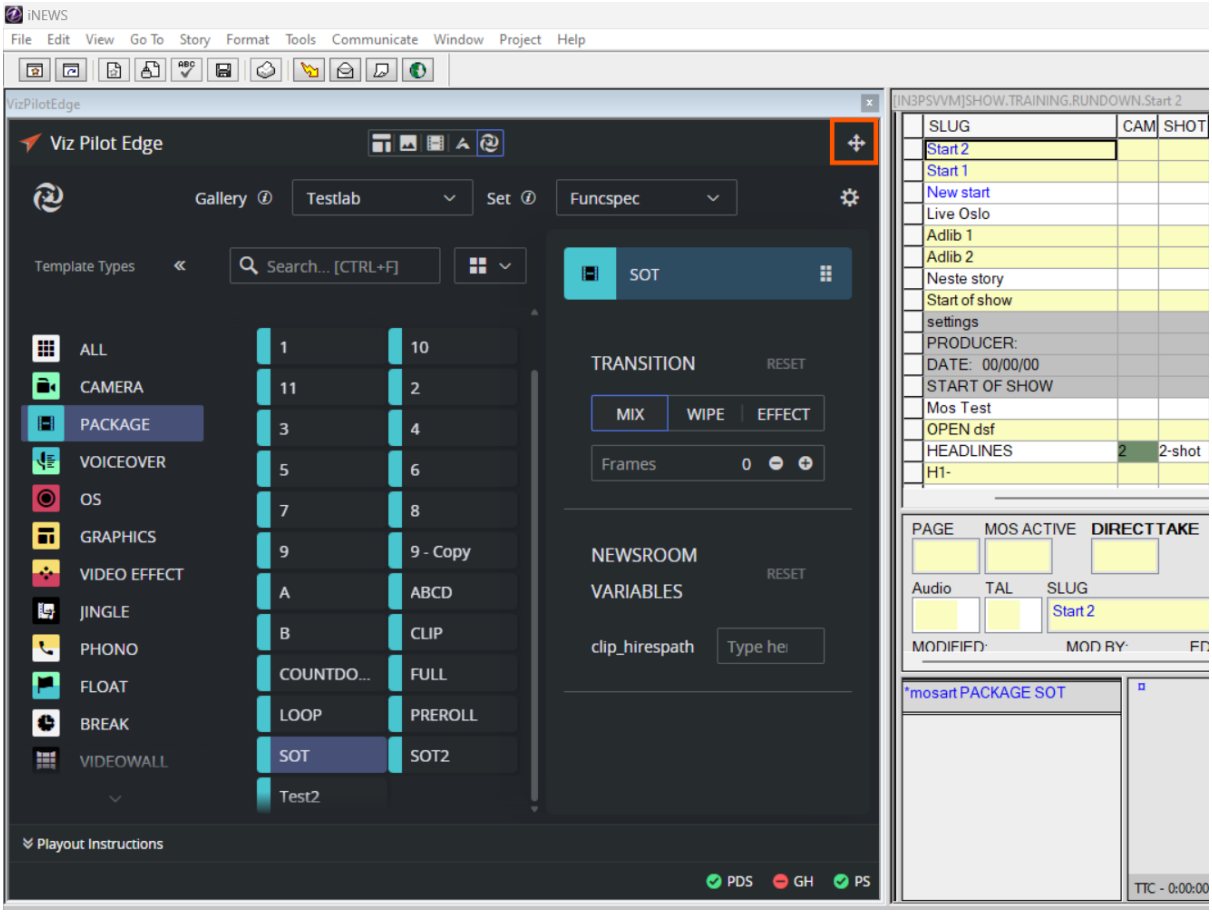
Note: If you are using the Pilot Edge on **HTTPS**, the Mosart NRCS plugin must also be on **HTTPS**.

Working with the Mosart NRCS Plugin in Pilot Edge

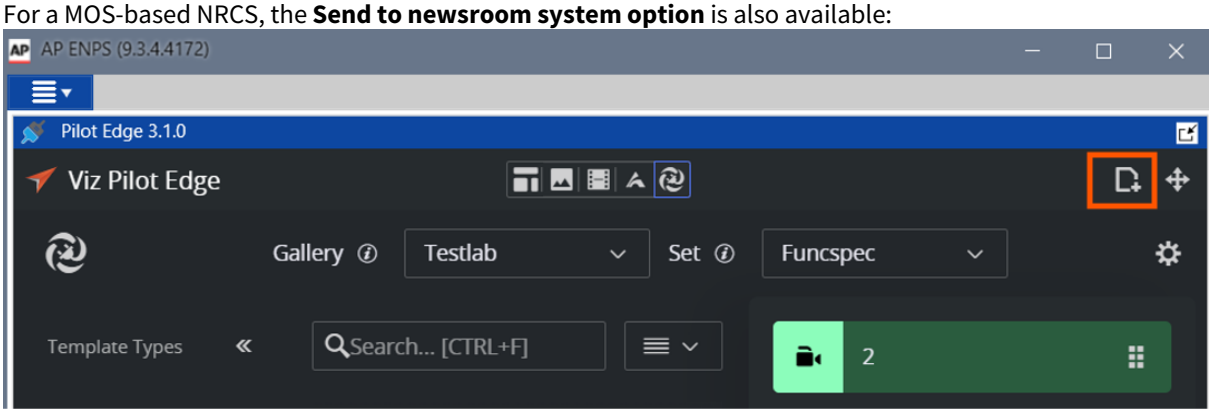
1. In your newsroom system, open the Pilot Edge Plugin.
   A new tab **Mosart** appears at the top**.**
2. Click the tab to open the Mosart NRCS Plugin.



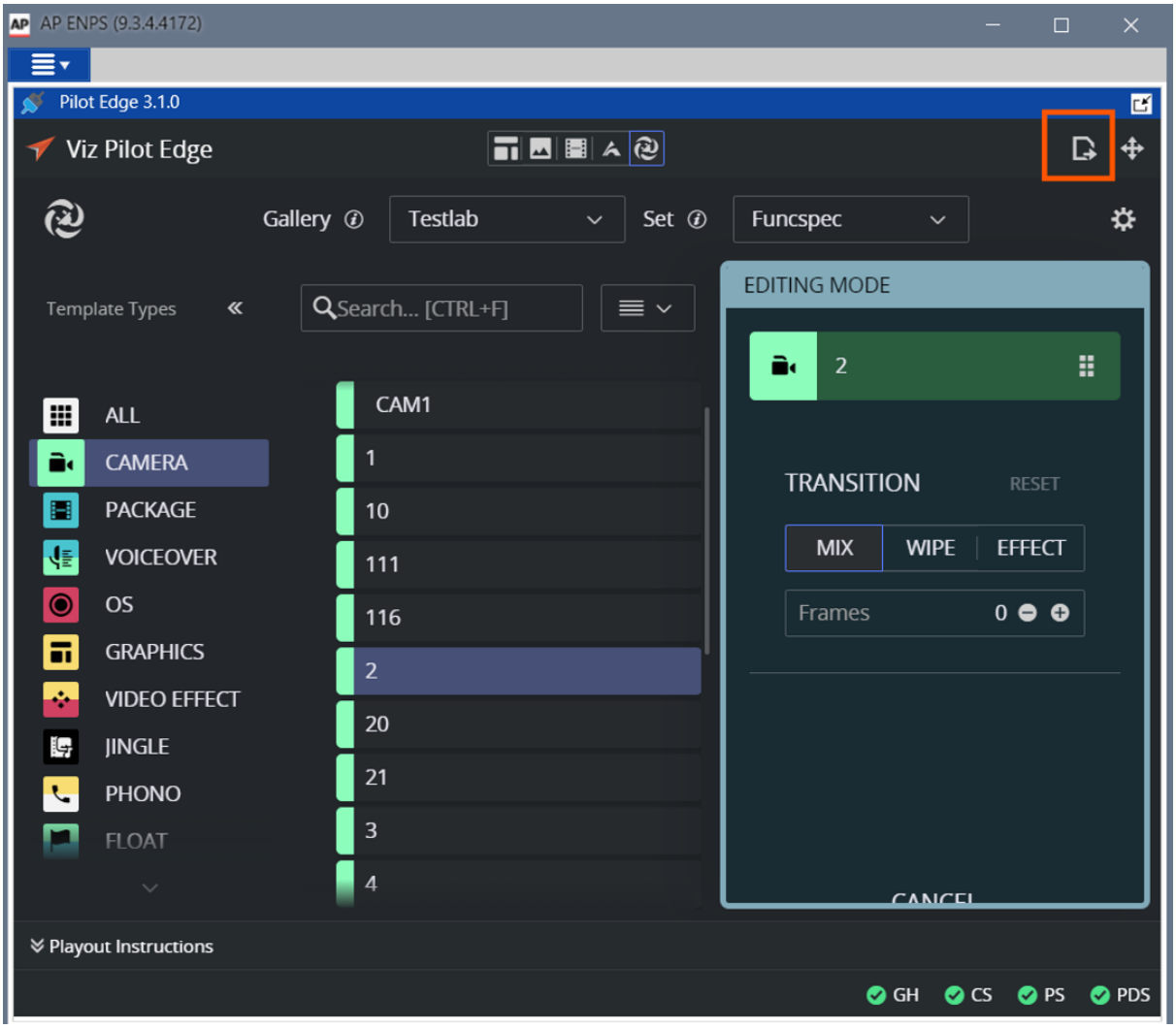
3. **To add a Mosart item to your rundown**, select the item and drag in the **Cross** icon at the top right of the plugin.



For a MOS-based NRCS, the **Send to newsroom system option** is also available:



4. **To edit an added item**, Pilot Edge automatically opens the NRCS Plugin inside Pilot Edge. In the iNews newsroom system, use the **OK**, **Apply**, or **Cancel** buttons (specific to iNews) to modify and close, modify without closing, or cancel the editing, respectively. In a MOS-based NRCS, the Pilot Edge plugin includes the **Update in newsroom system** button.



5.3 Setup and Administration

This section describes essential post-installation configurations, usually performed by a system administrator.

5.3.1 Setting up the NRCS Plugin

There is a standard setup that must first be followed. Please refer to the configuration procedure in section NRCS Plugin.

5.3.2 Optional Server Setups

Support for Main/Backup Connection

- If you have a *backup server* for redundancy, you will need define the environment in the menu *Server Configuration*.

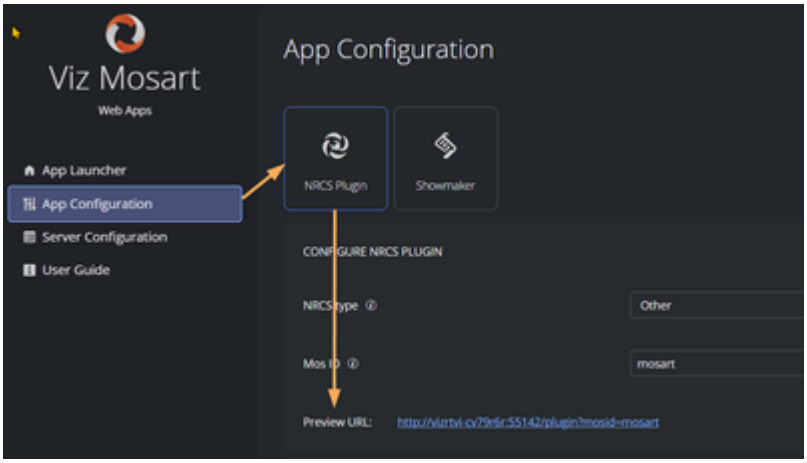
Support for HTTPS

- If you are using *HTTPS*, you will need define the environment in the menu *Server Configuration*.

> **Note**: Make sure to execute *all* instructions, including the one-time edits to the Mosart Remote Dispatcher Service.

5.3.3 Verifying the Mosart Installation

1. After following the mandatory App Configuration and Server Configuration procedures, a background Windows service, *Mosart REST API* (a combination of the REST API and the NRCS Plugin) starts.
2. You can check that the NRCS Plugin is accessible by either:
    a. In the Configuration Tool, click **App Launcher > NRCS Plugin**.
    or
    b. following the URL next to the **Copy** button.



The Plugin URL comprises the machine name, port number *55142,* NRCS type and (when supported) Mos ID in the form: *http://machine-name:55142/plugin?nrcs={type}&mosid={mosid}*

4. To complete the integration, configure the NRCS side, according to the appropriate NRCS as described in section Integrating with an NRCS below (where you will use the copied URL).

5.3.4 Hide Effects from Users

In some production situations, there may be an effect recalled from specific templates, that should only be run under specific circumstances (for example, on an ME row).
Unintentionally selecting such an effect from the NRCS plugin (or the Viz Mosart GUI) can give unplanned on-air consequences.

To hide an effect from the user

Info: This feature requires Mosart Web Apps version 2.5 or later.

1. On the Mosart server open AV Automation.
2. Navigate to **A/V Setup > Effects.**
3. Check **Hide From User** to prevent the effect displaying in the NRCS Plugin (and the Viz Mosart GUI **Transition** panel).
4. Save.
5. Refresh the NRCS Plugin.

5.3.5 Integrating with an NRCS

- The server-based plugin configuration described below avoids having to configure each individual newsroom control system (NRCS) client.
- This section assumes the Mosart NRCS Plugin has been successfully installed and set up, as described in section Mosart Web Applications Configuration Tool.

The NRCS Plugin supports connections to

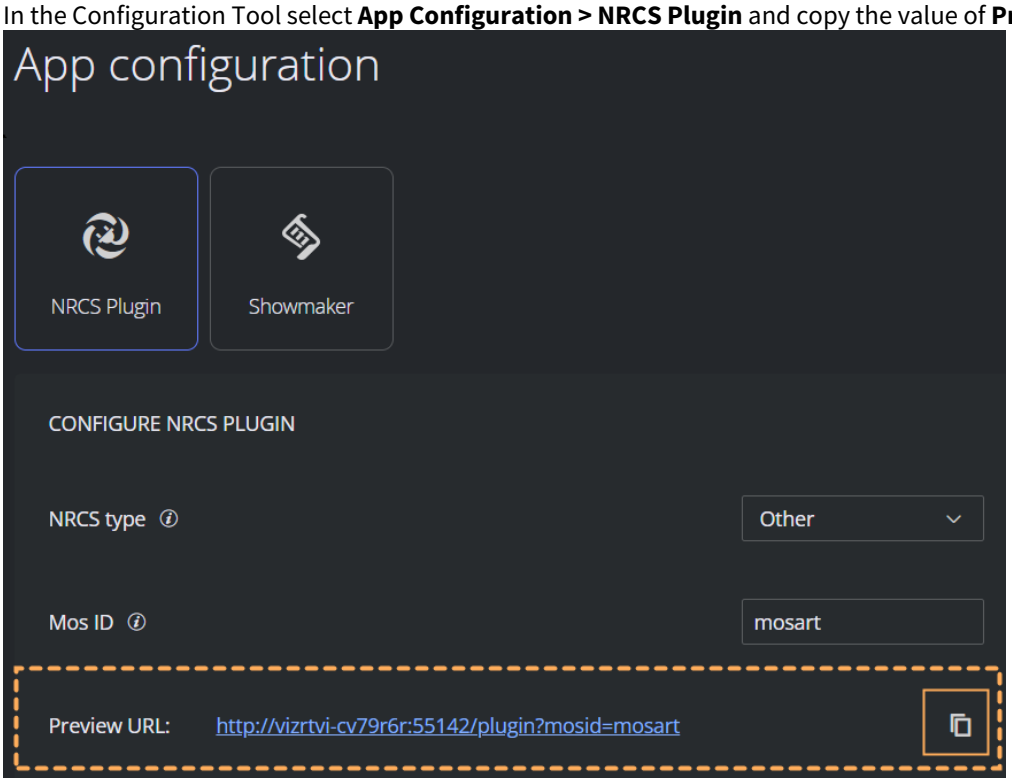
- ENPS

- iNEWS
- Octopus
- OpenMedia
- Showmaker.

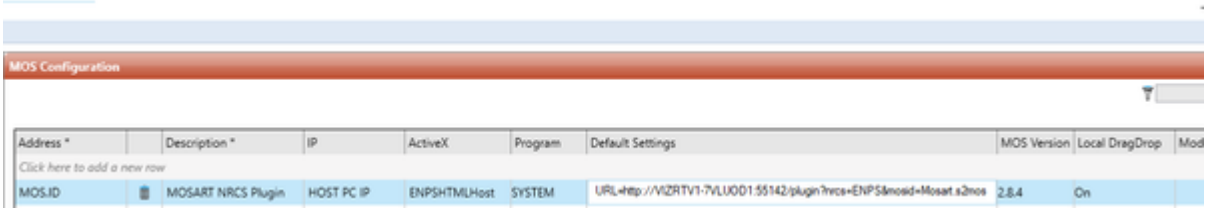
You connect each client NRCS machine to the Viz Mosart server (which hosts the Mosart REST API.)

ENPS

1. In the Configuration Tool select **App Configuration > NRCS Plugin** and copy the value of **Preview URL**.



2. On the ENPS machine, navigate to **System Maintenance > MOS Configuration**.
3. Paste the NRCS Plugin's copied URL, similar to the example below:



Info: The URL comprises a combination of the Plugin's URL + a fixed port number and Viz Mosart's *MosId* value in the form:
http://machine-name:55142/plugin?nrcs=ENPS&mosid=xxxx

- If you need to derive current *MosId* value, see the item To find your Mos ID.

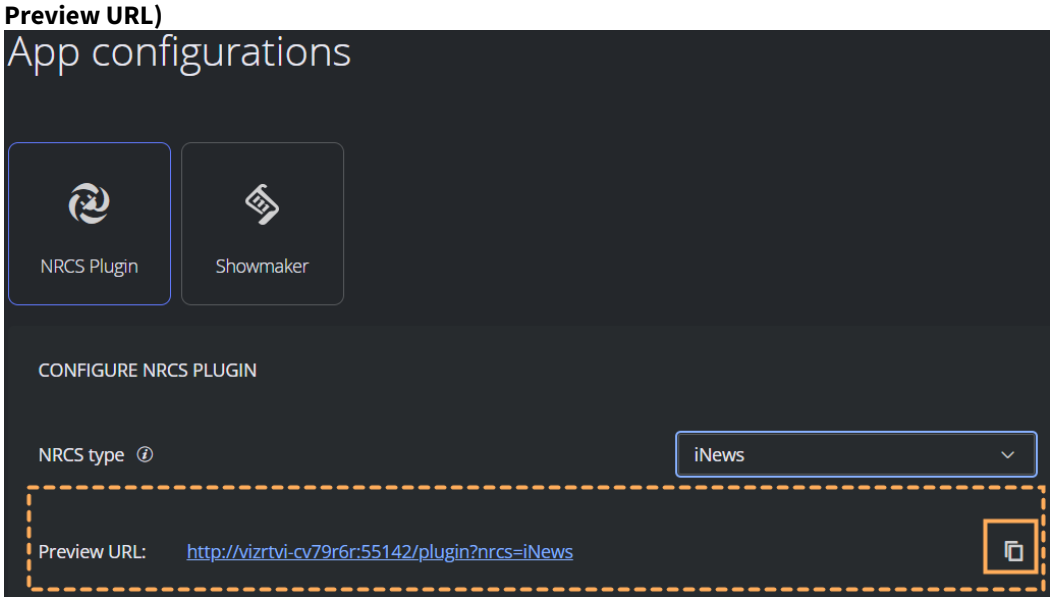
iNEWS

There are two possible setup routes, depending on whether your iNEWS version supports HTML5 plugins. Please consult the documentation of your iNEWS system to determine whether this is the case.

- iNEWS Clients with HTML5 Support
- iNEWS Clients without HTML5 Support

iNEWS Clients with HTML5 Support

1. In the iNEWS client, from the directory navigation tree, open the file **SYSTEM.MOS-MAP** and verify that between `TABLE-START DeviceTable` and `TABLE-END` there is a line `mosart ...`
   If not, add the mosart reference,
   For example: `mosart MosartNRCSPlugin`
2. For this step and the next, please refer to Avid's MediaCentral Newsroom Management Setup and Configuration Guide, section *Configuring Newsroom Management for HTML5* (chapter *HTML5 Plugins*) .
   If you have at least one HTML5 plugin already defined, you can *skip* this step.
   From Avid's *Configuring Newsroom Management for HTML5*, follow their setup steps **1** to **6**. Please note that at:
   - Step **3**: (name of the new queue): Use the name *HTML-PLUGINS*, as recommended by Avid.
3. Continue with steps **7** to **10**, observing these clarifications:
   - Step **7**: In case you skipped the previous step, *the queue* refers to SYSTEM.HTML-PLUGINS
   - Step **9**: (slug): Enter something like *Viz Mosart NRCS Plugin*. (This is the string that will be shown in the **Plugins** sub-menu of the **Tools** menu.)
   - Step **10**: (parameters): In the **Story** panel,
     i. Enter 'URL = '.
     ii. At that exact spot, paste the URL copied from the Configuration tool
     (In the Configuration Tool select **App Configuration > NRCS Plugin** and copy the value of **Preview URL)**



     iii. Finally, append
     mosItemBrowserProgID = Mosart.ActiveX

mosItemEditorProgID = Mosart.ActiveX

Example:
URL = http://machine-name:55142/plugin?nrcs=iNews
mosItemBrowserProgID = Mosart.ActiveX
mosItemEditorProgID = Mosart.ActiveX

Info:

- The parameter *mosItemPlayerProgID* mentioned in the Avid document is not mandatory in this context.
- The URL element *mosid* is not required for iNEWS.

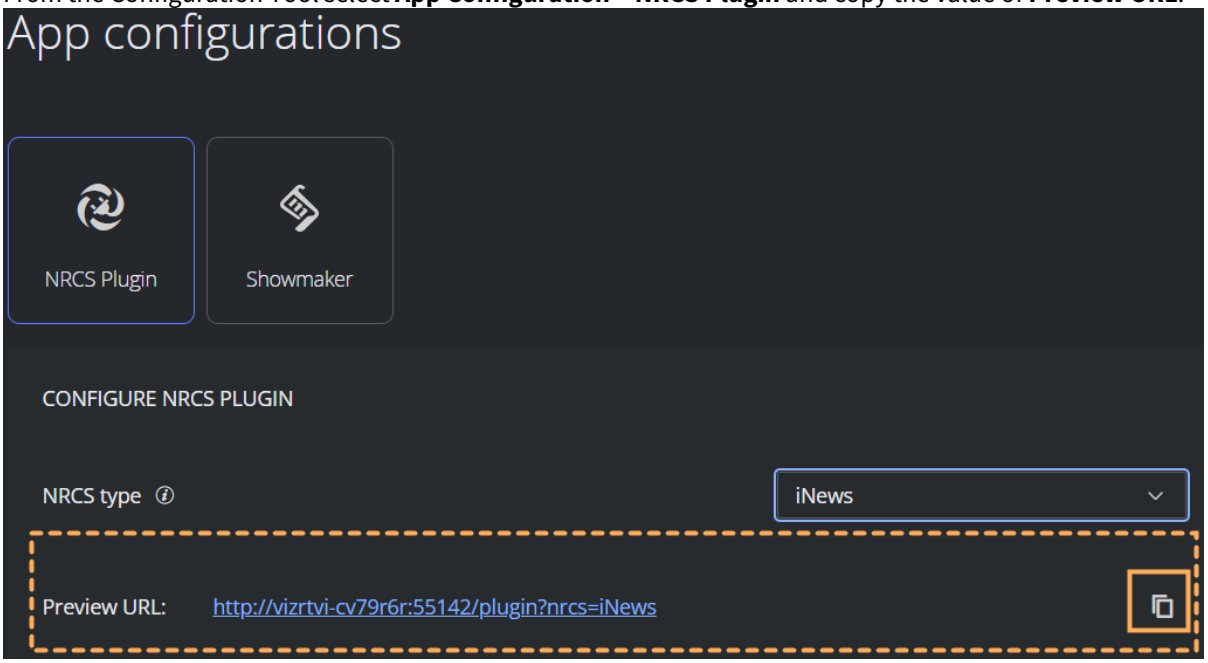
Note: If the old Mosart ActiveX opens instead of the Mosart NRCS Plugin when trying to modify/edit a Mosart item (by double clicking on the item), you must uninstall the Mosart ActiveX.

iNEWS Clients without HTML5 Support

Installing the iNEWS Client Addon

For older versions of iNews without HTML5 support, you need to install a small wrapper utility, the **Mosart NRCS Plugin - iNEWS Client Addon** on each iNEWS client machine.

1. From the Vizrt FTP /products/VizMosart/Latest Version/WebApplications/ download and run the utility file *MosartNRCSPlugin-iNEWSClientAddon-1.1.0.96.exe*
2. From the Configuration Tool select **App Configuration > NRCS Plugin** and copy the value of **Preview URL**.



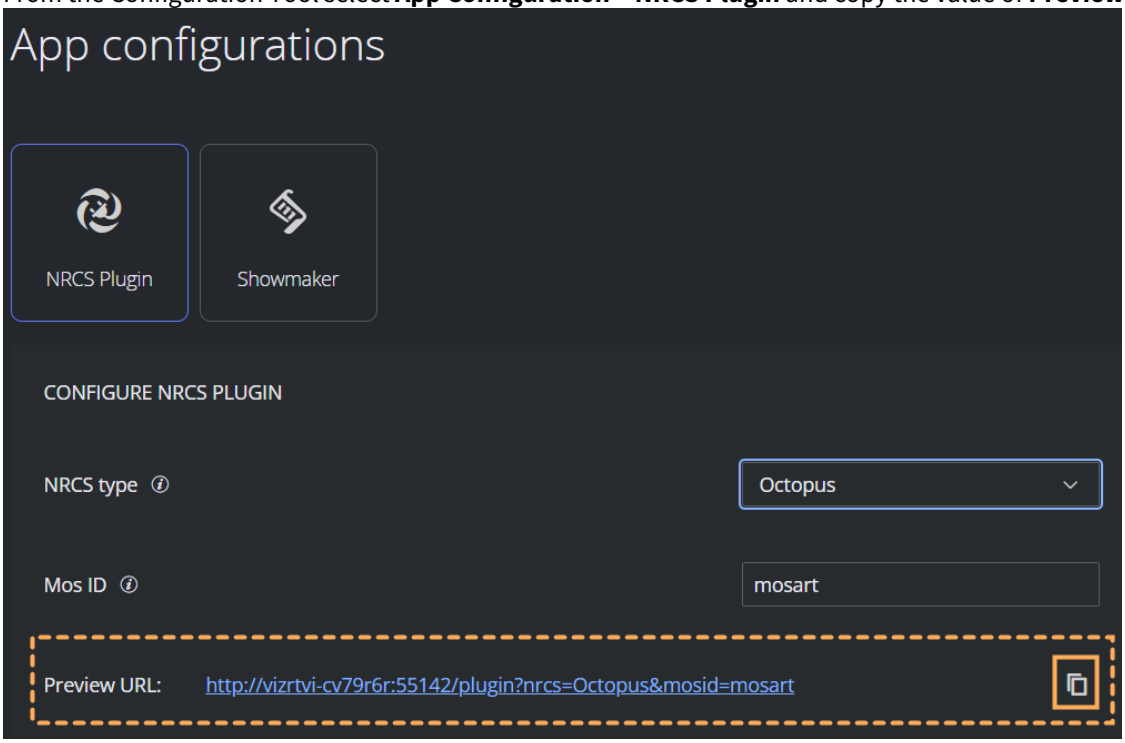
3. In **Mosart NRCS Plugin - iNEWS Client Addon**, paste-in the URL of the Plugin.

Note: If the old Mosart ActiveX opens instead of the Mosart NRCS Plugin when modifying a Mosart item (by double clicking on it), you must first uninstall the Mosart ActiveX, and then reinstall the *MosartNRCSPlugin-iNEWSClientAddon*.

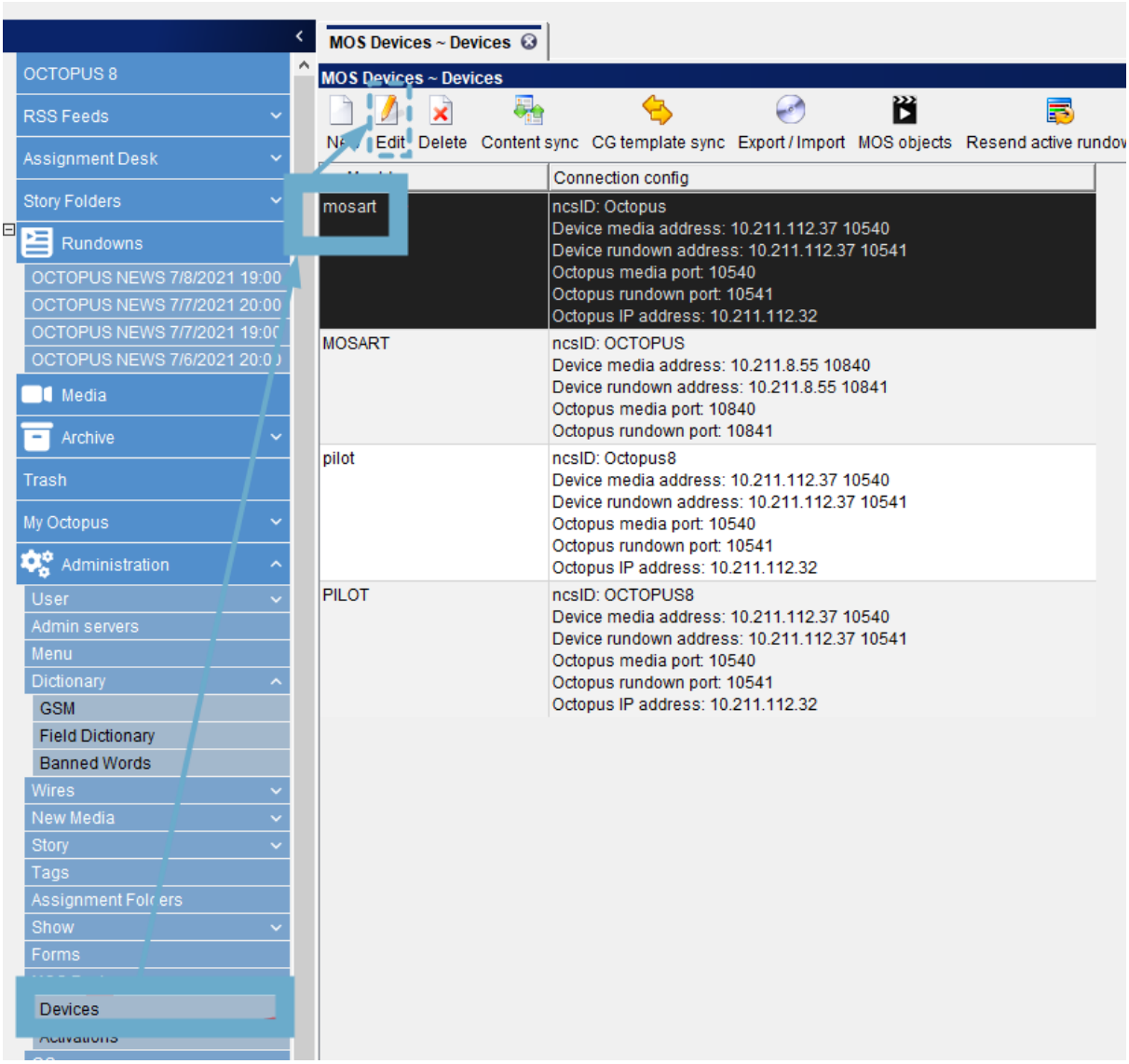
Info: To change the configured URL after the installer was closed, simply open a command prompt and execute:
"%programfiles(x86)%\Vizrt\Mosart NRCS Plugin - iNEWS\MosartNCSPlugin.exe" url "https://machine-name:55142/plugin/?nrcs=iNews"

Octopus

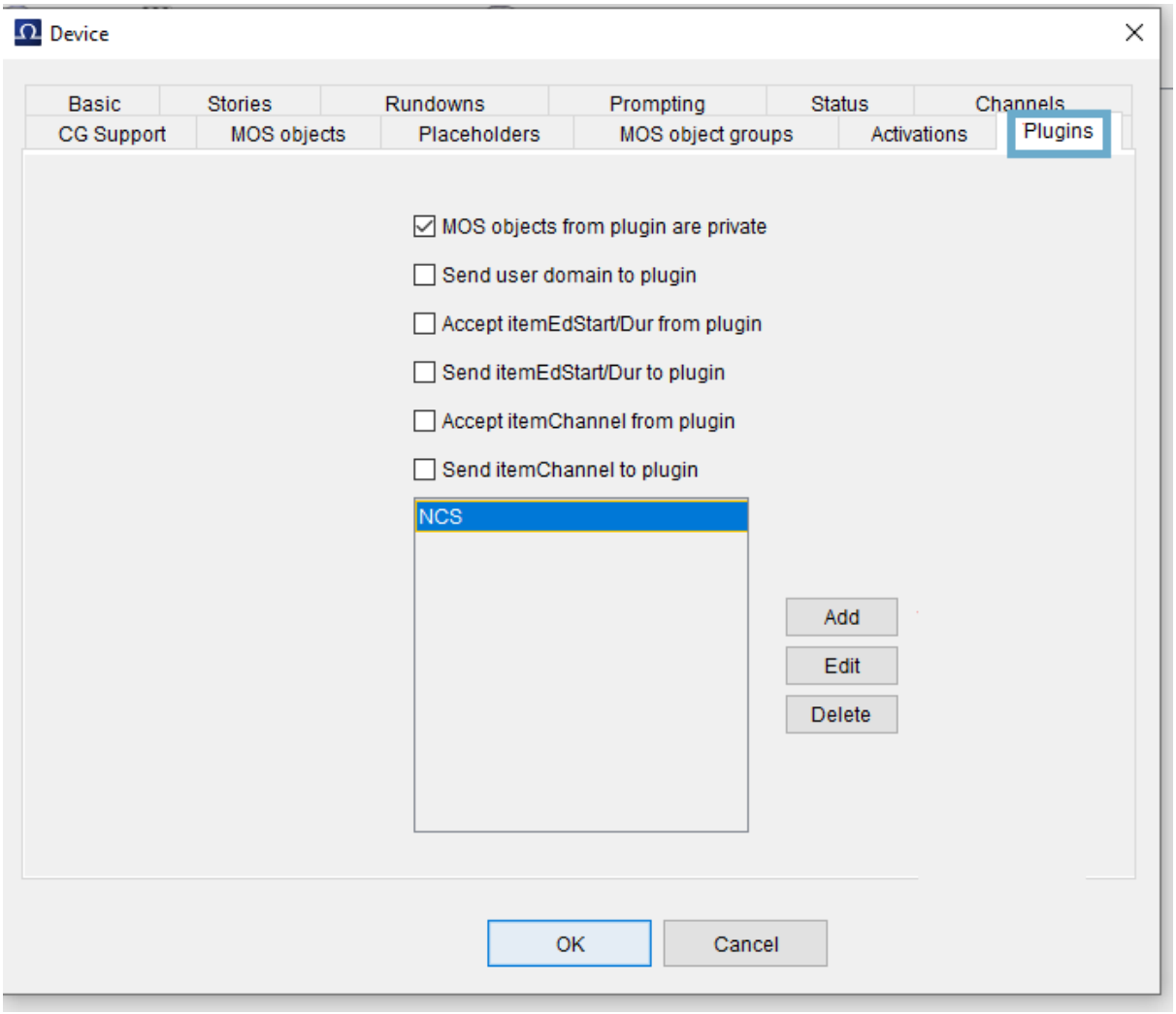
1. From the Configuration Tool select **App Configuration > NRCS Plugin** and copy the value of **Preview URL**.



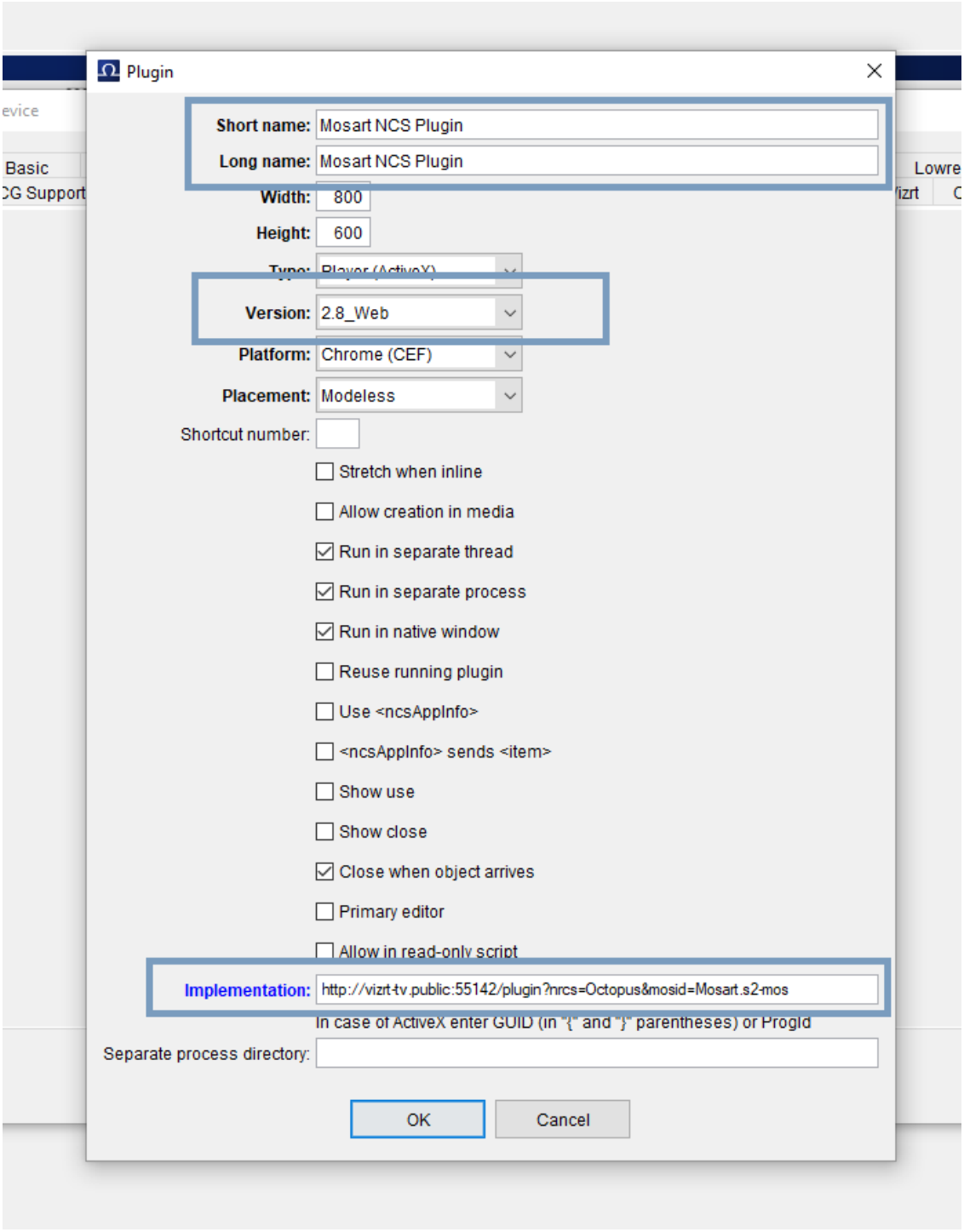
2. Log-in to Octopus with Admin privileges.
3. From the sidebar, navigate to **MOS Devices > Devices**, select *mosart* and click **Edit**.



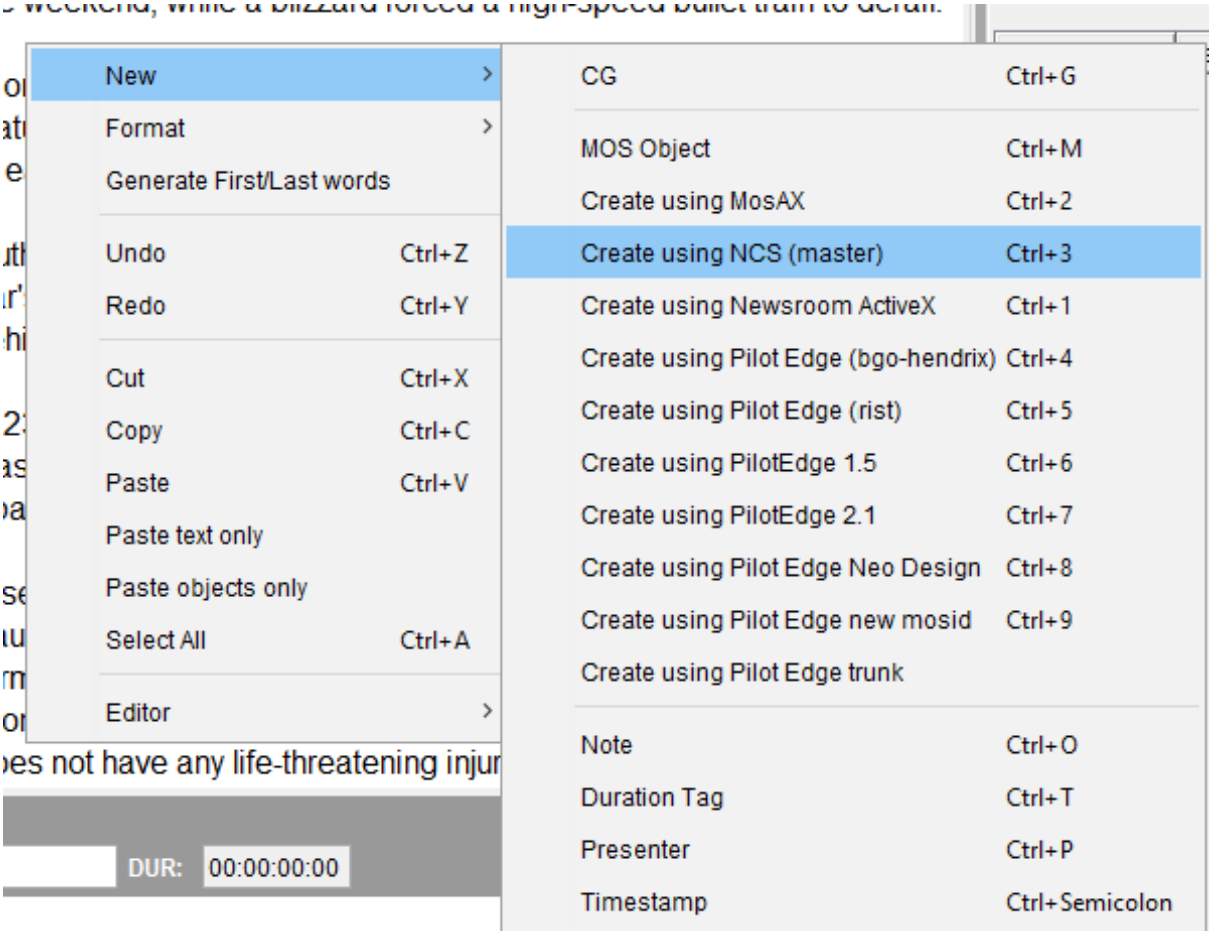
4. Select the **Plugins** tab:



5. Fill-in as below, and providing:
    a. A unique name
    b. Version
    c. The URL to the Viz Mosart NRCS Plugin (*copied* in step (**1**).



6. Setup is complete.
   When editing a selected rundown, the user right-clicks for **New > Create using** <given name of the Plugin>



For more details, see the *Viz Mosart Administrator Guide*, section **Manus Administrator > Settings Editor MOS > NRCS Configuration**.

OpenMedia

Connections to OpenMedia must be setup as a project with OpenMedia.
Please contact OpenMedia for further details.

Showmaker

See section Setup and Administration of Showmaker in this guide.

5.3.6 Troubleshooting

See section Troubleshooting.

6 Timing Display

The Mosart Timing Display web app provides browser-based timing information for the studio control room and studio floor.

- Synchronizes with the active Viz Mosart rundown, it can be customized to display user-specific details.
- Supports a variety of devices.
  For example an iPad or networked phone.
- Provides multiple, customized timing displays.
  For example, one timing display can be running on the studio floor, connected to the in house intercom system. A second timing display is in the control room counting down packages, keeping the producer updated on the current show.
- Customizable audio countdowns.

> ⚠ **Note**: For news-breaking details on the **Mosart Timing Display**, please refer to the *Mosart Web Apps Release Notes* for your version of Viz Mosart at the Vizrt Documentation Center.

This section describes:

- Working with TD
- Setup and Administration of TD

6.1 Working with TD

6.1.1 Key Features

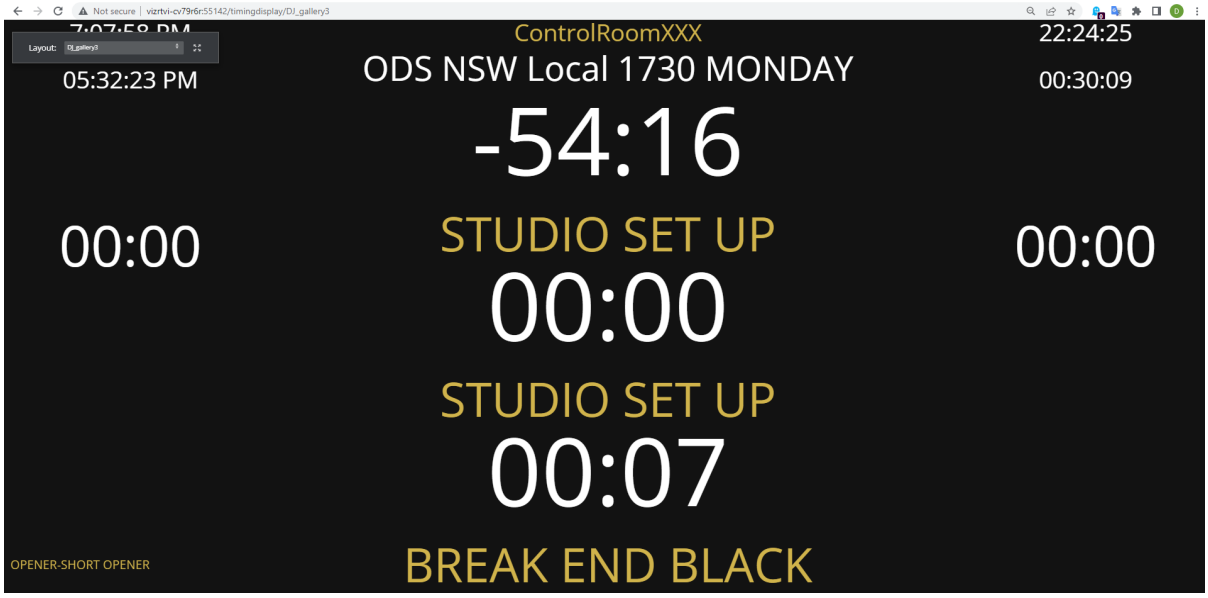
- Supports a variety of devices (for example an iPad or networked phone).
- A 24 x 24 editing grid enables rich flexibility for timer layouts.
- Each timer has a consistent and readable appearance. Available space is optimized with proportionate fonts.
- Rapid drag and drop of timer elements, from an intuitive list.
- Rich text formatting: Color picker + Bold + Alignment + Show label.
- Customizable audio countdown.

6.1.2 Operating Modes

For daily operations, the Timing Display runs in Working with the Timing Display#View Mode. Use Working with the Timing Display#Edit Mode to create or adjust the display.

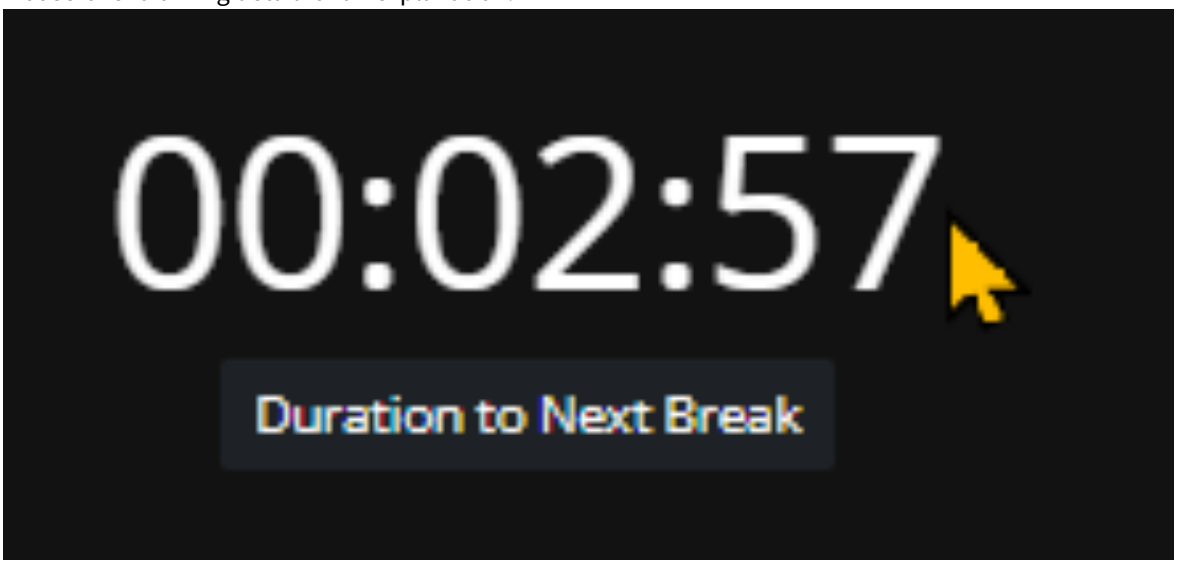
View Mode

Browse-anywhere timing information in your web browser.



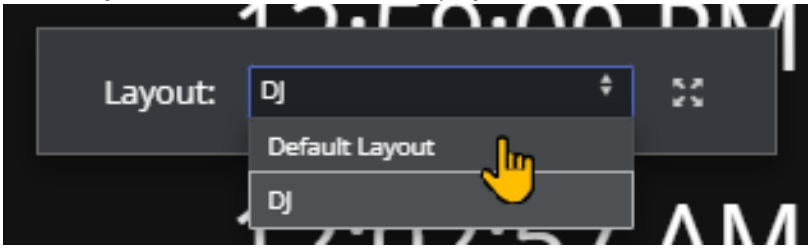
In *View* mode you can:

- Mouse-over a timing detail for an explanation.



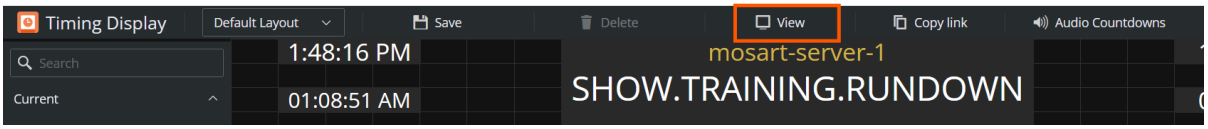
- Display as full screen.

- Select any other defined view of the display.



To display a Timing Display in View mode

- View Mode is the result of Working with the Timing Display#Distributing a Timing Display.
- You can also browse a Timing Display in View Mode, by clicking the **View** button in the menu bar.



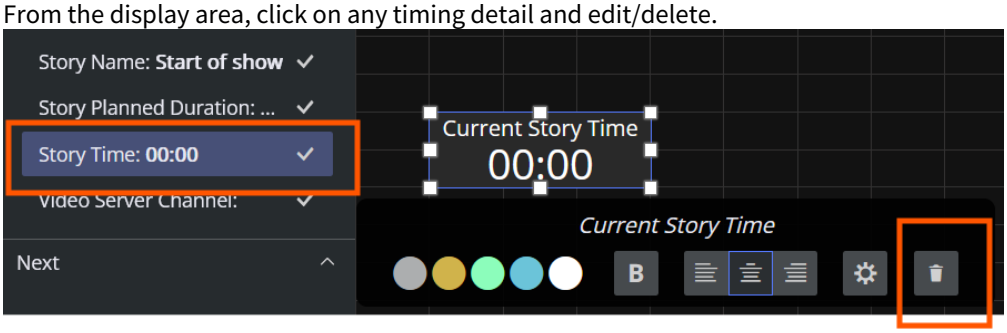
The View *Mode* opens in a new tab.

Edit Mode

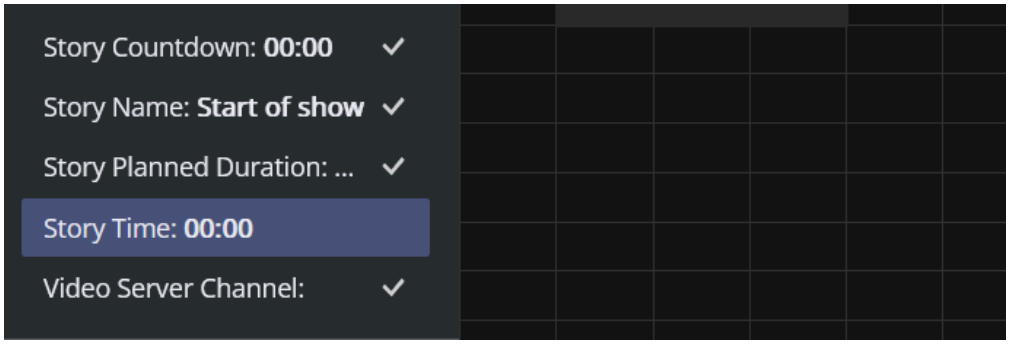
To create and modify a Timing Display

You can reconfigure or create a new Timing Display with details relevant to your operation.

1. If no Timing Display editor is running in your web browser
   a. From the desktop shortcut or **Programs** menu, start the **Viz Mosart Web Applications Configuration Tool**.
   b. In the **Timing Display** panel, click **Open**.
   A Timing Display editing web page opens.
2. Configure the display. For example:
   a. From the **Timers** panel to the left, drag any highlighted timing detail into the display area.
   b. From the display area, click on any timing detail and edit/delete.



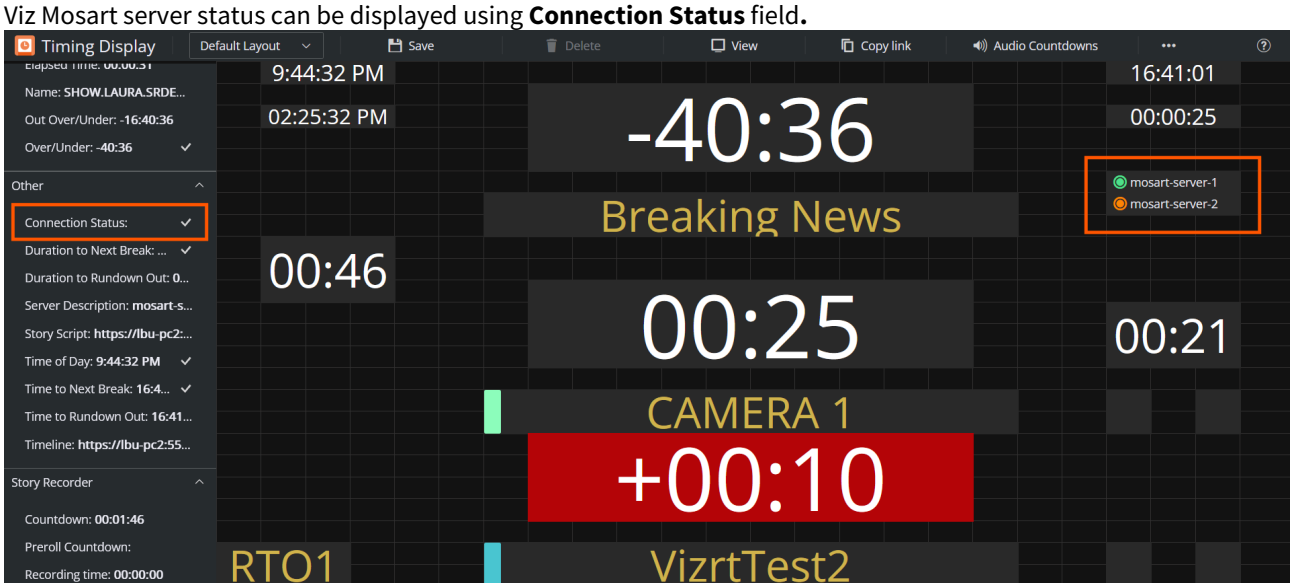
   c. The action **Delete** simply returns the selected timing detail back to the **Timers** selection panel on the left.

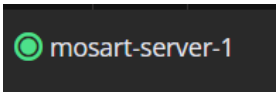
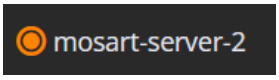
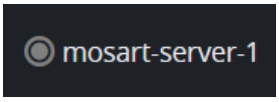
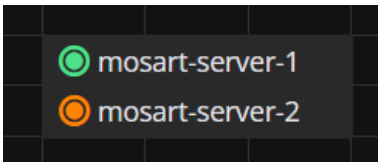


3. From the menu bar, click **Save as** and enter a unique, meaningful name for the display.

Viz Mosart Server Status

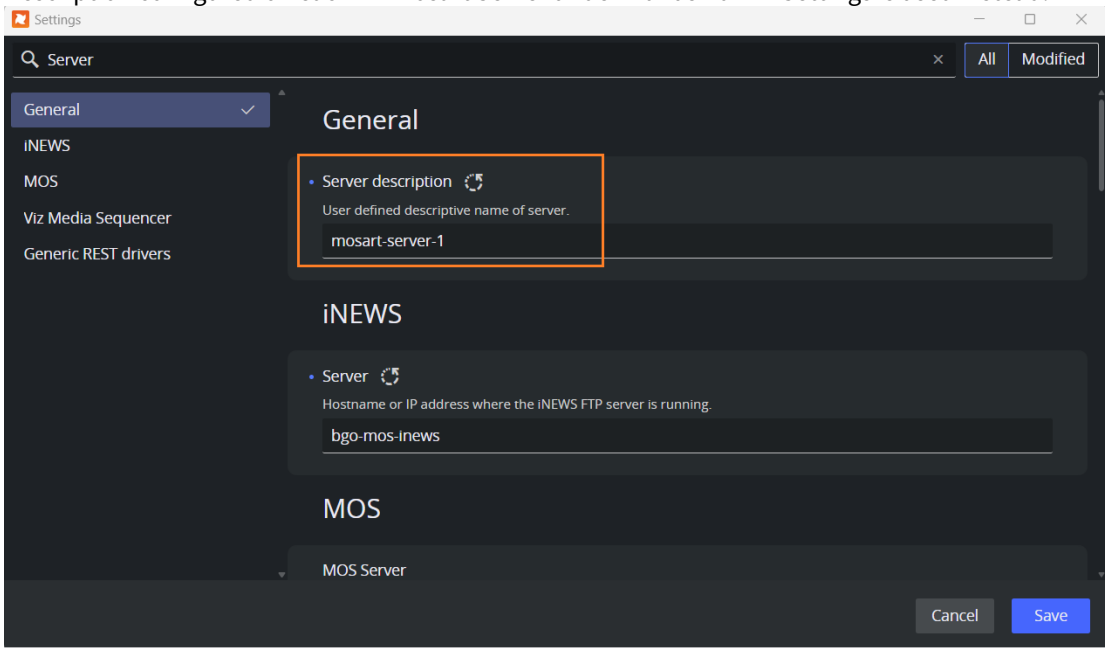
Viz Mosart server status can be displayed using **Connection Status** field.



Status	Description
	Viz Mosart server is active
	Viz Mosart server is idle
	Manus Admin is not running or Mosart Remote Control Service (RCS) is not running or it is not accessible.
	Viz Mosart is setup with main and backup and backup Mosart server has been configured in Viz Mosart Web Config Tool > Server Configuration.

By default, the hostname, IP address, or FQDN configured in the Viz Mosart Web Config Tool > Server Configuration for the main and backup Viz Mosart servers will be displayed. However, in newer versions of Viz Mosart, the Server

Description configured on each Viz Mosart Server under Manus Admin Settings is used instead.



Audio Countdown

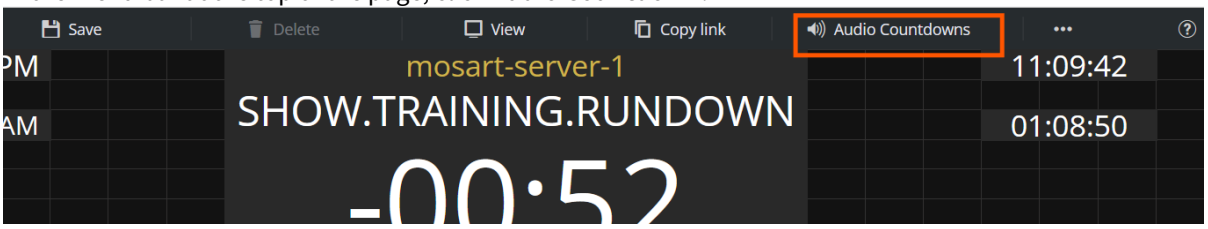
Prerequisites

Timing Display plays its audio files located in the folder C:\ProgramData\Mosart Medialab\Mosart Web Apps\TimingDisplayMedia of the host machine for Timing Display.

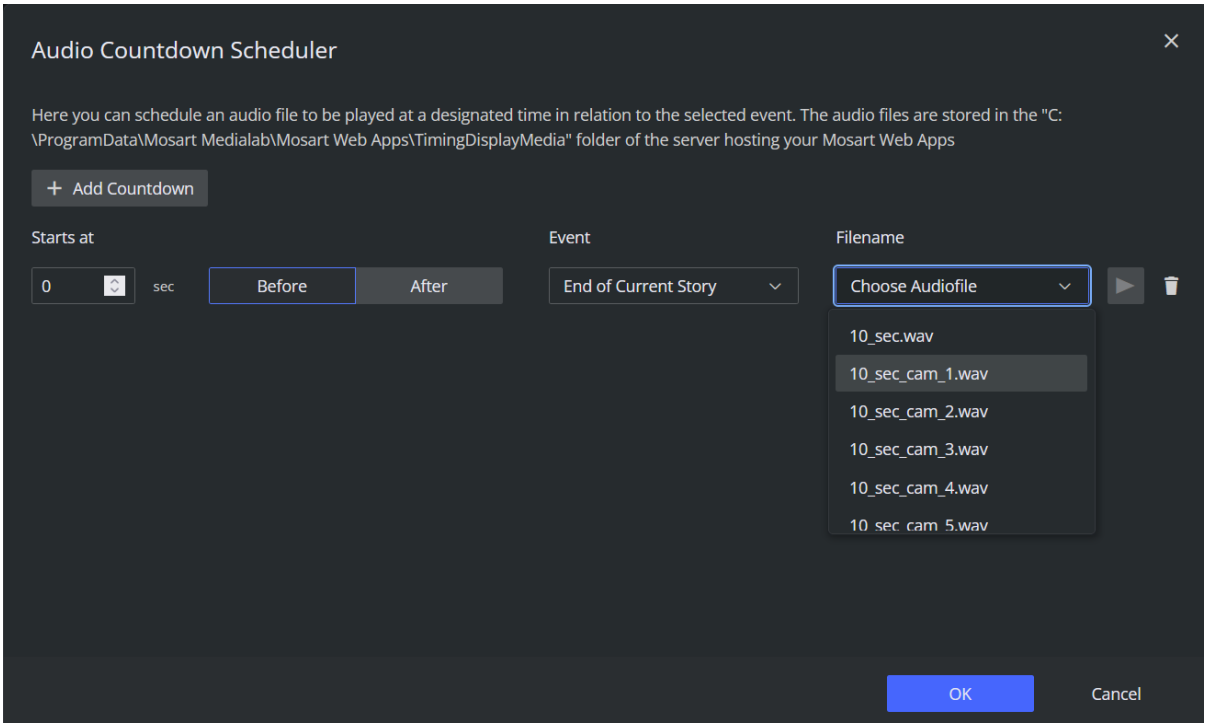
Each audio file that you wish to use must be placed here.
The range of supported audio file formats is dependent on the web browser you use for the Timing Display, this external article lists audio formats supported per browser.

To activate audio countdown in a Timing Display

1. Open Timing Display in Working with the Timing Display#Edit Mode.
2. In the menu bar at the top of the page, click **Audio Countdown**.

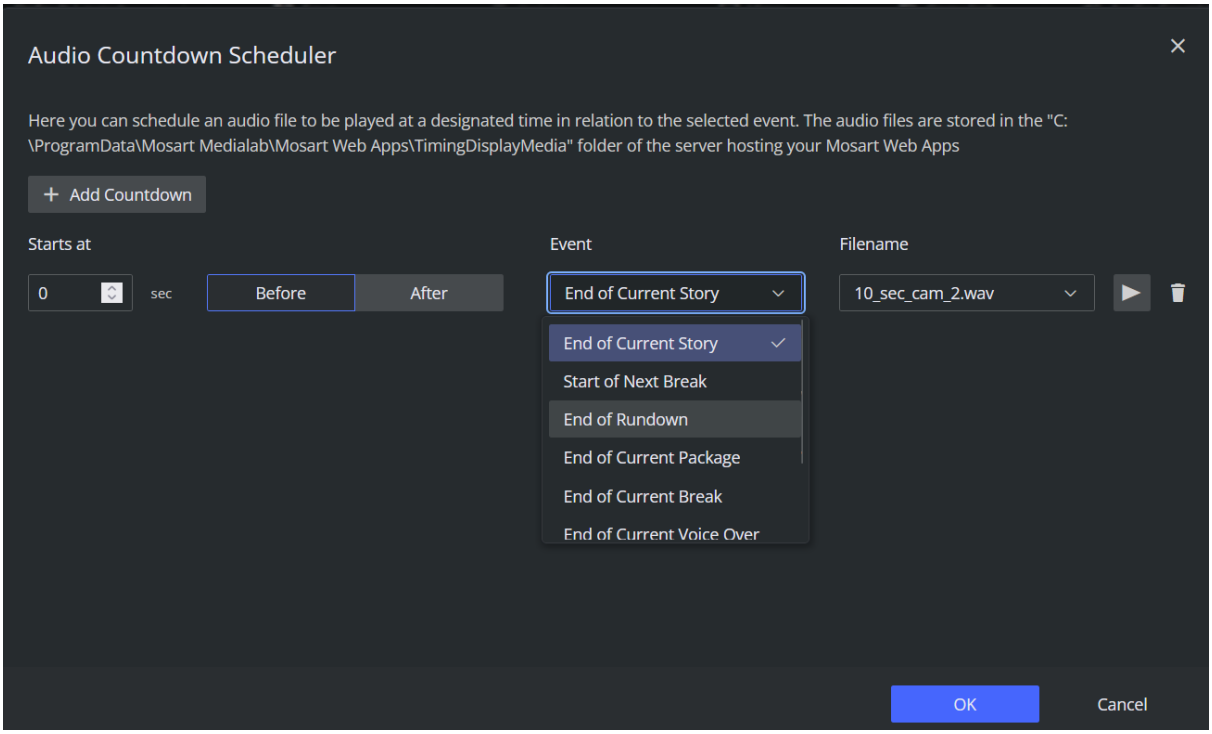


3. From the dialog window that appears, click **Add Countdown**.
4. In the drop-down menu under **Filename**, select the audio file you want to play.

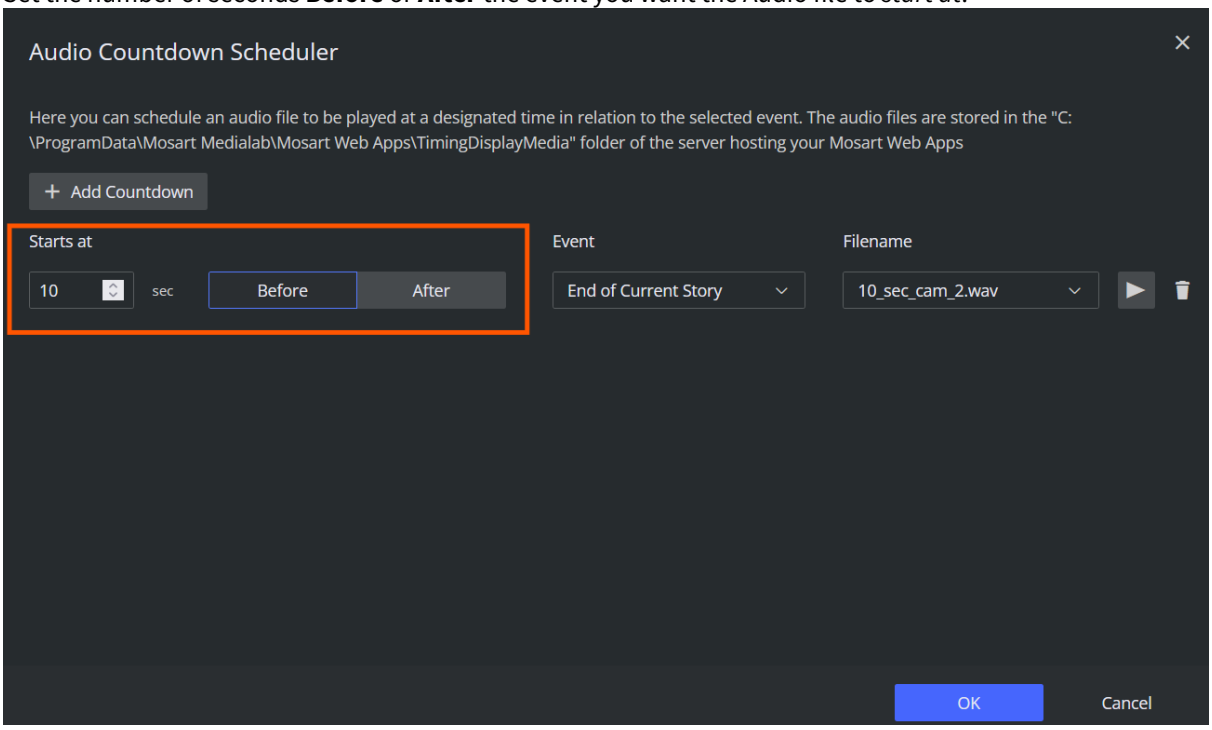


The selections are populated with audio files added to C:\ProgramData\Mosart Medialab\Mosart Web Apps\TimingDisplayMedia (on the machine where the Mosart Web Apps are installed).
You can also *test* the selected audio file by clicking the **Play** icon to the right of the drop-down menu.

5. In the drop-down menu under **Event**, select the event you want the audio file to countdown towards. Choose from:
   - **End of Current Story:** Counts down to the end of the current story.
   - **Start of Next Break:** Counts down to the next planned break.
   - **End of Rundown:** Counts down to the planned end of the rundown.
   - **End of Current Package:** Counts down to the end of a current Package template.
   - **End of Current Break :** Counts down to the end of a current Break template.
   - **End of Current Voice Over :** Counts down to the end of a current Voice Over template.
   - **End of Current Float/Adlib :** Counts down to the end of a current Float/Adlib template.
   - **End of Current Item :** Counts down to the end of each respective Story item.



6. Set the number of seconds **Before** or **After** the event you want the Audio file to *start at*.



7. Repeat steps **3** to **6** for all required audio files.
8. Click **OK**

To verify, start a rundown and listen that the correct audio files plays at the specified time.

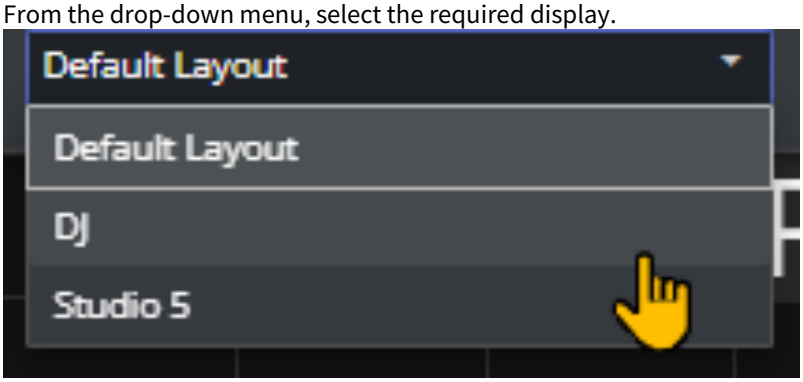
Note: If you *refresh* the Timing Display, you must again perform some activity on the web page before any audio can be played.
Simplest is just clicking on the page or pressing any keyboard key while the web page has focus. This is standard web browser behavior.

6.1.3 Distributing a Timing Display

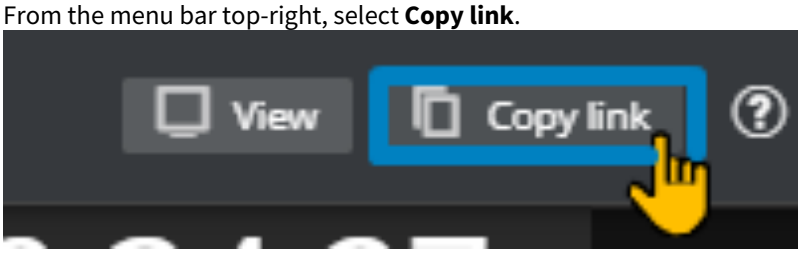
Once you have created or modified a Timing Display, you can share it with other users on the same network.

To distribute a Timing Display

1. Create/modify the Timing Display as described in Working with the Timing Display#Creating and modifying a Timing Display above.
2. From the drop-down menu, select the required display.



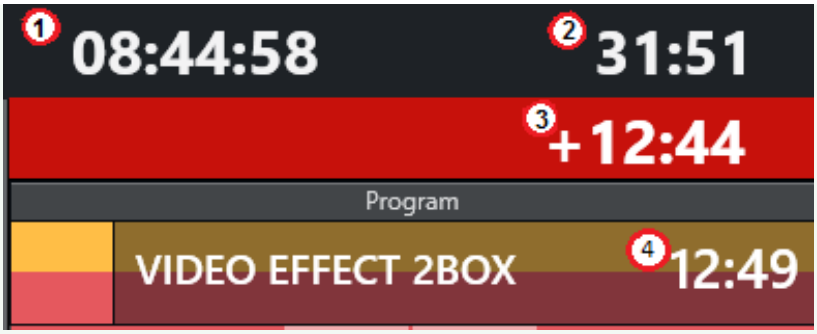
3. From the menu bar top-right, select **Copy link**.



4. Share the URL with your users.

Note: The original Viz Mosart Timing Display, with explanation of the elements, is described in the Timing Display section of the *Viz Mosart User Guide* .

Tip:
Appearance of timing information in the Viz Mosart UI



1. Counts the downtime to the *next break*.
2. Counts how much the rundown is *over/under*.
3. Counts down the *remaining time* for the current On Air template.
4. Shows the *duration* of the current On Air template.

6.2 Setup and Administration of TD

6.2.1 Setting up the Timing Display

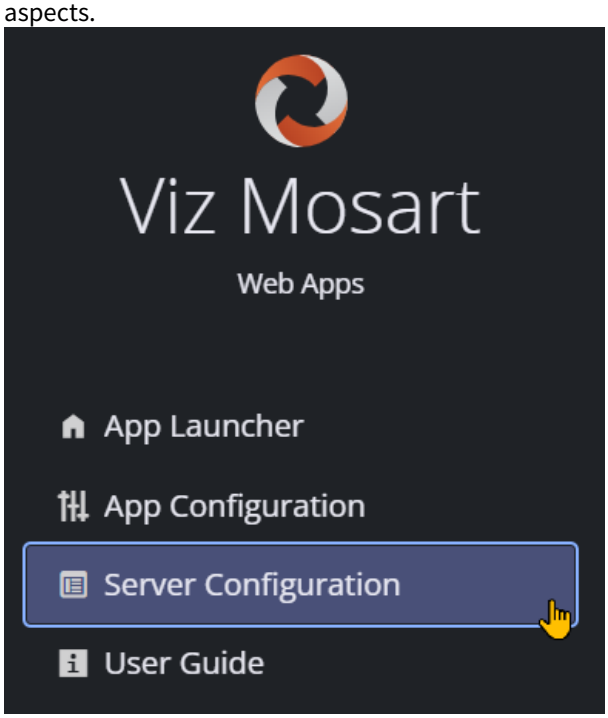
Prerequisites

- Viz Mosart 5.0.3 or later.
- Perform the installation as described in *Getting Started*.

Configuration

Timing Display will work out-of-the-box if the Mosart Web Apps are installed on the same machine as the Viz Mosart server.

It is recommended to visit the *Server Configuration* page to verify proxy server connections and other security aspects.



6.2.2 Optional Server Setups

Support for Main/Backup Connection

- If you have a *backup server* for redundancy, you will need define the environment in the menu *Server Configuration*.

Support for HTTPS

- If you are using *HTTPS*, you will need define the environment in the menu *Server Configuration*.

6.2.3 Troubleshooting

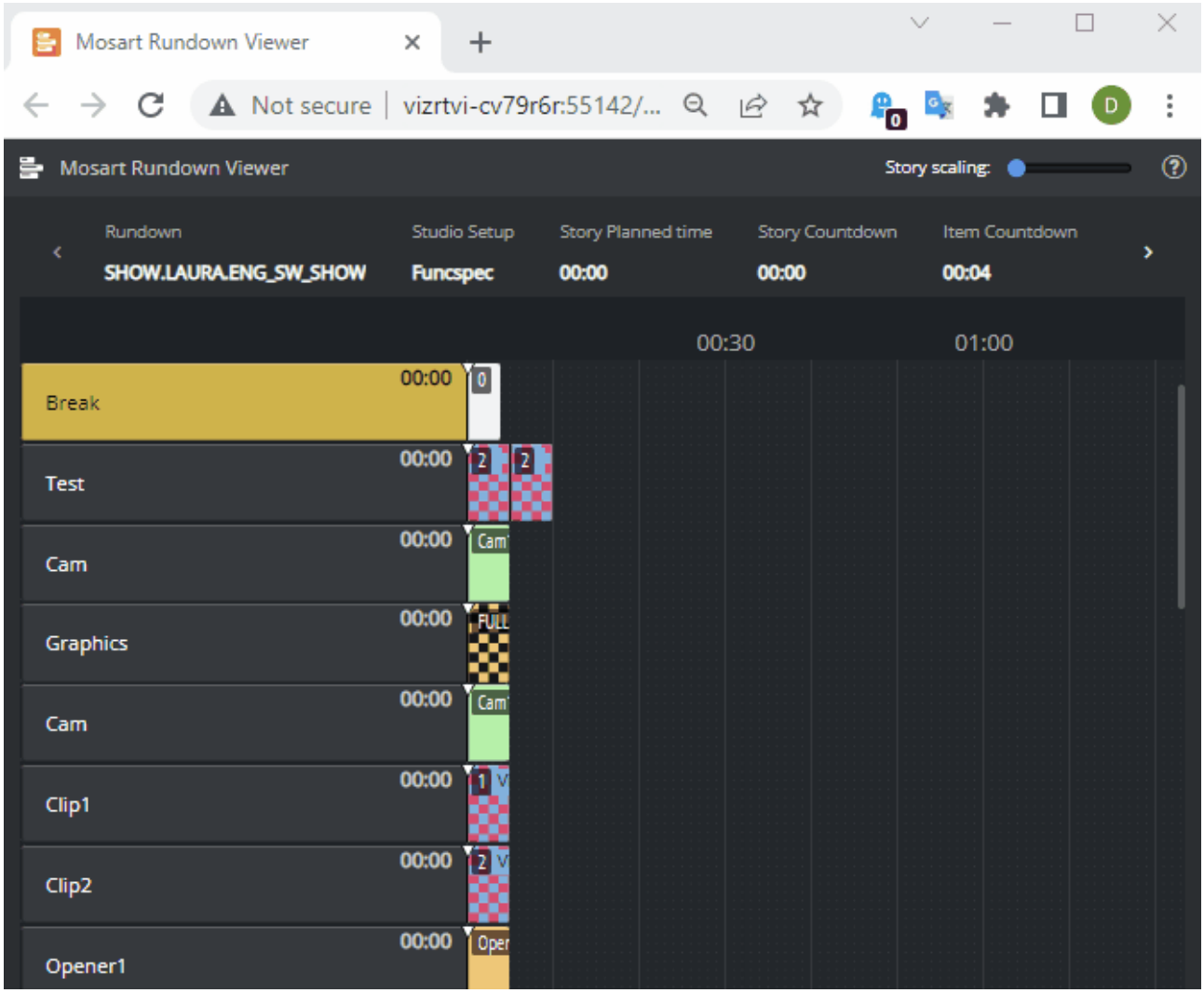
Please see section Troubleshooting.

7 Rundown Viewer

The Mosart Rundown Viewer provides a convenient web browser view of details from the current Viz Mosart rundown.

- Displays the active Viz Mosart rundown.
- Summary of story timings.
- Supports a variety of devices. For example an iPad or networked phone.

Info: For news-breaking details on the **Mosart Rundown Viewer**, please refer to the *Mosart Web Apps Release Notes* for your version of Viz Mosart, at the Vizrt Documentation Center.



This section describes:

- Working with the Rundown Viewer
- Setup and Administration of RV

7.1 Working with the Rundown Viewer

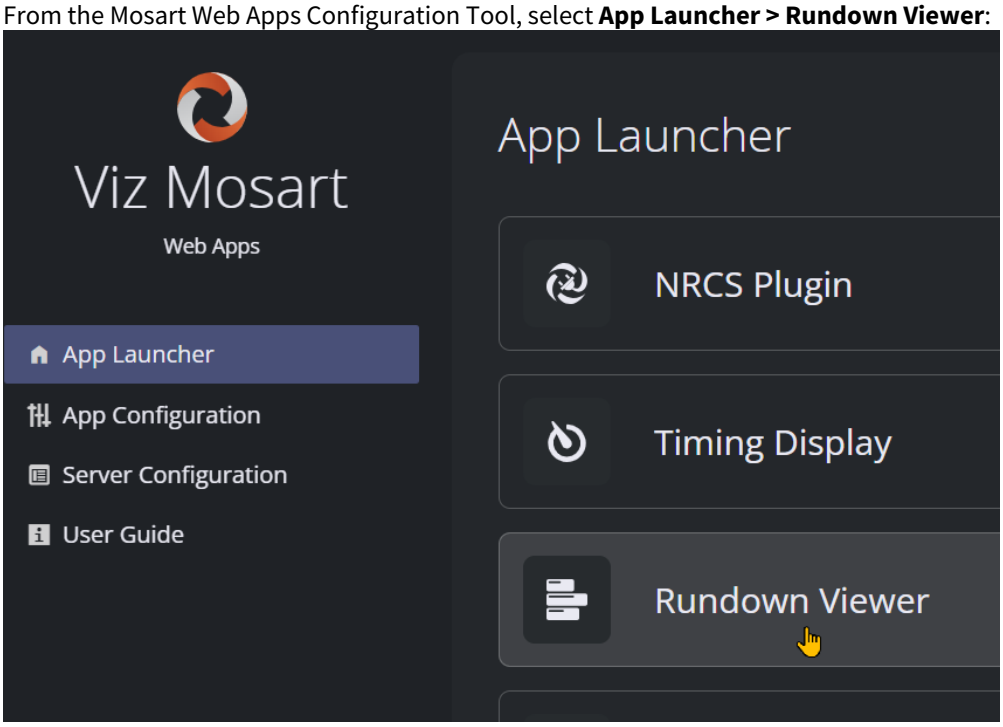
The Mosart Rundown Viewer provides a convenient, browser based display of a Viz Mosart rundown.

> **Note**: To browse a rundown in Rundown Viewer, a standard Viz Mosart setup must first be running with a loaded rundown.

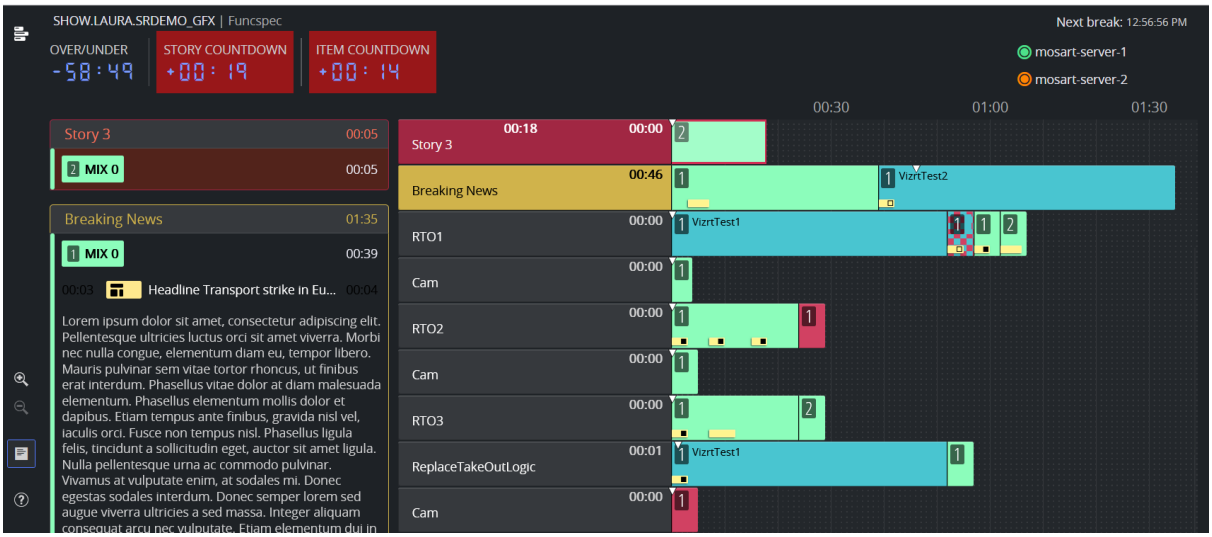
7.1.1 Opening the Rundown Viewer

You launch the Mosart Rundown Viewer from the Mosart Web Applications Configuration Tool.

1. From the Mosart Web Apps Configuration Tool, select **App Launcher > Rundown Viewer**:



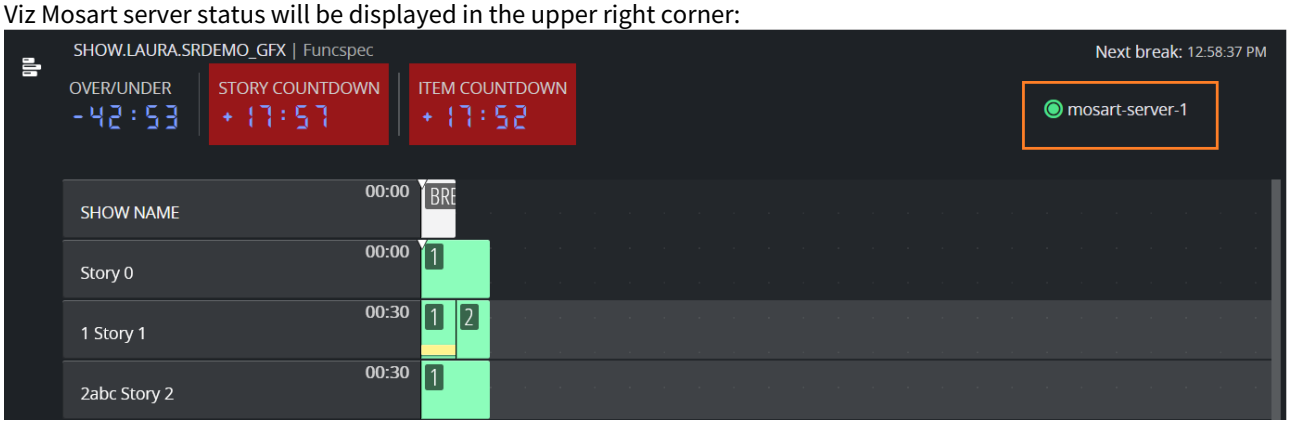
2. The Mosart Rundown Viewer displays in your default web browser.

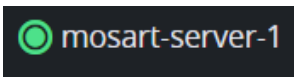
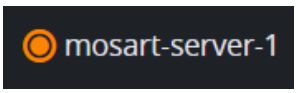
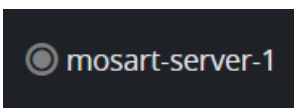


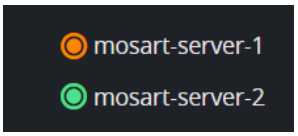
7.1.2 Key features

Viz Mosart Server status

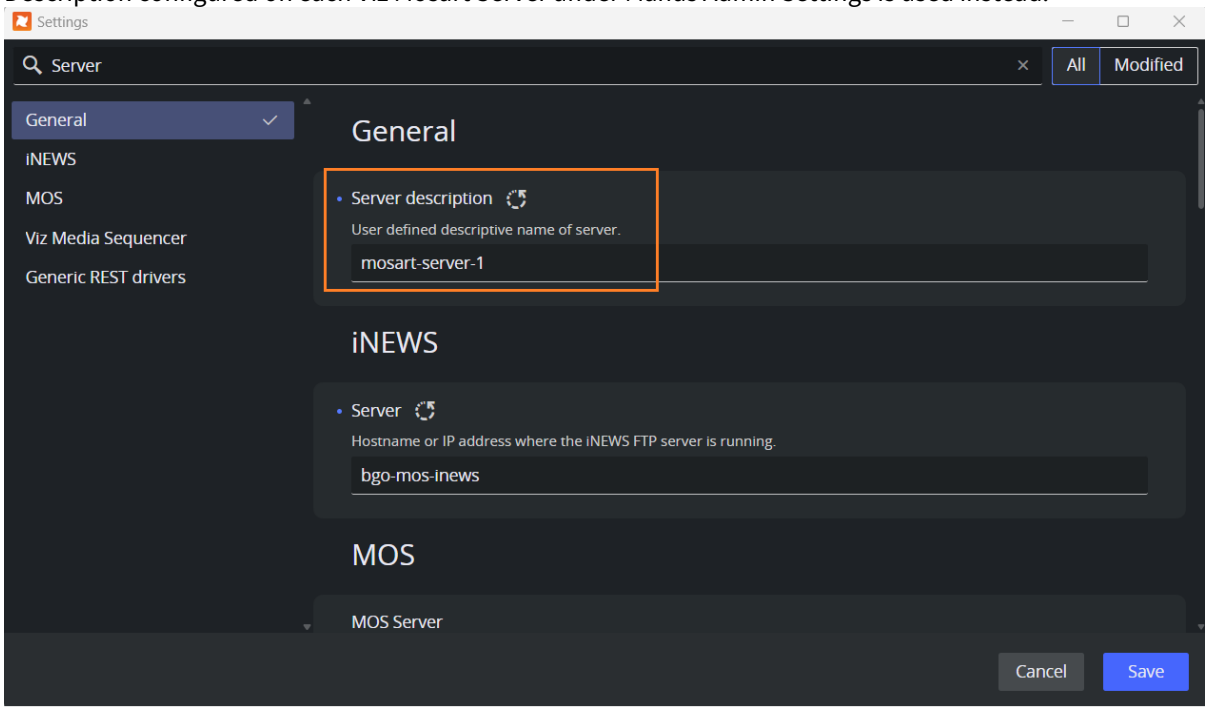
Viz Mosart server status will be displayed in the upper right corner:



Status	Description
	Viz Mosart server is active
	Viz Mosart server is idle
	Manus Admin is not running or Mosart Remote Control Service (RCS) is not running or it is not accessible.

Status	Description
	Viz Mosart is setup with main and backup and backup Mosart server has been configured in Viz Mosart Web Config Tool > Server Configuration.

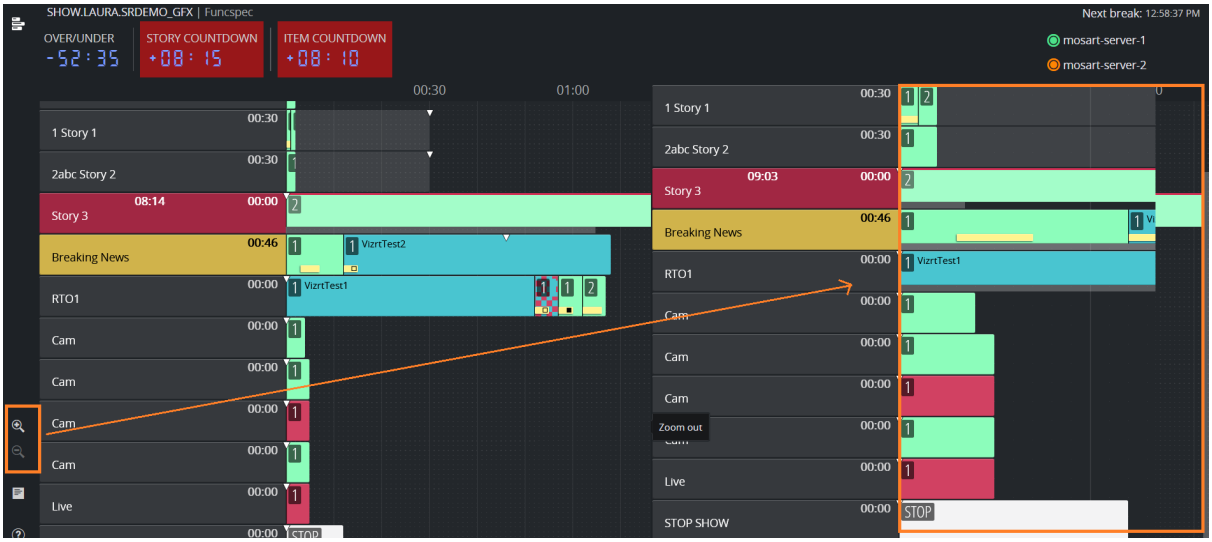
By default, the hostname, IP address, or FQDN configured in the Viz Mosart Web Config Tool > Server Configuration for the main and backup Viz Mosart servers will be displayed. However, in newer versions of Viz Mosart, the Server Description configured on each Viz Mosart Server under Manus Admin Settings is used instead.



Story Scaler

You can expand the viewing area for items in a story row. This is useful to see full text details on an item.

- Adjust the **story scaling** to desired column width.



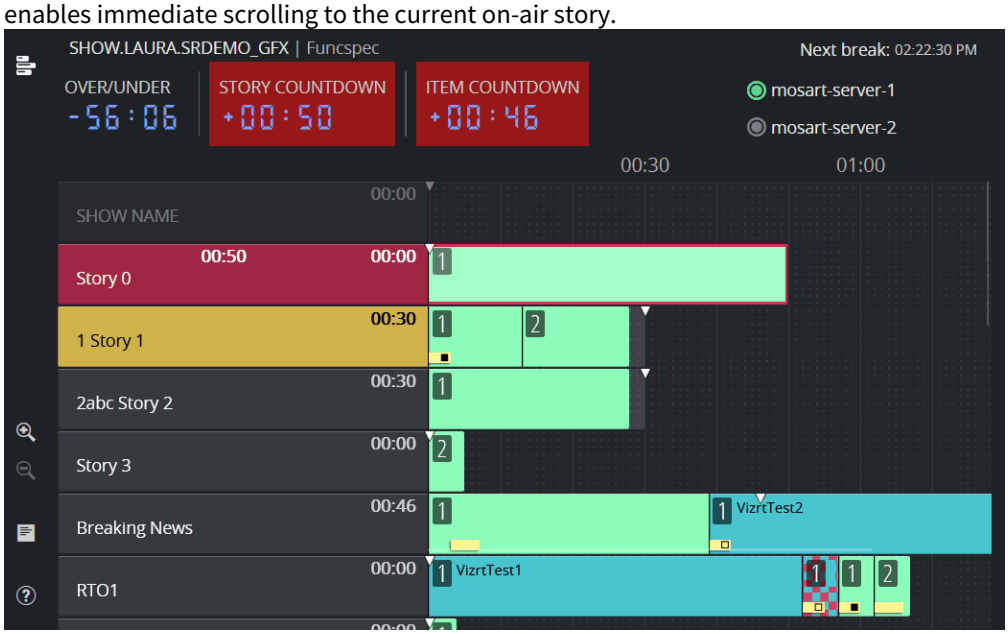
Story Script

You can work with the story script from within the Rundown Viewer.

Go to On Air Story

A navigation button

enables immediate scrolling to the current on-air story.



Tip: For an explanation of the elements in a Viz Mosart rundown, please refer to the *Viz Mosart User Guide*, under **User Interface**, the section **Rundown Window**.

7.2 Setup and Administration of RV

7.2.1 Setting up the Rundown Viewer

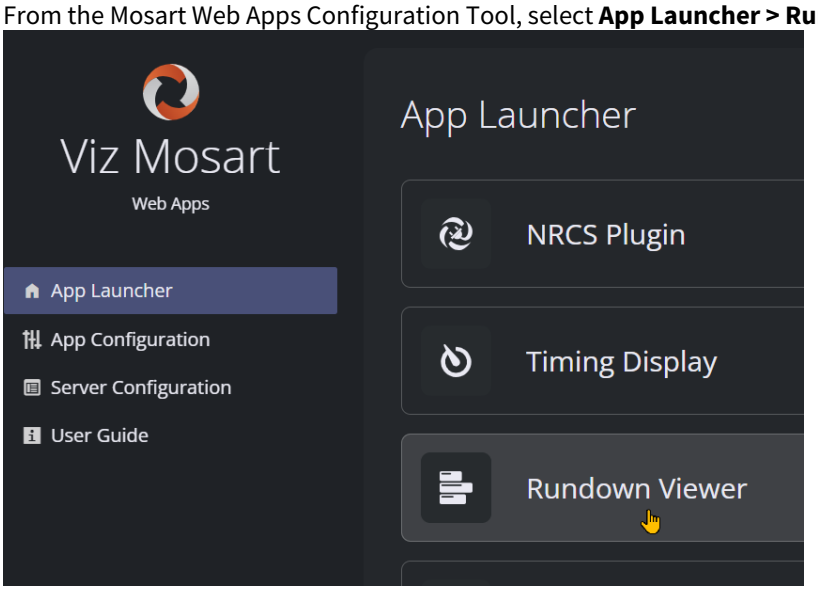
Prerequisites

- Viz Mosart 5.1.0 or later

Installation and Configuration

The Rundown Viewer requires no additional configuration.

1. Ensure that your Viz Mosart system is operating under normal working conditions.
   As a minimum,
   a. Manus Admin must be running.
   b. The Viz Mosart UI is running, displaying a rundown.
2. From the Mosart Web Apps Configuration Tool, select **App Launcher > Rundown Viewer**.



7.2.2 Optional Server Setups

Support for Main/Backup Connection

- If you have a *backup server* for redundancy, you will need define the environment in the menu section *Server Configuration*.

Support for HTTPS

- If you are using *HTTPS*, you will need define the environment in the menu *Server Configuration*.

7.2.3 Troubleshooting

Please refer to section Troubleshooting.

8 Showmaker

Showmaker is a lightweight, efficient MOS rundown creation tool that does not require a newsroom system.

This version provides all features needed to quickly create and control a Viz Mosart show.

8.1 Typical Usage

- Produce shows without the need of a newsroom system.
- Produce Viz Mosart-automated shows, without the existing newsroom system providing the rundown.
- Provide an independent backup for the newsroom system.
    - Ability to get on air quickly.
    - The beginning of a project.
    - The automation is prepared in advance, not requiring any newsroom system.
    - When a newsroom system is in use, all automation can first be prepared in Showmaker, in advance of the newsroom system.
    - Where skeleton staff (for example, in the middle of the night) need to get breaking news on-air.

Info: Showmaker is not intended as a replacement for a newsroom system. Showmaker offers a self contained, quick and easy way of building a rundown.

8.2 Additional Features

- Works with Viz Flowics (HTML graphics) and Viz Pilot Edge graphics plugins.
- Modern, web-based architecture.
- Support for MOS 4.

8.3 Further Information

If you require assistance with setting up Showmaker, please reach out to your Viz Mosart Support contact. Additional documentation will appear in the next release of the Vizrt Web Apps package.

8.4 Working with Showmaker

This is a pre-release of Showmaker.

- Showmaker can run standalone, as a rundown (running order) creation tool.
- If you wish to use Showmaker with Viz Mosart, follow the instructions in section App Configuration.

> **Note**: Whilst setup is relatively simple, the precise configuration depends on whether Showmaker is installed on the same server as Viz Mosart or a networked machine.

- Making your Rundown
- Newsroom Tags for Pre-production Accuracy

8.4.1 Operational Examples

This pre-release version of Showmaker is evolving rapidly. Already many tasks and workflows are fully functional. Below is a starting point for finding some useful descriptions online:

Making your Rundown

- This short introductory video takes you through the basics, so you can get started.

Newsroom Tags for Pre-production Accuracy

- This 3-minute clip uses Mosart web Apps to link smart Viz Mosart operations to the show's rundown.

8.4.2 Documentation Updates

As development evolves, the documentation is updated. Between software updates, it will be made available at the Vizrt Documentation Center.

8.5 Setup and Administration of Showmaker

This is a pre-release of Showmaker.

- Please follow the standard setup described in section *Mosart Web Apps Configuration Tool*.

> **Info**: Documentation is continually updated, see the latest version at the Vizrt Documentation Center.

8.5.1 Setting up Showmaker

Prerequisites

- Viz Mosart 5.1.0 or later

Installation and Configuration

You can create a standalone, pre-production rundown in Showmaker with no additional configuration.

However, to work with Viz Mosart templates or to test the rundown, you must perform these one-off configuration steps:

To manage Mosart templates

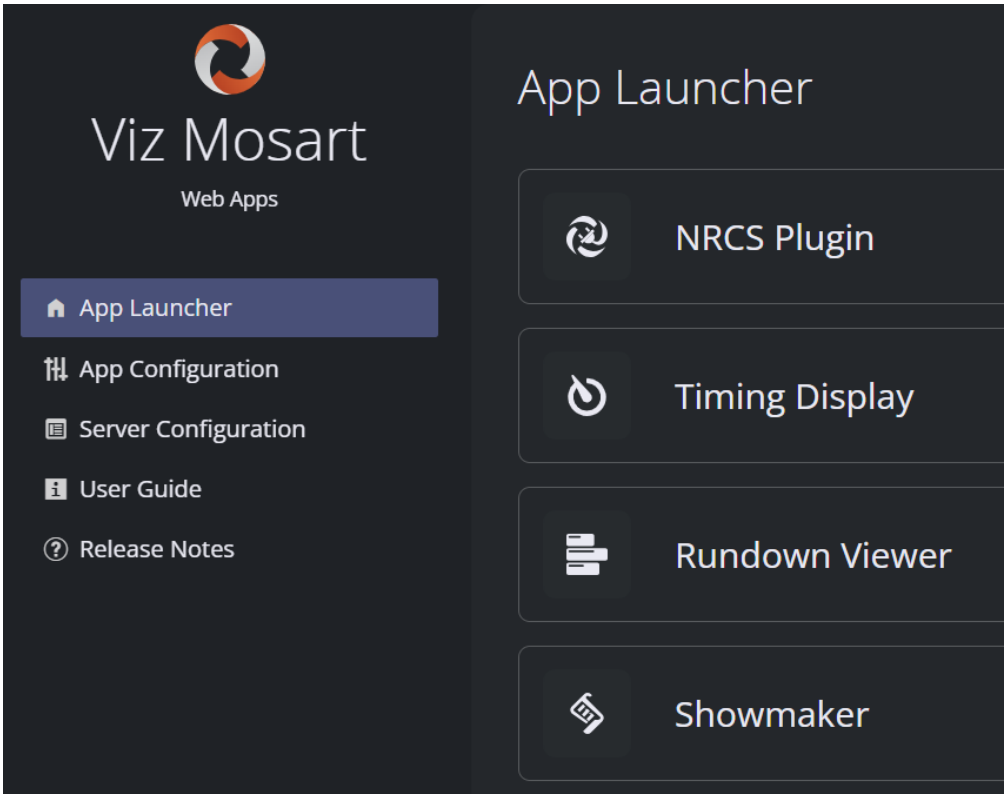
To work with Viz Mosart template sets in Showmaker, the bundled web application *NRCS Plugin* shall be correctly configured.

- Follow the *Showmaker* instructions under section App Configuration.

To connect to Viz Mosart

To verify your Showmaker rundown in Viz Mosart, you will need to configure your browser's connection to the Mosart server.

1. Ensure that your Viz Mosart system is operating under normal working conditions.
   As a minimum,
   a. Manus Administrator must be running.
   b. The Viz Mosart UI is running, displaying a rundown.
2. From the Mosart Web Apps Configuration Tool, select **App Configuration** and complete the required setup.



3. With these steps completed, Showmaker is ready to work with Viz Mosart.
   You may need to consider the scenarios presented in Optional Server Setups below.

8.5.2 Optional Server Setups

Support for Main/Backup Connection

- If you have a *backup server* for redundancy, you will need define the environment in the menu section *Server Configuration*.

Support for HTTPS

- If you are using *HTTPS*, you will need define the environment in the menu *Server Configuration*.

8.5.3 Troubleshooting

Please refer to section Troubleshooting.

9 Template Editor

The new **Template Editor** offers an improved experience for creating, editing and managing templates.

Tip: Watch a 2' introduction here.

This guide is designed for both first-time users of Viz Mosart and experienced users of the old Template Editor, providing detailed explanations of the features, workflows, and recommended best practices.

Info: Early Access

The new Template Editor is currently provided as an **early access** version, intended for customers to test, explore, and provide insights and feedback for future versions.

Safety first

This version is **not supported for production use**. We recommend enabling it in a staging or test environment to safely explore its features and to always back-up your channeltemplates.xml file *before* you start.

Template storage

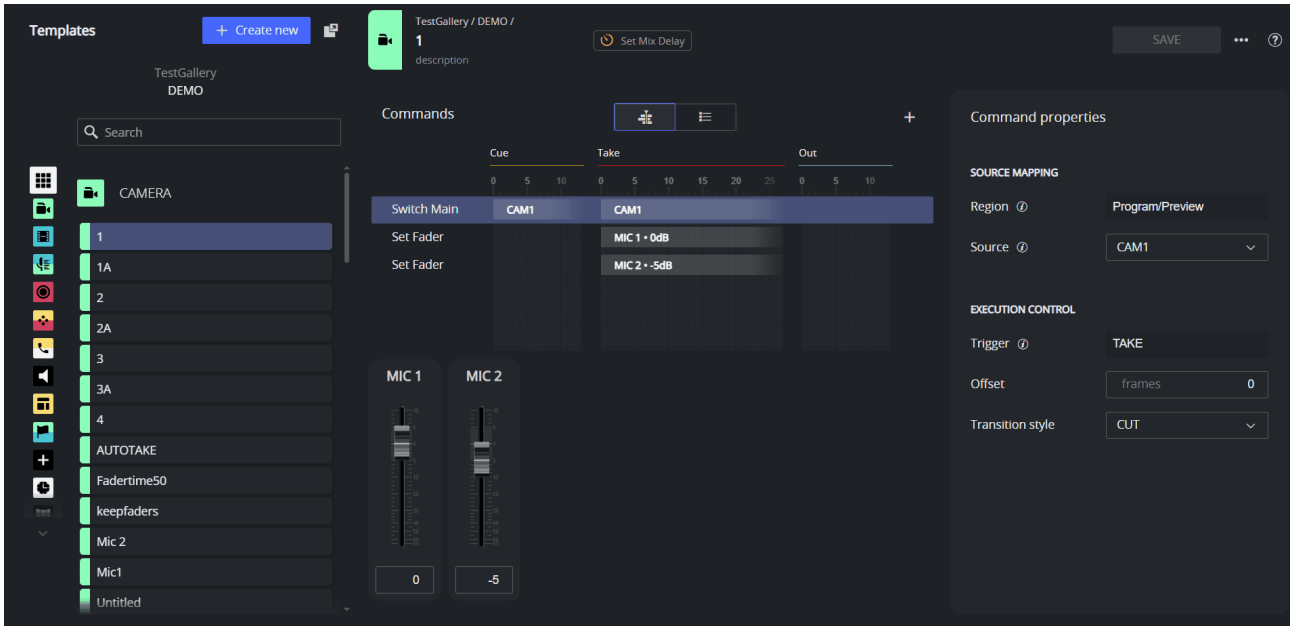
Once enabled, the new Template Editor will share the same template storage configuration as the NRCS plugin.
Only **file-based** template storage is supported in this version. Support for template database will follow in a later version.

Control access

As a web-based app, the new Template Editor will be available to *all* users on the local network. To control access, this version also offers **authentication**.
Once configured, the permissions apply to *all* Viz Mosart Web Apps.

9.1 Template Editor

The Template Editor is your tool for creating, modifying, and managing templates. Each template defines a carefully timed sequence of automated commands, such as camera switching, audio adjustments, graphic transitions, lighting control and much more. By designing robust and powerful templates, you can produce complex live broadcasts reliably and consistently, which can be planned in a rundown, or recalled manually at any time.



9.2 Benefits of the new Template Editor

- **Web-based**: Accessible from a browser on any computer on the network.
- **Fast template browsing**: Uses the same familiar interface as the NRCS Plugin, for rapid navigation between templates.
- **Timeline view**: Gives a clear visual overview of all commands and their precise timing.
- **Simplified command model:** Fewer, more powerful commands, to make template creation easier.
- **Easier to learn**: A clean, intuitive UI lowers the learning curve, even for new users.

9.3 How the new Template Editor Works

The new editor is designed to be compatible with existing Mosart templates, while introducing a more modern and user-friendly editing experience. Here's what you need to know:

- Template Editor directly modifies the same `channeltemplates.xml` file as the old editor.
- The data format is the same, so changes are backwards compatible. Both editors can be used side-by-side.
  - ⚠️ However, there is no mechanisms for synchronizing between them:
    - Saving in the *old editor*: Requires a browser refresh in *new editor* to view the changes.
    - Saving in the *new editor*: Requires a restart of AV Automation for changes to take effect in a rundown and to see the changes in the *old editor*.
  - There are no conflict or collaboration features: The latest save wins.
- This version supports a limited set of commands:
  - When opening an existing template, only the supported commands will be visible.
  - When saving, unsupported commands are preserved, even though you don’t see them. They are not lost.
  - All commands will still appear in the old editor.
- Commands have been simplified, but may take some time to get used to:

    - The previous distinction between *Device Commands* and *Control Commands* is gone. Now you see a unified list.
    - Some commands have been unified for simplicity. For example, the command **Set source** can set a *Keyer*, *AUX* or *Crosspoint*, depending on which properties have been configured.
    - This change is only *visual*. When *saving*, a **Set source**, the command will be converted to a **SET_CROSSPOINT** *Control Command* in the file and is visible in the old editor.
    - For more details, see Transitioning from the old Template Editor.
- No *template inheritance* features are currently included.

9.4 Further Information

Additional documentation and guidance will continue to be added and refined as the new Template Editor evolves. For the latest updates, consult the Vizrt Documentation Center. If you require assistance with setting up Template Editor, please reach out to your Viz Mosart Support contact.

9.5 Working with Template Editor

The opening view of the Template Editor provides access to all tools needed to browse, edit, and manage Mosart templates. Key operations like template selection, command editing, and property configuration are gathered in one workspace.

Each panel serves a specific phase of your template editing workflow. For example:
- searching and managing templates
- editing commands
- configuring properties.

The layout is intended to offer a visual and intuitive experience, with tools like timeline visualization, structured command organization and real-time property editing.

9.5.1 Overview of Template Editor

Each numbered panel is described below.

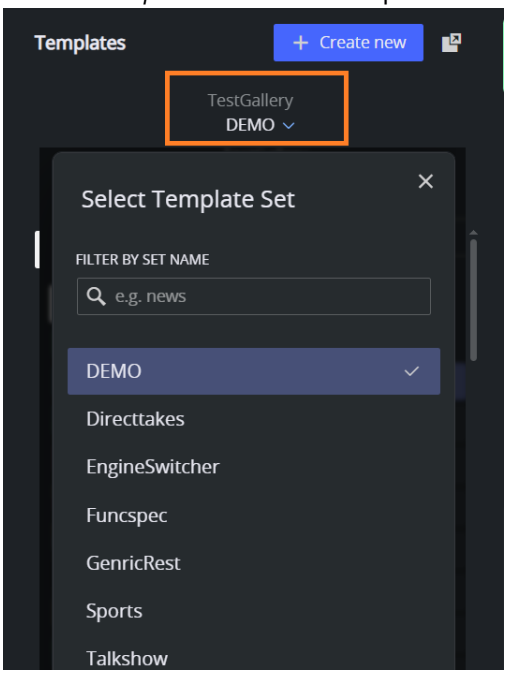
- (1) Template Search and Creation
- (2) Template Title Bar
- (3) Commands List and Timeline View
- (4) Audio Fader Panel
- (5) Command Properties

(1) Template Search and Creation

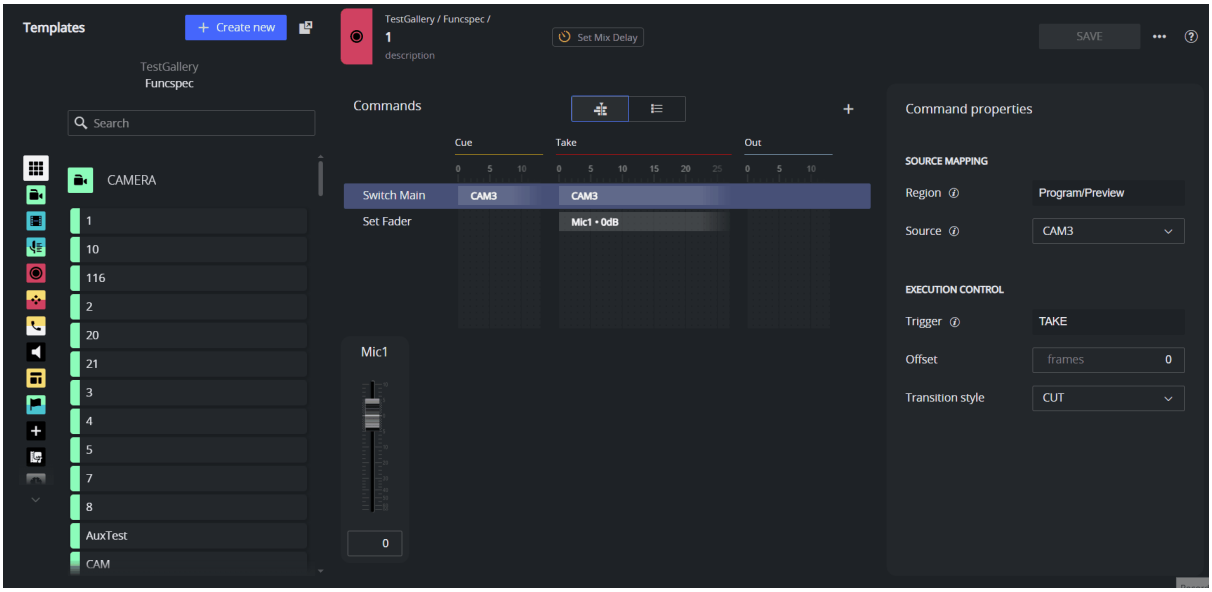
Searching for Templates

The Template Editor provides a fast and responsive search experience similar to what you may be familiar with in the Mosart NRCS Plugin.

- Select a *Template set* from the drop-down selector, to view its templates.



- Use **FILTER BY SET NAME** to locate a template set.
- Having selected a template set, type in the **Search** box to locate templates by *name* or *variant*. As you type, the list will automatically filter and highlight matching results.
- Templates are *grouped by type*, such as *CAMERA*, *PACKAGE*, or *GRAPHIC*, making browsing straightforward even without searching.
- When you select a template from the list, its implementation is *instantly loaded* and displayed in the **Commands** and **Command properties** panels on the right. This allows you to preview its configured commands, transitions, and audio fader levels at a glance—without needing to open each one manually.
- Use the **Arrow keys** on your keyboard to quickly scroll through the templates within your selected set. As you move through them, each template's configuration is shown instantly, offering a fast and efficient way to review templates in sequence.

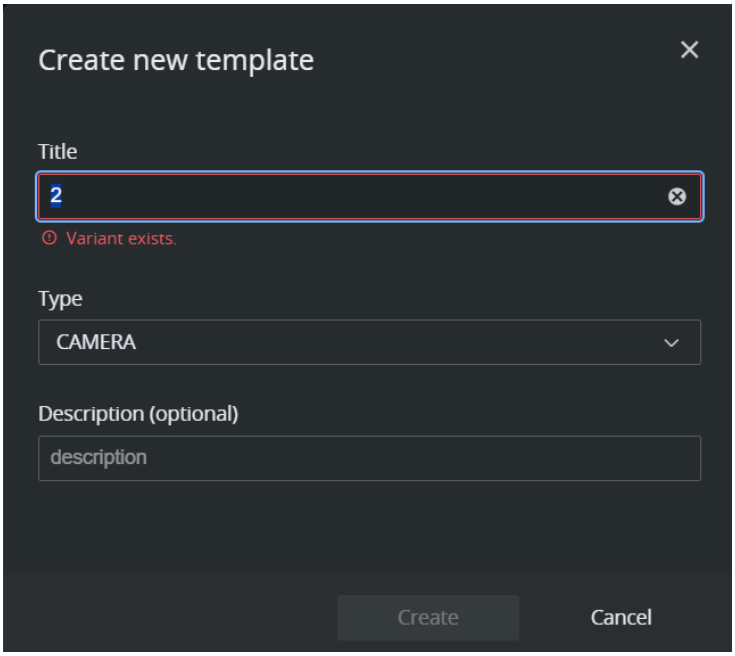


Info: In this version, only file-based templates are supported. This means you won't need to select a gallery, as only one template source (the file) is available. Support for gallery-based template databases will be introduced in a future release.

Creating a New Template

To create a new template

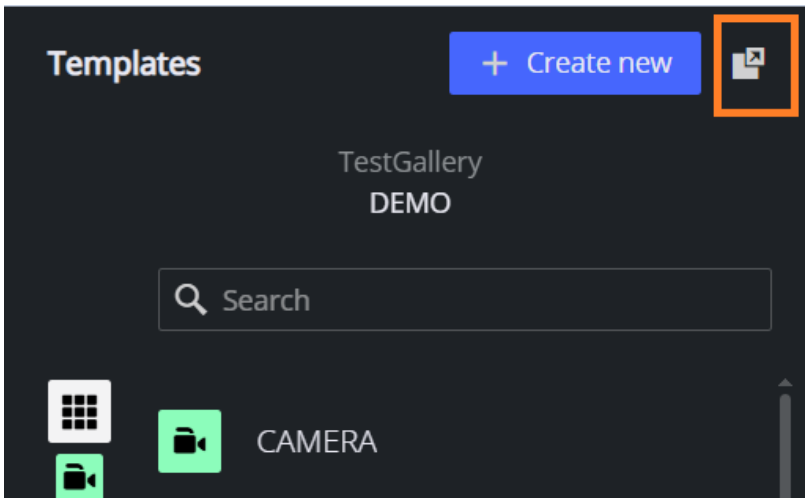
1. Click the **+ Create new** button at the top of the template list.
2. In the dialog:
   - **Title** – Enter a name for your new template.
   - **Type** – Choose a template type from the drop-down menu (for example, *CAMERA*, *PACKAGE*).
   - **Description (optional)** – Optionally, provide a short description for clarity.
     When creating a new template, the combination of template **Type** and variant name (**Title**) must be unique *within the selected template set*.



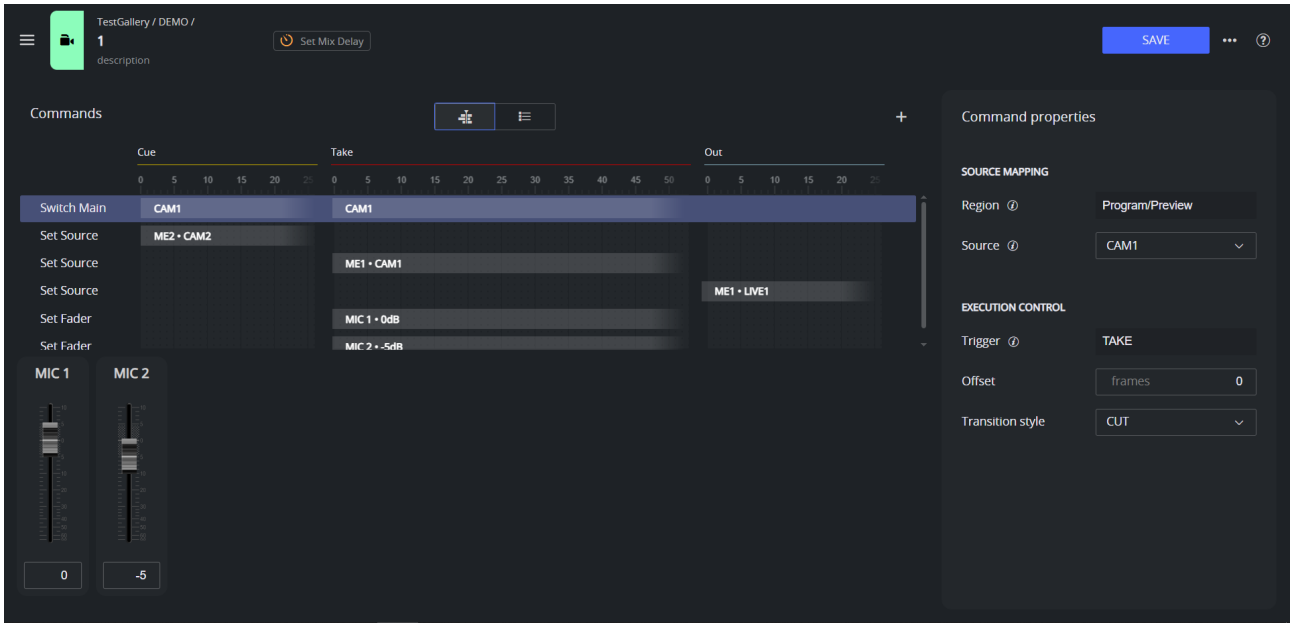
3. Click **Create** to add the new template.
   It is added to the selected set and immediately opened in the main editor view.
4. Once created, you can begin adding commands, adjusting their properties, and configuring timing in the visual timeline editor.

Collapsing the Search panel

Once you've found a template to view or edit, or created a new one, you can collapse the **Templates** panel using the **Collapse** icon in its top-right corner.
(You may need to move your mouse to hide the panel).



Collapsing the panel provides more workspace and visibility for editing the template body and viewing command details. This is especially useful when working with complex templates or multiple commands, as it allows you to focus on the command timeline and property panels without distraction.



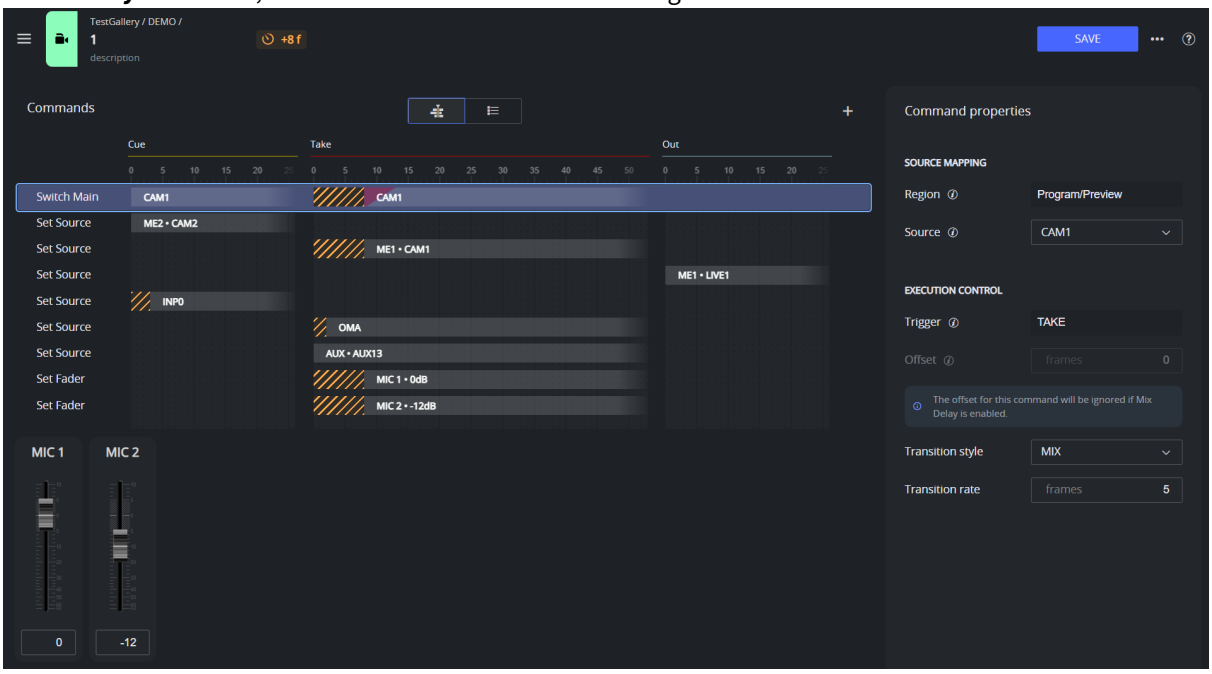
You can re-expand the **Templates** panel at any time by clicking the menu icon in the top-left corner, allowing you to browse template sets or search for additional templates without leaving the current view.

(2) Template Title Bar

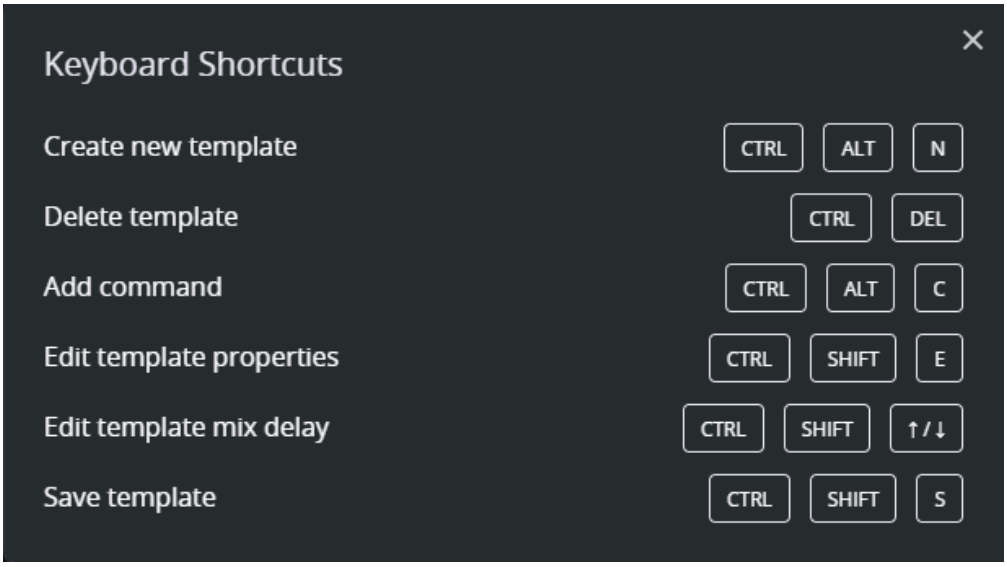
The header section of Template Editor displays key information and actions related to the currently selected template. This panel provides access to template metadata, delay configuration, and management tools.

What you'll find in this section:

- **Template Information**
  Displays the selected template's *name*, *variant*, *description* and *location*. This makes it easy to keep track of what you're editing, especially when navigating across multiple templates.
- **Mix Delay Configuration**
  Clicking **Set Mix Delay** opens a dialog where you can apply a frame-based delay to specific command types (for example, *main source switches*, *region source switches*, *audio fades*). This helps with fine-tuning on-air action timings.
  If **Mix Delay** is enabled, individual command offsets will be ignored.



- **Template Actions – Save, Edit, Delete**
  On the right side of the header:
  - The **Save** button stores any changes made to the template.
  - The **Three-dot menu** opens options to **Edit** or **Delete** the template.
    - Edit opens a dialog where you can rename the template, change its type, update its description, or modify its **Mix Delay** value.
- **Keyboard Shortcuts and About**
  The **Question mark** icon (**?**) opens a drop-down menu with:
  - **Documentation**
  - **Keyboard Shortcuts** – view or memorize shortcuts to speed up common actions like creating, editing, and navigating templates.

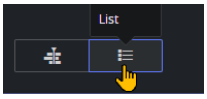


- **About Dialog** – includes product version, date, and a link to third-party license information used by the Template Editor.

(3) Commands List and Timeline View

The **Commands** panel presents two complementary methods for exploring and managing commands in a template.

- Select **Timeline** or **List** view to switch between views.



Both views are interactive and synced with the **Command properties** panel.

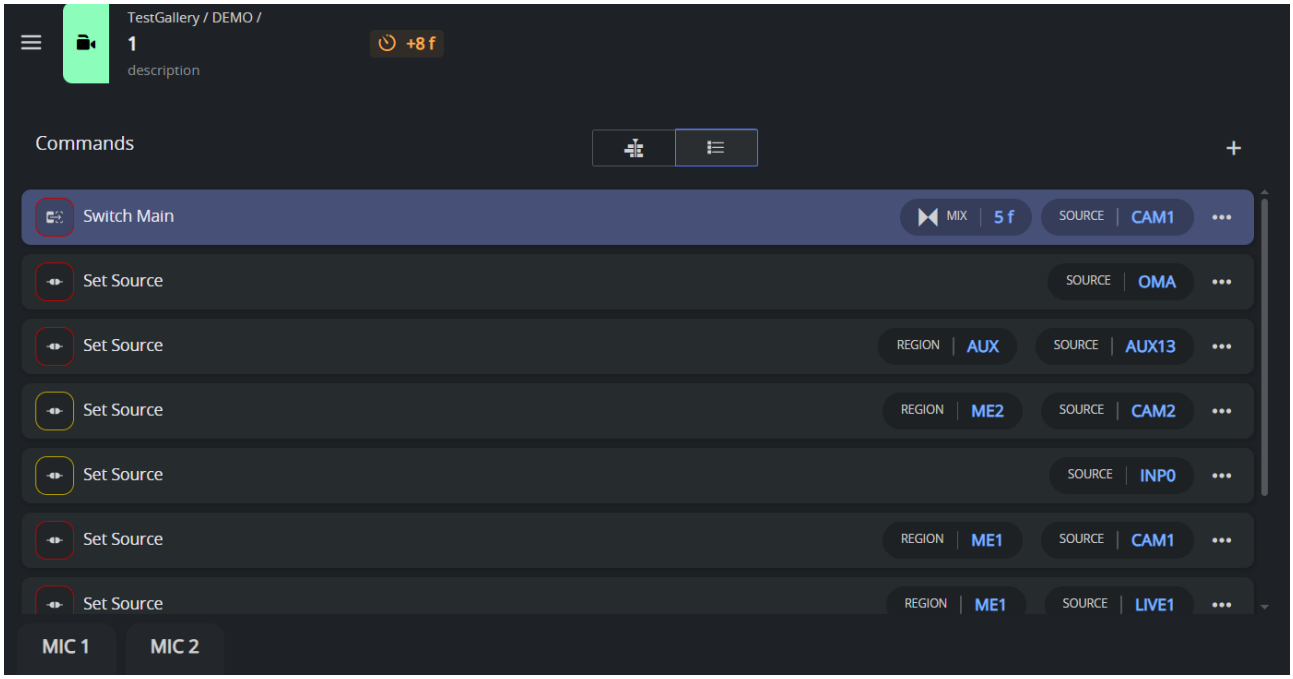
Info: Commands are currently grouped by *device* category (for example, *switcher* commands, *audio mixer* commands) and *not* by execution sequence.
This reflects the structural grouping within a template, but not necessarily the order that Viz Mosart executes them at runtime.
Additional sorting options may be introduced in future versions.

Timeline View

A visual representation that shows when each command is executed during the *Cue*, *Take*, or *Out* phases. It provides an intuitive overview of execution timing, offset frames, and transition lengths.
In addition, this view helps illustrate *multi-phase commands,* such as *Switch Main* or *Switch Region*—that trigger actions when the template is cued and when it is taken on-air. These distinct phases are easily identified on the timeline by their placement across *Cue*, *Take*, or *Out* segments.

List View

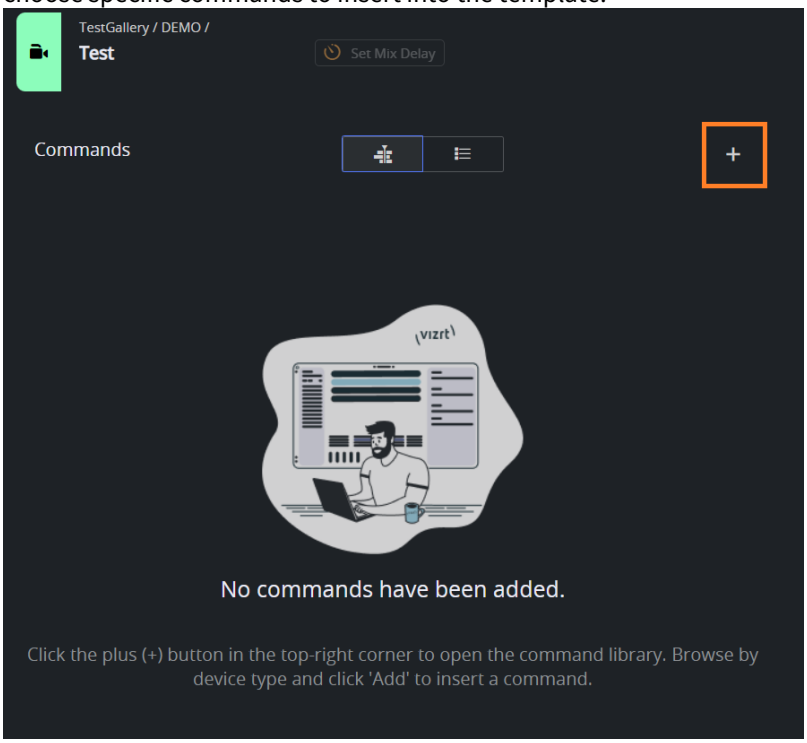
A compact format that displays the same commands and their core properties in a simplified linear layout.
This is useful for quick review or editing when precise timing visualization is not required.



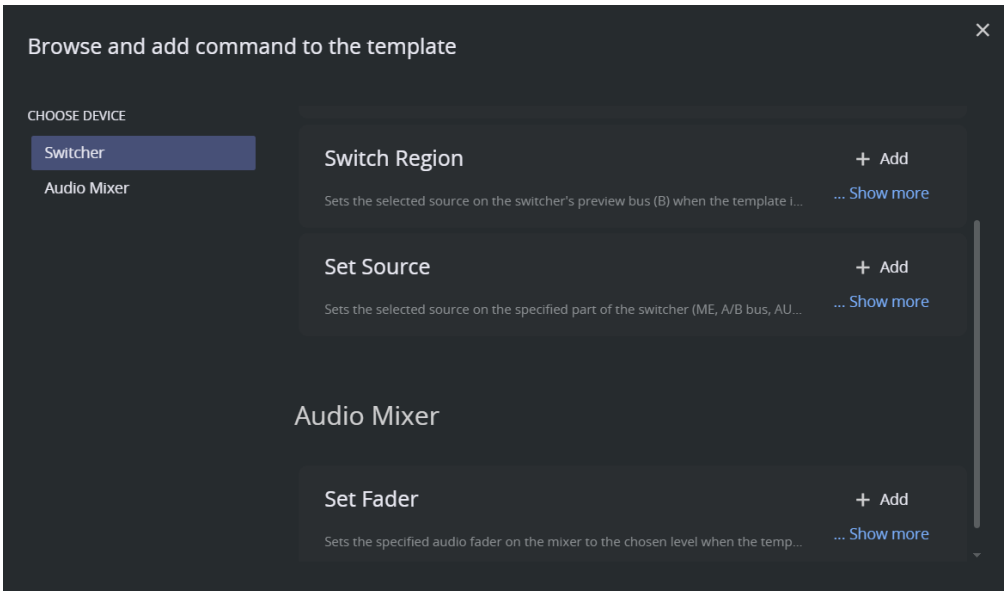
Adding Commands to a Template

To add a new command

1. Click the **Plus** button (**+**) located at the top-right corner of the **Commands** view.
2. This opens a dialog that lets you browse available device types (for example, *Switcher*, *Audio Mixer*) and choose specific commands to insert into the template.



3. Each command entry in the dialog provides a short description.
   Click **Show more** for additional information.



4. Select the desired command and click **Add** to include it in the active template.
5. You can continue editing the newly added command in the **Command properties** panel, immediately after adding it.

(4) Audio Fader Panel

The **Audio Fader** panel provides a quick overview of all **Set Fader** commands included in the template. Displayed for each configured audio channel are:

- The *source name* (for example, *MIC 1*, *MIC 2*)
- The *fader level,* in dB.

You can adjust the audio level directly by dragging the fader slider up or down. This allows quick tuning without navigating to the **Command properties** panel.

- To modify other command parameters like *Trigger type*, select the corresponding audio command from the Command list or Timeline view.

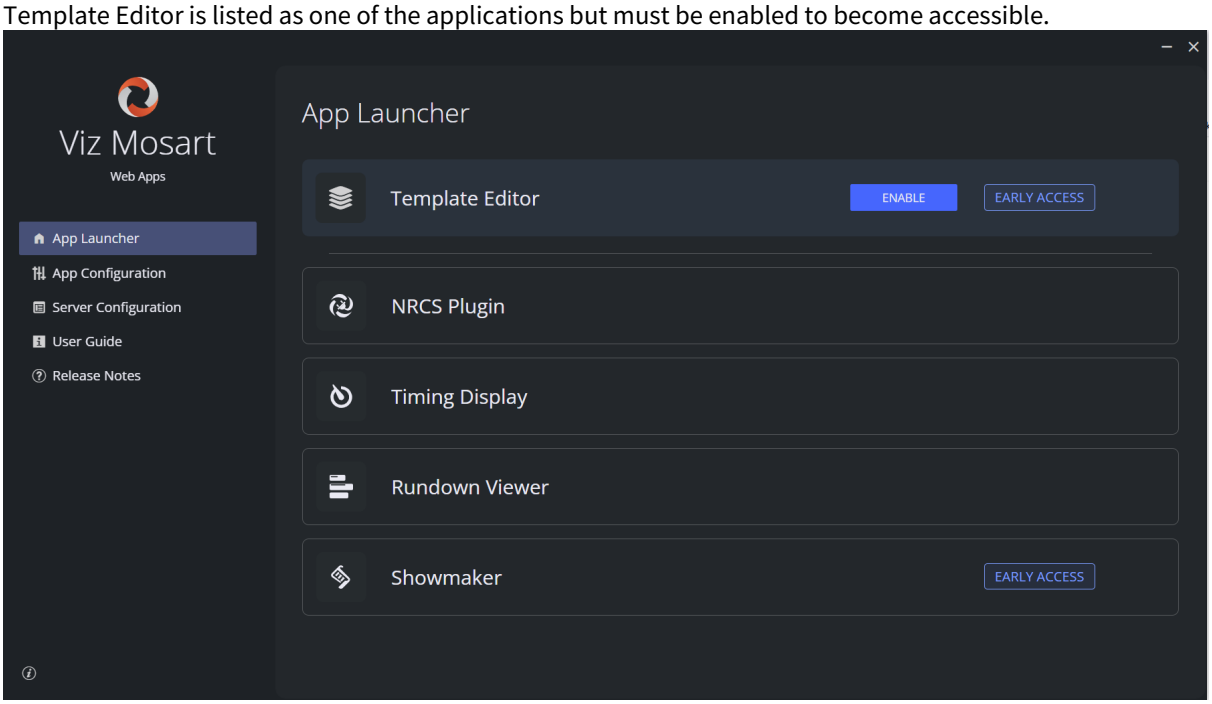
(5) Command Properties

The **Command Properties** panel displays configurable options for the selected command. Properties vary depending on the *command* type and *device* type (for example, a *video switcher* or an *audio mixer*).

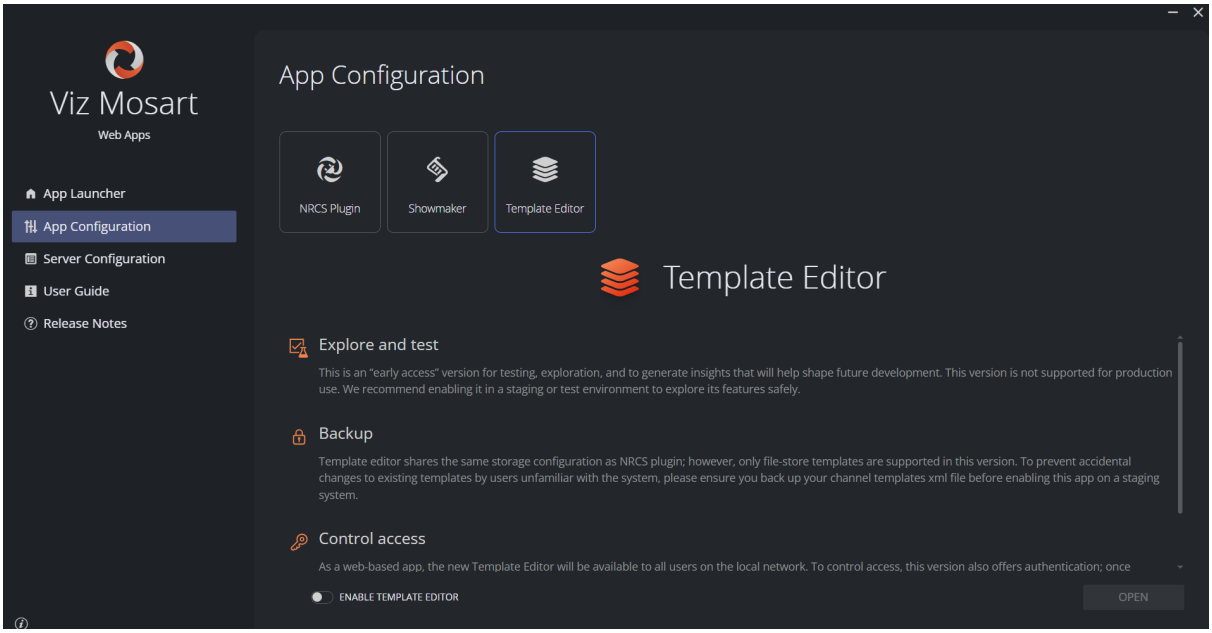
9.6 Setup and Administration of TE

The new Template Editor is part of the **Mosart Web Apps** package. It is accessed and managed through the Configuration Tool, which launches automatically after installation.

1. Open the Configuration Tool.
   After installing the Web Apps bundle, the **App Launcher** will open, showing all available applications. Template Editor is listed as one of the applications but must be enabled to become accessible.

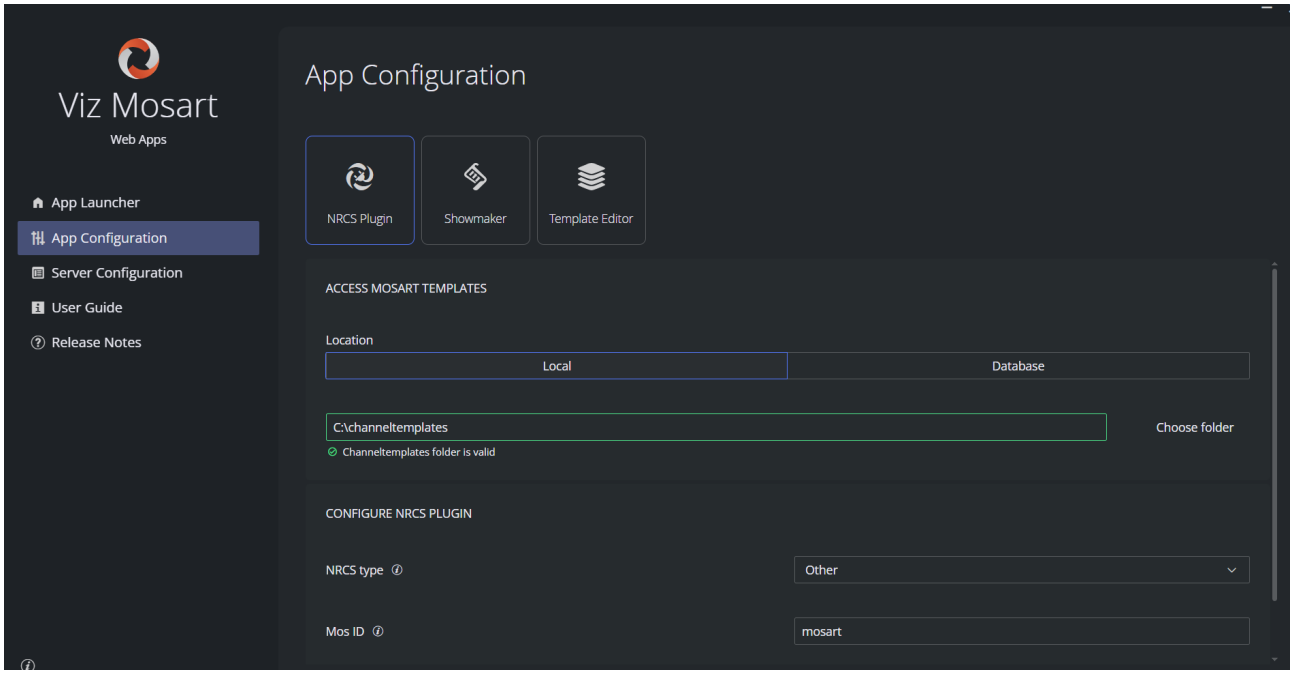


2. Enable Template Editor.
   a. Go to the **App Configuration** tab.
   b. Select **Template Editor**.
   c. Review the following important notes before enabling.



3. Save and launch.
   Once you've enabled the Template Editor:
   a. Click **Save** to apply the change.
      This restarts the Web Apps service.
   b. After restarting, the **Open** button becomes available.
      Click **Open** to launch Template Editor in your default browser.
4. Confirm template storage file location.
   Template Editor shares the template storage path configured in the **NRCS Plugin** tab.
   - Ensure the **Local** file storage path is valid and accessible.

Info: Templates stored on a *database* are not supported in this version.



5. Control access.
   As a web-based app, the new Template Editor will be available to all users on the local network.
   - To control access, this version also offers **authentication**. Once configured, the permissions affect *all* Viz Mosart Web Apps.

9.7 Command Reference

This section explains the supported command types in the new **Template Editor**.

It covers their function, parameter structure, and how they are used in real-world workflows.

9.7.1 Command Types

Commands in this description are organized by the *type* of device they control (for example a *switcher* or *audio mixer*) with examples illustrating their common usage scenarios.

For users familiar with the existing *desktop Template Editor*, a separate section, Transitioning from a Desktop Template Editor, highlights key differences in behavior and compatibility.

As the Template Editor evolves, more command types will be added.

9.7.2 Video Switcher Commands

Command Structure

For video switcher (vision mixer) commands that assign a source, such as **Switch Main**, **Switch Region**, or **Set Source**, the web-based Template Editor uses a structured mapping system to precisely define where the source should appear. This structure is:

Region → Layer → Channel → Source

This hierarchical model supports a wide range of production systems, from traditional hardware switchers to modern software-based mixers. While it is essential for source-mapping commands, not all vision mixer commands necessarily use this structure.

Here's a breakdown of each element:

Region

The top-level destination for the source. This could be:

- *Program/Preview (PP)*: the main switcher output
  - *Mix/Effect (ME1, ME2, etc.)*: for complex layer compositions
  - *Auxiliary (AUX)*: for independent outputs
    In some systems, this is called a *scene* (Panasonic Kairos), or a *graphic scene* (see Viz Engine as a Switcher).

Layer

Identifies a compositing layer (for example, *Background*, *Layer 1*, *Layer 2*, *Layer 3*) where the source should be placed.

- The *Background* (also referred to as *Main*) layer represents the base layer of the visual composition, the foundation onto which all other visual elements (graphics, overlays, picture-in-picture, etc.) are added. This layer may support A/B transitions (Preview + Program). In traditional switchers, this corresponds to the background video source of any M/E bank, not just the Program output.
  Each M/E has a base input (the *Background*), which can have keys and effects stacked above it. In modern, layer-based switchers like Panasonic Kairos, it serves as a virtual construct to simulate this foundation. The web-based Template Editor uses this concept to unify how the base layer is addressed across both traditional and fully composited switcher architectures.
  Note: This layer is *not* available when region *Auxiliary* is selected.
- *Layer 1, Layer 2, Layer 3*, and so on, are used to place content on top of the main background layer. Each of these layers currently has just one video bus (called *A*) and currently does not support transitions between *two* sources like traditional A/B transitions.
  Examples are:
  - Panasonic Kairos supports multiple layers in both *single* and *dual-bus* modes.
  - TriCaster M/Es allow multi-row compositions (A, B, C, D).
  - Viz Engine treats superchannels as layers with A/B buses.

The *Layer* may be fixed based on command type (for example, *Switch Main* does not expose a layer setting, this is set by default to *Background* and cannot be changed).

Channel

This is the final destination where the source is assigned. In a dual-bus background layer, this might be A (program) or B (preview). Single-bus layers typically only use channel A.

Source

The actual input, such as a camera, live feed, graphics input etc., referenced by its name (crosspoint) configured on the Viz Mosart server in AV Automation in the menu
Devices > A/V Setup > Video Config. (for example, *CAM1*, *LIVE1*).

Switch Main

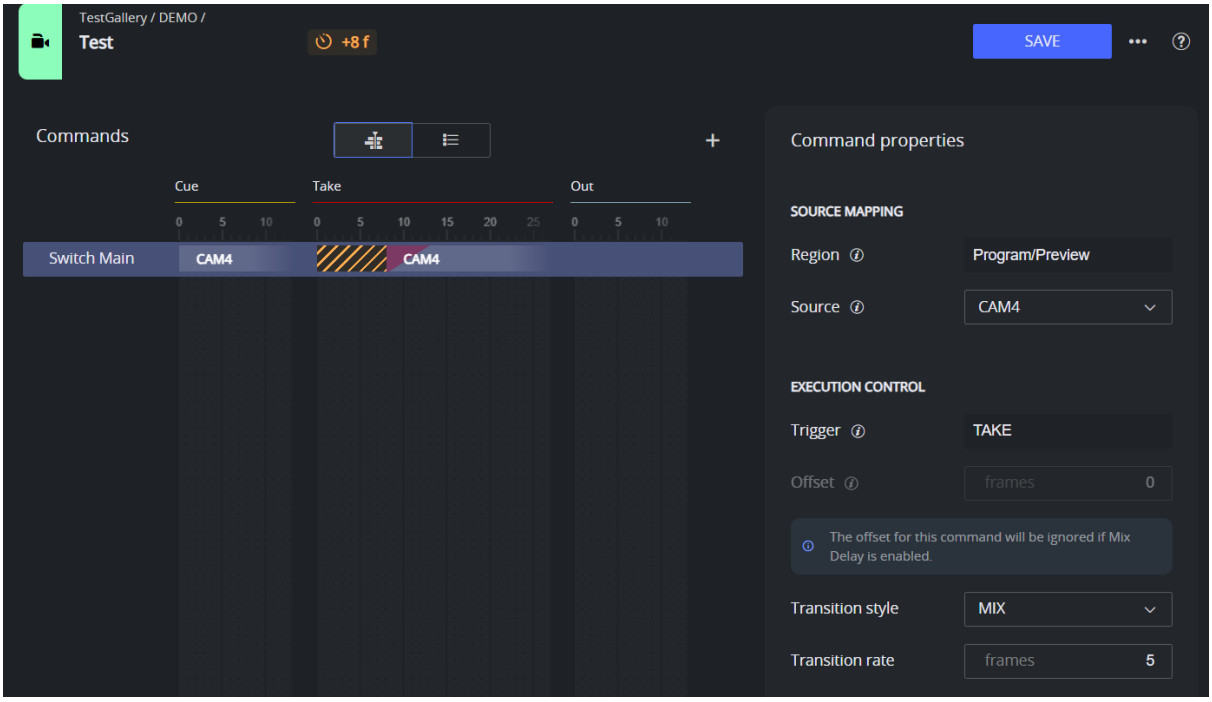
The **Switch Main** command sets the source on the main output (*Program*/*Preview*) of the switcher. This can be a direct source like a camera, graphic, or video feed (for example, *CAM1*), or a secondary region (for example, *ME1*) that is being composed elsewhere.

Properties

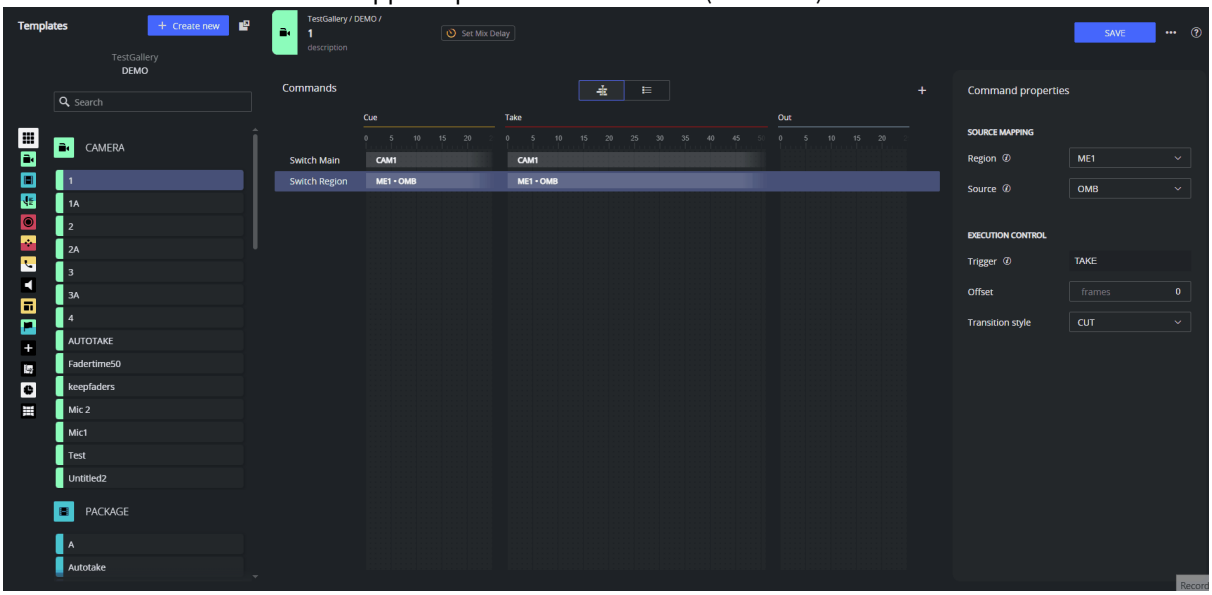
- **Region**: Program/Preview (the main output). This can not be changed.
- **Source**: The desired source (e.g., CAM1). *Default*: the first command in the list.
- **Trigger**: Specifies where the command is executed. This can not be changed. The command transitions the selected source on the main output from Preview (B) to Program (A) when the template is taken on air. In the

Properties on the command on TAKE is visualized, but in the Timeline view, both the commands on CUE and on TAKE are visualized.

- **Offset**: Optional delay in frames. Ignored when Mix Delay is enabled; instead, the Mix Delay applies a unified offset to this and other commands. *Default*: 0 frames.



- **Transition**: CUT, MIX WIPE or EFFECT. CUT is in fact a MIX with transition rate 0 frames. *Default*: CUT
- **Transition rate**: MIX and WIPE support optional transition rate (in frames). *Default*: 0 frames.



Switch Region

Switches a source to the background of another mixer region (for example, *ME1*, *ME2*) different from the main output (PP). This allows for switching sources in parallel with the main output - typically used in compositions, picture-in-picture, or secondary outputs.

Command properties

- **Region**: ME1, ME2, etc.
- **Layer**: 1, 2, 3 etc.
- **Source**: The desired source (for example, *CAM1*). Default: The *first* command in the list.
- **Trigger**: Specifies where the command is executed. This cannot be changed. The command transitions the selected source on the mixer region from Preview (B) to Program (A) when the template is taken on air.
  In the command Properties view only the TAKE command is shown, but in the Timeline view, both the commands on *CUE* and on *TAKE* are visualized.
- **Offset**: Optional delay in frames. Ignored when Mix Delay is enabled; instead, the Mix Delay applies a unified offset to this and other commands. Default: *0* frames.
- **Transition**: CUT, MIX WIPE or EFFECT. CUT is in fact a MIX with transition rate 0 frames. Default: *CUT*.
- **Transition rate**: MIX and WIPE support optional transition rate (in frames). Default: *0* frames.

Info: Limitations with current version

- A maximum of *two* switch commands are supported in a single template execution
  - one for PP (main) and
  - one for a secondary region (for example, ME1).
- Only *one* non-main region (ME1, ME2, etc.) can be used for **Switch Region**.
- Shared *transition* and *offset*: Both **Switch Main** and **Switch Region** commands in a template will use the *same* transition type and *same* offset.

Set Source

The **Set Source** command is used to assign a specific source to a *single-bus layer*, typically used for *keyers*, *picture-in-picture*, *video walls*, ***auxiliaries*** or other compositional elements within a production scene.

Unlike **Switch Main** or **Switch Region**, which operate on background layers and typically trigger a transition (for example, *Mix*, *Cut*), **Set Source** is used for direct source assignments that do *not involve transitions*.

Command properties

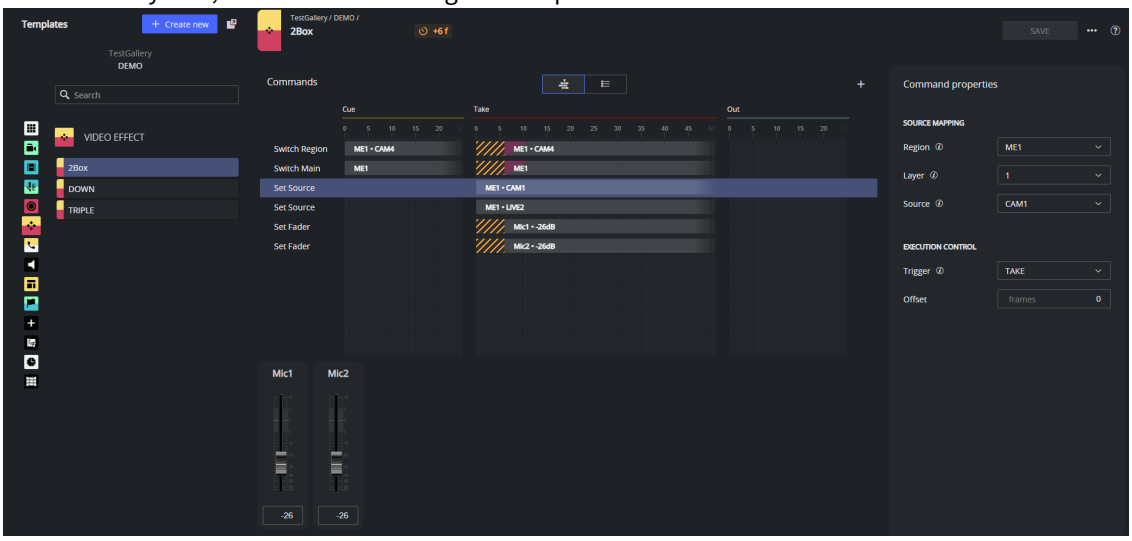
- **Region**: Specifies the mixer region where the source should be applied. For example, *Program/Preview* (PP), *ME1*, *ME2*, *Auxiliary*, etc.
- **Layer**: Indicates the layer within the selected region. Can be *Background* (except when **Region** is set to *Auxiliary*) or a numbered layer (for example, *Layer 1*, *Layer 2*, etc.).
- **Channel**: Defines the channel to assign the source to, A or B. This is only applicable when the **Layer** is set to *Background*.
- **Source**: The source to be assigned (for example, *CAM1*, *LIVE1*). If left empty, the first available source in the drop-down list is used by default.

- **Trigger**: Specifies when the command should be executed, on *CUE*, *TAKE*, or *OUT*.
- **Offset**: An optional delay (in frames) before the command is executed. In this version, the *Offset* property can only be applied if the **Trigger** is set to *CUE.*

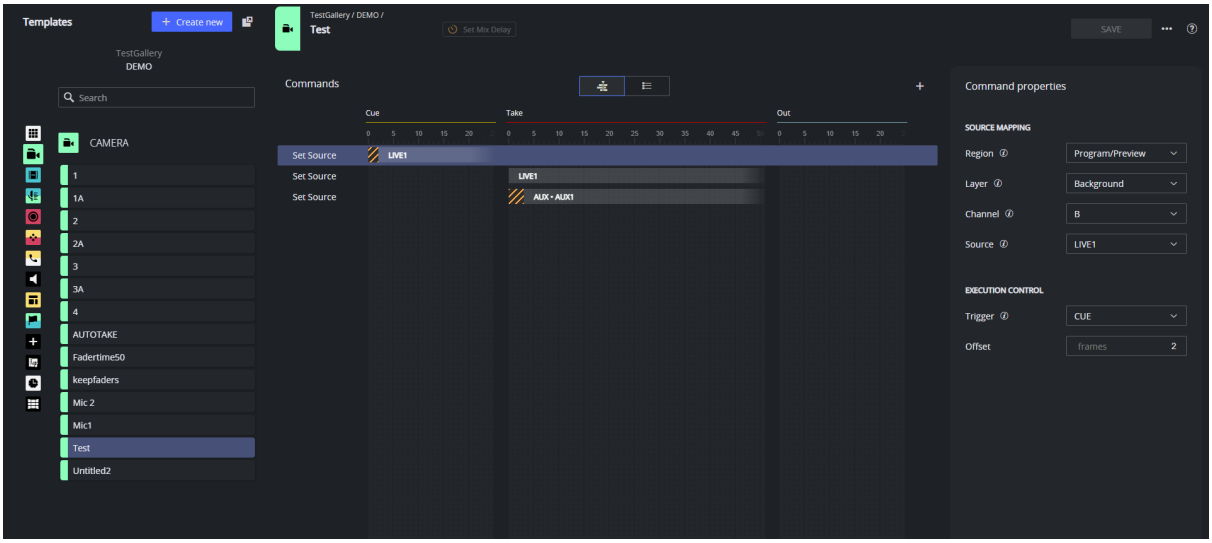
Info: The **Mix Delay** setting (defined at the template level) applies to the **Set Source** command only if:
- the **Layer** is set to *Background*, and
- the **Trigger** is set to *TAKE*.

Examples

- **Assigning keyers for a 2Box composition**.
  This template uses two **Set Source** commands to assign video sources to different keyer layers on the *ME1* region.
  - The first command maps *CAM1* to *Layer 1*, used as the left video box.
  - The second command maps *LIVE2* to *Layer 2*, used as the right video box.
    This setup is commonly used in 2Box or split screen layouts, where two speakers or feeds need to be shown side by side, with the ME handling the composition.



- **Taking multiple sources simultaneously**
  This template prepares and takes multiple sources simultaneously: It sets LIVE1 to preview (channel B) of ME2 on cue, then switches LIVE1 to program (channel A) of ME2 and routes Aux1 to an auxiliary layer when the template is taken.



9.7.3 Audio Mixer Commands

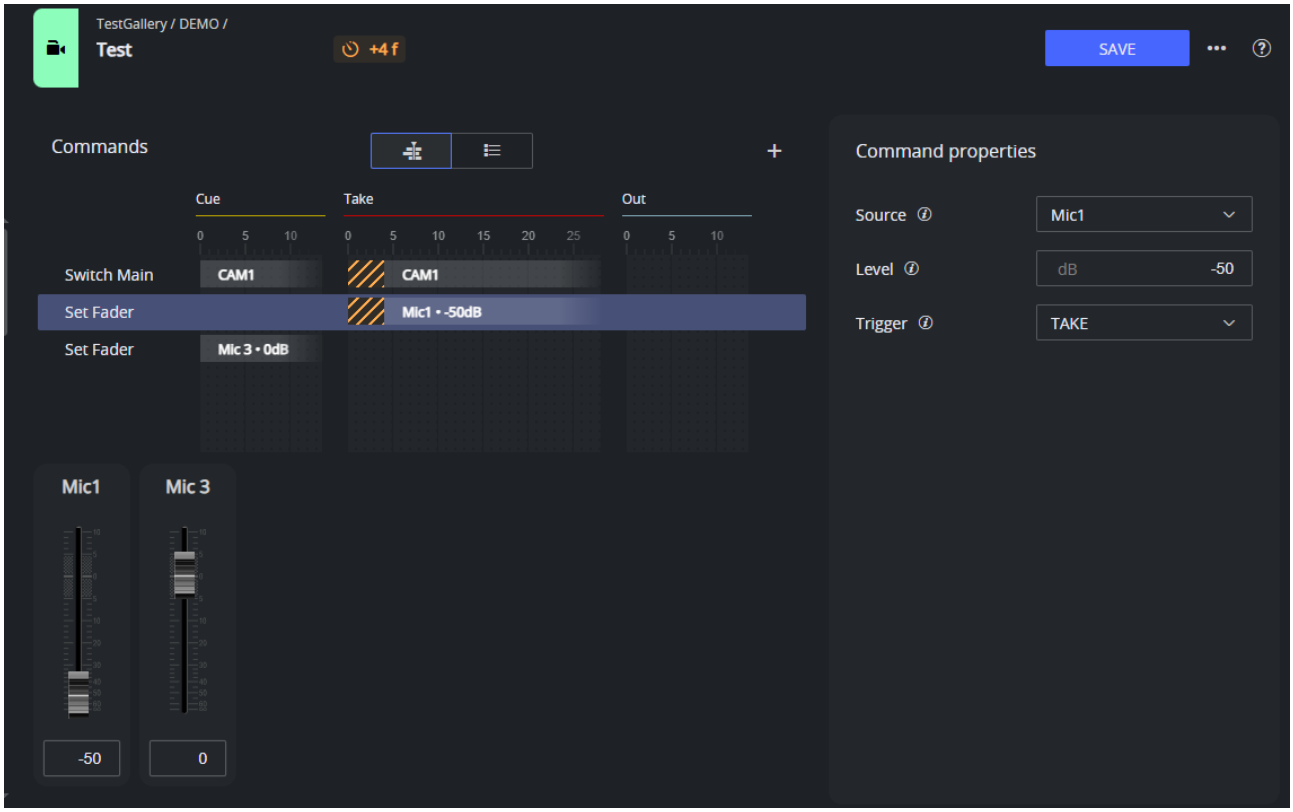
Set Fader

The **Set Fader** command is used to adjust the audio level of a specific source at a defined point in the template timeline.

Command properties

- **Source:** The audio input to be controlled (e.g., Mic1, Mic2, etc.) as configured on the Viz Mosart server in AV Automation in the menu
  Devices > A/V Setup > Audio Config.
- **Level:** The target audio level in decibels (dB). Typical range is from *0* dB (max) down to *-90* dB (silent).
- **Trigger**: Defines when the fader level should be applied: on *CUE* or *TAKE*.

Info: The **Mix Delay** setting (defined at the template level) applies to the **Set Fader** command only if the command is executed on *TAKE*.



9.7.4 Fine-tuning On-Air Action Timings

In the Template Editor, you can control **when** certain actions are executed relative to the moment a template is taken on-air. This is done using either:

- A *global* **Mix Delay**, defined in the template properties.
- An *individual* **Offset**, defined per command.

Some commands support both, depending on their configuration.

Mix Delay introduces a shared delay (in frames) applied to eligible commands when the template is taken on-air. It's useful when you want multiple commands delayed together, in a coordinated way.
In addition to a template's Mix Delay, some commands also support their own **Offset** property, an individual delay in frames.

Delay mechanism summary

Command Type	Mix Delay applies if	Offset applies if
Switch Main	Trigger is *TAKE*	Mix Delay is not set
Switch Region	Trigger is *TAKE*	Mix Delay is not set
Set Source	Layer is *Background* and Trigger is *TAKE*	Trigger is *CUE*

Command Type	Mix Delay applies if	Offset applies if
Set Fader	Trigger is *TAKE*	Not supported

9.7.5 Template Terms and Definitions

Some common terminology used in template and show design:

- **Directtakes:** A special template set, where templates in this set are intended to be manually executed in an ad-hoc fashion.
- **Empty template:** An undefined, non-operative template. An empty template does nothing when executed. Note that empty templates are *not* displayed in the Viz Mosart client.
- **Gallery:** Corresponds to a Viz Mosart installation. Typically a gallery has a dedicated Viz Mosart server, with configured utilities and a Viz Mosart client.
- **Show design:** The background task of creating a set of templates, in a logical and programmatically valid order, for controlling a scheduled, rundown-driven, studio transmission.
- **Template description:** The template properties common for all Viz Mosart installations in a shared template set. This description uniquely identifies and describes the template.
- **Template implementation:** Contains the behavior or device control aspects of the template. The template implementation is related to the Viz Mosart installation.
- **Template set:** Viz Mosart templates are always contained in a template set. There may exist multiple *versions* of the same template but in *different* template sets.
  A template is uniquely defined by its *type* and *variant name* within its corresponding template set.
- **Template type:** Template type or category. Viz Mosart has a predefined set of template types. Each are displayed with a distinct visual appearance.
  Examples of template types are CAMERA, PACKAGE, VOICEOVER, LIVE, GRAPHIC and DVE.
- **Template variant:** Unique identifier of a template for given template type within a template set.
  For example, *camera1* and *camera2* are two variants of a Camera template.

9.8 Transitioning from the old Template Editor

Here we review considerations when adopting the new Template Editor.

9.8.1 Mapping Desktop Template Editor Commands to the Web Apps Template Editor

Desktop TE	Web Apps TE	Notes
Switcher crosspoint	Switch Main Switch Region	*Switching sources* is supported for a maximum of *two* regions in parallel, one of which must be the main output (PP). See Currently Unsupported Properties.
KeyFill	Set Source *Layer*=1, 2, 3 etc. *Trigger*=TAKE	See Currently Unsupported Properties.
Auxiliary	Set Source *Region*=Auxiliary *Layer*=1,2,3 etc. *Trigger*=TAKE	See Currently Unsupported Properties.
SET_CROSSPOINT	Set Source *Layer*=1, 2, 3 etc. *Trigger*=CUE/OUT Set Source *Region*=Auxiliary *Layer*=1,2,3 etc. *Trigger*=CUE/OUT Set Source *Layer*=Background *Channel*=A/B *Trigger*=CUE/TAKE/OUT	See Currently Unsupported Properties.

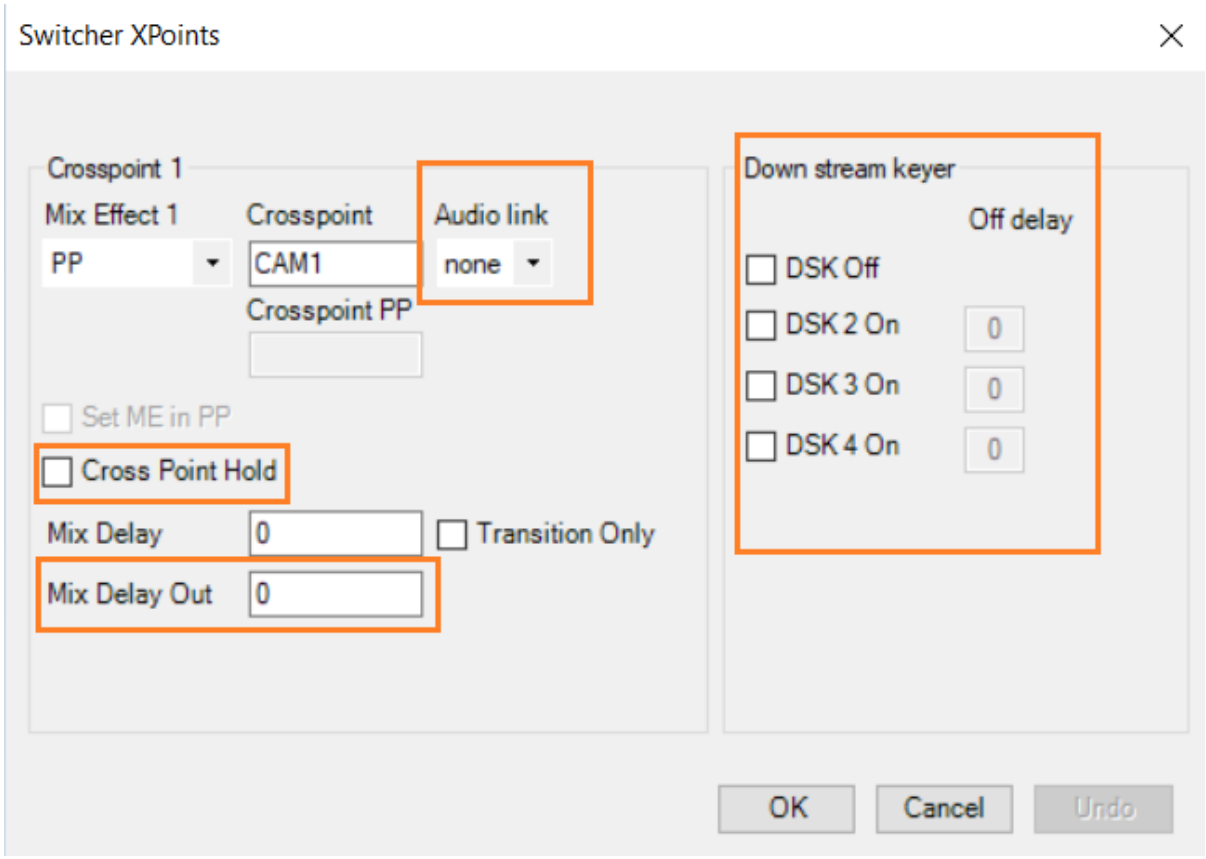
Desktop TE	Web Apps TE	Notes
SET_AUXILIARY_CROSSPOINT	Set Source *Region*=Auxiliary *Layer*=1,2,3 etc. *Trigger*=TAKE	This control command is visible in the desktop Template Editor but it is not executed by Viz Mosart. This command cannot be recreated in the web-based Template Editor, but a **Set Source** command can be used to assign a source on an auxiliary. See Currently Unsupported Properties.
	Set Source *Region*=Auxiliary *Layer*=1,2,3 etc. *Trigger*=CUE/OUT	Not supported in this version.
Audio Fader	Set Fader	See Currently Unsupported Properties.

9.8.2 Currently Unsupported Command Properties

This section lists command properties that are currently not supported in the new web-based Template Editor. These properties apply to commands already available in the editor but are either not implemented yet, planned for future support, or will be deprecated or handled differently in upcoming versions.

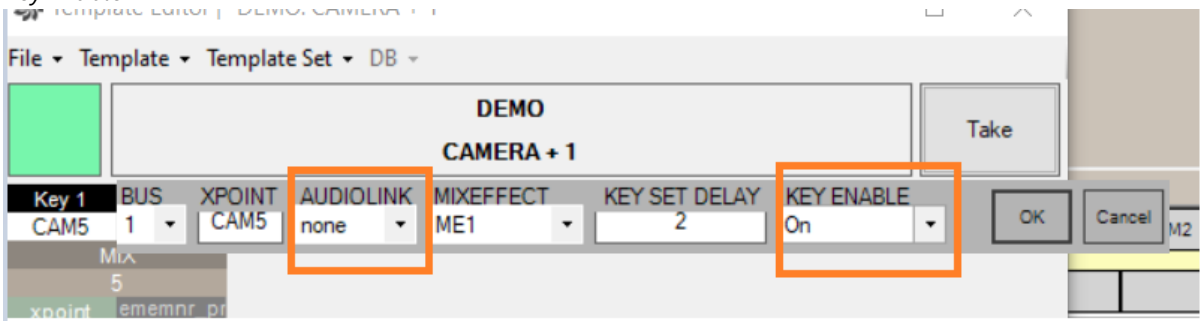
Switcher Crosspoint

- *Audio link*
- *Cross Point Hold*
- *Down stream keyer*
- *Mix Delay Out*
- The combination *Mix Delay* set to *0* frames and *Transition Only* checked. This executes the video transition with no delay after all the commands have been executed.



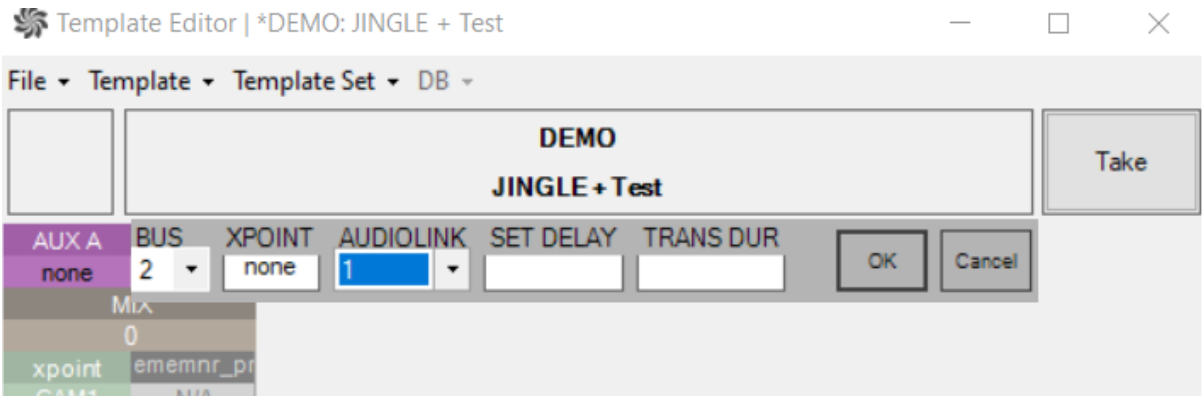
KeyFill

- *Audio link*
- *Key Enable*



Auxiliaries

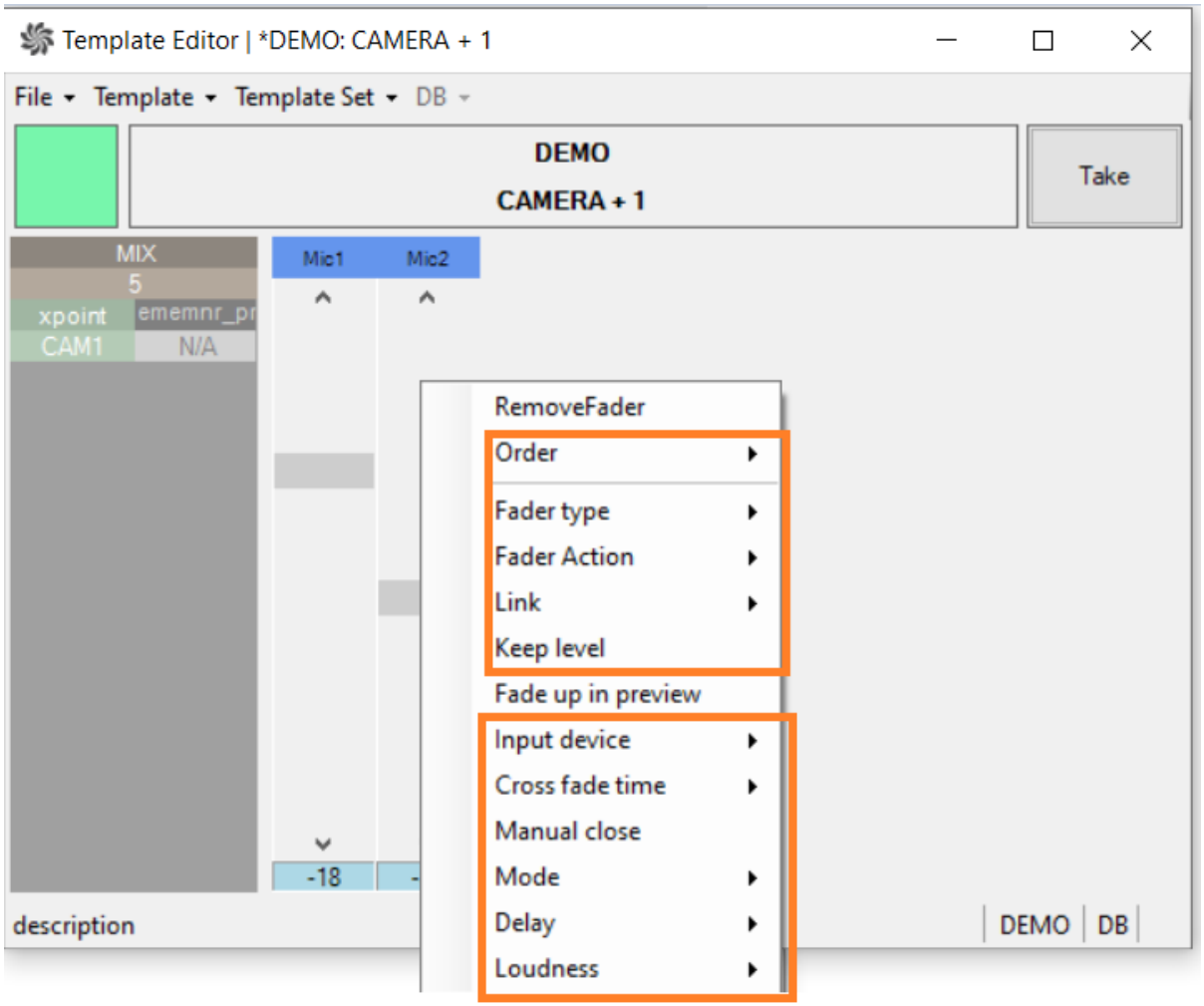
- *Audio link*
- *Trans Dur*



Faders

Most of the fader properties are not yet supported in this version:

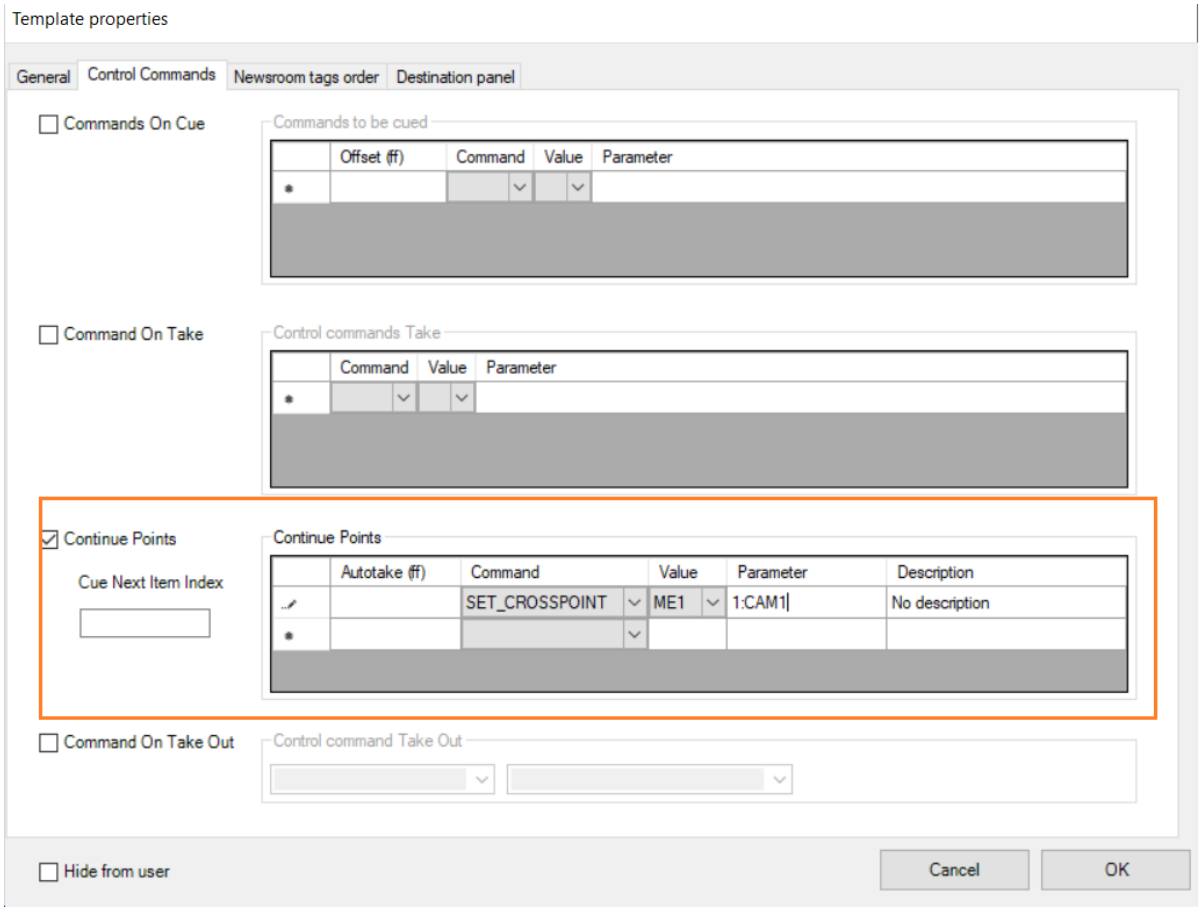
- *Order*
- *Fader type*
- *Fader Action*
- *Link*
- *Keep level*
- *Input device*
- *Cross fade time*
- *Manual close*
- *Mode*
- *Delay*
- *Loudness*
- *Set level 2*
- *Set level 3*



Control Commands

Only SET_CROSSPOINT commands are currently supported in the Web Apps Template Editor with some exceptions:

- SET_CROSSPOINT as a continue point:



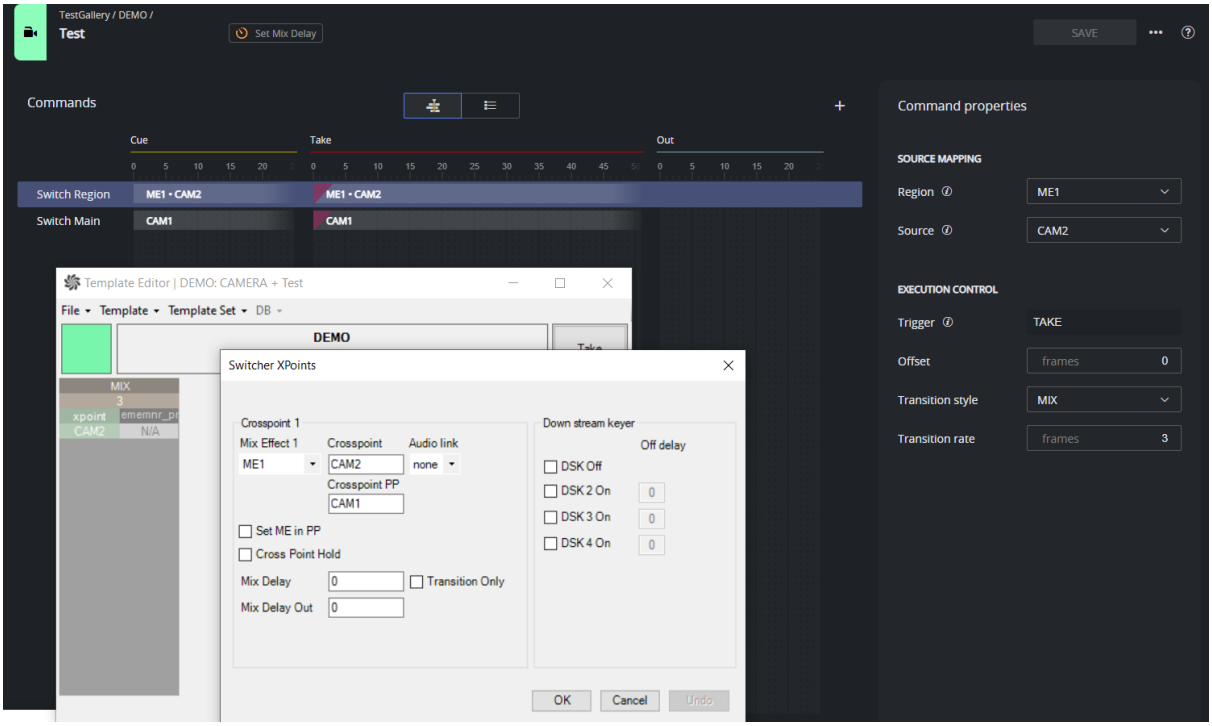
Info:

- **SET_CROSSPOINT** with **Value**=*AUX* can be configured in the desktop Template Editor, but it is not actually executed by Viz Mosart.
- **SET_AUX_CROSSPOINT**, although available in the desktop Template Editor, is not executed by Viz Mosart.
- **SET_CROSSPOINT on TAKE OUT** cannot be properly configured in the desktop Template Editor. This *is* however, supported in the new web-based version.

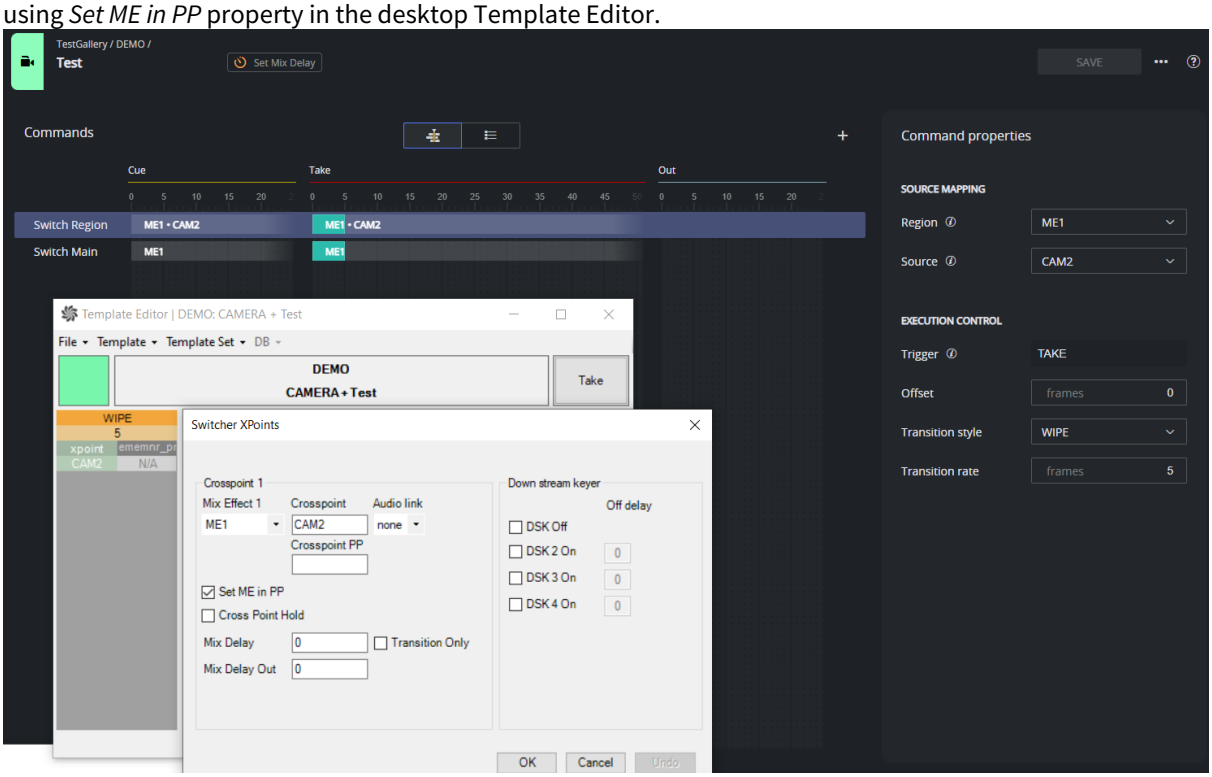
9.8.3 Examples

Here are some examples of templates created in the desktop Template Editor and how they are represented in the new Template Editor.

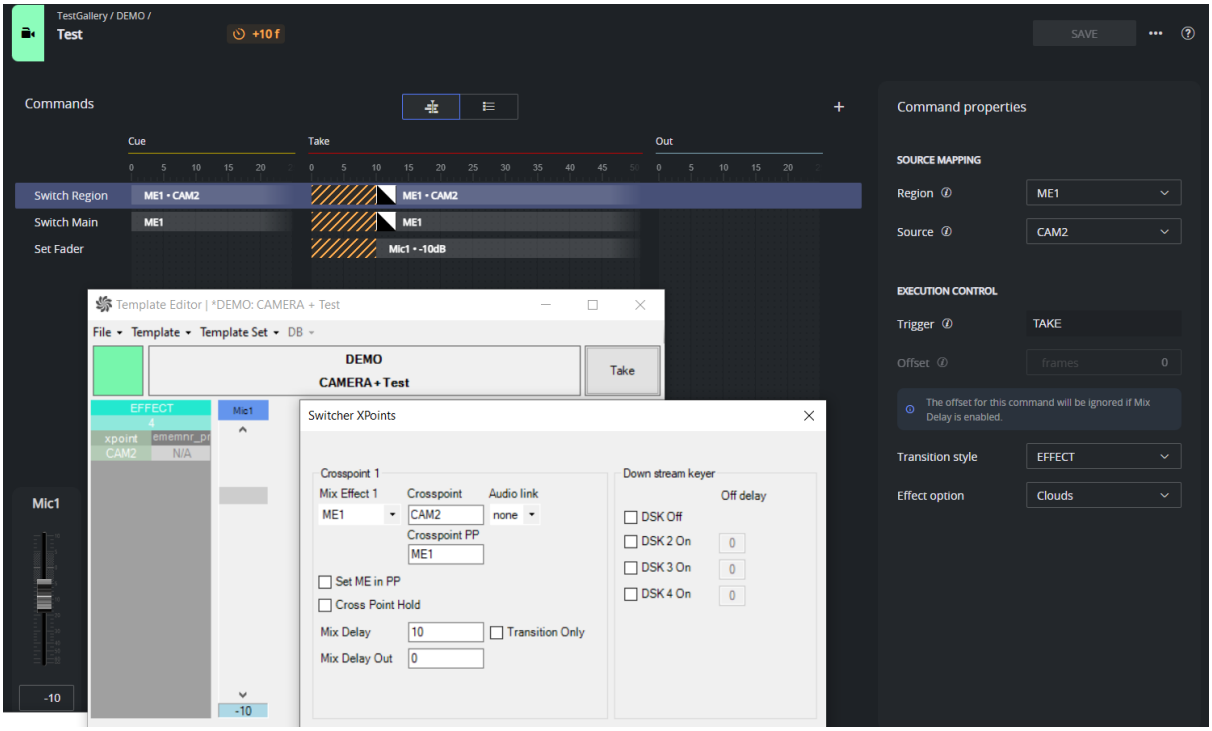
1. Switch different sources on the main output (PP) and another mixer region (ME1) with a mix rate > 0.



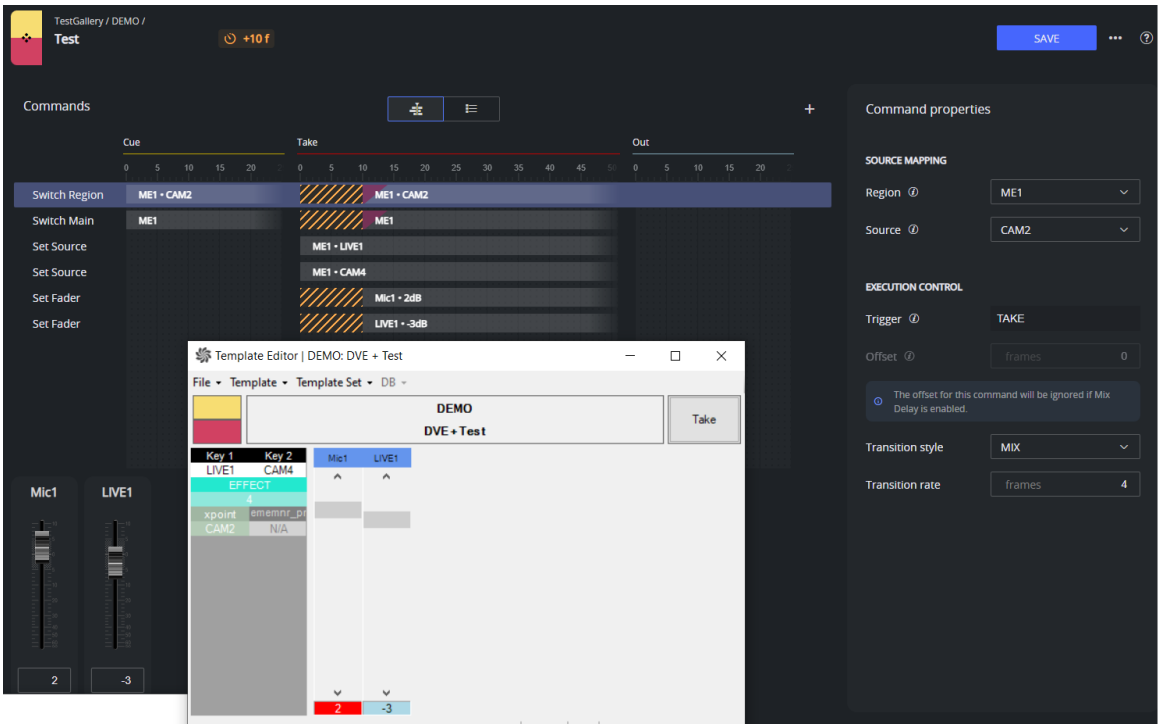
2. Switch M/E into the main output (PP) with a WIPE and rate > 0.
   Note: The same commands could be executed in the web-based if *Crosspoint PP* is set to ME1 instead of using *Set ME in PP* property in the desktop Template Editor.



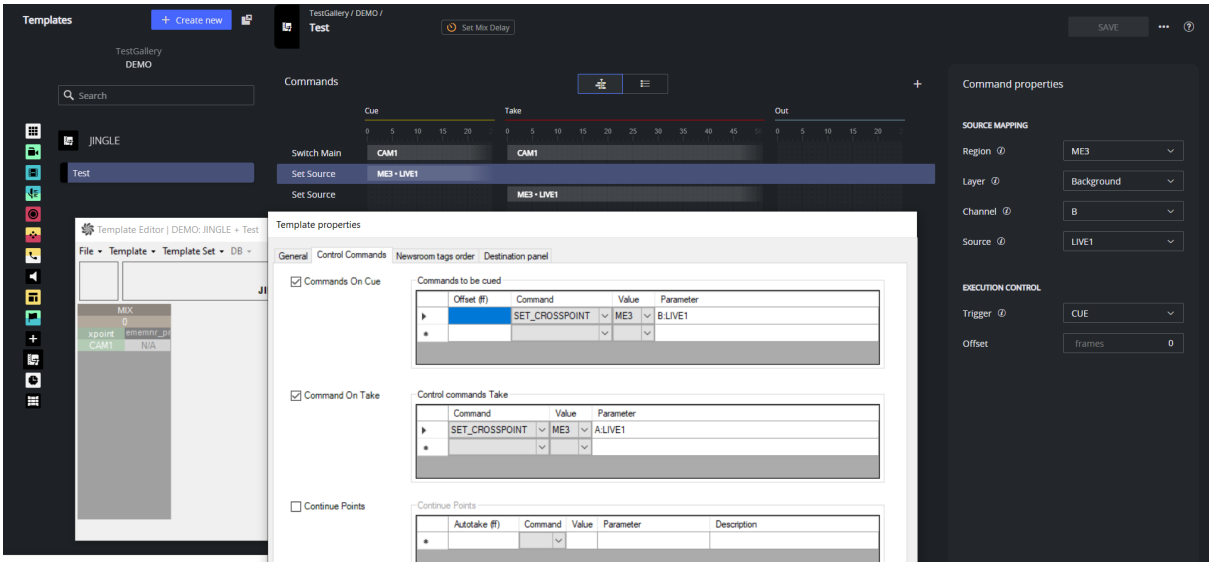
3. Switch a Mix/Effect (M/E) source into the main output using an effect transition, while also applying a mix delay across multiple commands.
   In addition, an audio fader adjustment is performed as part of the same template.



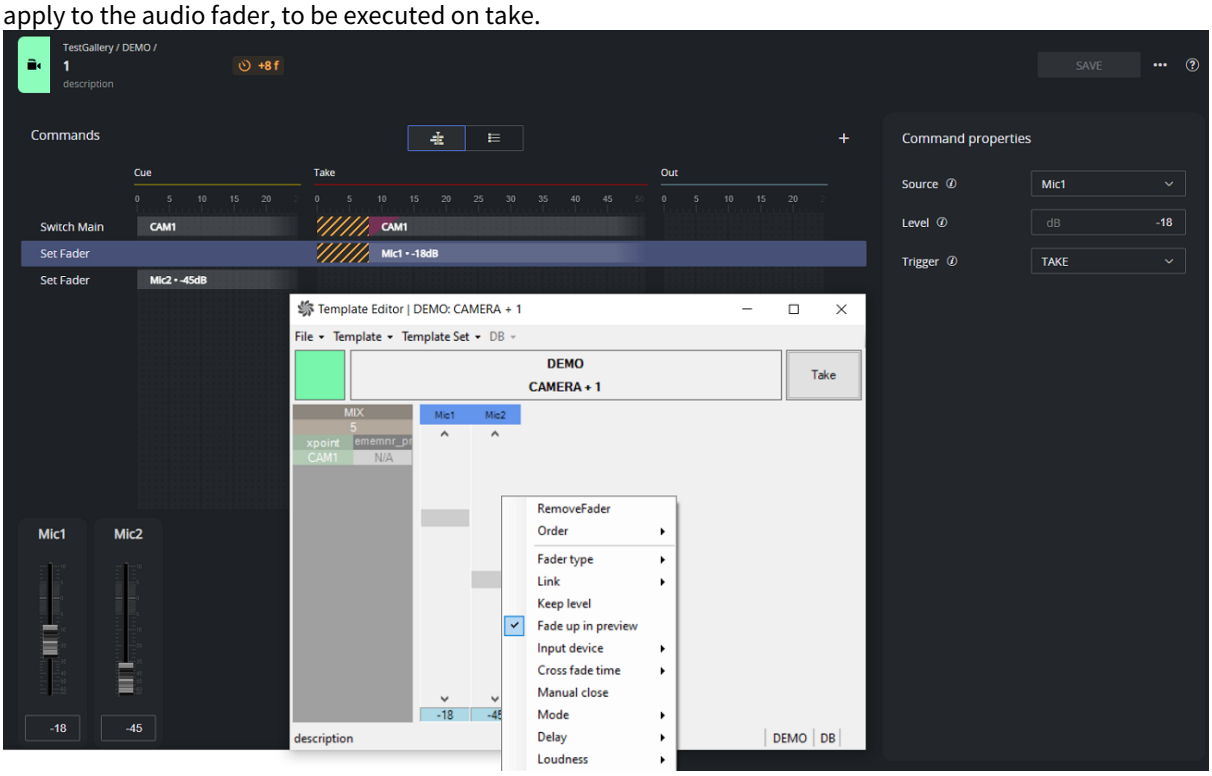
4. Take a DVE composition with multiple video and audio elements.
   In this template, two video sources (LIVE1 and CAM4) are inserted into a DVE layout (via ME1), which is then switched into the main output using a mix transition with a custom rate. Simultaneously, two audio faders (LIVE1 and MIC1) are adjusted. A mix delay is applied across multiple commands to synchronize the execution.



5. Assign a source to ME3 bus B at cue, and transition the same source to bus A on take:



6. Set fader level when the template is cued and when it is taken. A Mix Delay set on the *Switcher crosspoint* will apply to the audio fader, to be executed on take.



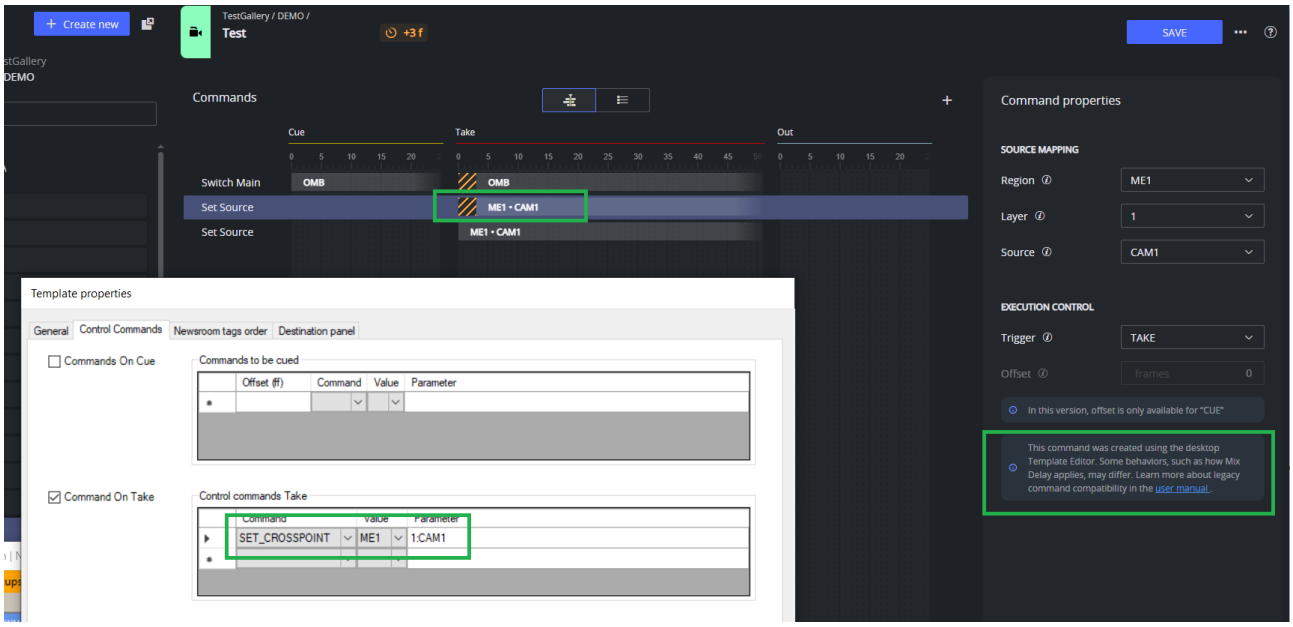
9.8.4 Legacy commands

Control Commands to set the Source on a Mixer Region Keyer

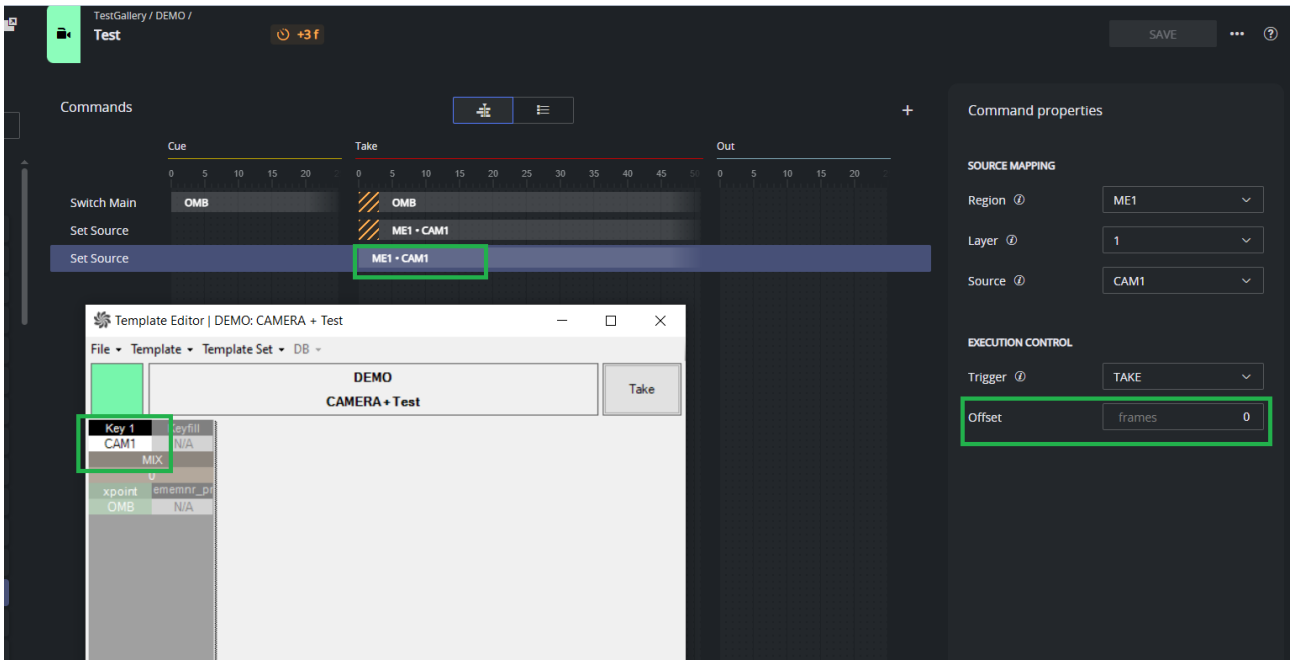
In the desktop Template Editor, you could add a *control command on take* like this:

SET_CROSSPOINT on take ME1 "1:CAM1"
This instructs Mosart to switch ME1 to input CAM1, using the bus number 1 to specify the source.

When this type of command is imported into the web-based Template Editor, it is recognized as a *legacy command* and preserved in its original form. If a Mix Delay is set on the template, this applies to *all* the control commands on take. This is visualized in the web-based Template Editor as in the screenshot below:



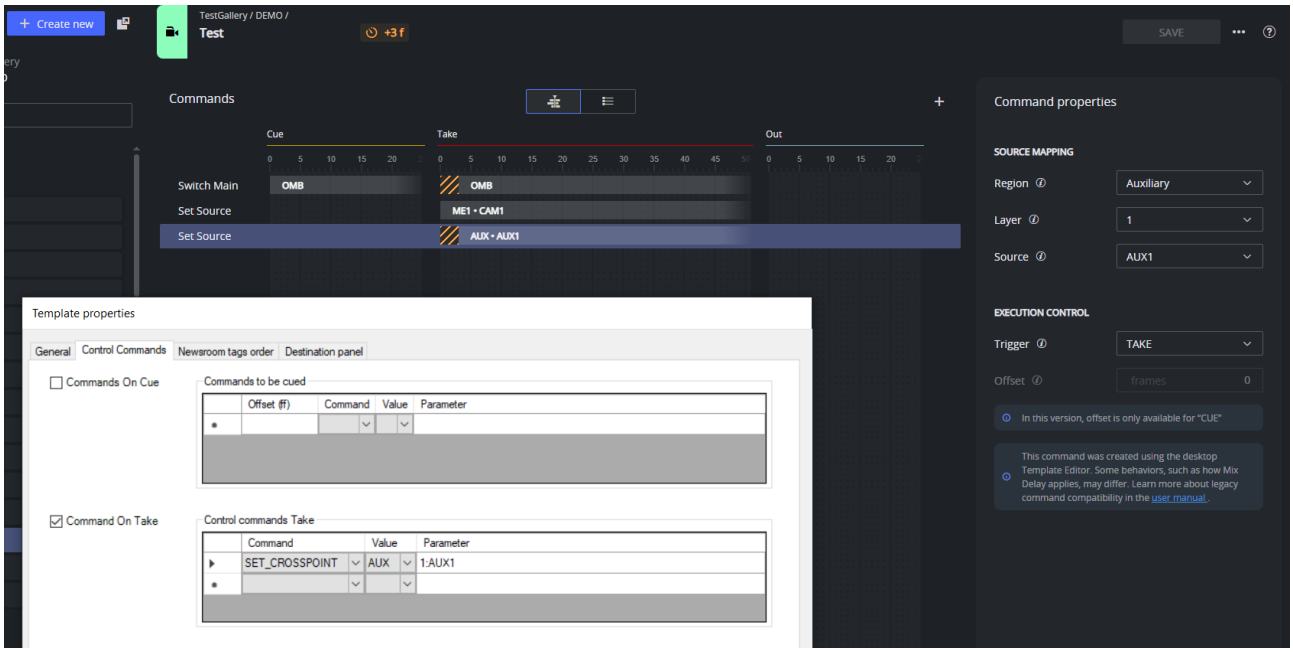
However, if you recreate a command in the web-based editor with the *same Region and Source settings*, the command will be exported to the desktop Template Editor as a **KeyFill** command. ***Mix Delay*** *will not apply* to this command. Instead, you can use the **Offset** property to delay the command execution relative to the Take.



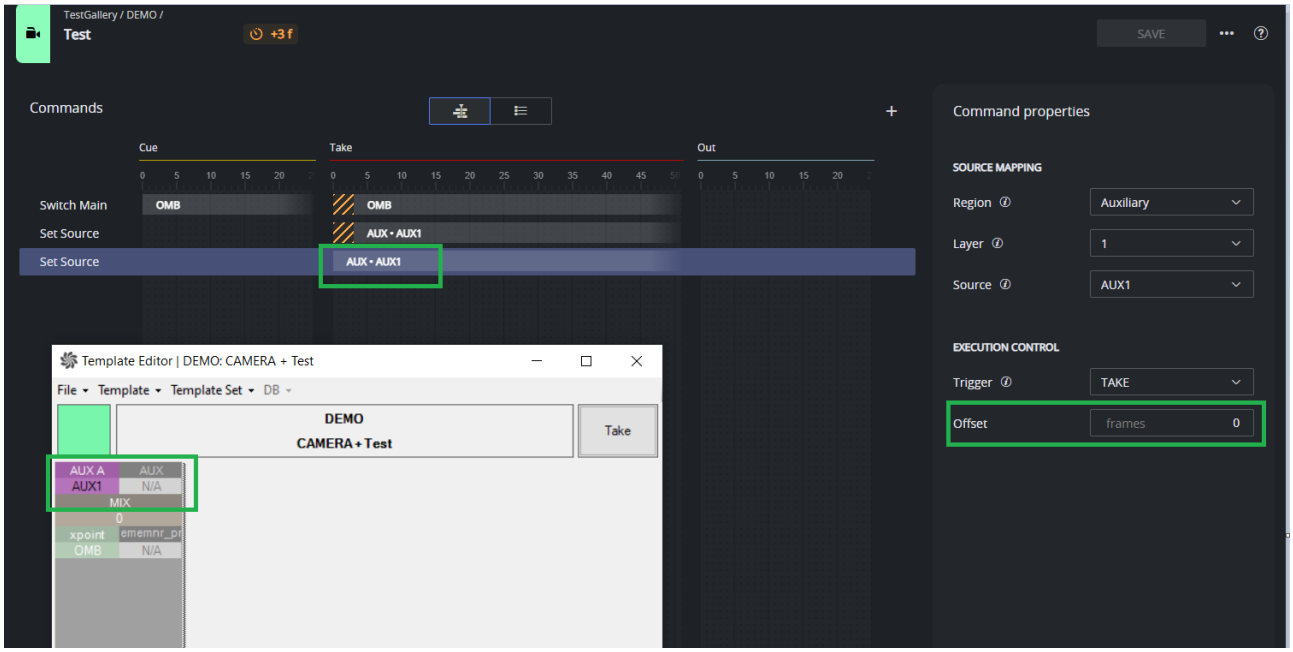
Control Commands to set the Source on an Auxiliary

Control commands to set the source on an auxiliary are also considered *legacy* commands and can not be recreated using the web-based Template Editor.

If a Mix Delay is set on the template, this applies to *all* the control commands on take.
This is visualized in the web-based Template Editor as in the screenshot below:



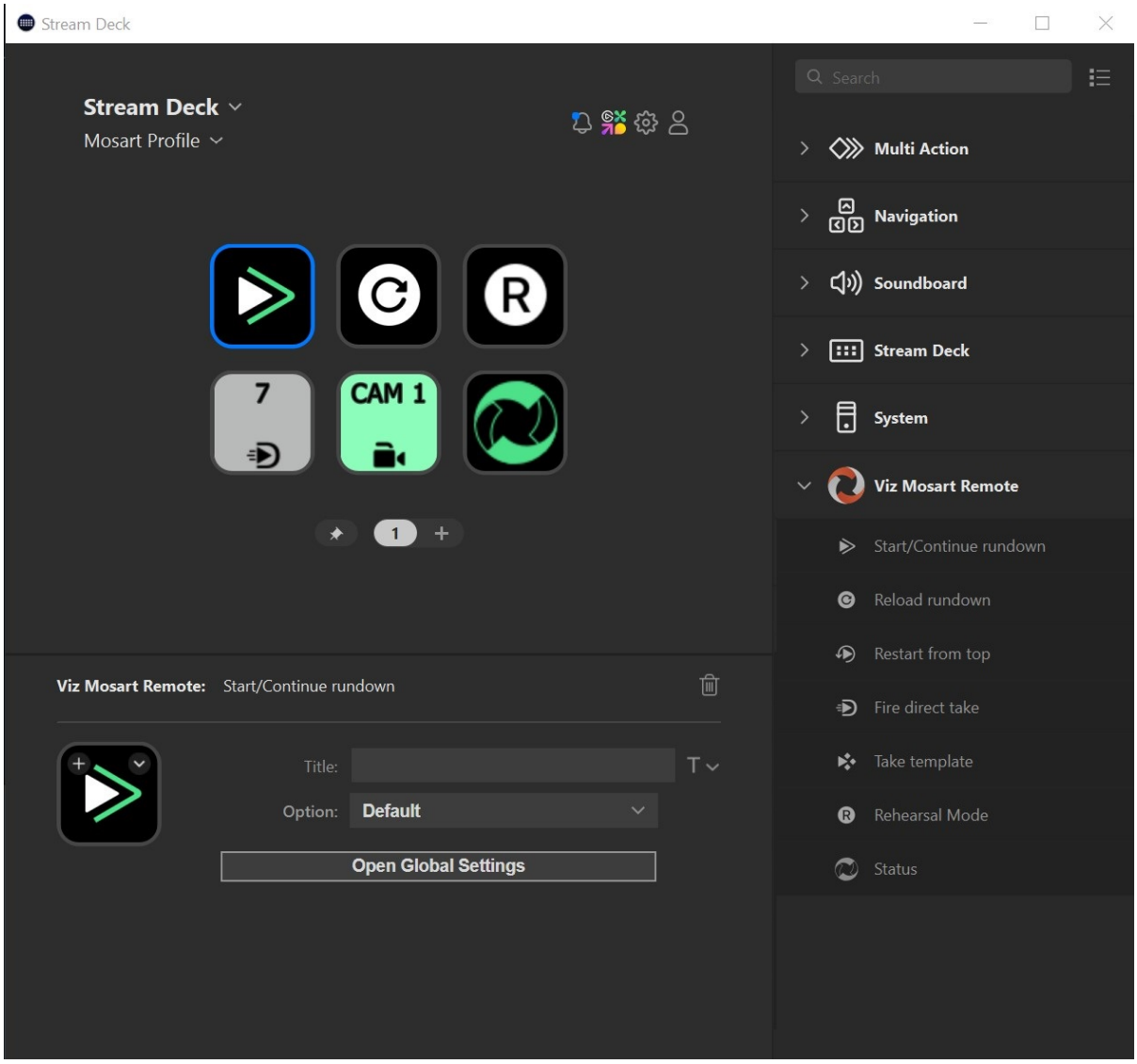
If a command with exact properties is added in the web-based editor, it is translated into an *Auxiliary* command in the desktop version. ***Mix Delay*** *will not apply* to this command. Instead, you can use the **Offset** property to delay the command execution relative to the Take.



10 Stream Deck

The Elgato Stream Deck plugin for Viz Mosart allows you to send Viz Mosart rundown actions including Start/Continue, Skip Next, Unskip Next, Take a template. You can also fire a Direct take or a Control command.

The plugin communicates directly with the Mosart server and all actions are triggered without needing a Mosart GUI open, active or in focus.



- Installation
- Configuration
- Actions
- Status

10.1 Installation

10.1.1 Software Download

To download Stream Deck for Windows

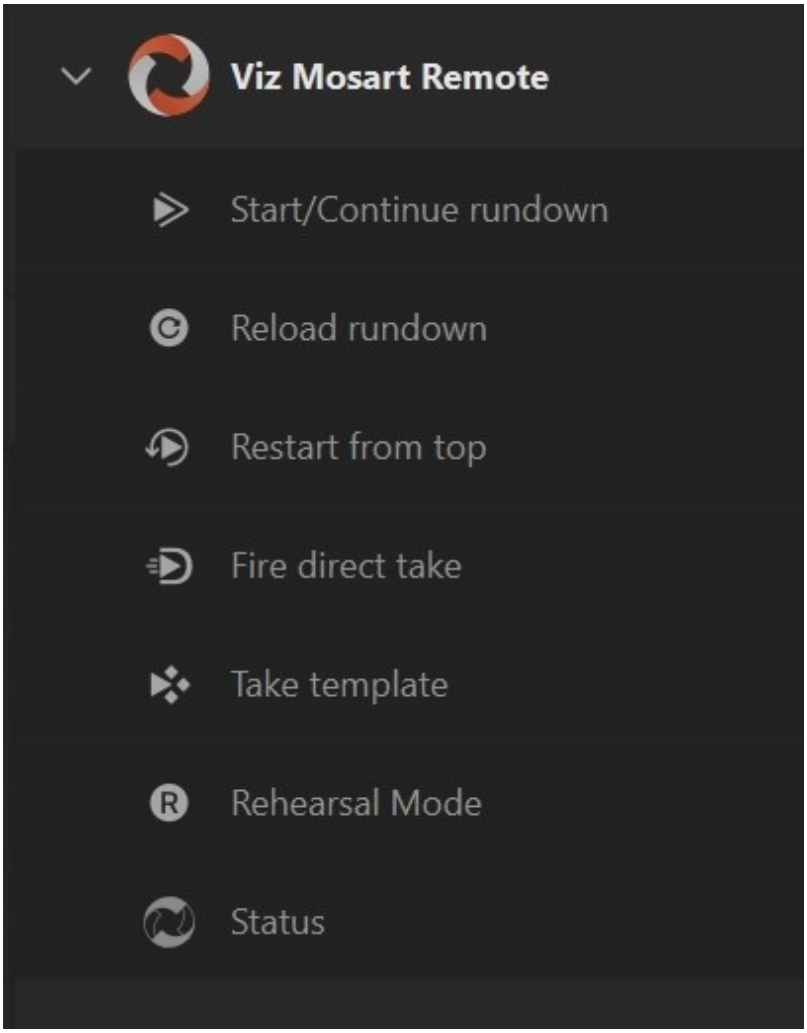
1. From Elgato's site, https://www.elgato.com/us/en/s/downloads
   select *Stream Deck* for *Windows* software and download.
   The Stream Deck utility starts up automatically after install.

> **Note**: The software can be installed on a different machine than the Viz Mosart Server or Mosart GUI client.

2. If not already installed, download and install the latest version of Viz Mosart Web Apps, located on the Vizrt FTP at
   /products/VizMosart/Latest Version/WebApplications/
   and perform the one-time Server Configuration setup.

> **Note**: The Server Configuration is essential if you have a *main/backup* setup. For a simple, single server, you can skip the Server Configuration step.

3. From the Web Apps installation folder, locate the plugin file *com.vizrt.mosart-remote.streamDeckPlugin*.
4. Double click the file *com.vizrt.mosart-remote.streamDeckPlugin* for installation on the *same PC where you just installed the Stream Deck* for Windows software.
5. Accept when the Stream Deck application requests installation confirmation.
6. After installation, the **Viz Mosart** section displays with newly available actions.

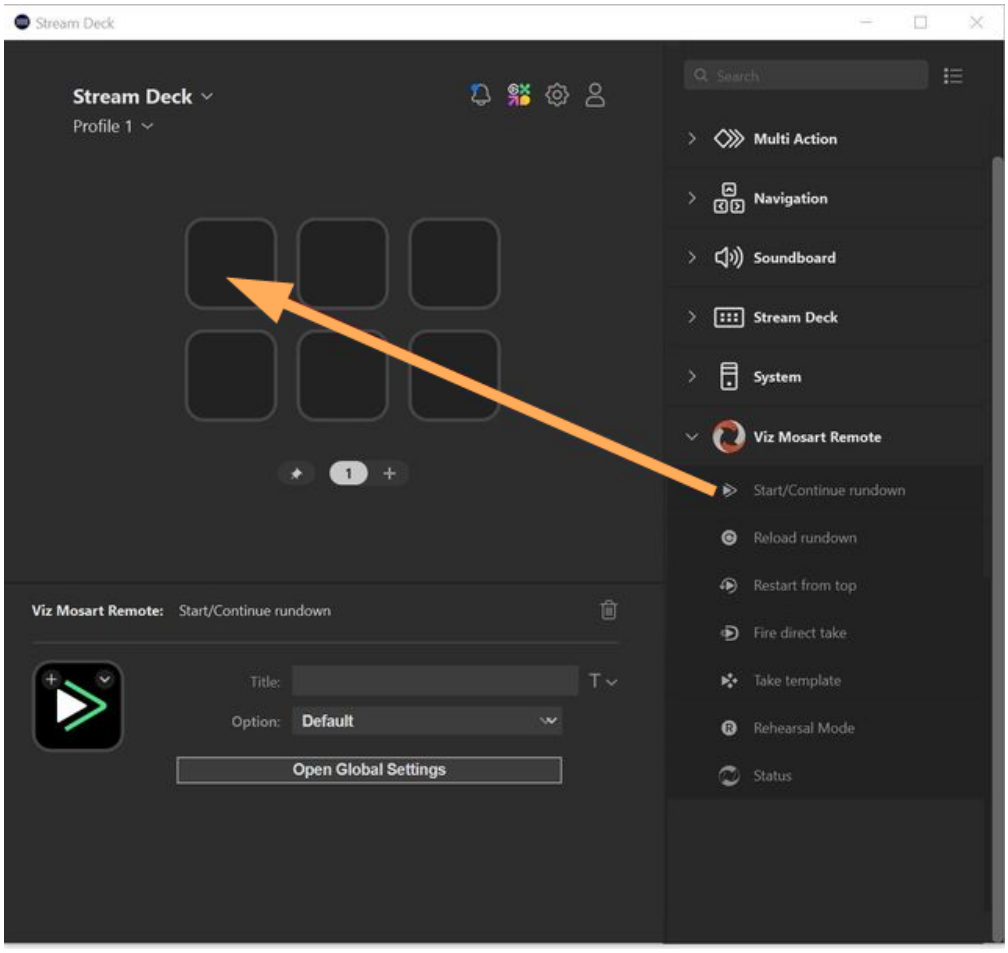


10.2 Configuration

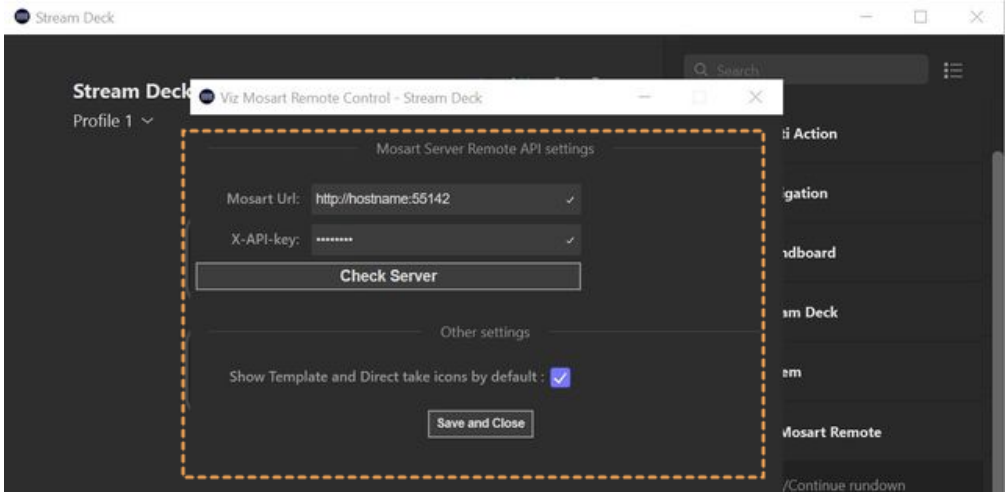
10.2.1 Configuring the Mosart Host

To configure the Viz Mosart host

1. Drag the **Start/Continue rundown** to any free Stream Deck key.



2. Click **Open Global Settings** to configure the plugin.



3. In field **Mosart Url**, enter the URL of either
    a. The IP address or hostname of your main or backup Mosart server (Failover is *not* supported). This REST API endpoint IP address or hostname must be prefixed with *http://* (or *https* if used) and suffixed with port number *:55167.* See the screenshot for an example.

b. The hostname of where your Mosart Web Applications are installed (Here, failover *is* supported). This Mosart Web applications proxy web server must be prefixed with *http://* (or *https* if used) and suffixed with port number *:55142.* See the screenshot for an example.

> **Note**: See the Viz Mosart Web Applications Config Tool User Guide (section *Server Configuration*) for more information about the *Mosart Web applications proxy web server*.

5. In field **X-API-key** enter the key.

> **Note**: See the Appendix topic *Mosart Remote Control REST API* in the *Viz Mosart Administrator Guide* for more information about *REST API endpoint* and *X-API-key*.
> For redundancy setup, configure the *same* API-key on both main and backup.

6. Click **Save & Close**. (The settings are set once-only and are saved for all operations).

10.3 Actions

- Start/Continue Rundown
- Reload rundown
- Restart from top
- Fire direct take
- Take Template
- Rehearsal Mode
- Skip Next
- Unskip Next
- Control Command

10.3.1 Start/Continue Rundown

This action lets you Start or Continue the rundown. (The equivalent of a GUI timeline key S*tart Continue*).

Options

- **Default**: The next templates default transition.
- **Mix or Wipe**: Presents the *rate* entry field.
- **Effect**: Enter the effect number.

10.3.2 Reload rundown

This action will trigger a rundown reload event. I.e. the timeline will be stopped and the current rundown will be reloaded from the NRCS. No additional parameters.

10.3.3 Restart from top

Restart the rundown from the first story. No additional parameters.

10.3.4 Fire direct take

Trigger a given DirectTake template. You must provide the number of the desired template. Option to show or hide the direct take icon.

10.3.5 Take Template

This action takes a template by its type and variant (name) and which bus.

- Template Type - choose the template type first to be used, eg: Camera, Package ect.
- Variant - enter the exact variant name from your channel templates belonging to the chosen template type.
- Program/Preview - Select the preferred way to insert this template into the current running story
- Show Icon - option to show the template type icon on the stream deck device button.

10.3.6 Rehearsal Mode

This action will either enable/disable/toggle rehearsal mode depending on selection of Rehearsal Mode.

The Rehearsal mode icon on the stream deck device will display yellow when rehearsal mode is activated either from this action or from the GUI.

10.3.7 Skip Next

This action will skip the next item or sub item in the rundown.
Choose *Skip Type* in the drop down menu.

10.3.8 Unskip Next

This action will unskip (undo) the a skipped item or sub item in the rundown.
Choose *Skip Type* in the drop down menu.

10.3.9 Control Command

This action will execute a control command on Viz Mosart.

Choose the control command to execute from the drop down menu. You can add parameters in the text area in the form “Param1=val1”, separated by new line.

> **Tip**: A full list of the supported control commands and their parameters refer to the *Viz Mosart Administrator Guide*, in the *Appendix* section *Mosart Remote Control REST API*.

10.4 Status

The status of the current connected server is displayed.

 GREEN status - Connected

 YELLOW status - Standby/Idle

 RED status - Not connected

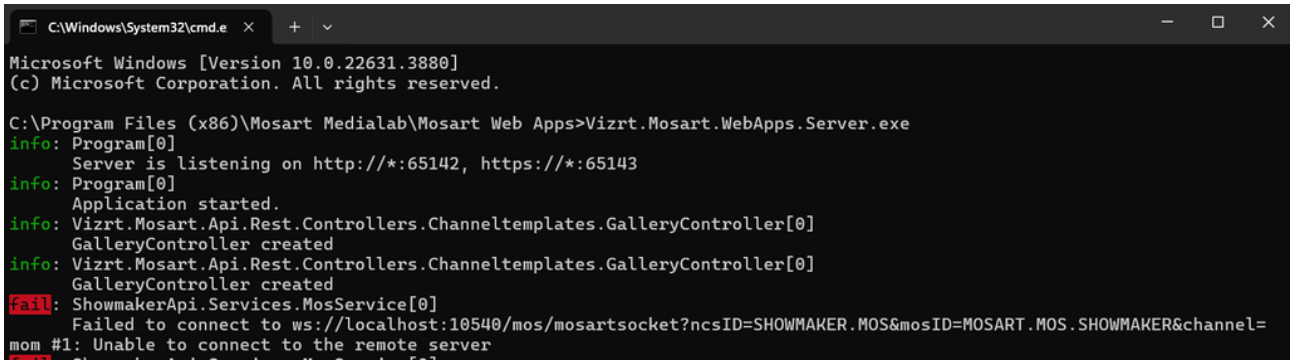
Pressing this key on the Stream Deck device performs no action.

> **Note**: When installing the Mosart Plugin, you may need to close and reopen the Stream Deck client application, to enable displaying of *status*.

11 Troubleshooting

11.1 Web Apps Configuration Tool

The *Mosart Web Applications Configuration Tool* provides you with error or warning messages that assist with common issues.
These messages may include a link to the Viz Mosart web server log files. These temporary log files are saved in C:\Users<username>\AppData\Local\Temp, with names starting with the date they were created, followed by an ID.



To troubleshoot issues, check the following locations for relevant logs:

- **Web server logs**: By default, these are written to `C:\MMLogs\WebServer`. The location is configurable in the web server configuration file: `C:\ProgramData\Mosart Medialab\Mosart Web Apps\serverSettings.json.` Look for the `NLogConfig` setting.
- **Proxy server logs**: By default, these are stored at `C:\MMLogs\Mosart Web Proxy`.
- **Windows Event Log**: Use the Event Viewer to check for system or application-related errors.
- **Browser logs**: To view logs in your browser, press **Ctrl+Shift+I** (this toggles the Developer Tools panel). Do this while using the **Mosart Web Applications Configuration Tool** or any browser with a Mosart web application open.

11.1.1 The Mosart Web Proxy Service is not running or is not functioning properly

Review the settings in

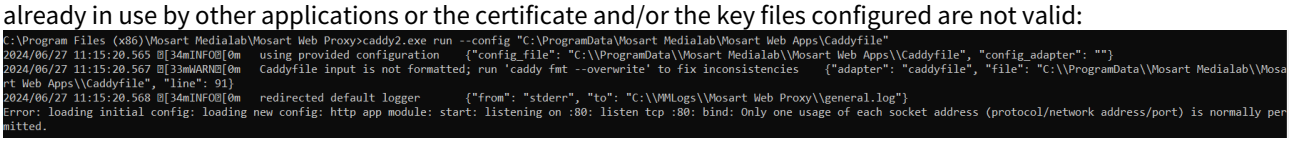
- The Server Configuration page.
- Proxy server logs located by default at C:\MMLogs\Mosart Web Proxy.
- The browser logs. You can investigate your browser logs by typing **CTRL+Shift+I** (this is a toggle) in the **Mosart Web Applications Configuration Tool** or the browser where a Mosart web application is open.

Start the Mosart Proxy Service in console

If the Mosart Web Proxy service fails to start and there is little information in either the proxy logs or the browser, you can start Caddy in the console to troubleshoot the problem using the following command. If this is running as a Windows service, stop it first.

```
C:\Program Files (x86)\Mosart Medialab\Mosart Web Proxy>caddy2.exe run --config "C:
\ProgramData\Mosart Medialab\Mosart Web Apps\Caddyfile"
```

Typical situations are where Caddy fails to start because the port (default **55142** for HTTP and **55143** for HTTPS) is already in use by other applications or the certificate and/or the key files configured are not valid:



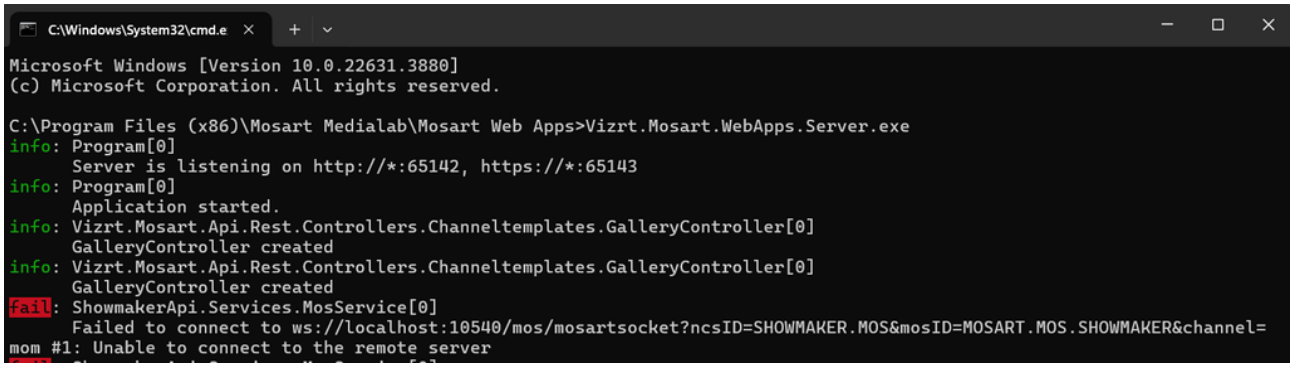
11.1.2 The Mosart Web Applications Service is not running or is not functioning properly

Review the settings in

- The Server Configuration page.
- Web server related logs written in the Windows Event Log accessible from the error message in the *Mosart Web Applications Configuration Tool.*
- Web server logs written on disk (default location "*C:/MMLogs/WebServer*" configurable in the web server configuration file, *C:\ProgramData\Mosart Medialab\Mosart Web Apps\serverSettings.json* - search for setting *NLogConfig*).
- The browser logs. You can investigate the browser logs by typing **CTRL+Shift+I** (this is a toggle) in the *Mosart Web Applications Configuration Tool* or the browser where a Mosart web application was opened for more details.

Start the Mosart Web Applications Service in console

If the Mosart Web Applications service fails to start and there is little information in either the web server logs or the browser, you can start the service in the console to troubleshoot the problem. If this is running as a Windows service, stop it first.



Typical situations are where the web server fails to start because the port (default **65142** for HTTP and **65143** for HTTPS) is already in use by other applications or the certificate and/or the key files configured for HTTPS are not valid.

11.1.3 The External Proxy Service is unreachable or not functioning properly

Review the settings in

- The Server Configuration page.
- External proxy configurations.
- The web server logs accessible from the error message in the *Mosart Web Applications Configuration Tool.*
- The browser logs. You can investigate the browser logs by typing **CTRL+Shift+I** (this is a toggle) in the Mosart Web Applications Configuration Tool or the browser where a Mosart web application was opened.

11.1.4 Unable to reach the Viz Mosart Server (main or backup)

Some of the Mosart Web Applications might not function as expected. Ensure that the *Mosart Remote Control Service* (RCS) located on the Viz Mosart server is running. Review the settings in the Server Configuration page, web server log file accessible from the error message in the Mosart Web Applications Configuration Tool or the browser logs for more details. You can investigate the browser logs by typing **CTRL+Shift+I** (this is a toggle) in the Mosart Web Applications Configuration Tool or the browser where a Mosart web application was opened.

Check the status of the Viz Mosart server

In a browser, paste the URL to the Viz Mosart server *status* endpoint:

HTTP
http://<mosart-server-host>:55167/status for HTTP

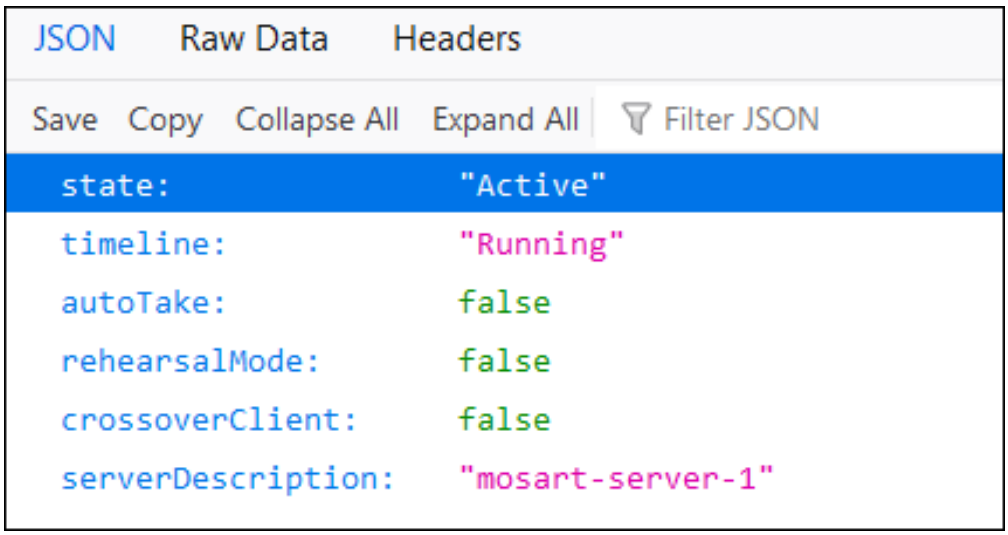
HTTPS
https://<mosart-server-host>:55168/status for HTTPS

Using a Web proxy

http://<webproxy-url>:55142/mosart/main/status

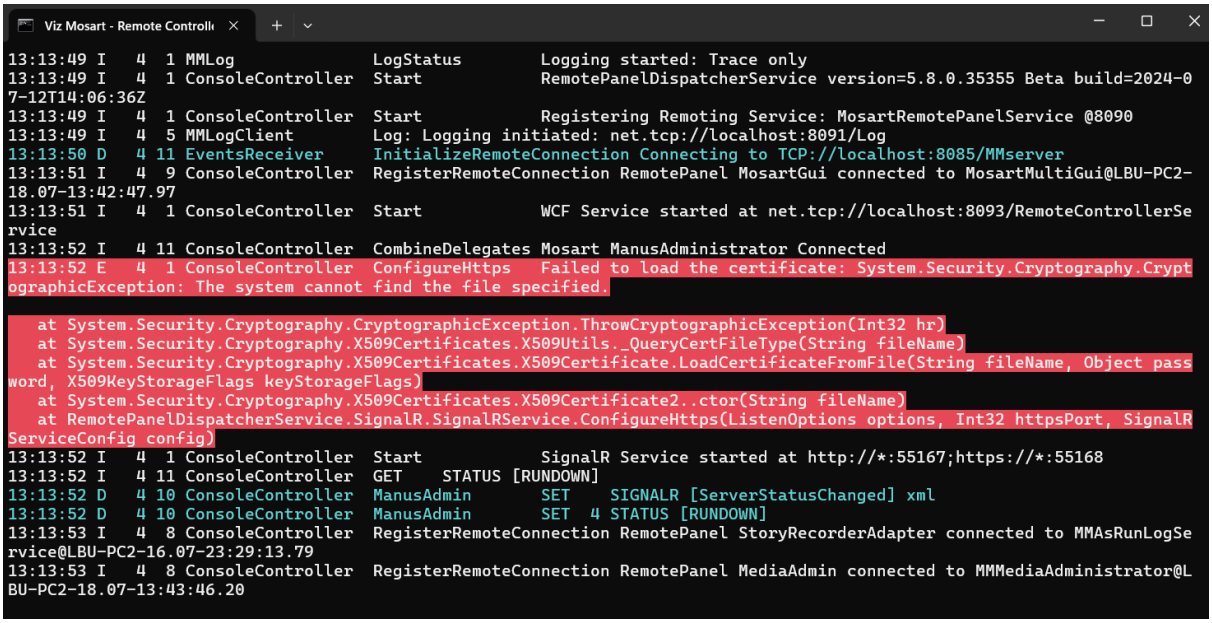
> **Note**: In the first two examples above, replace <*mosart-server-host*> with the hostname, IP address or the FQDN of your Viz Mosart server.

You should get a result similar with the following (*serverDescription* is not available in older Mosart versions):



If no response is received:

- Ensure that the Viz Mosart server version is compatible with the Viz Mosart Web Applications. Refer to the Release Notes for System Requirements.
  or
- Start Mosart Remote Control Service (RCS) as console to investigate further the issue. If the service is running as Windows service, stop it first.
  Typical situations are where RCS fails to start because the port (default **55167** for HTTP and **55168** for HTTPS) is already in use by other applications or the certificate and/or the key files configured for HTTPS are not valid:



Viz Mosart Server version might be incompatible with this version of Viz Mosart Web Applications

- Please review the corresponding version Release Notes for product interoperability.

If HTTPS is used, this must be enabled on both Viz Mosart Server and Viz Mosart Web Applications

You may get this warning messages because no updates could be retrieved from Viz Mosart server.

- Ensure that the Viz Mosart server version is compatible with the Viz Mosart Web Applications. Refer to the latest Release Notes for System Requirements.
- Ensure that HTTPS is used and enabled on both Viz Mosart server and the Viz Mosart Web Applications. Check the settings in the Server Configuration page, Viz Mosart web server log file or the browser logs (**CTRL+Shift+I** in the Configuration Tool) for more details.
- Check the status to the Viz Mosart server as described above.

11.1.5 The Web Applications Service is not running

A common *offline* error occurs when the Windows service fails to start because the port is in use.

- Verify that the Web Applications service port is not in use. The default port is **65142** for HTTP and **65143** for HTTPS. The port can only be changed in the configuration file at *C:\ProgramData\Mosart Medialab\Mosart Web Apps\serverSettings.json*.

> **Note**: Any changes to the Viz Mosart web server configuration file (C:\ProgramData\Mosart Medialab\Mosart Web Apps\serverSettings.json) are overwritten when you press **Save** in the Mosart Web Applications Configuration Tool.

- Try restarting the service with the **Restart** button available in the error message in the Mosart Web Applications Configuration Tool.
- Review the settings in the Server Configuration page, web server log file accessible from the error message in the Mosart Web Applications Configuration Tool or the browser logs for more details.

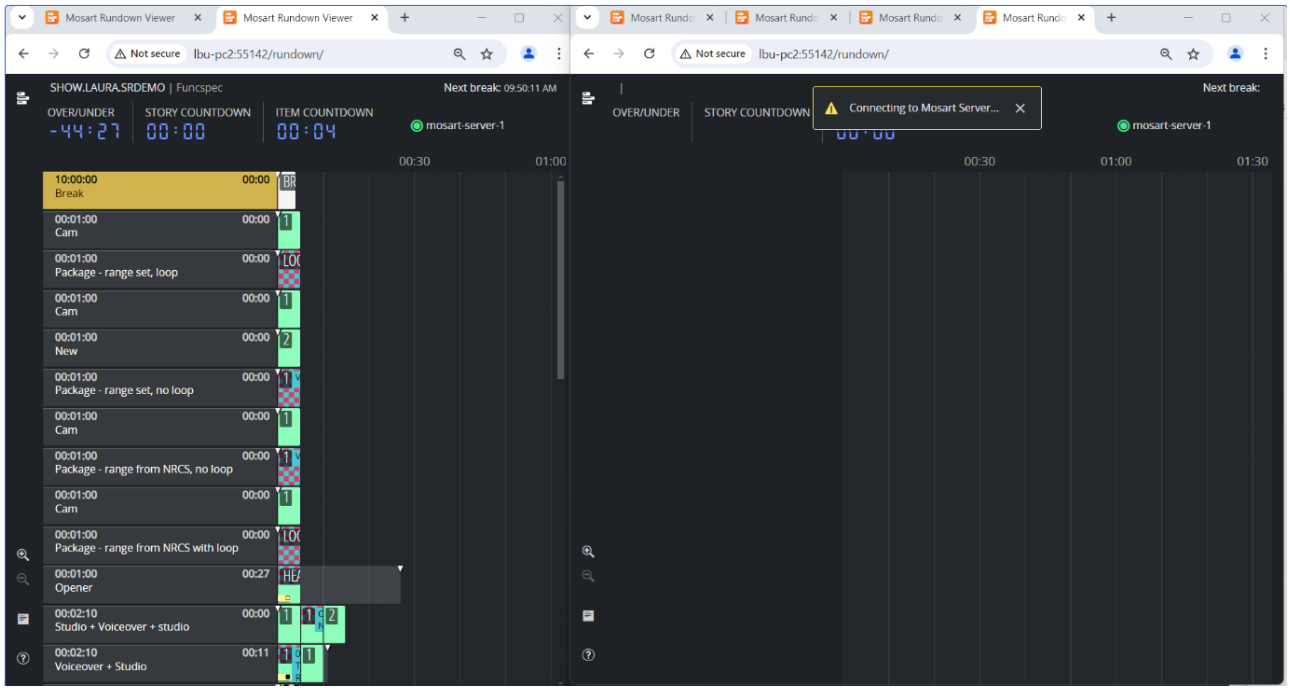
11.2 Rundown Viewer and Timing Display Issues

If you experience the following issues with Rundown Viewer and Timing Display:

- The content loads slowly or only partially.
- You cannot open more than 5-6 web sessions, meaning that opening the web application in multiple browser tabs or instances fails after 5-6 clients.

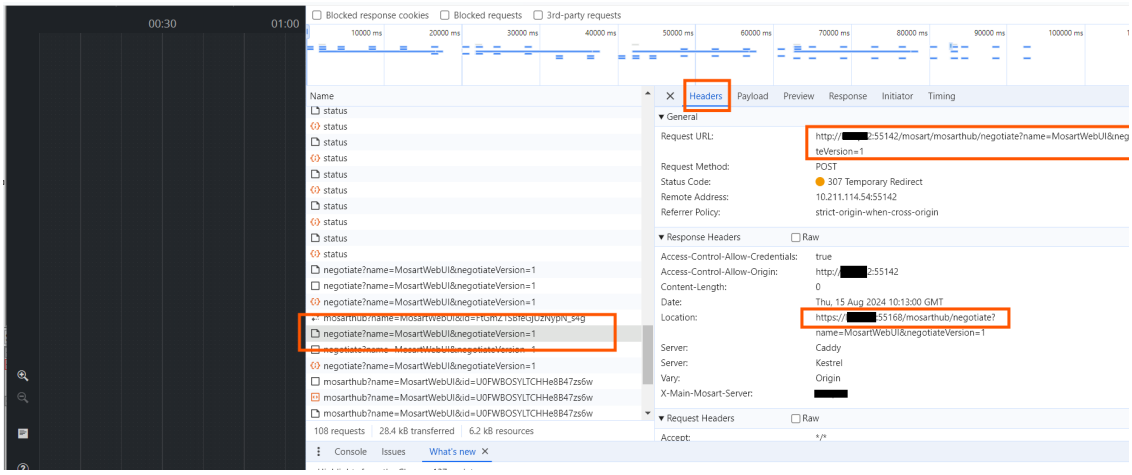
These problems may indicate that HTTPS is not properly configured across all relevant components.

In the screenshot below, the 6th Rundown Viewer client displays an error connecting to the Mosart server, while the other clients are functioning correctly:



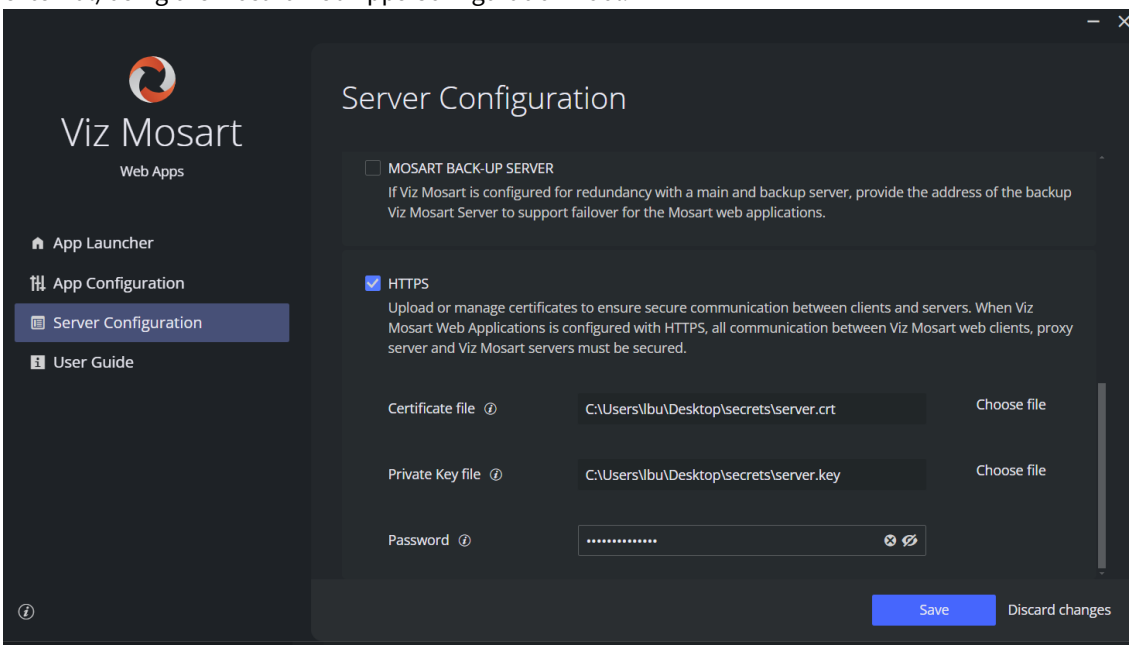
Troubleshooting Steps:

1. **Inspect Browser Logs:**
   - Open the browser's Developer Tools and go to the **Network** tab.
   - Inspect some of the URLs. For example, you might see a request URL to the Mosart Server like `http://proxy-server:55142/mosart/mosarthub/negotiate?name=MosartWebUI&negotiateVersion=1`.



- A "307 Temporary Redirect" status code indicates that the resource has been temporarily moved to a different URL. This suggests that the proxy server (Caddy) has redirected the client to use HTTPS instead of the original HTTP request.

2. **Understand the issue:**
   - In this example, the client (the Rundown Viewer in the web browser) initially made a request over HTTP to the Mosart server, but the proxy server redirected it to HTTPS.
   - This indicates that HTTPS is configured for the Mosart server but not for the Mosart web server and the proxy server.
   - By default, the Mosart Web Proxy is configured to enforce HTTPS by redirecting HTTP requests to HTTPS before they reach the Mosart server, if the Mosart server is set up with HTTPS.
3. **Fix the problem:**
   - To resolve this issue, enable HTTPS for the Mosart web server and the proxy server (internal or external) using the Mosart Web Apps Configuration Tool.



11.3 Issues with Mosart Web Server Connecting to the Mosart Server

11.3.1 Mosart Remote Control Service (RCS)

Issues with Mosart web server connecting to the Mosart Remote Control Service (RCS), may be due to the RCS not automatically detecting the fully qualified domain name (FQDN) of the machine where it is installed.

For enhanced security and connection stability between the Mosart web server and the Mosart Remote Control Service, the setting **SignalRAllowedOrigins** is introduced.

This setting allows you to specify an exclusive list of origins that may access the SignalR service (used for communication to RCS), ensuring connections are secure and reliable.

1. Navigate to the default location of the RCS configuration file at *C:\Program Files (x86)\Mosart Medialab\Mosart Server\ConfigurationFiles\RemoteDispatcherServiceConfig.xml.*
2. Manually configure **SignalRAllowedOrigins** to include the fully qualified domain name of your Mosart server.

> **Note**: For Mosart applications like the Rundown Viewer and Timing Display (which rely on SignalR for real-time communication), when failure to recognize a FQDN prevents communication to RCS, defining **SignalRAllowedOrigins** is essential.
> For detailed configuration instructions, please refer to the RCS configuration file (*RemoteDispatcherServiceConfig.xml)* where inline comments provide explanatory documentation.

11.3.2 Firewall Ports

- Ensure the default ports have access.

11.4 Browser Logs

11.4.1 To investigate browser logs

In failure situations, you can use your web browser to access the Mosart Web Apps directly and further investigate the browser logs.

1. In the App Launcher, click on a web app to open it in the default browser, or paste the web app link directly into your preferred browser:
    a. **NRCS Plugin**: *http(s)://<your-hostname>:<web-proxy-port>/plugin/?nrcs=ENPS&mosid=mosart*
    b. **Rundown Viewer**: *http(s)://<your-hostname>:<web-proxy-port>/rundown*
    c. **Timing Display**: *http(s)://<your-hostname>:<web-proxy-port>/timingdisplay/editor*
    d. **Showmaker**: http(s)://*<your-hostname>:<web-proxy-port>*/showmaker/
2. Type **CTRL+Shift+I** (this is a toggle) in the browser and inspect the **Console** tab or the **Network** tab.