Viz Mosart Web Applications

Version 2.2

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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.

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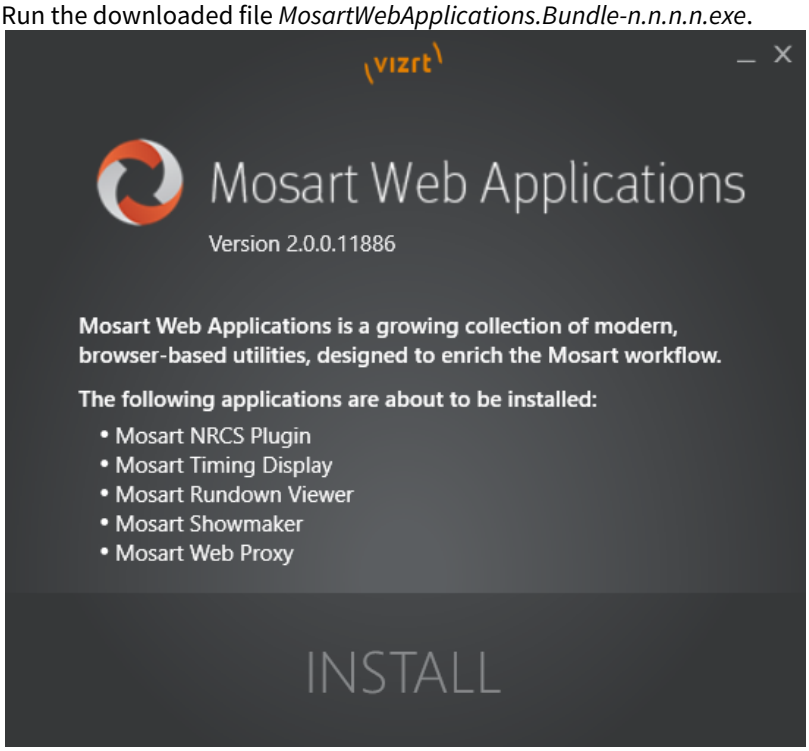
1 Getting Started

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.

> **Note**: 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 versions of the Mosart Web Applications are automatically upgraded. All configurations and preferences are retained.
4. After successful installation, the **Mosart Web Applications Configuration Tool** displays, together with a desktop shortcut enables quick access.

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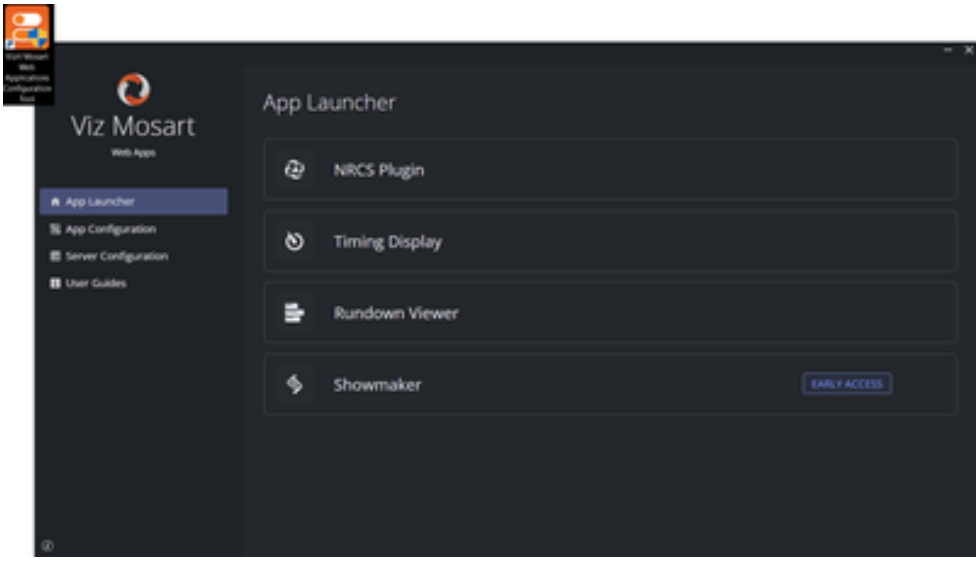
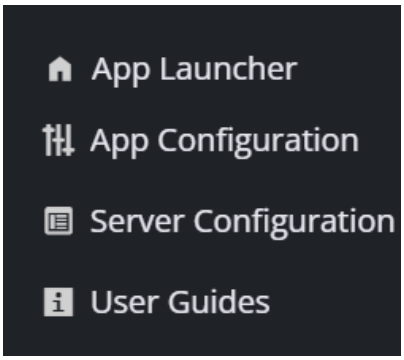


5. From the left panel, select one of the following:

	**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).
- If this is your *first running* of the Mosart Web Apps Configuration Tool, you must make some one-time configurations,
  as described in Mosart Web Applications Configuration Tool.

1.1 User Guides

Links to a recent version of the documentation.

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

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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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- www.vizrt.com
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3 Feedback And Suggestions

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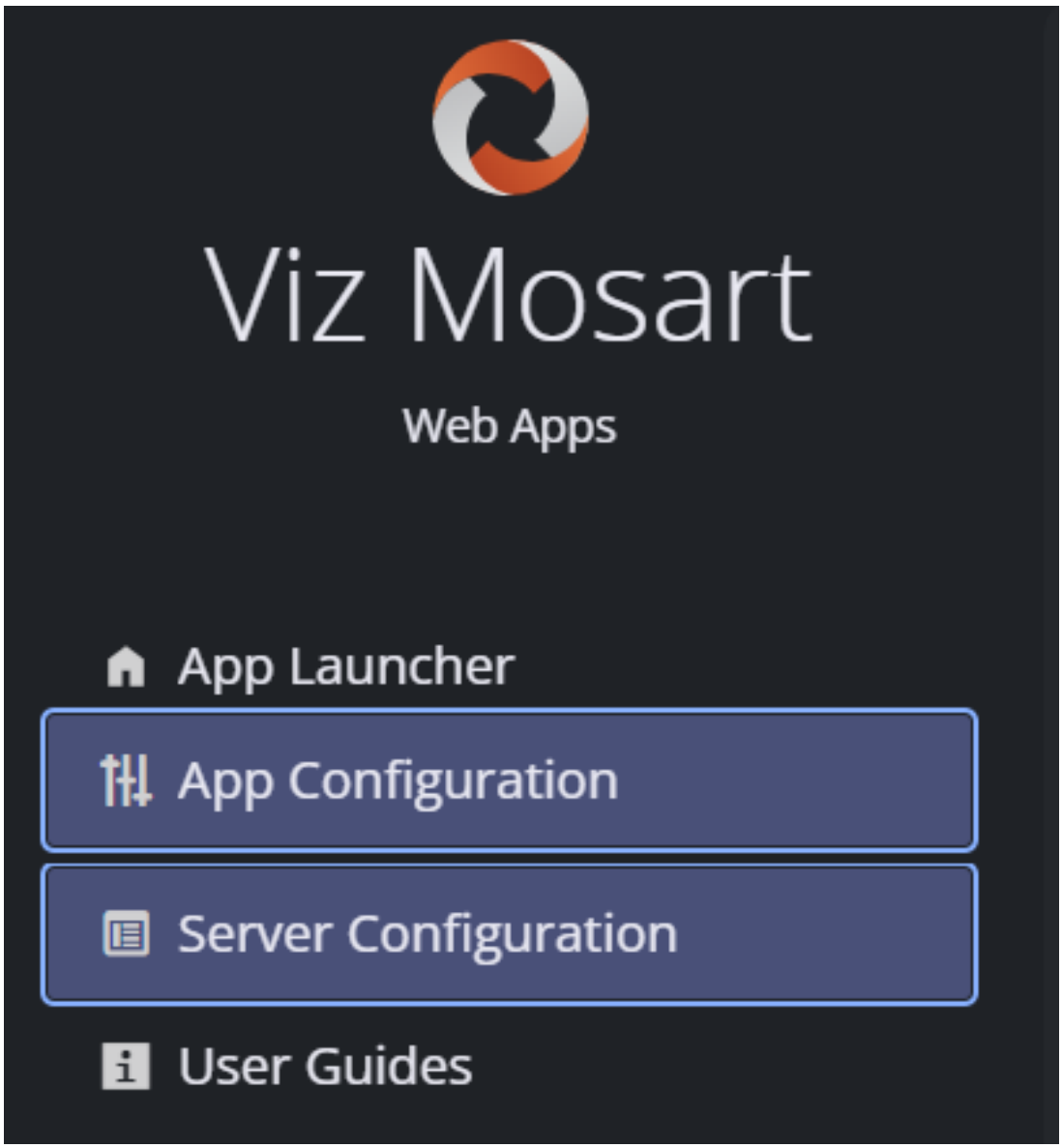
4 Mosart Web Apps Configuration Tool

- App Configuration
- Server Configuration
- HTTPS Usage Notes
    - Certificate Requirements
    - Certificate Installation
- Troubleshooting



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:

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- App Configuration
- Server Configuration.

4.1 App Configuration

- NRCS Plugin
- Showmaker (Early Access)

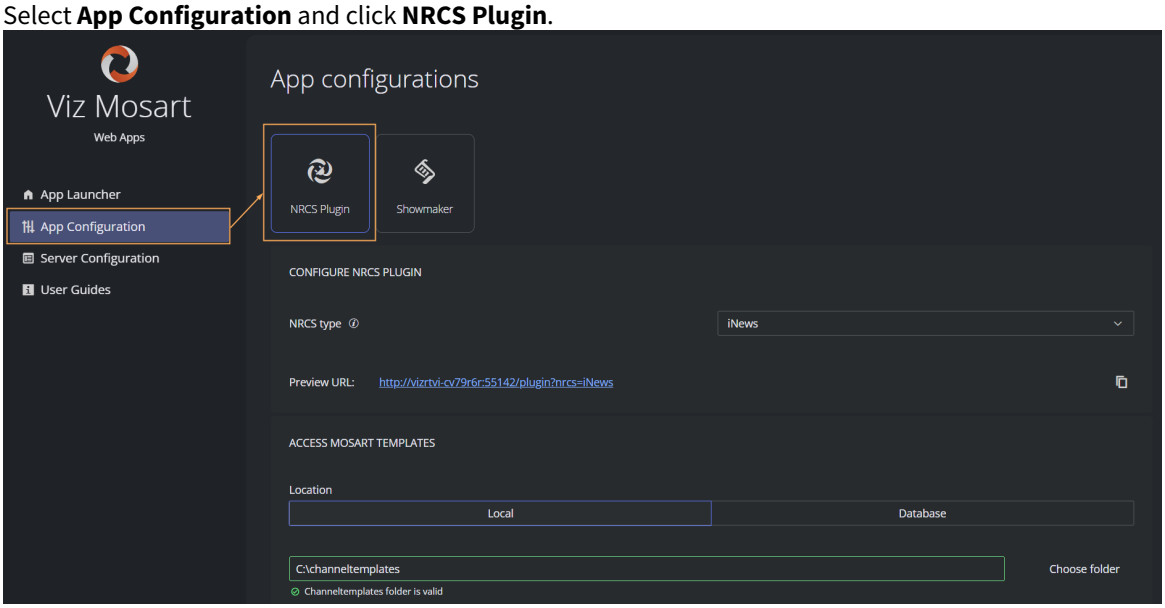
Most settings here are needed when you

- 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.

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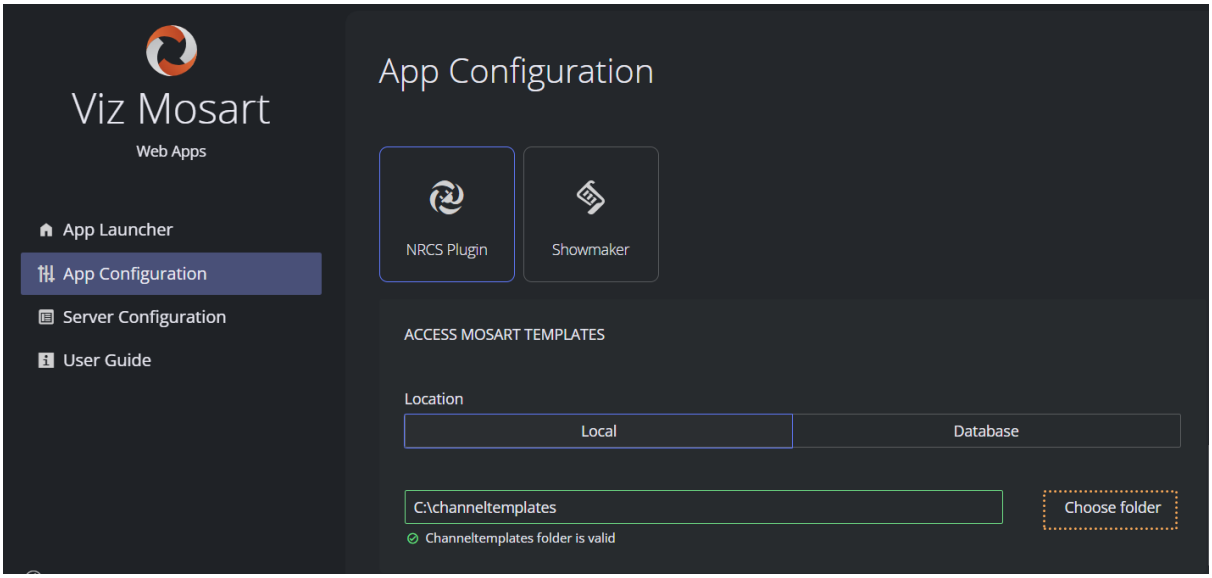
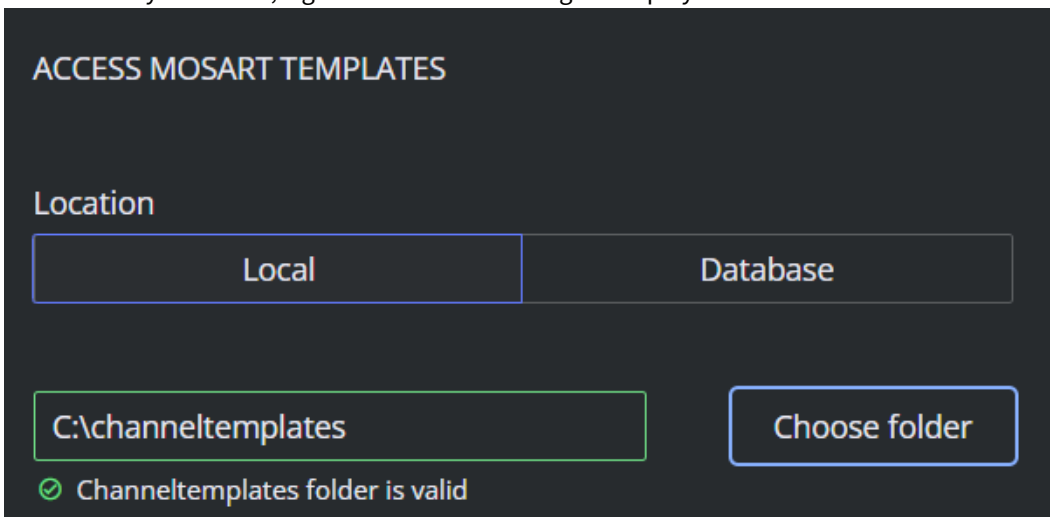


This can be either

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.

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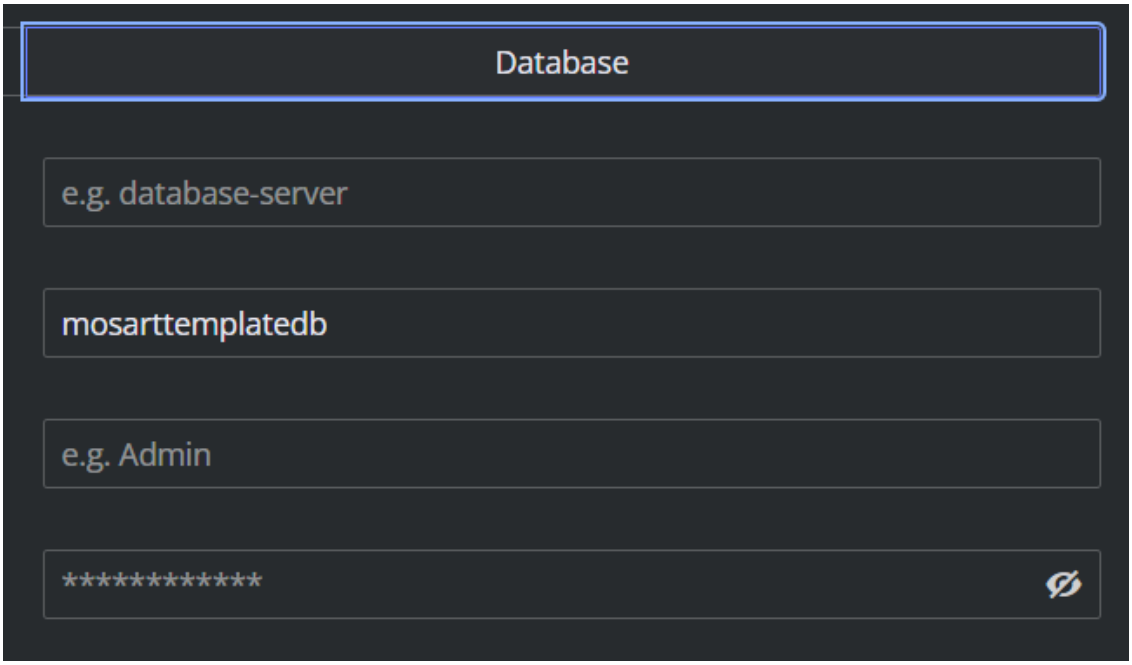

6. Click **Save**.

> **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**.

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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.

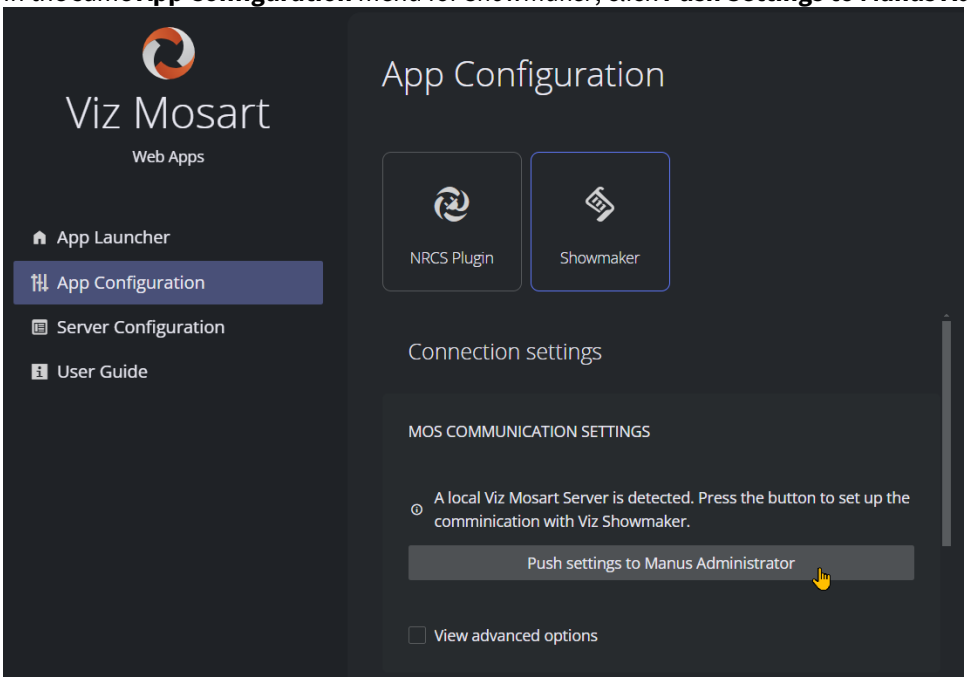
To establish communication between a MOS device and Showmaker

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.

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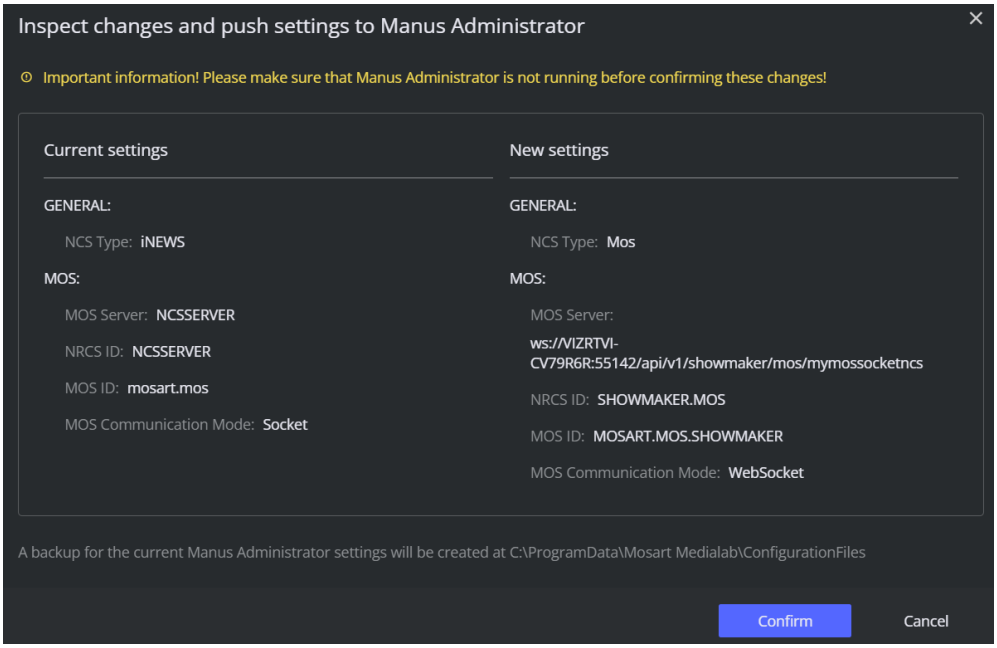

5. To complete the action, click **Confirm**.

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.**

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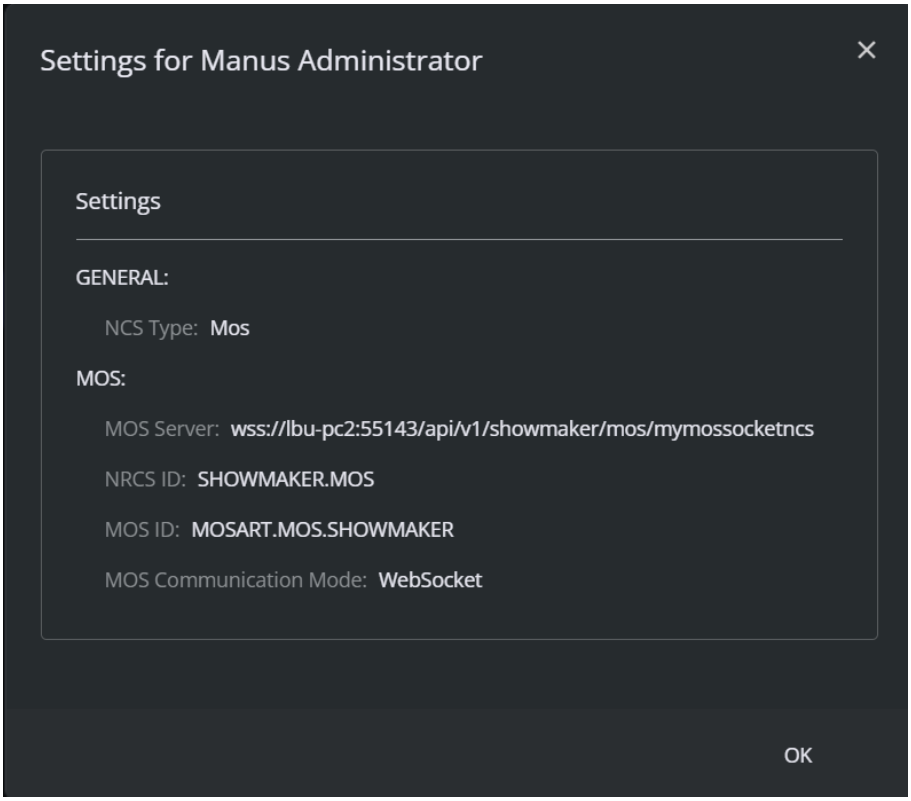
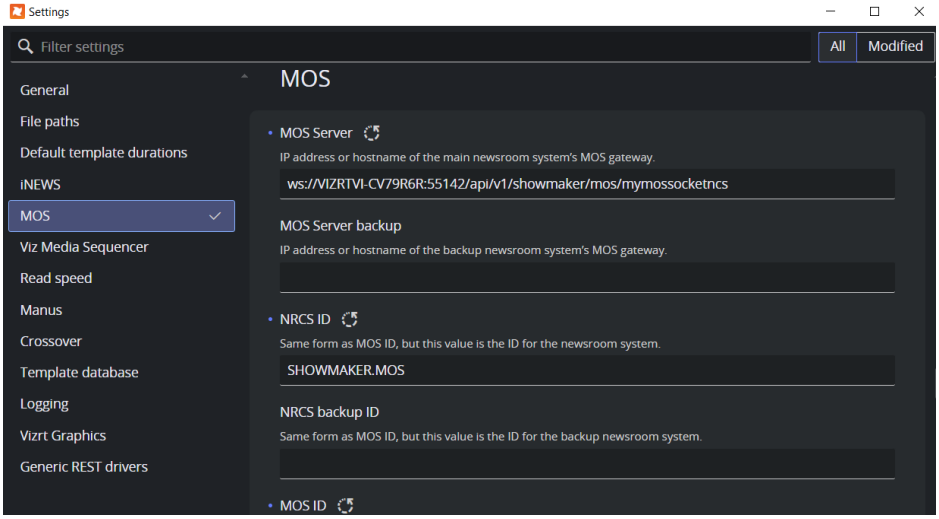


3. On the Viz Mosart server, in the Viz Mosart Manus Admin console, type *settings*
4. From the Settings menu that appears, navigate to the section **MOS**.



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.

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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** page, as described below.

4.2 Server Configuration

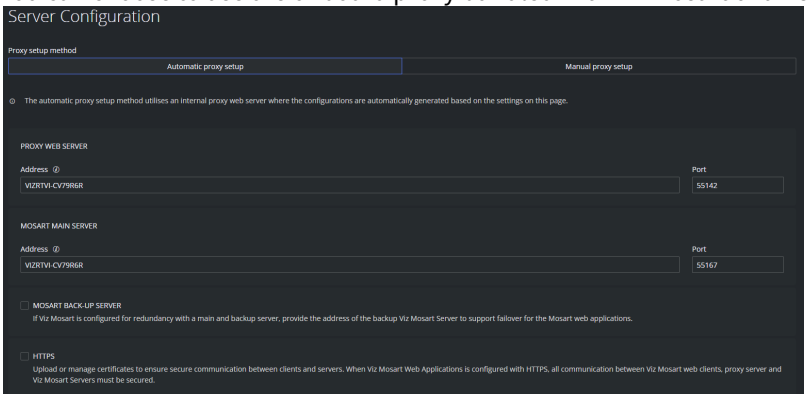
- Automatic Proxy Setup
- Manual Proxy Setup
- Enabling Updates from the Mosart Server over HTTPS

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.

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.

4.2.1 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.

MOSART API ACCESS

In this section entering the value of Authorization Key is crucial thing too get access to a limited set of methods provided some special improvements. For example, to validate the clip name in NRCS Plugin it can request the list of similar clips from Mosart Media Administrator. It requires a special secure call to Mosart Server through the Mosart Remote Control Service. The latter one contains the special key-value item in its configuration file RemoteDispatcherServiceConfig.xml. See “RestApiKey” enrty to get its value.

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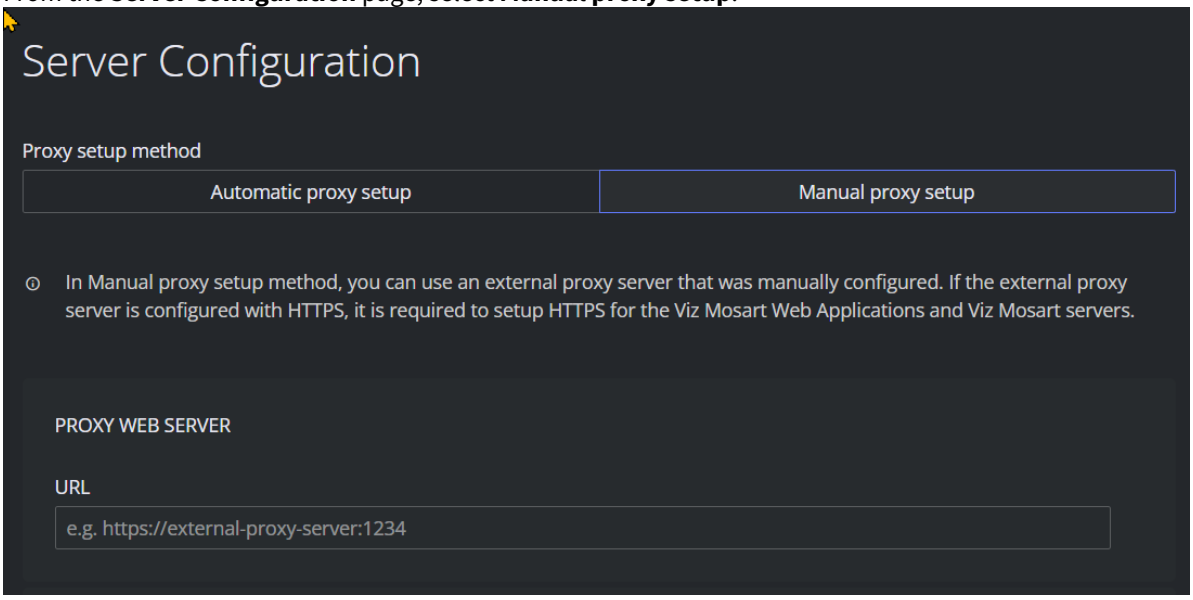
4.2.2 Manual Proxy Setup

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 ' '.

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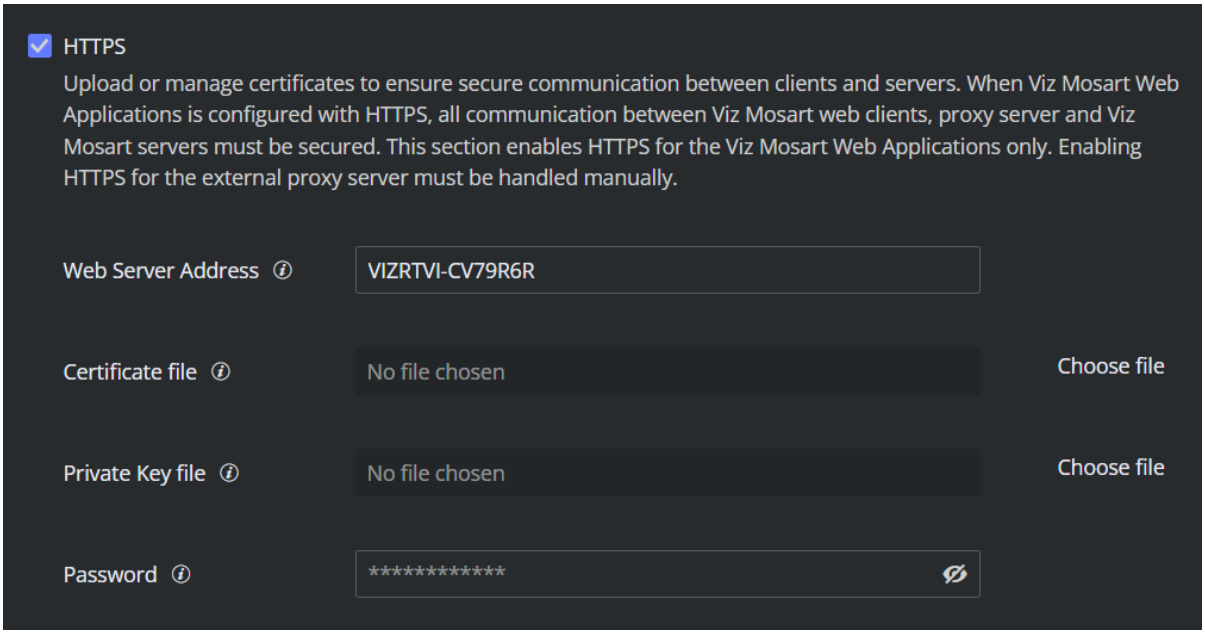

4. **Web Server Address**: The IP or the hostname of the Viz Mosart web server. The system attempt an auto-detect. If the *FQDN is required* (for example, by a certificate), provide this instead.
5. **Certificate file**: The certificate in encrypted PEM format. If FQDN is specified in the certificate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

4.2.3 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.

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4.3 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*).

4.3.1 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.

4.3.2 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.

4.4 Troubleshooting

See section *Troubleshooting*.

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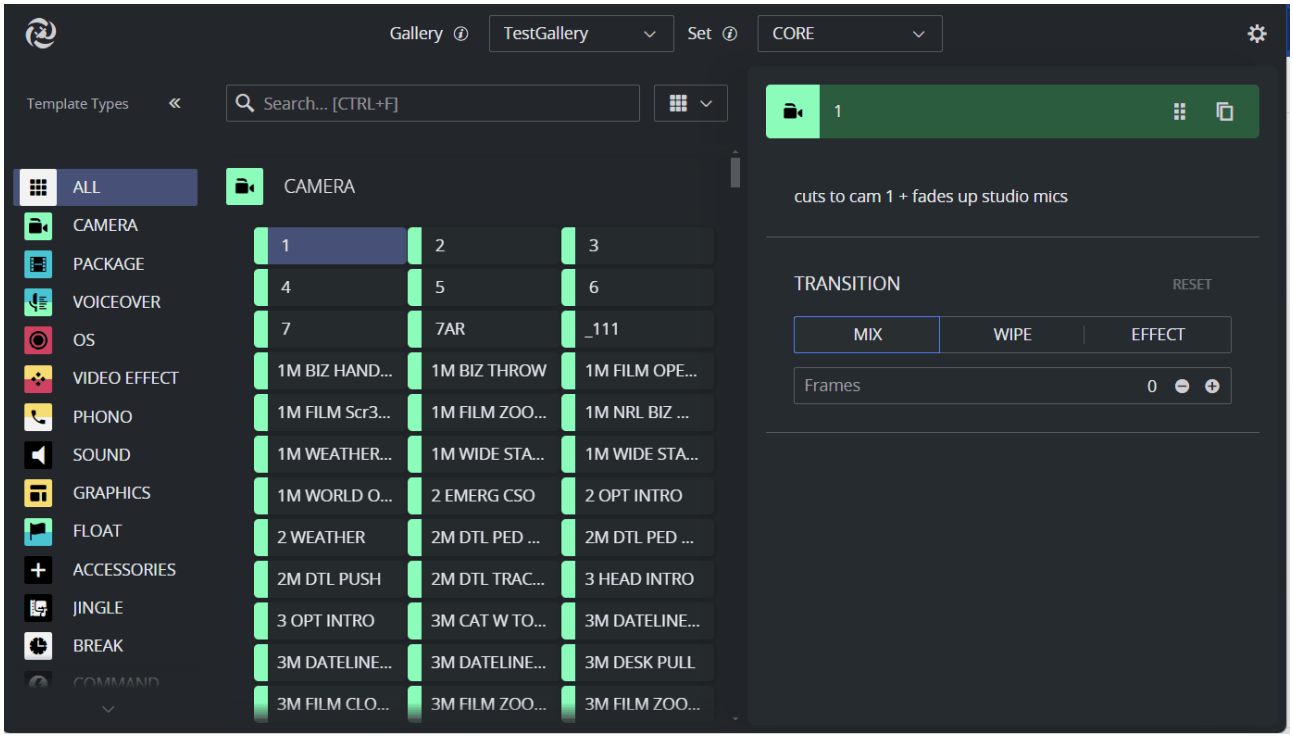
5 Mosart NRCS Plugin

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.



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5.1 Working With The NRCS Plugin

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

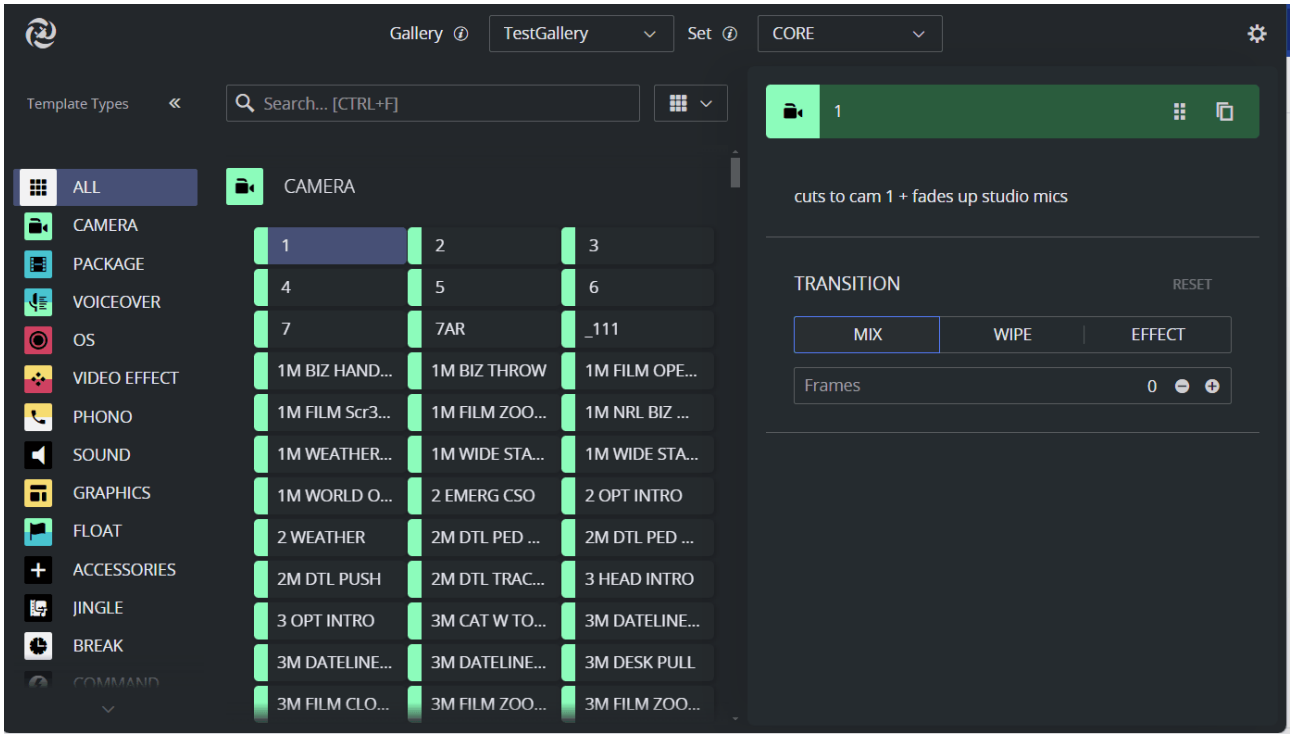
- User Operations
- Getting Help
- Error Handling
- API Documentation

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.



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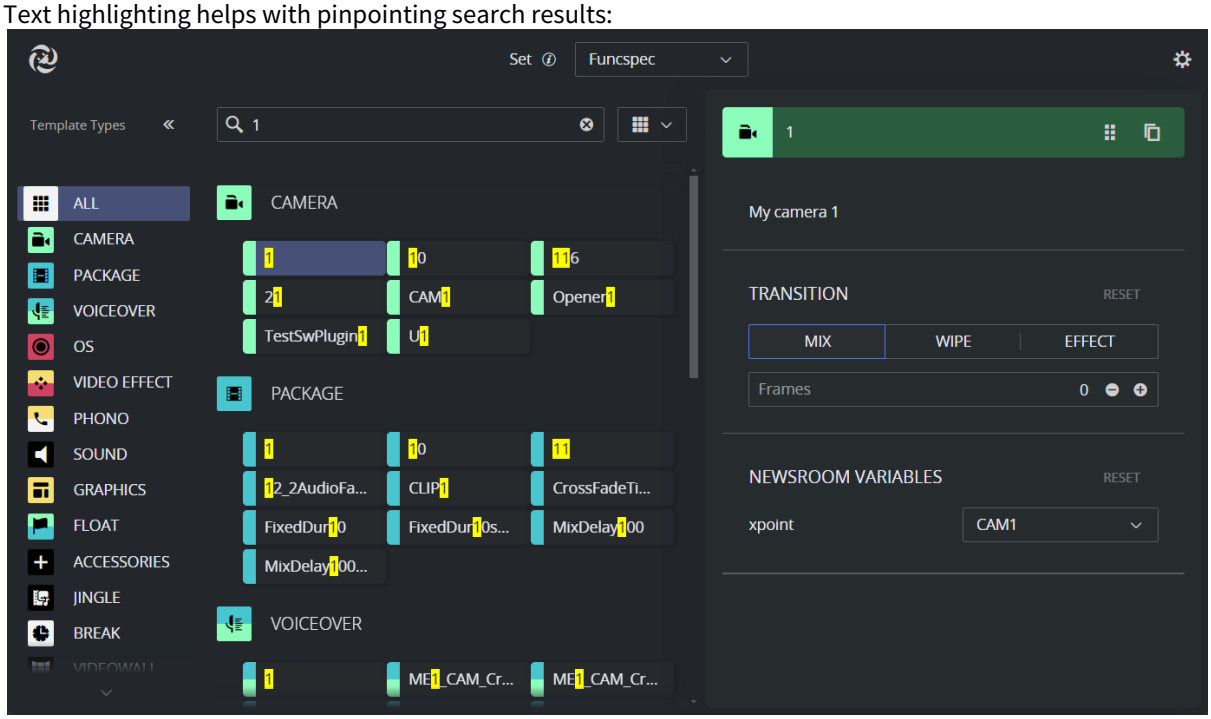
Text highlighting helps with pinpointing search results:



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:

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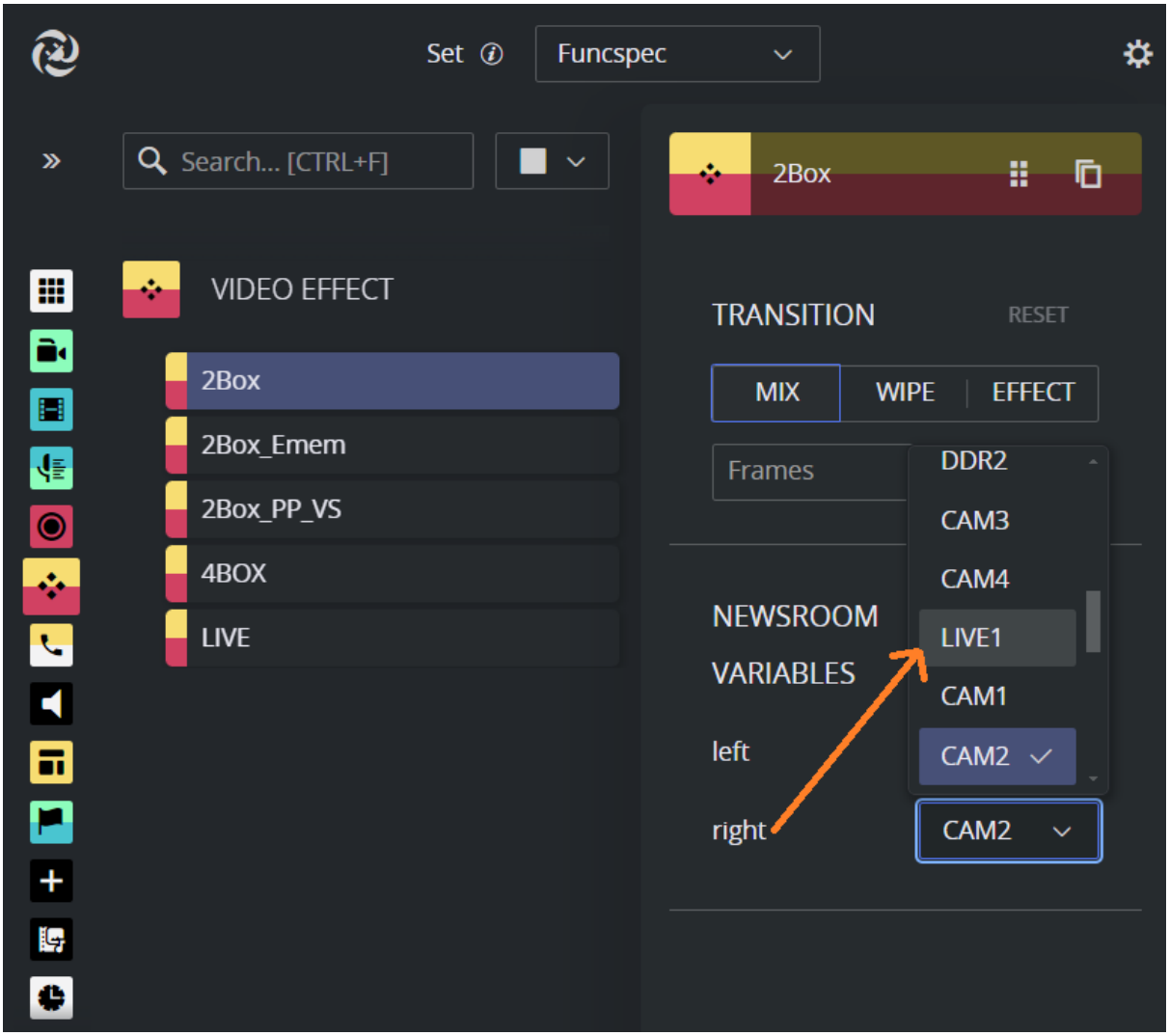

Transitions

- 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).

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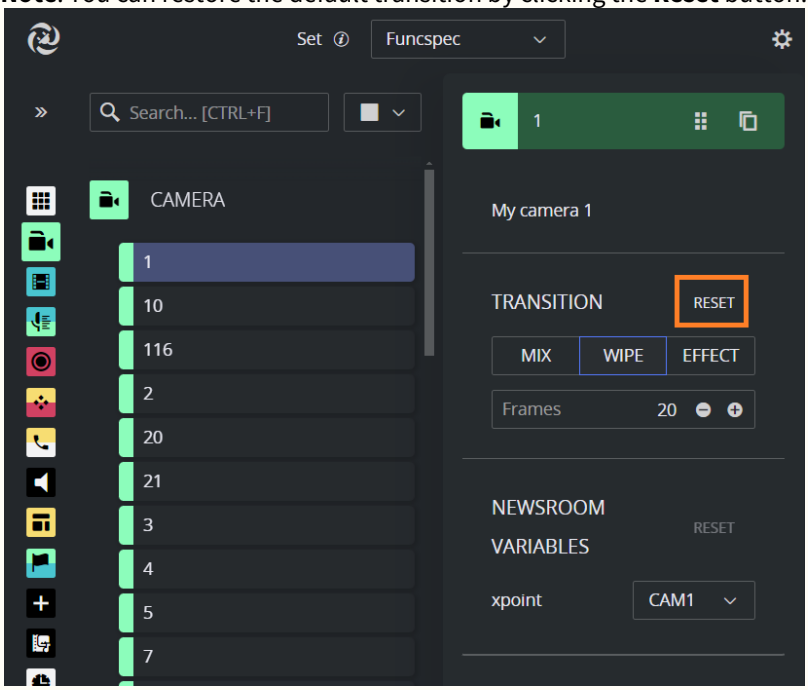
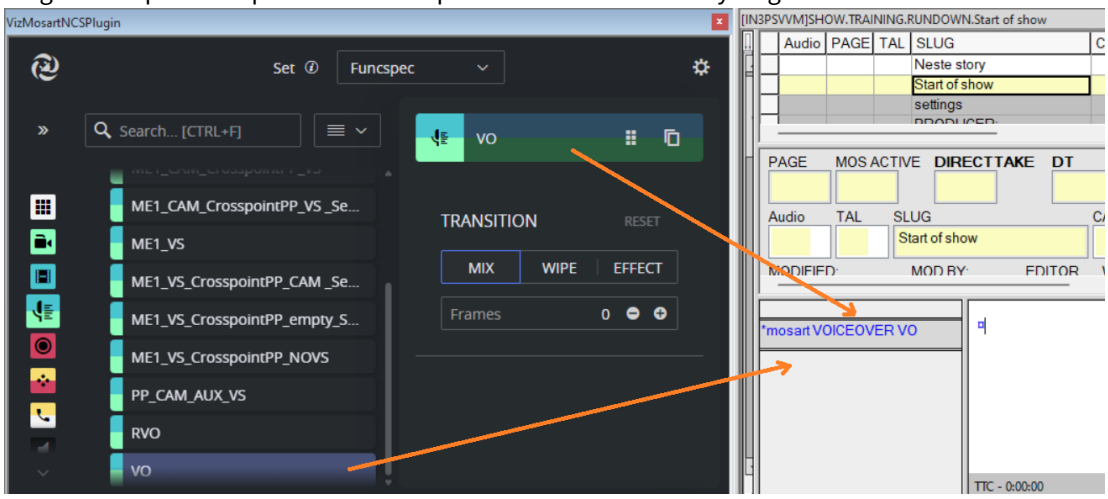
Note: You can restore the default transition by clicking the **Reset** button.



Adding Template Details to the NRCS

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



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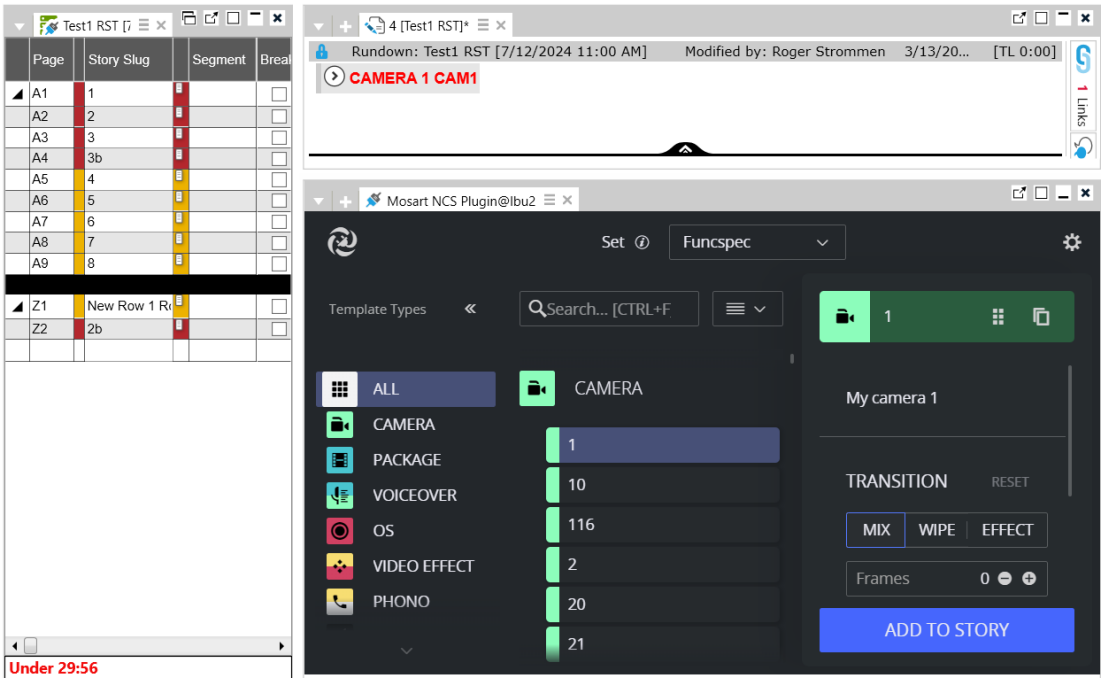
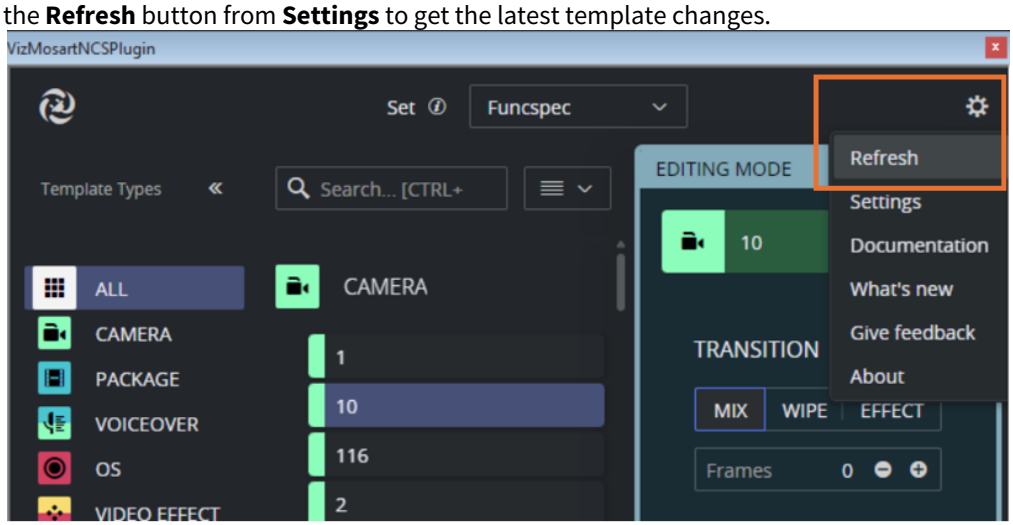
- In a MOS-based NRCS, in addition to drag and drop, the **Add to Story** button can be used to add a template to a story.



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.



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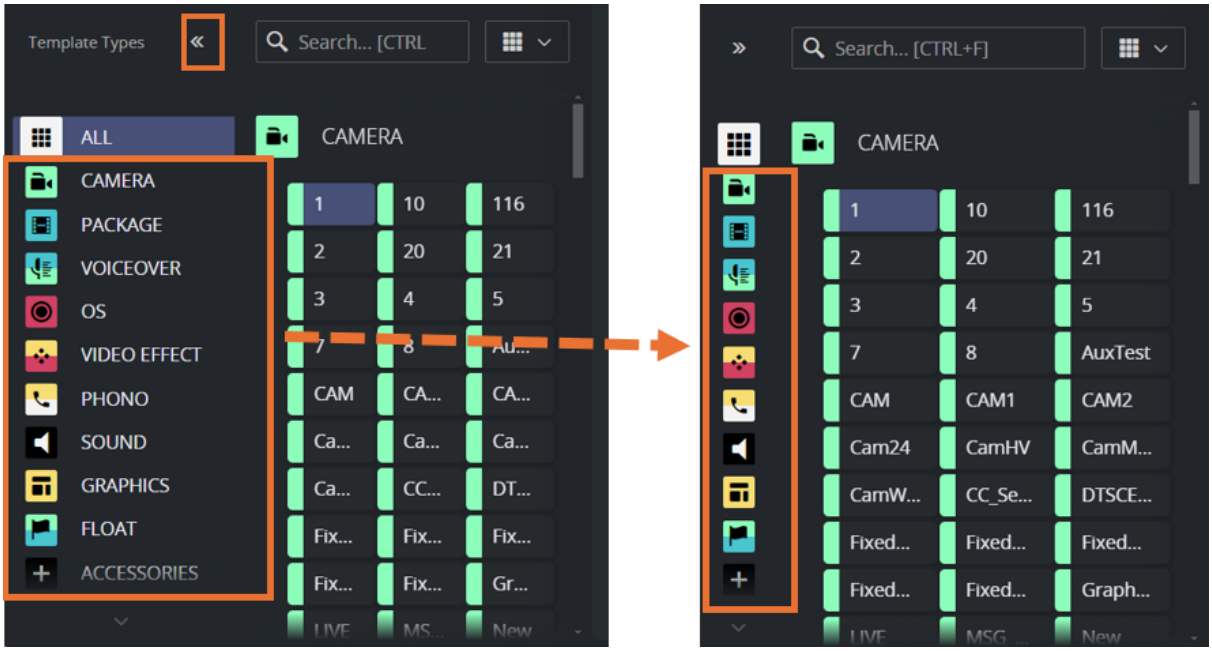
Optimizing Your NRCS Plugin Workspace

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.

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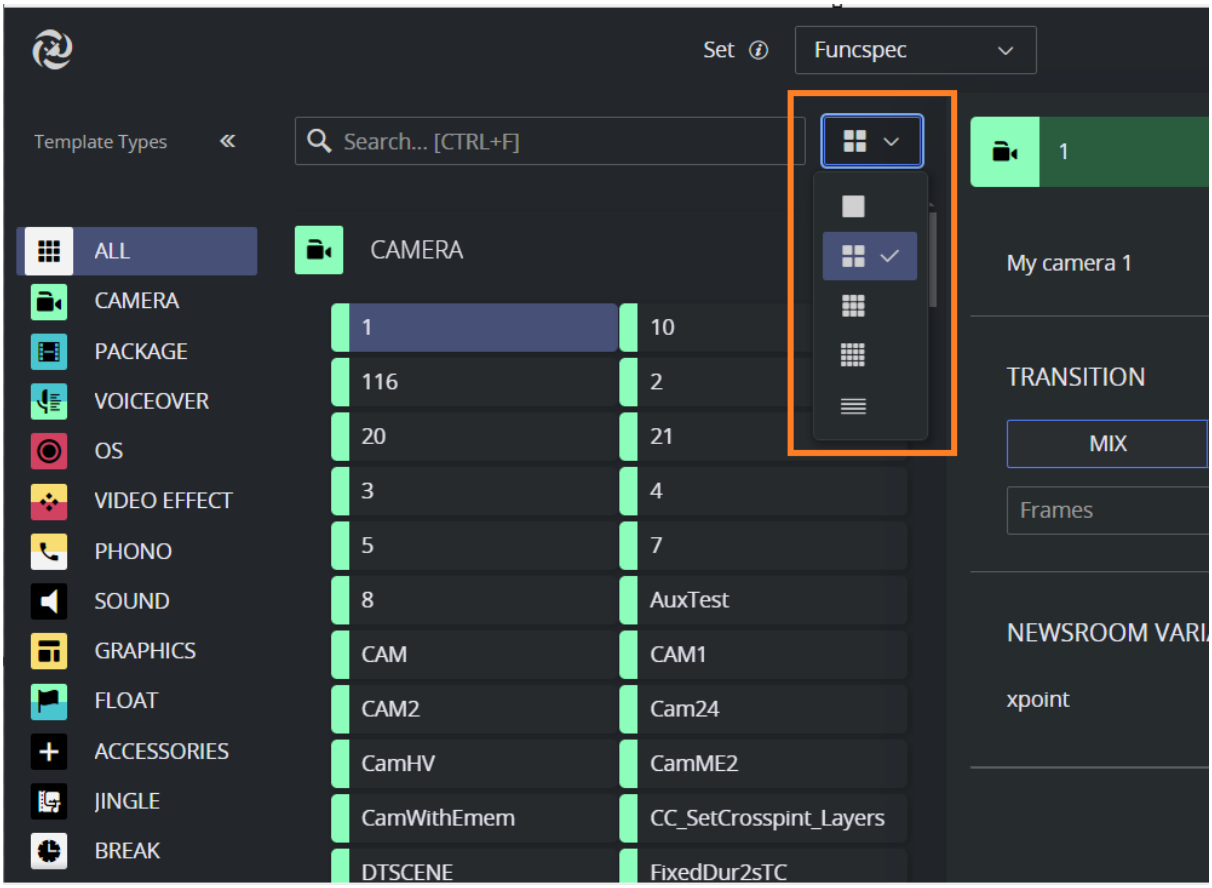
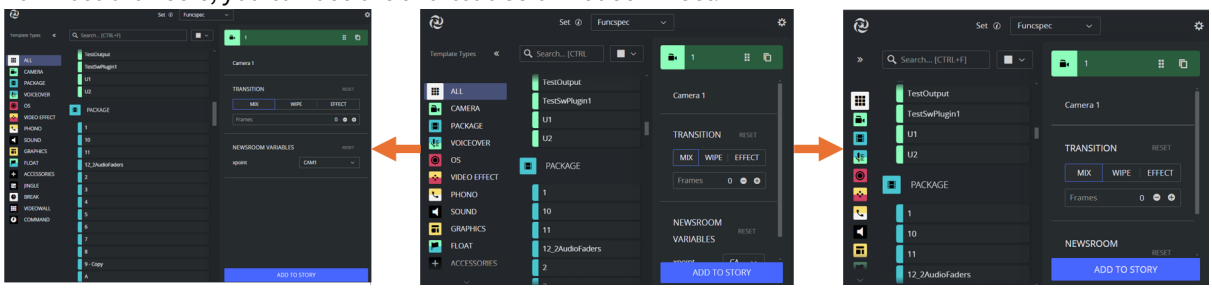


Scaling the View

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.

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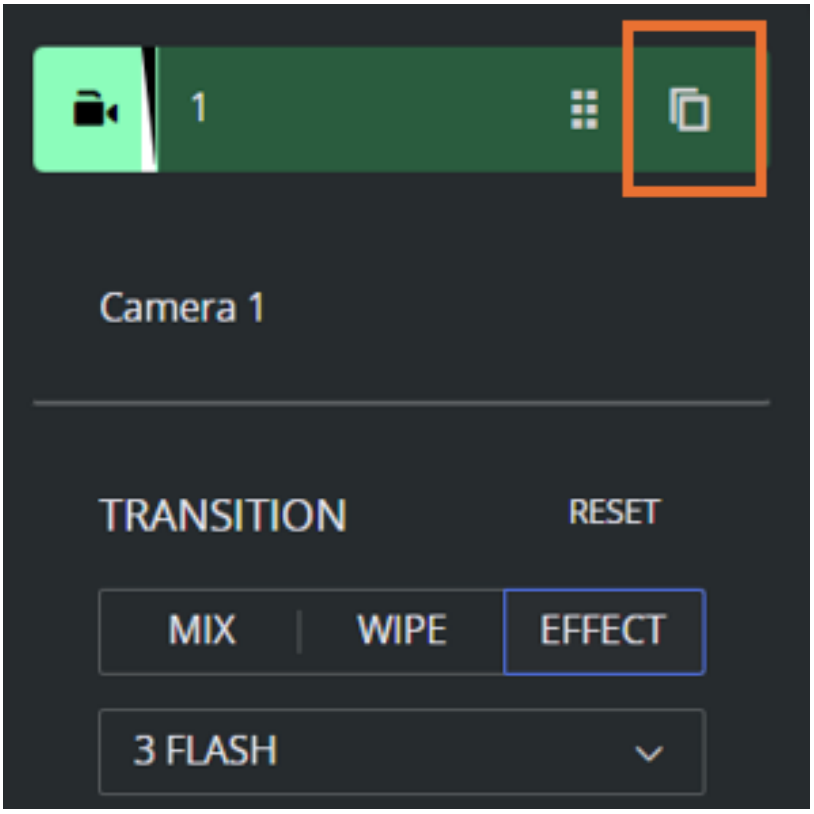

Modifying Existing MOS Objects

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.

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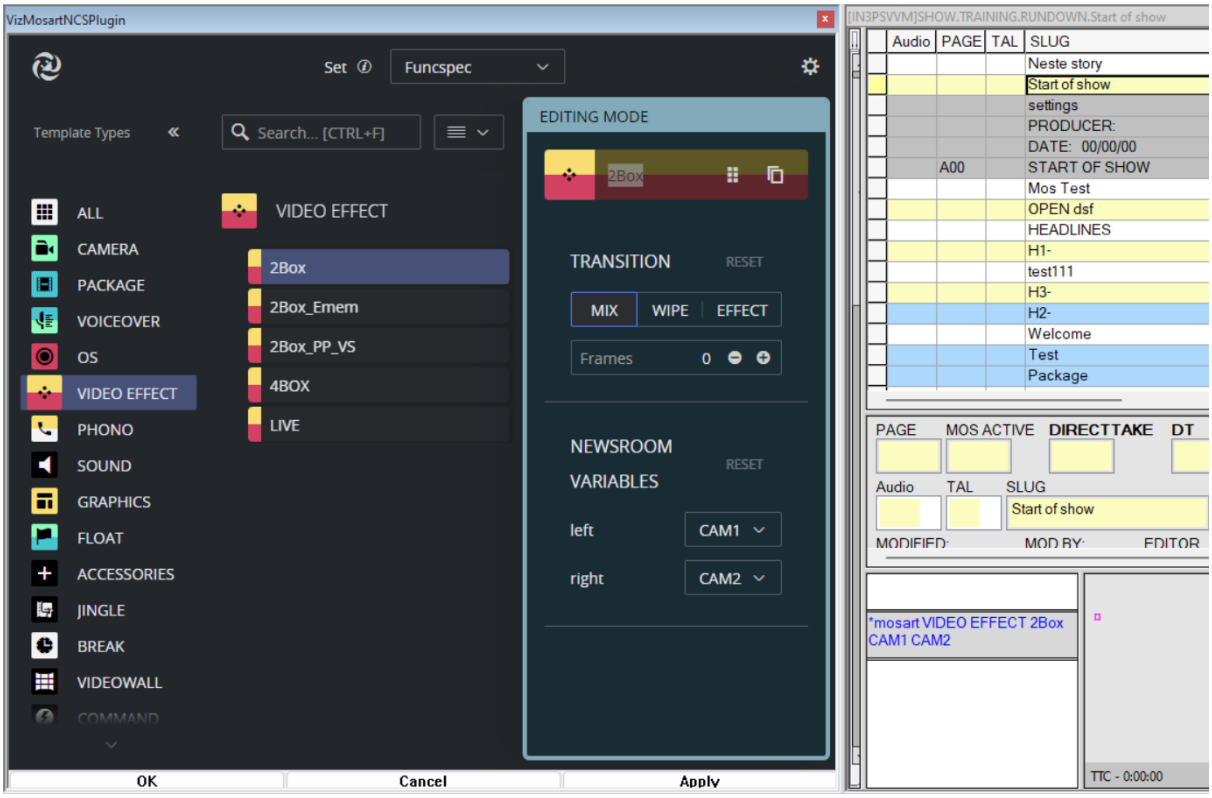

Make the modifications directly in the Mosart NRCS Plugin window.

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

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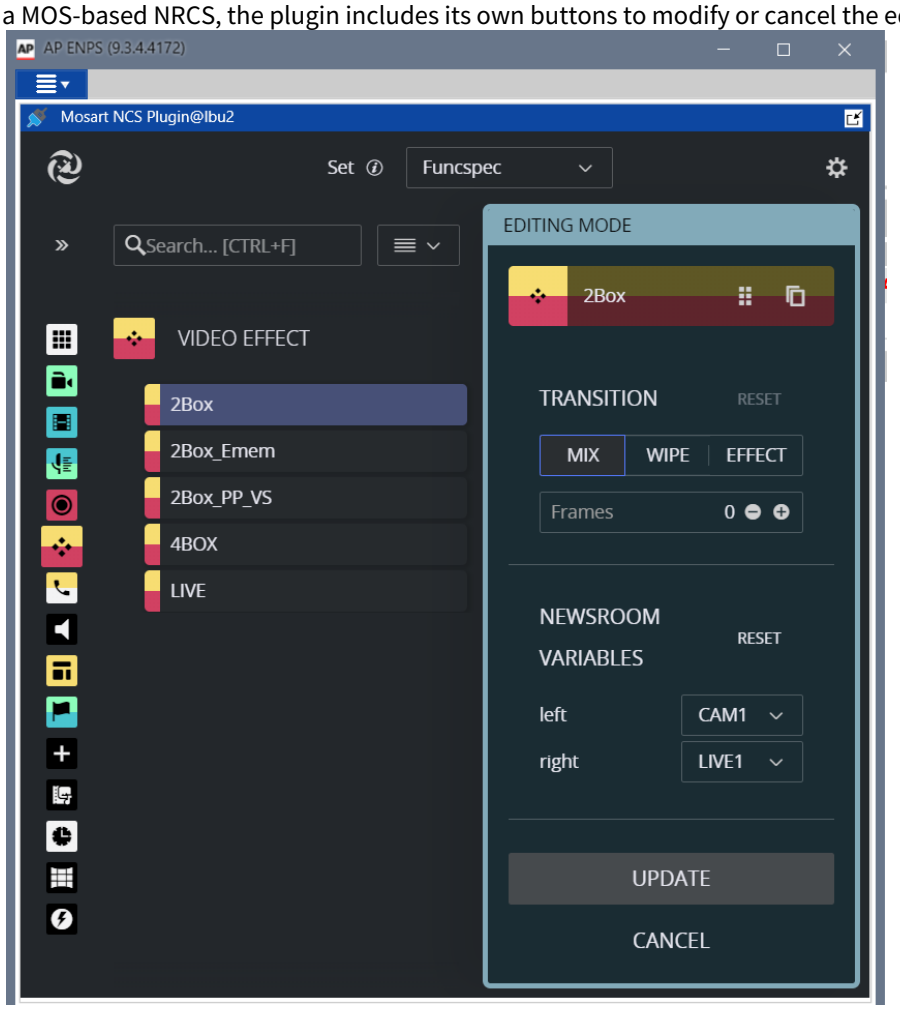
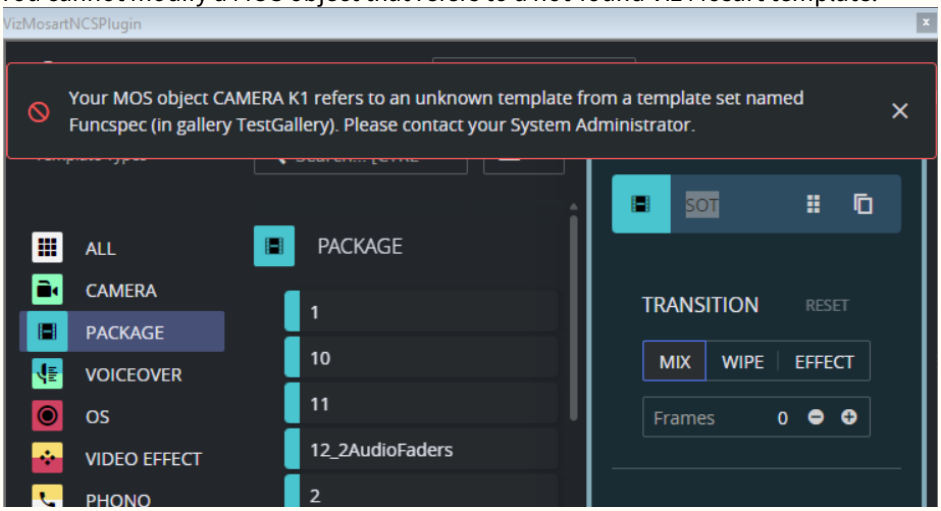
a MOS-based NRCS, the plugin includes its own buttons to modify or cancel the editing.



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



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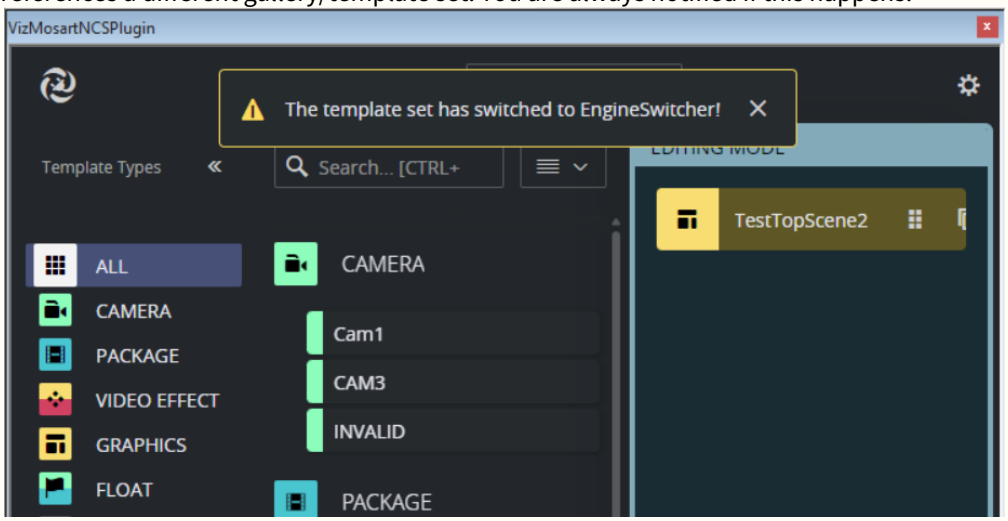
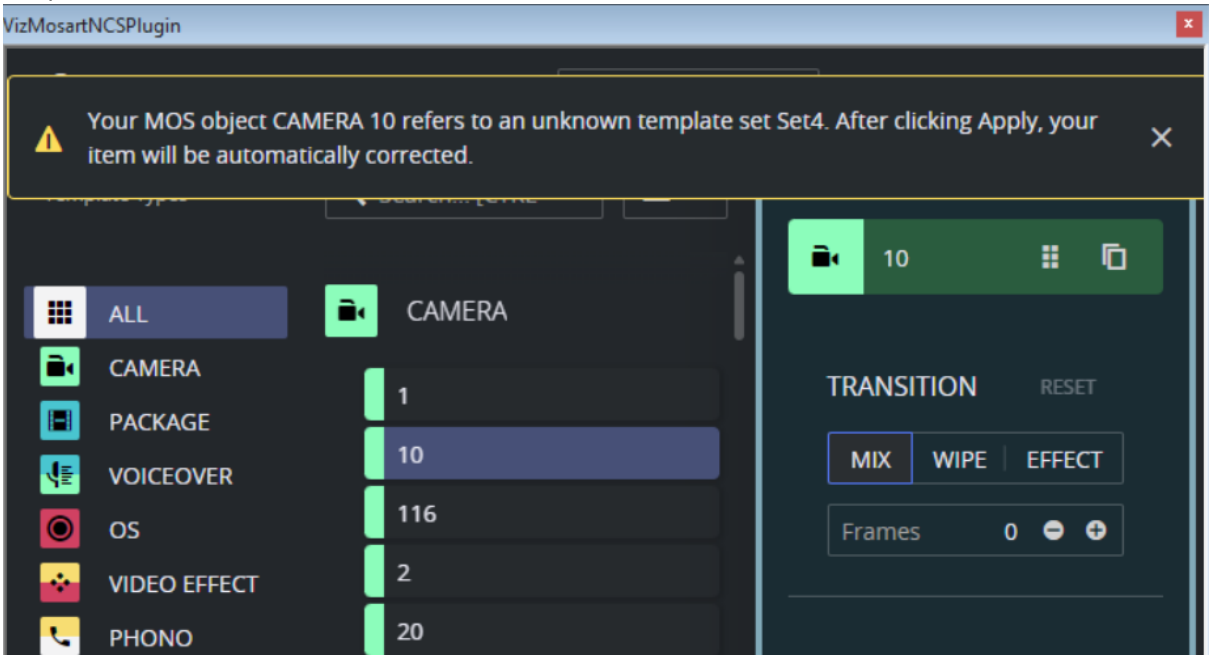
To modify MOS objects created with the Mosart NRCS Plugin

- 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.



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- 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.

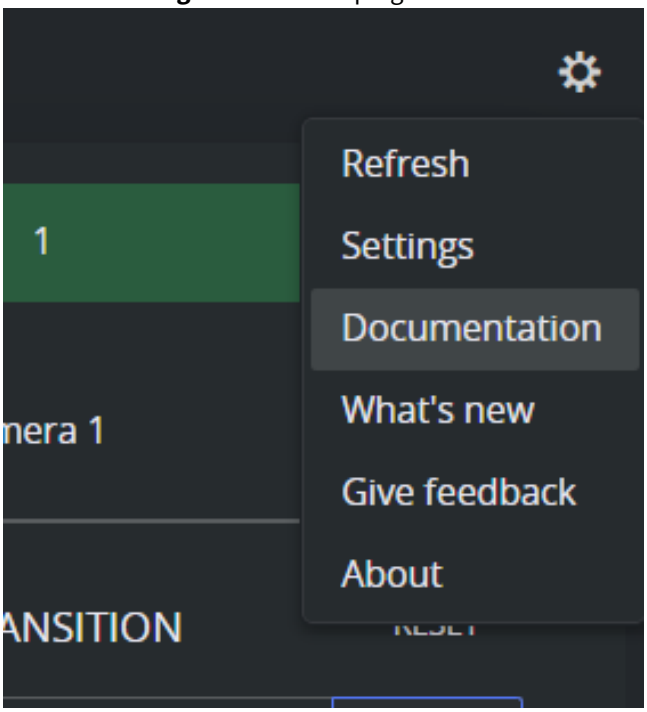
To edit MOS objects created by ActiveX

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

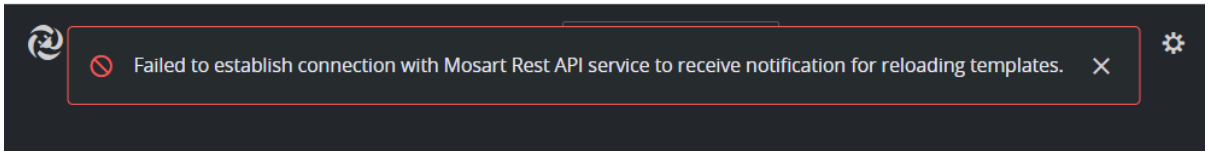
The NRCS Plugin documentation is continually updated and available online. This includes both this User Guide and the Release Notes.
You can also send your feedback directly to the Mosart NRCS Plugin design team.

- 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:



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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.

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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.

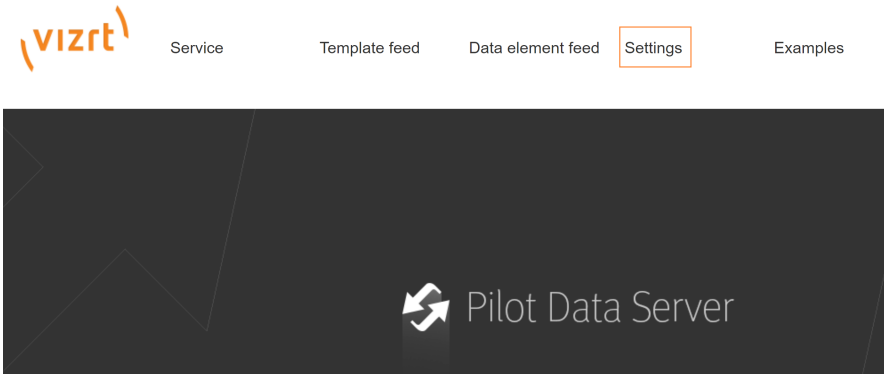
5.2.1 Hosting NRCS Plugin within Pilot Edge

- Set Up
- Working with the Mosart NRCS Plugin in Pilot Edge

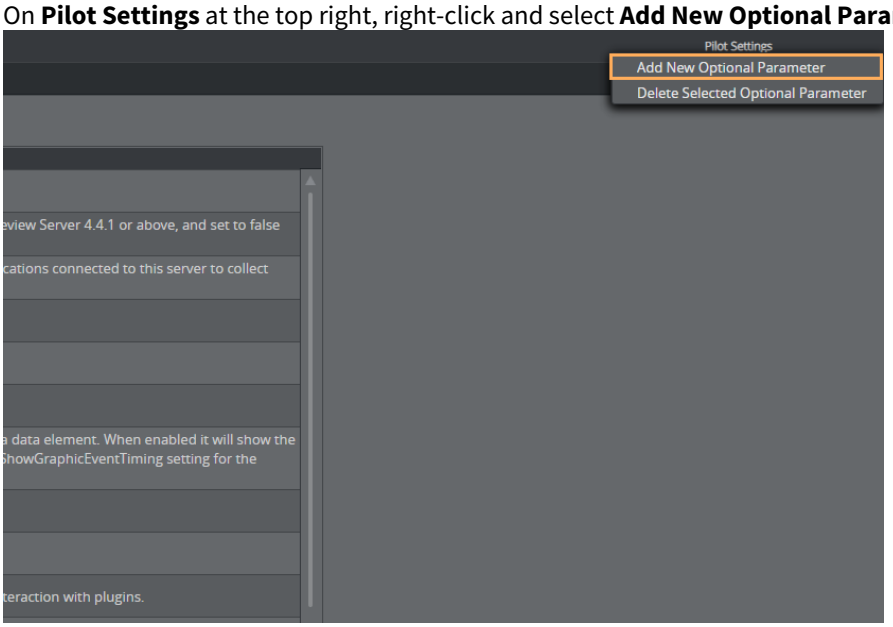
Set Up

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**.



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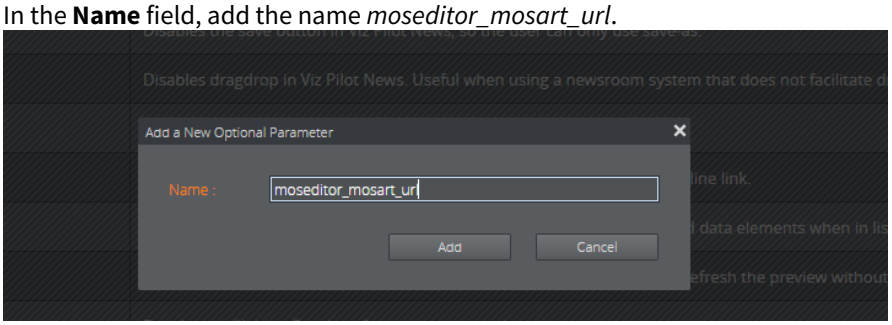
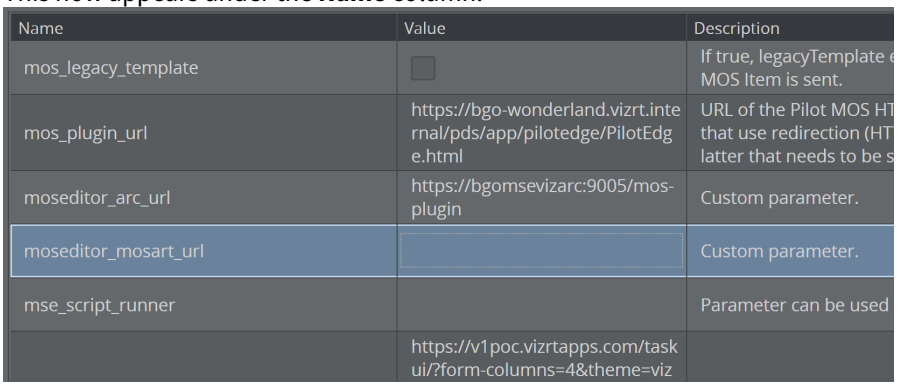
4. In the **Name** field, add the name *moseditor_mosart_url*.

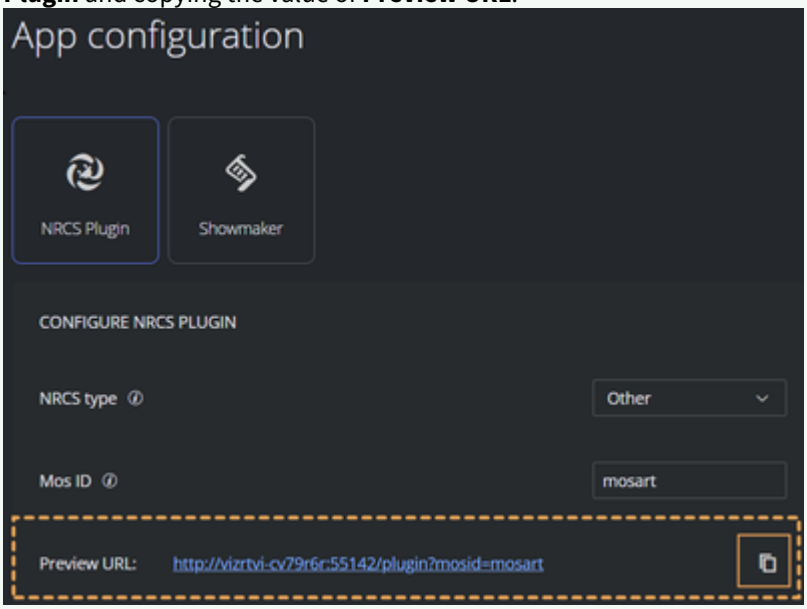


This now appears under the **Name** column:



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**.



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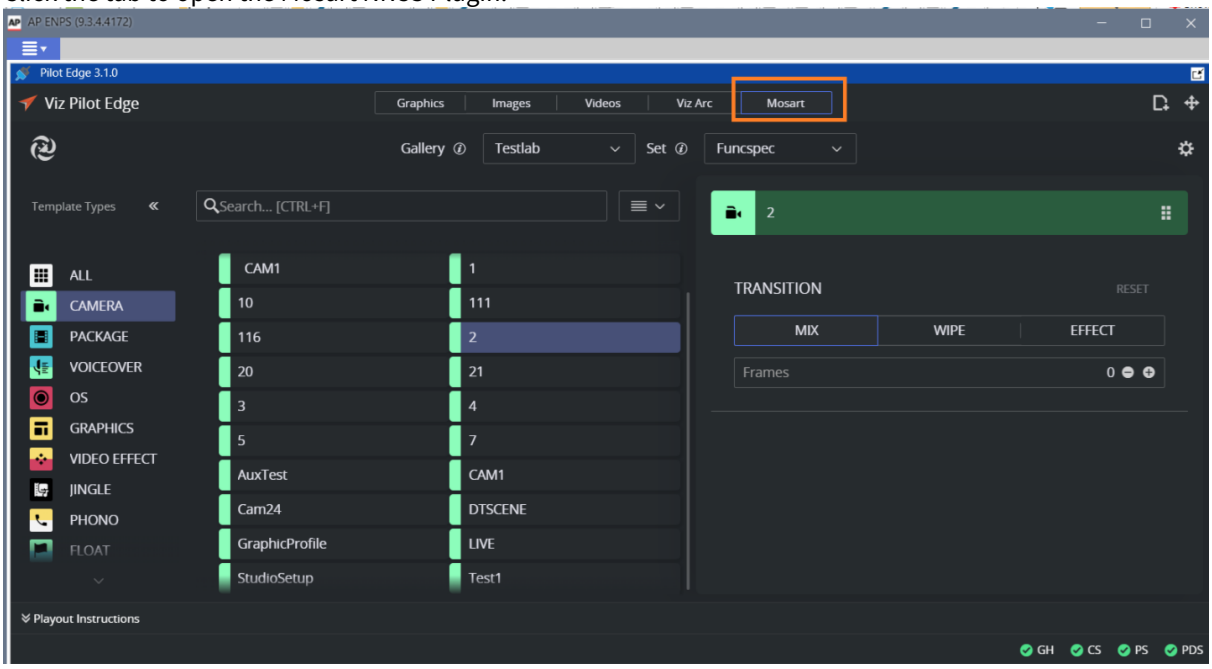
Name	Value	Description
mos_legacy_template		If true, legacyTemplate MOS Item is sent.
mos_plugin_url	https://bgo-wonderland.vizrt.internal/pds/app/pilotedge/PilotEdge.html	URL of the Pilot MOS H that use redirection (H latter that needs to be
moseditor_arc_url	https://bgomsevizarc:9005/mos-plugin	Custom 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.

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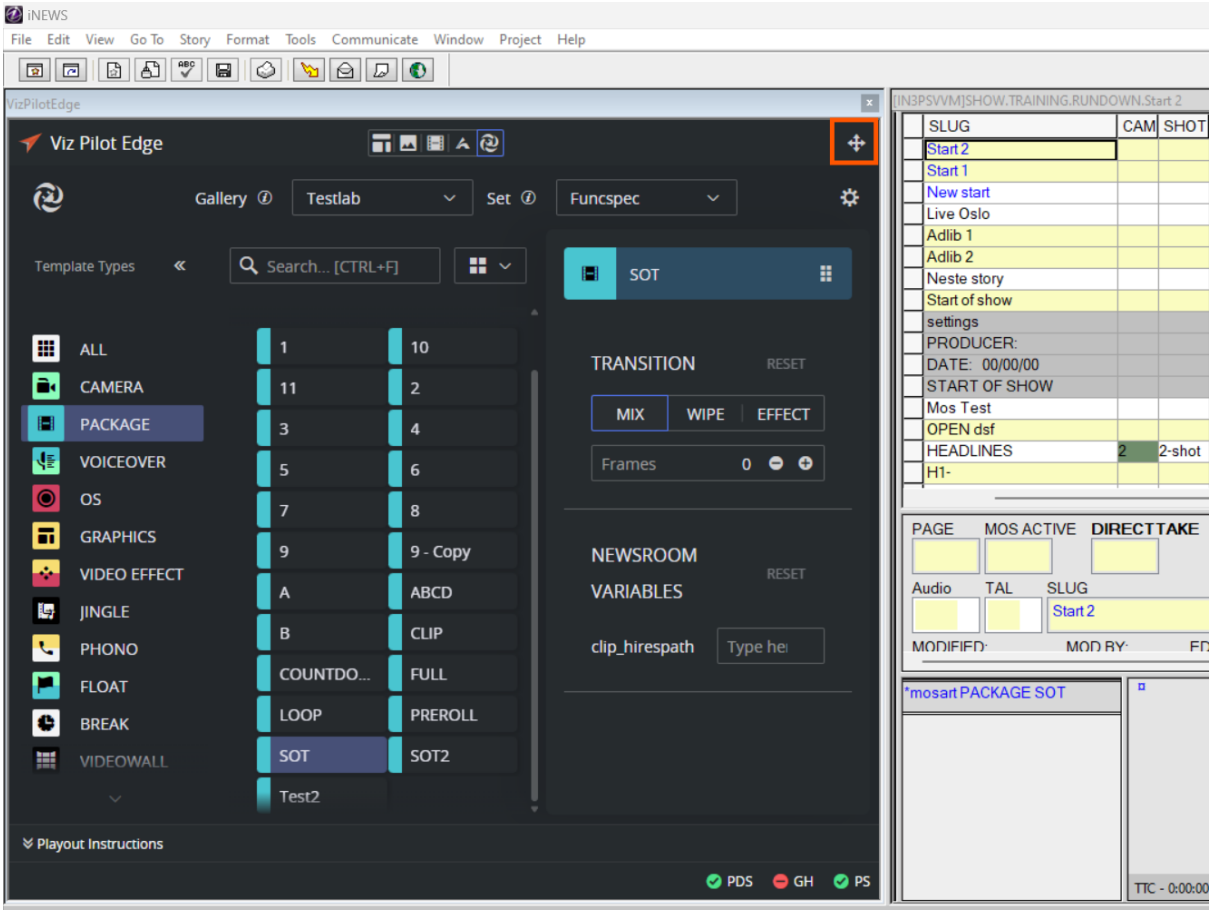
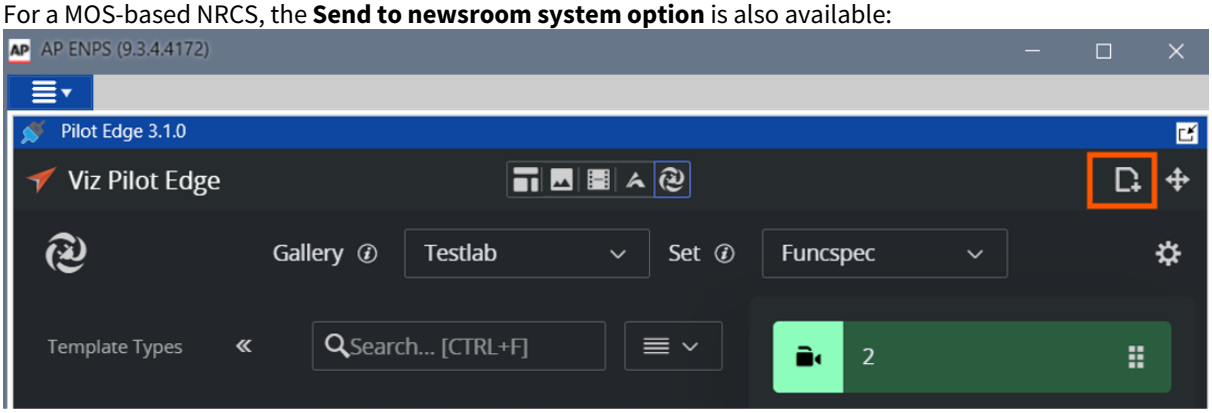


For a MOS-based NRCS, the **Send to newsroom system option** is also available:



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.

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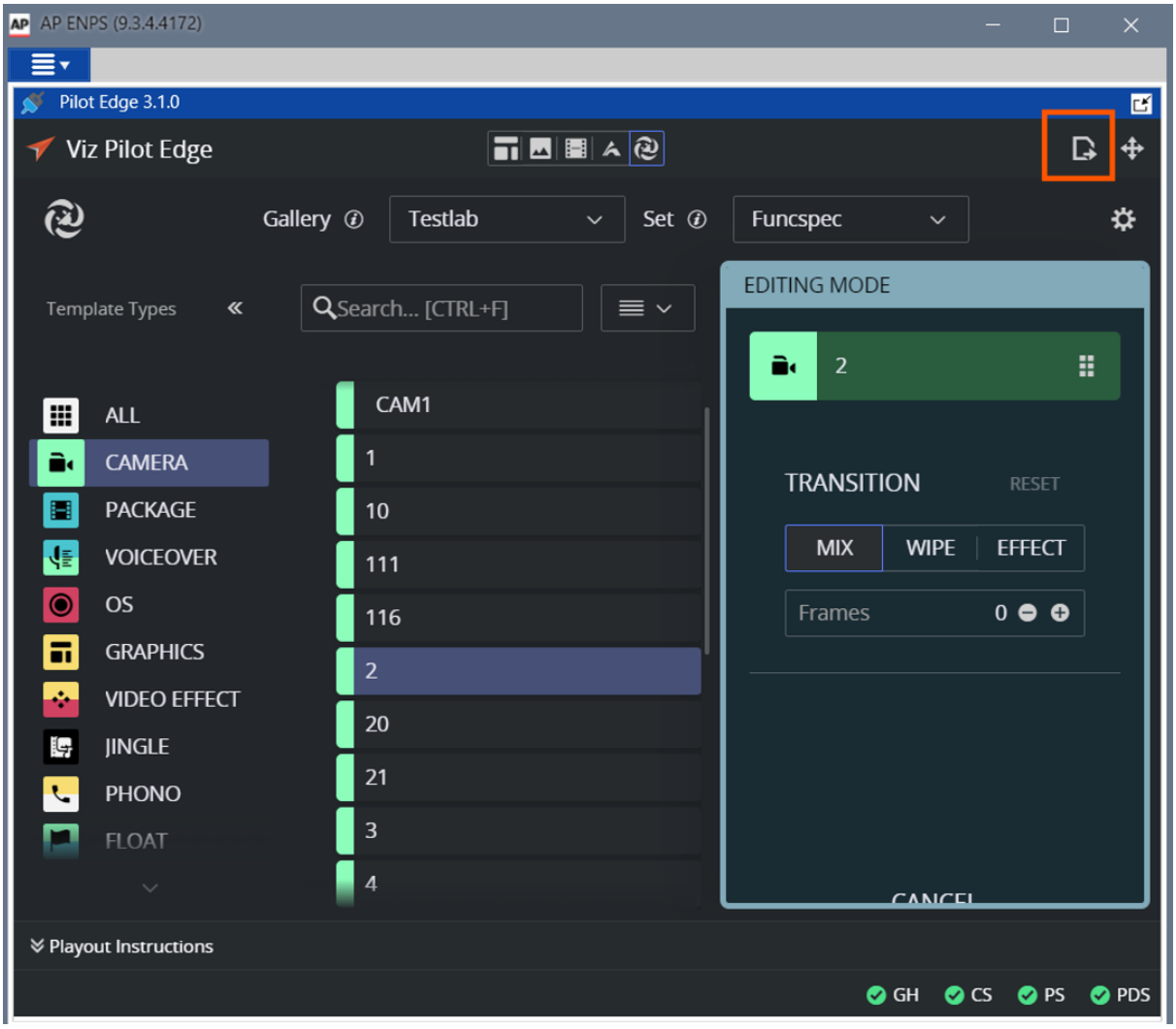

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5.3 Setup And Administration

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

- Setting up the NRCS Plugin
- Optional Server Setups
    - Support for Main/Backup Connection
    - Support for HTTPS
- Verifying the Mosart Installation
- Integrating with an NRCS
    - ENPS
    - iNEWS
    - Octopus
- Troubleshooting

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.

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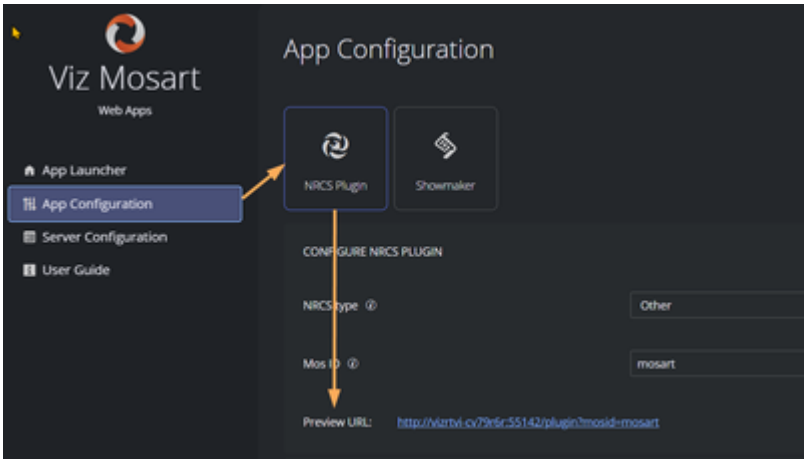

⚠ The Plugin URL comprises the machine name, port number *55142,* NRCS type and (when supported) Mos ID in the form: *http://machine-name:55142/plugin?nrcs={type}&mosid={mosid}*

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 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.

⚠ **Note**: Initial investigations show that the NRCS Plugin also works with *OpenMedia*. However this connection is currently not officially supported by Vizrt.

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**.

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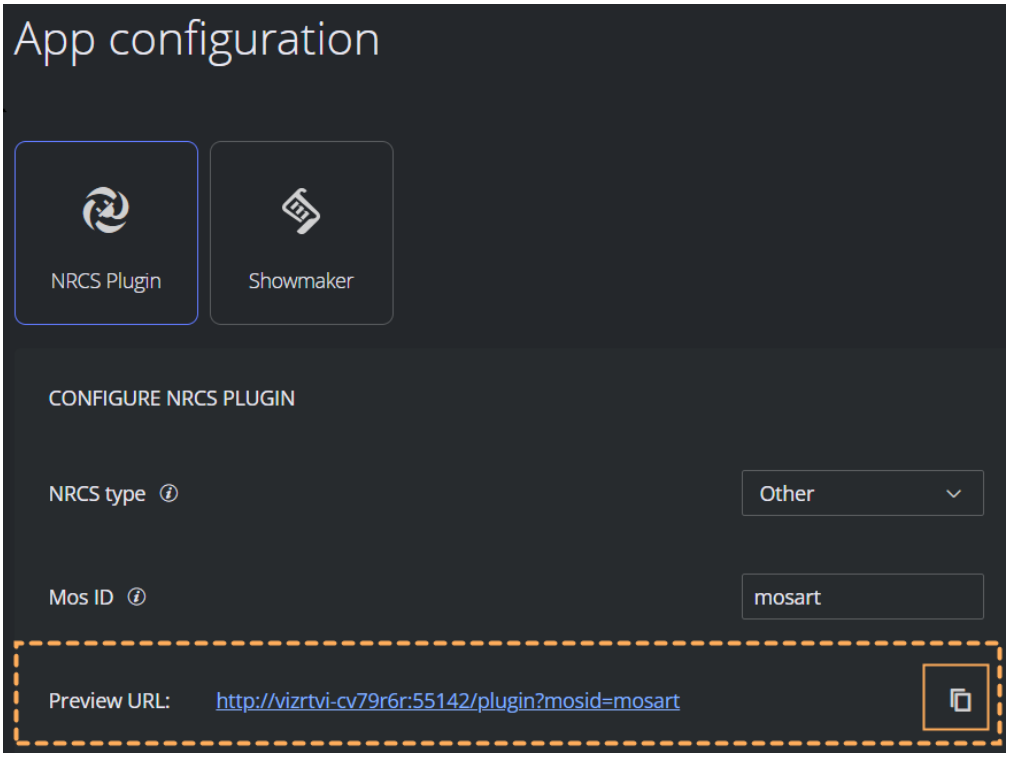
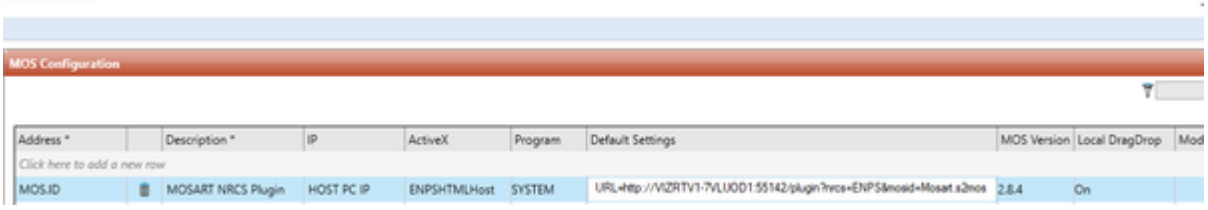


2. On the ENPS machine, navigate to **System Maintenance > MOS Configuration**.
3. Paste the NRCS Plugin's copied URL, similar to the example below:



Note: 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

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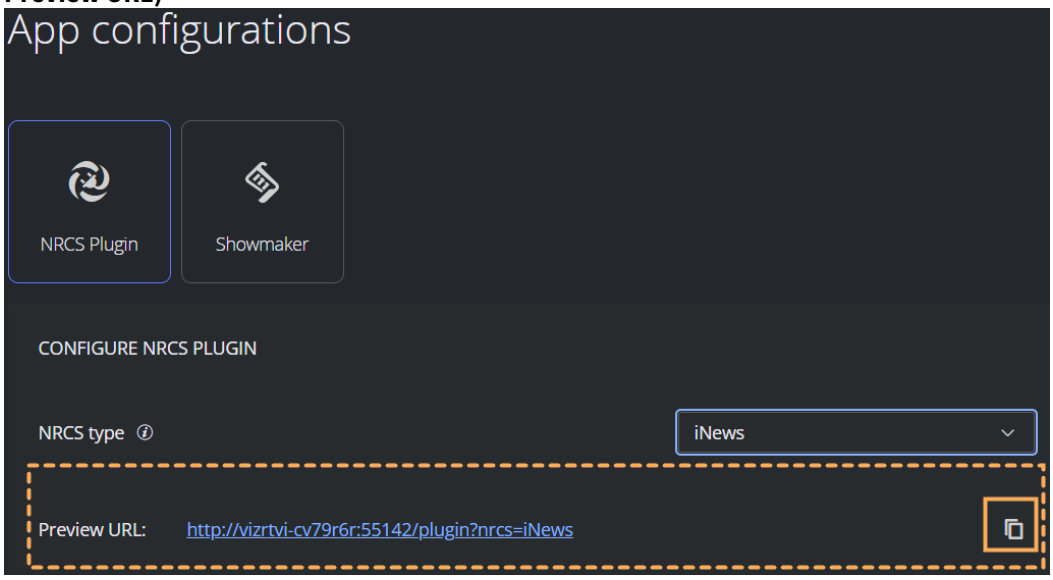
iNEWS Clients with HTML5 Support

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

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

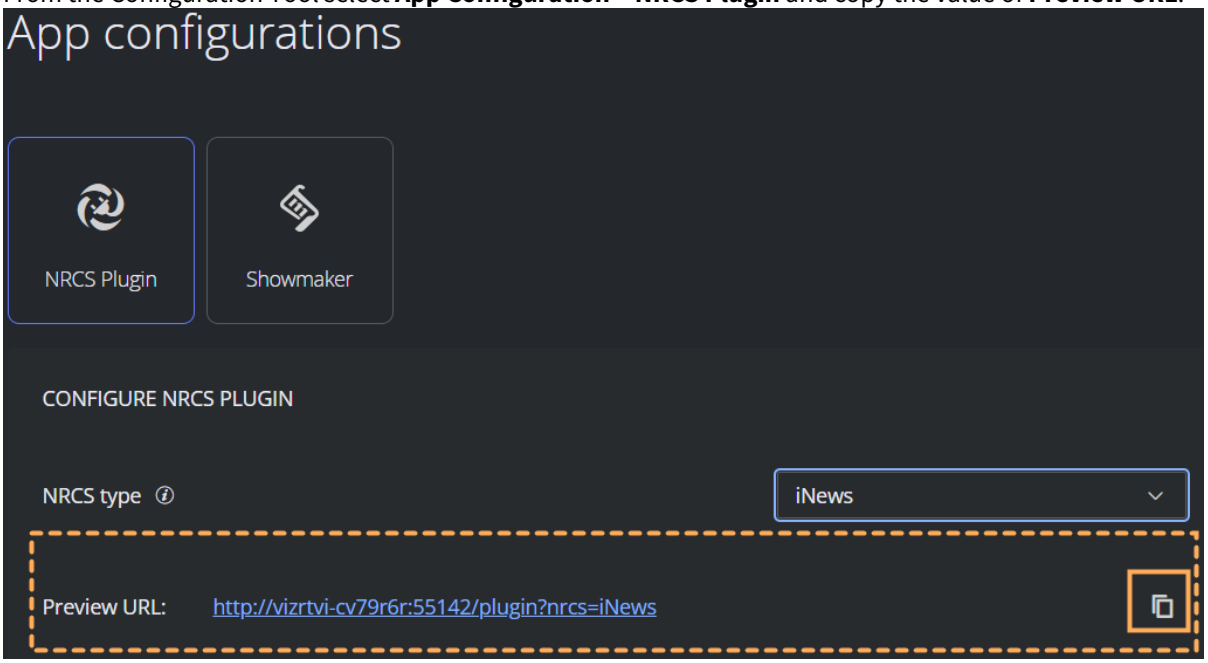
Note: If the old Mosart ActiveX opens instead of the Mosart NRCS Plugin when trying to modify/edit a Mosart item (by double clicking on the item), you must uninstall the Mosart ActiveX.

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*.

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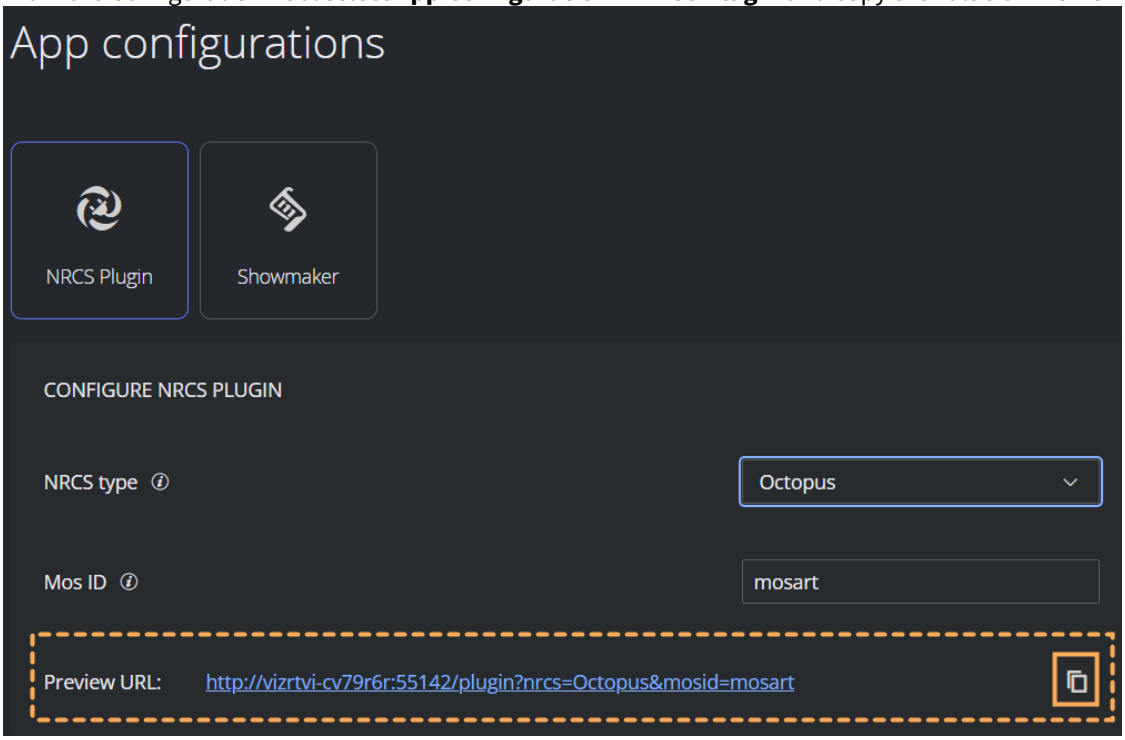
Note: To change the configured URL after the installer was closed, simply open a command prompt and execute:
`"C:\Program Files (x86)\Vizrt\Mosart NRCS Plugin - iNEWS\MosartNCSPlugin.exe" url "https://machine-name:55142/plugin/?nrcs=iNews"`

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**.

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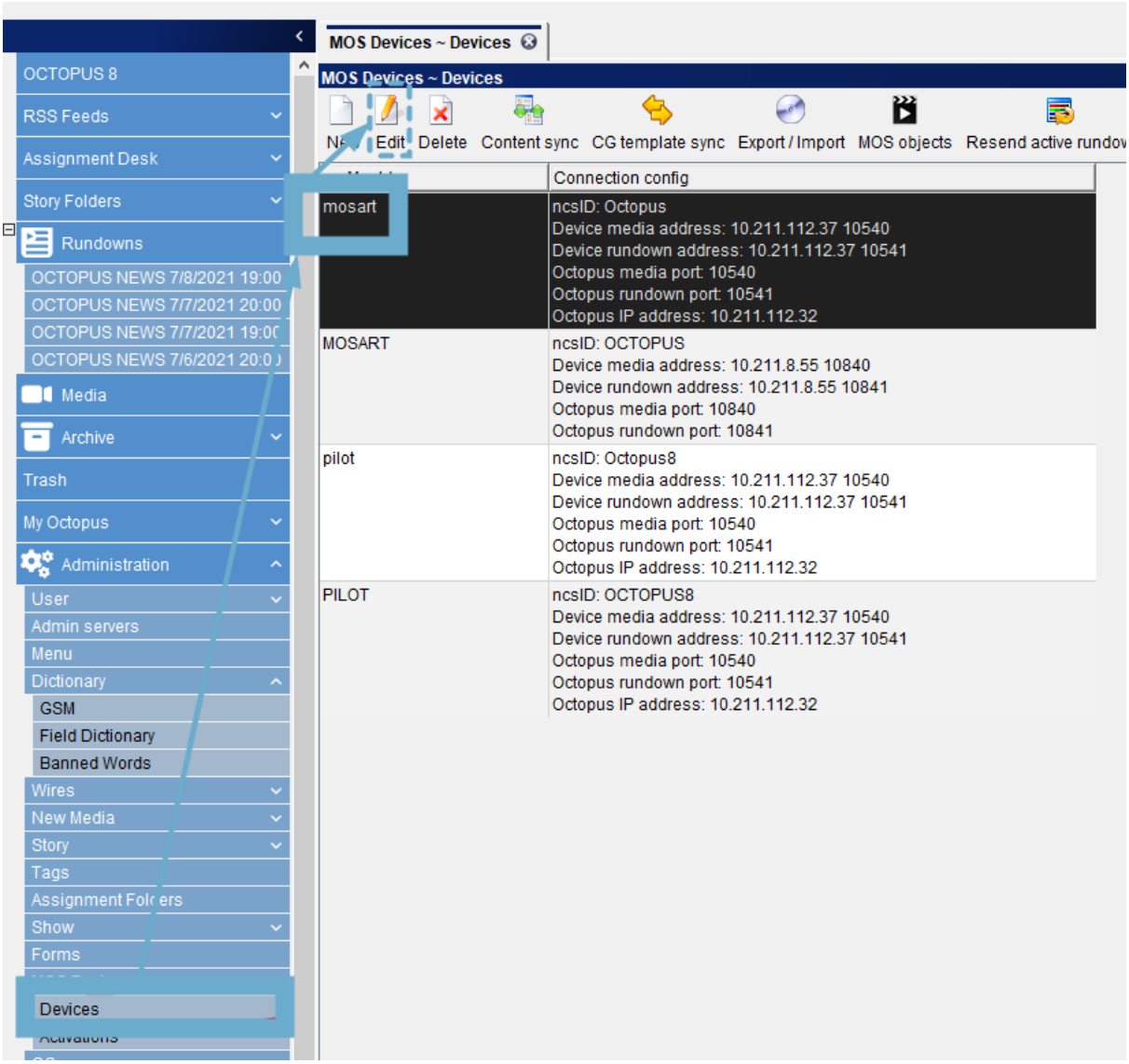

4. Select the **Plugins** tab:

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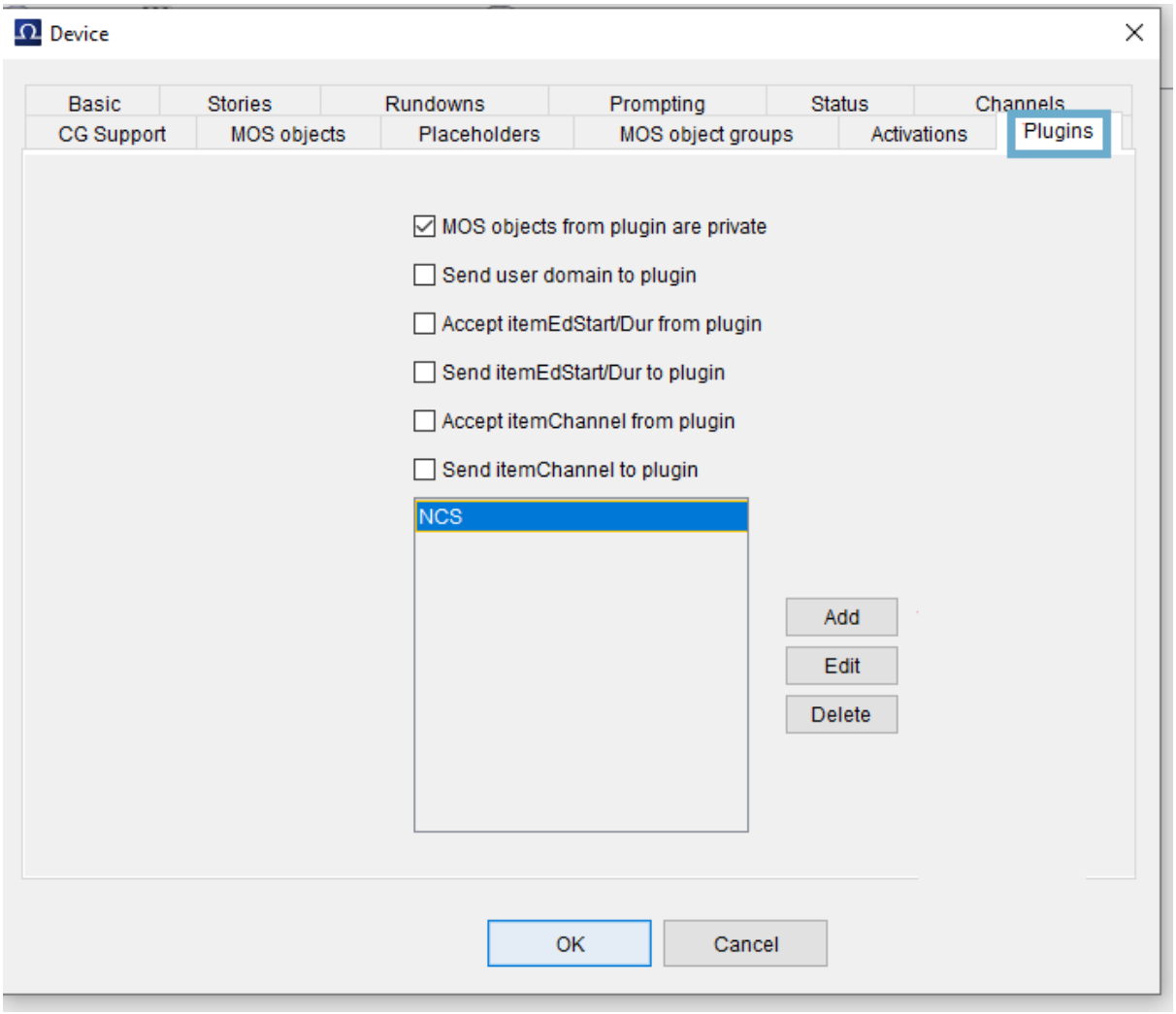

5. Fill-in as below, and providing:
   a. A unique name
   b. Version
   c. The URL to the Viz Mosart NRCS Plugin (*copied* in step (**1**).

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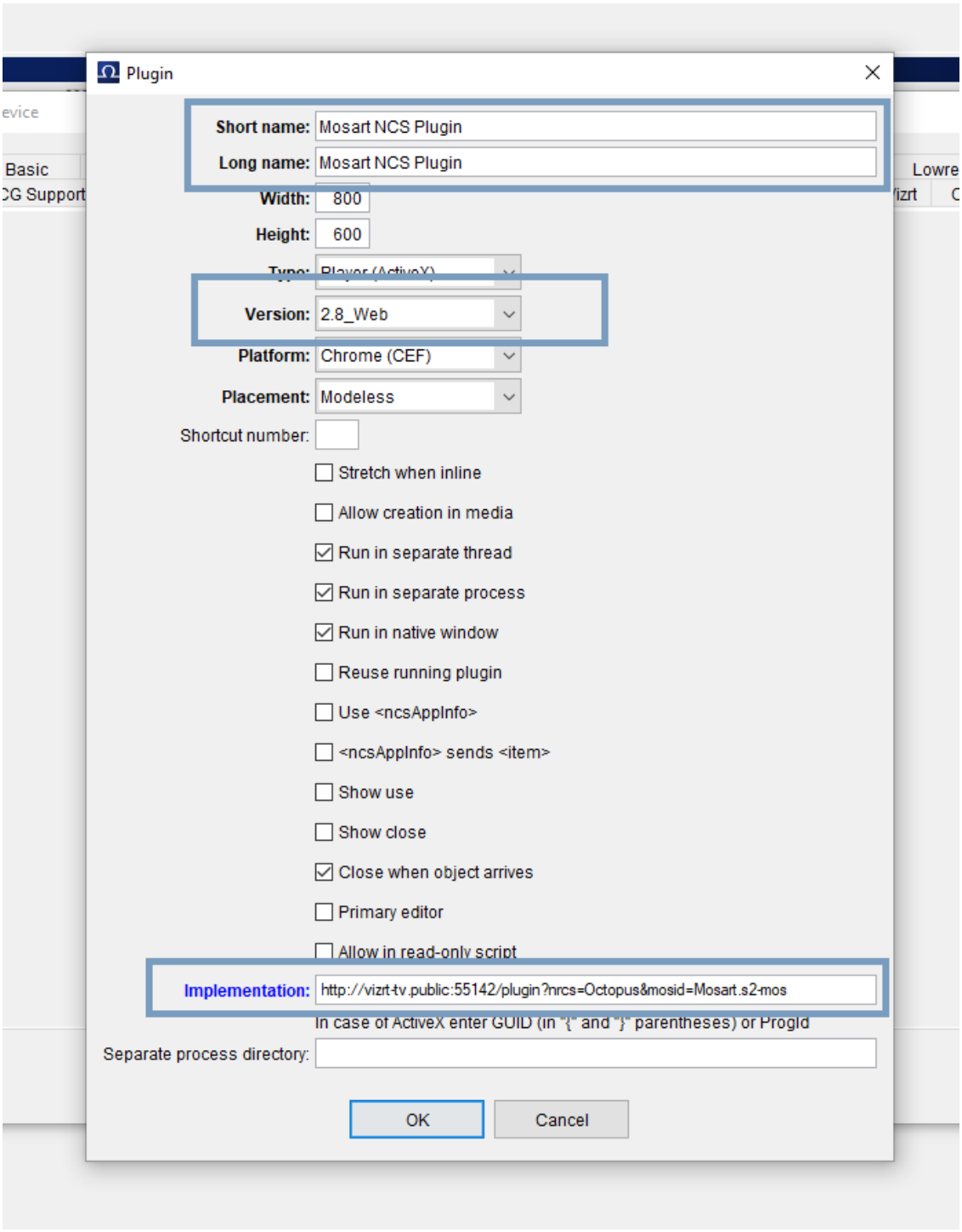

6. Setup is complete.
   When editing a selected rundown, the user right-clicks for **New > Create using** <given name of the Plugin>

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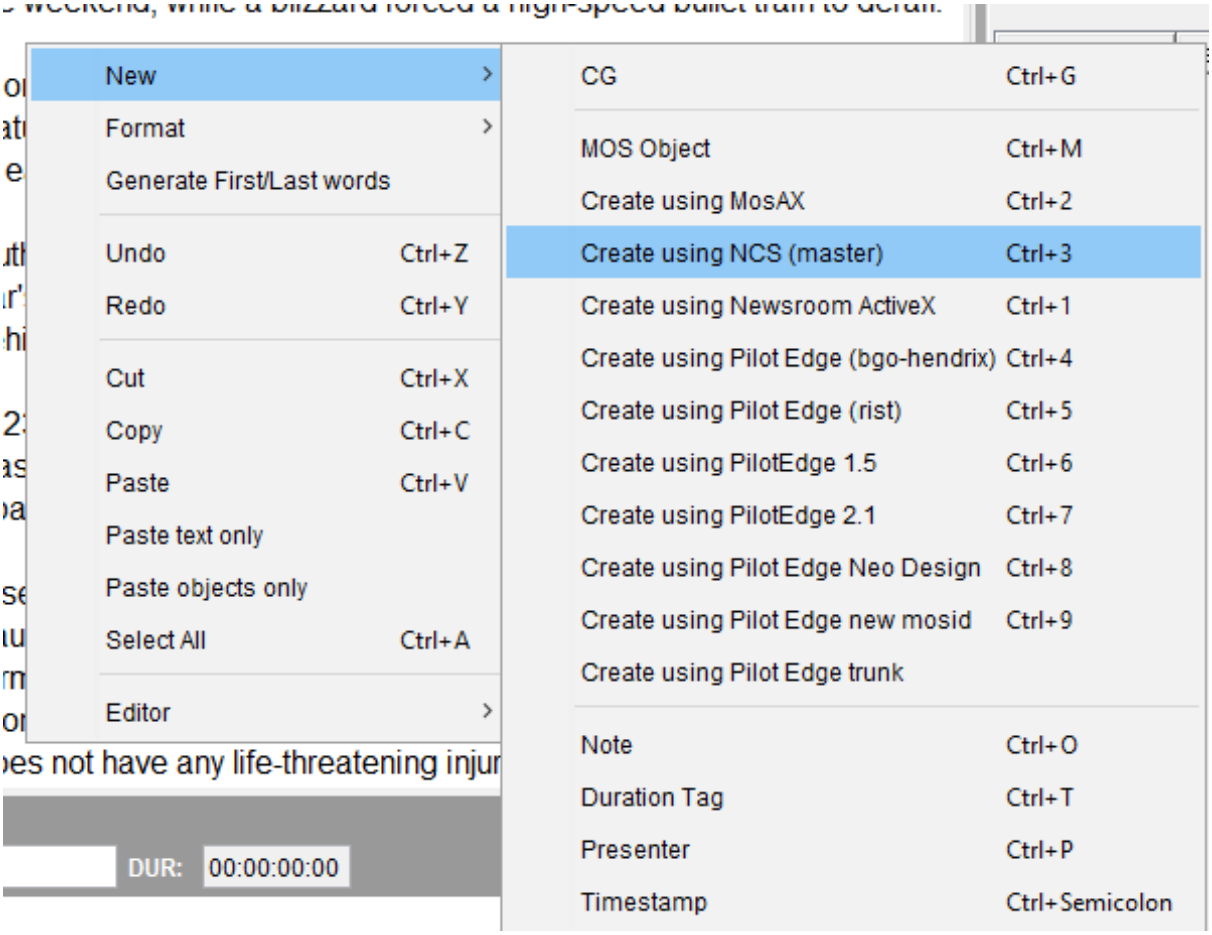

For more details, see the *Viz Mosart Administrator Guide*, section **Manus Administrator > Settings Editor MOS > NRCS Configuration**.

5.3.5 Troubleshooting

See section *Troubleshooting*.

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6 Mosart 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 the Timing Display
- Setup and Administration of TD

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6.1 Working With The Timing Display

- Key Features
- Operating Modes
  - View Mode
  - Edit Mode
  - Viz Mosart Server Status
  - Audio Countdown
- Distributing a Timing Display

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.

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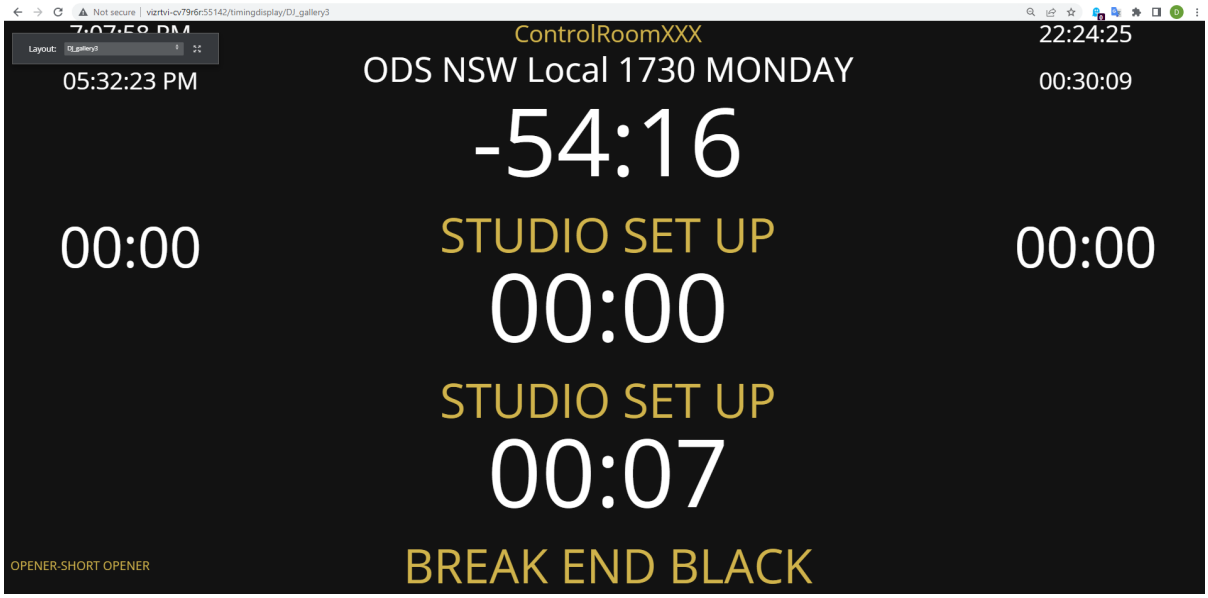
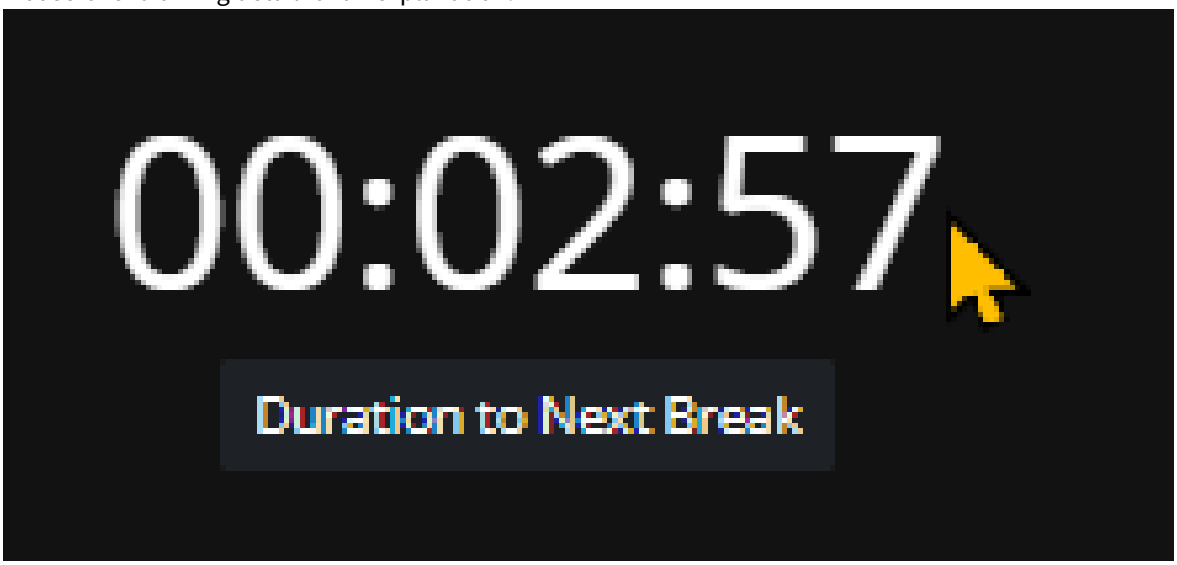


In *View* mode you can:

- Mouse-over a timing detail for an explanation.



- Display as full screen.

- Select any other defined view of the display.

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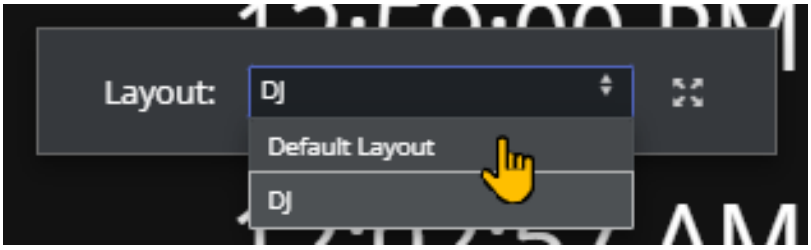
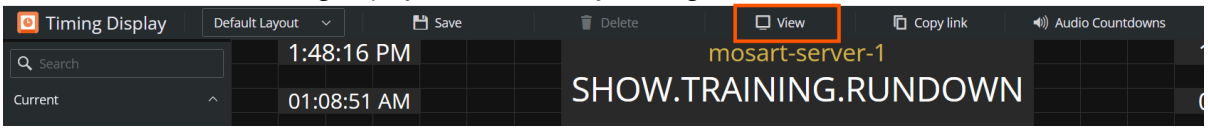


To display a Timing Display in View mode

- 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.



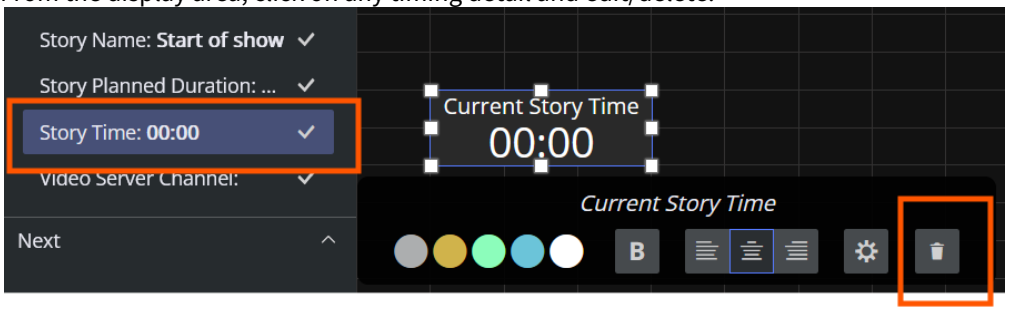
The View *Mode* opens in a new tab.

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.



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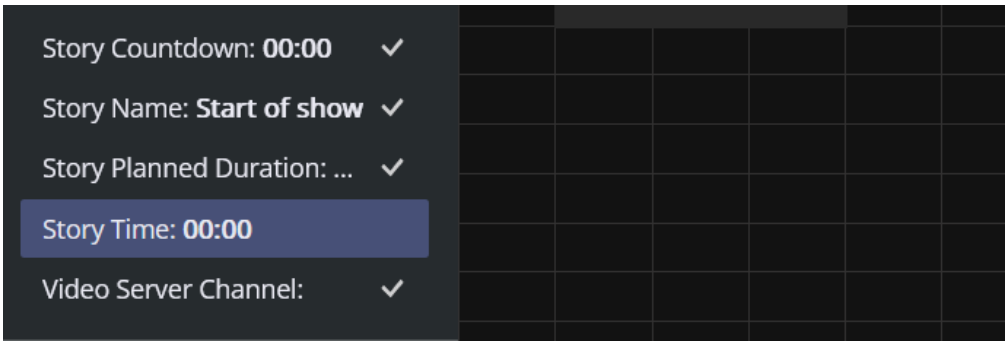
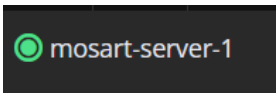
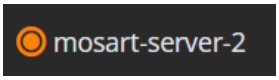
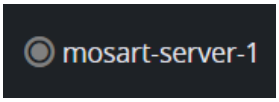
c. The action **Delete** simply returns the selected timing detail back to the **Timers** selection panel on the left.



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.

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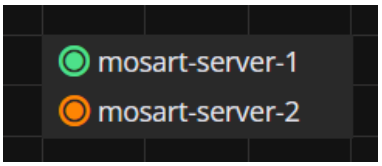
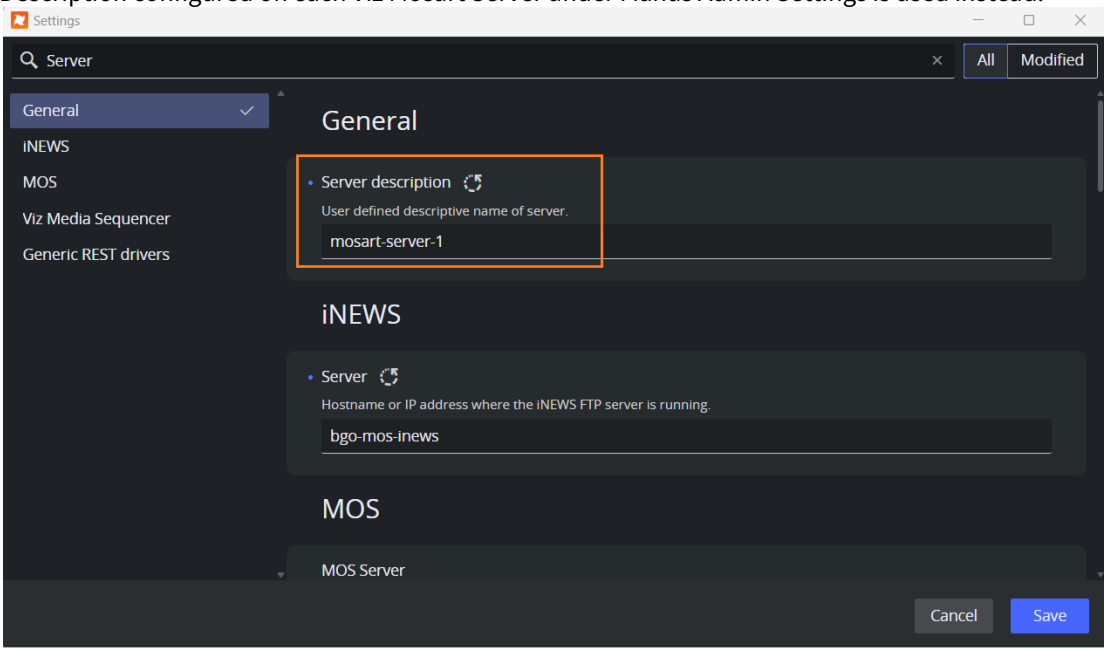
Status	Description
	Viz Mosart is setup with main and backup and backup Mosart server has been configured in Viz Mosart Web Config Tool > Server Configuration.

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.



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**.

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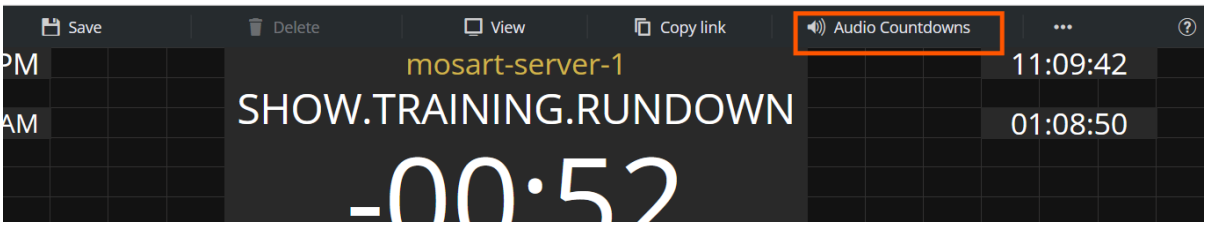
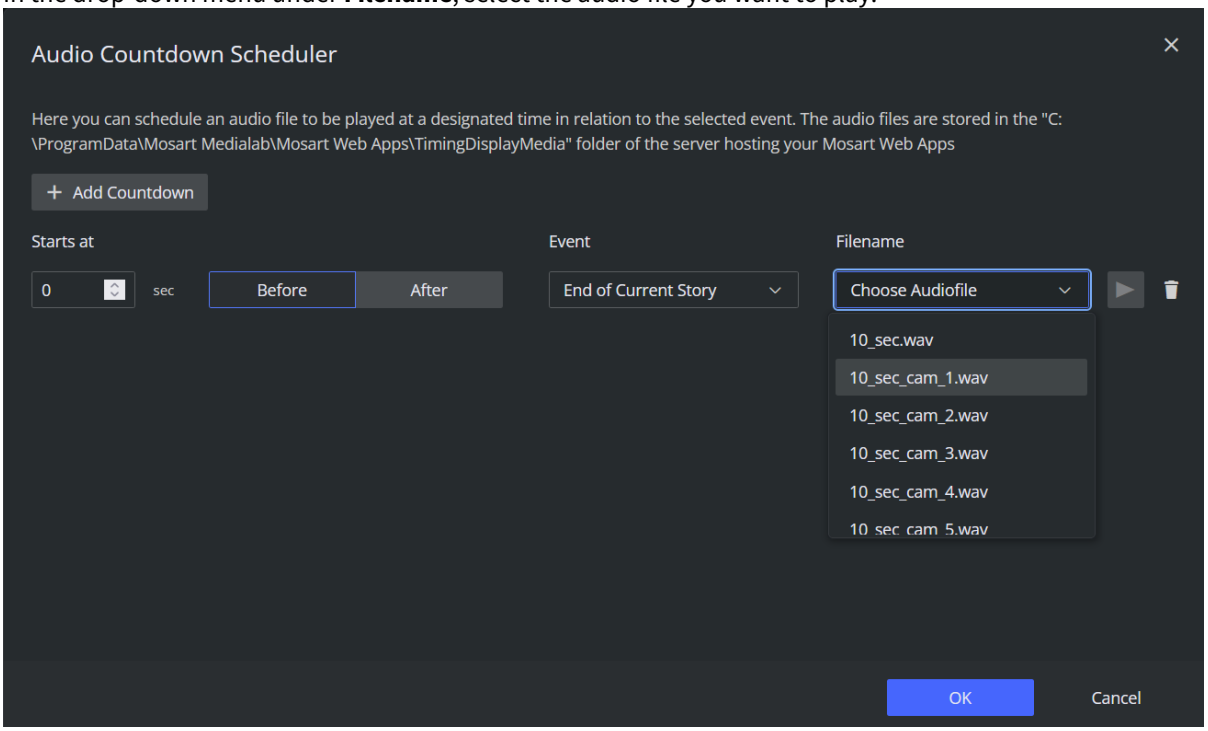


3. From the dialog window that appears, click **Add Countdown**.
4. In the drop-down menu under **Filename**, select the audio file you want to play.



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.

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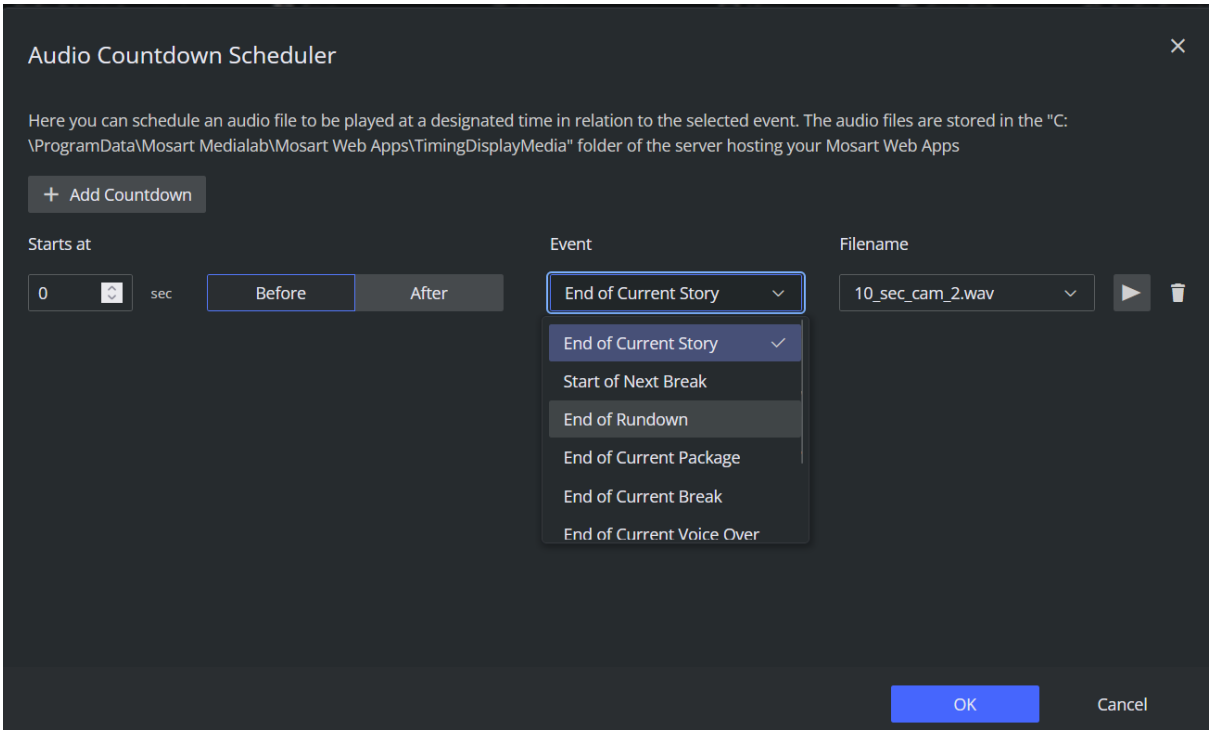
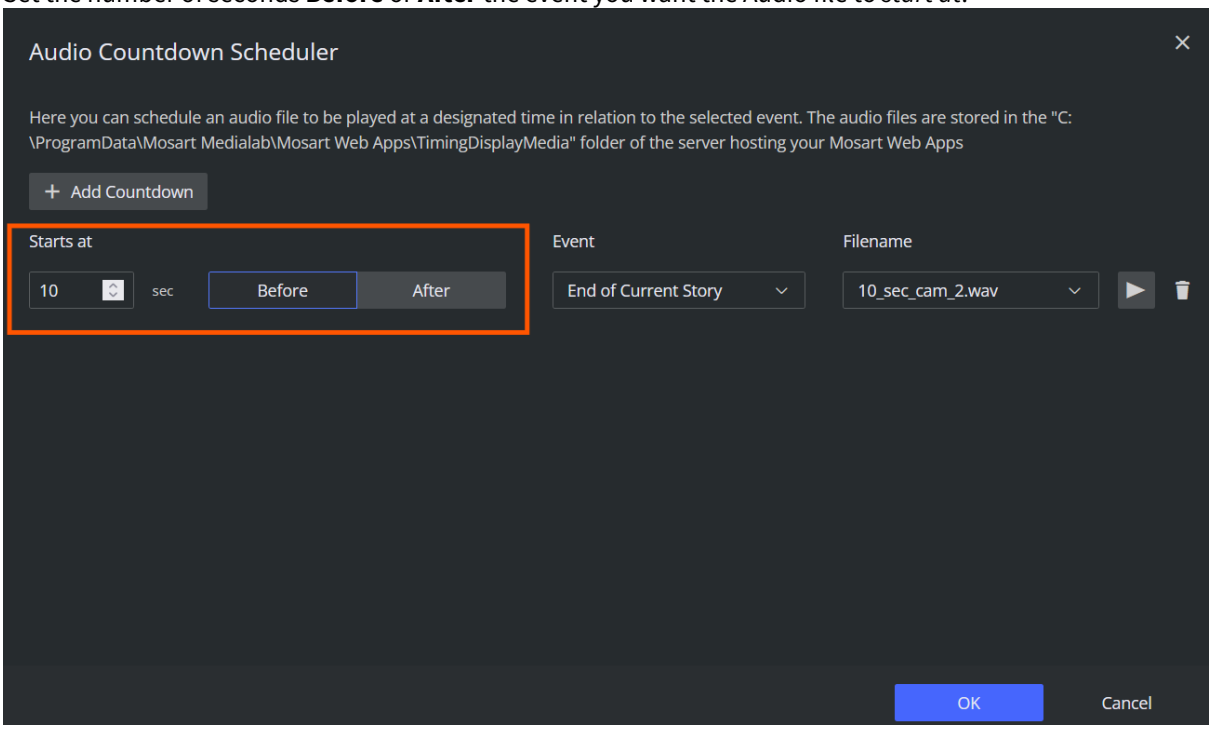


6. Set the number of seconds **Before** or **After** the event you want the Audio file to *start at*.



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.

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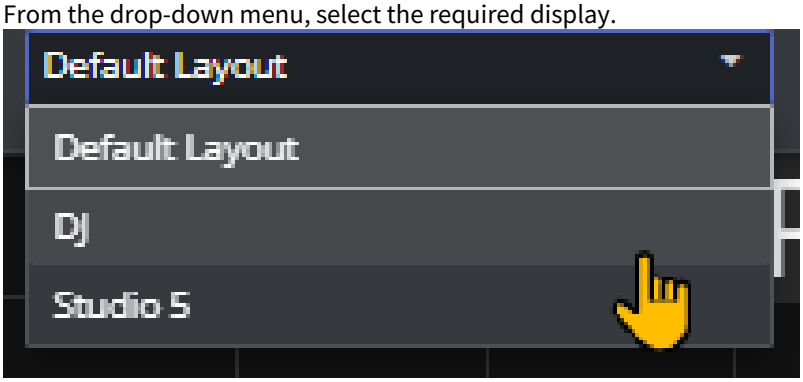
Note: If you *refresh* the Timing Display, you must again perform some activity on the web page before any audio can be played.
Simplest is just clicking on the page or pressing any keyboard key while the web page has focus. This is standard web browser behavior.

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

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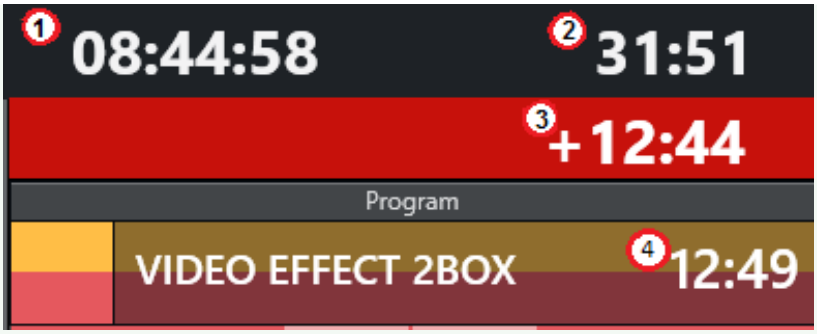

1. Counts the downtime to the *next break*.
2. Counts how much the rundown is *over/under*.
3. Counts down the *remaining time* for the current On Air template.
4. Shows the *duration* of the current On Air template.

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6.2 Setup And Administration Of TD

- Setting up the Timing Display
  - Prerequisites
  - Configuration
- Optional Server Setups
  - Support for Main/Backup Connection
  - Support for HTTPS
- Troubleshooting

6.2.1 Setting up the Timing Display

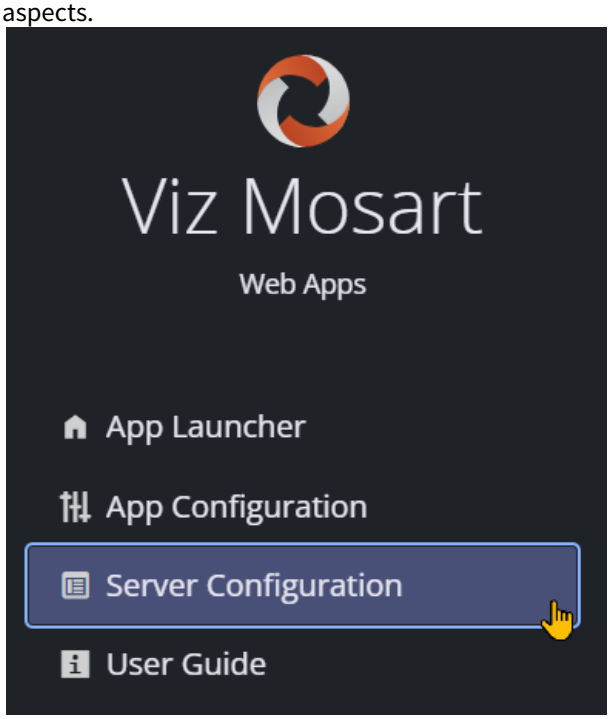
Prerequisites

- 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.



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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*.

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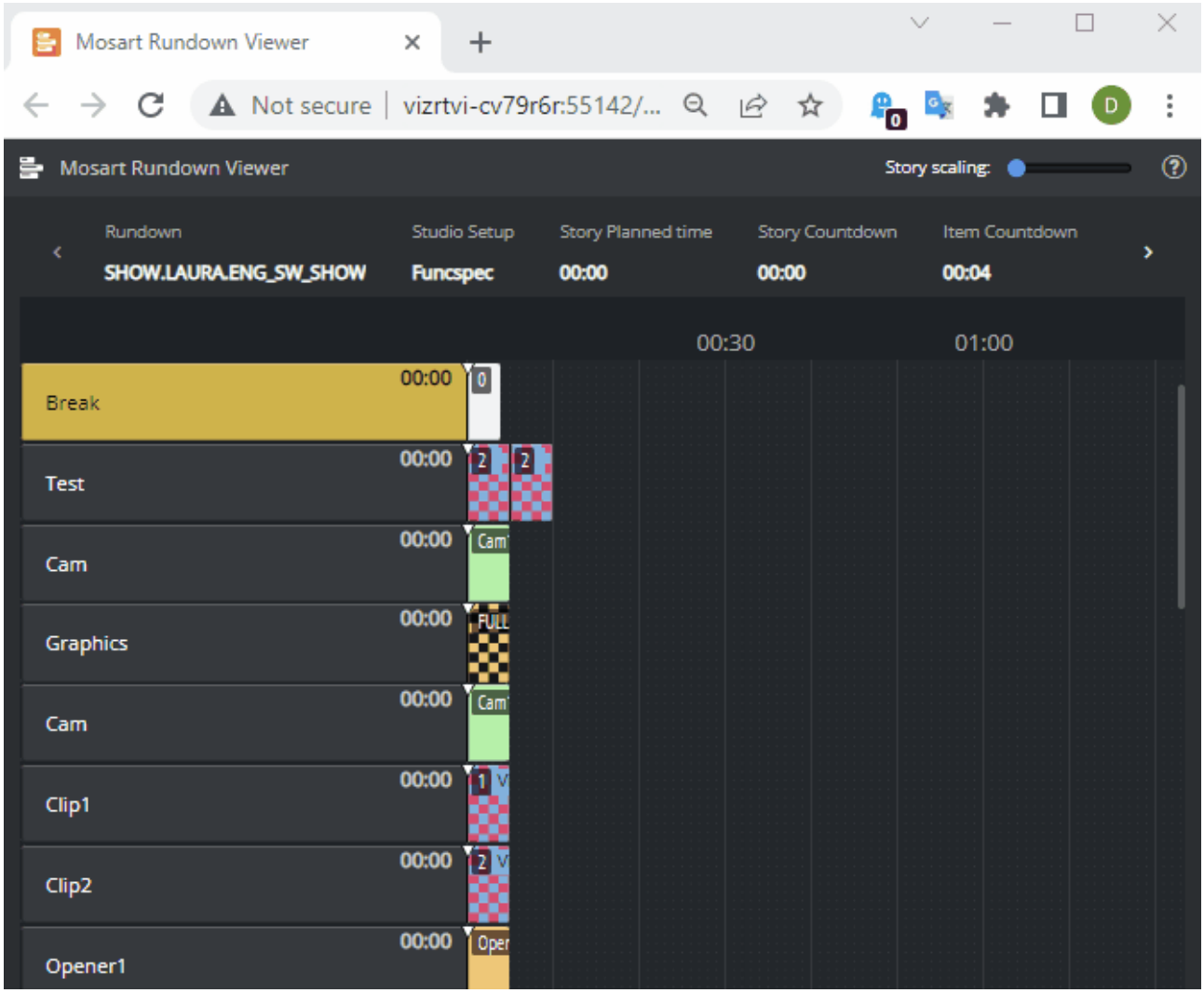
7 Mosart Rundown Viewer

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.

Note: 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

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7.1 Working With The Rundown Viewer

- Opening the Rundown Viewer
- Key features
  - Viz Mosart Server status
  - Story Scaler
  - Story Script
  - Go to On Air Story

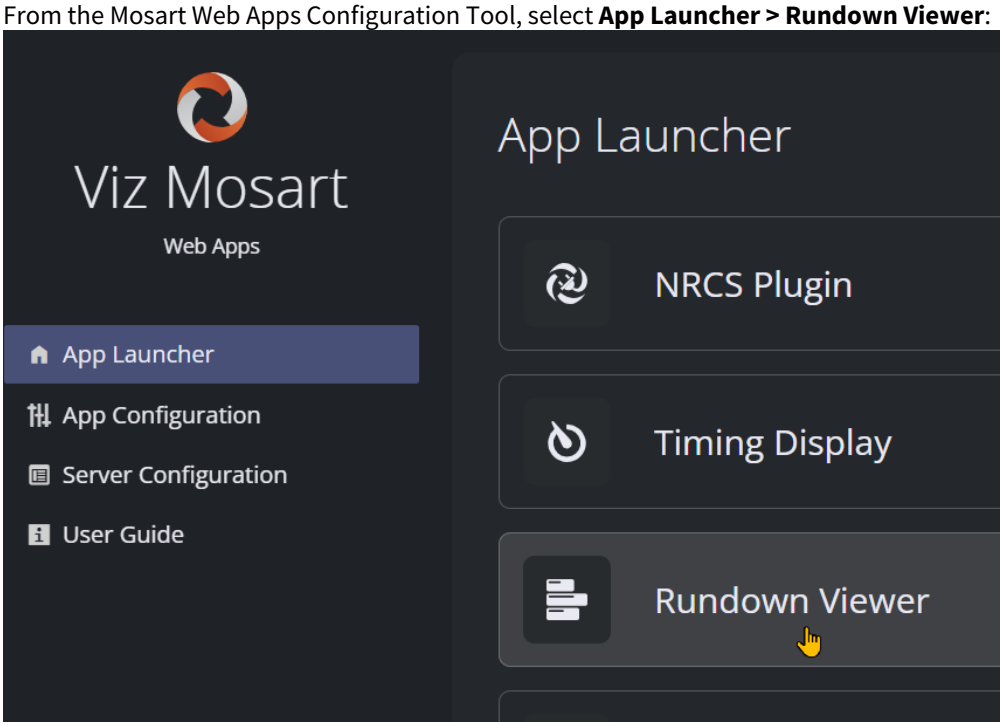
The Mosart Rundown Viewer provides a convenient, browser based display of a Viz Mosart rundown.

> **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.

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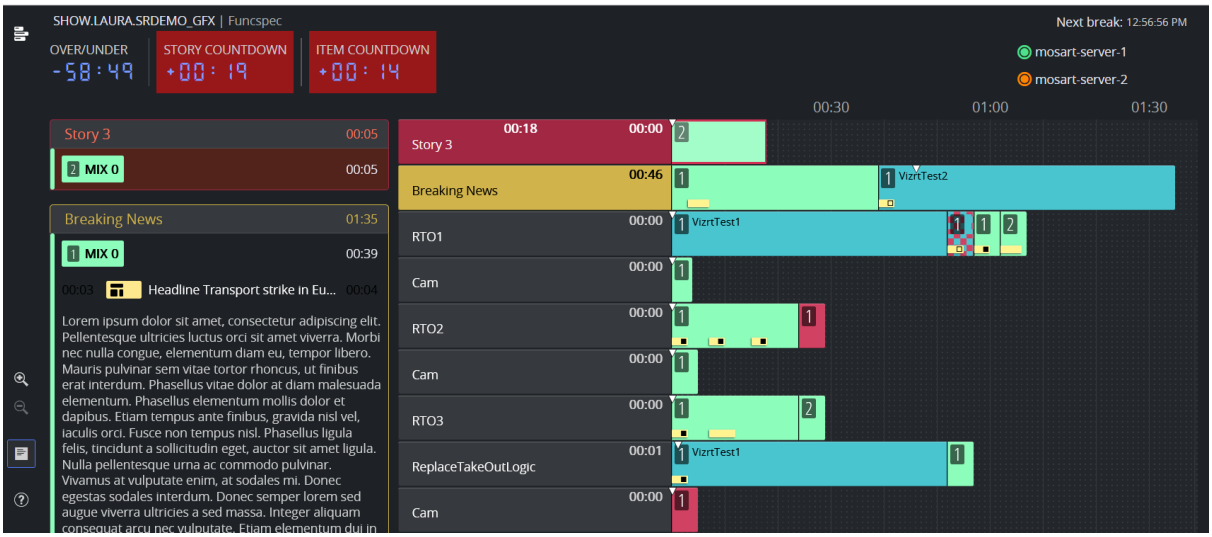
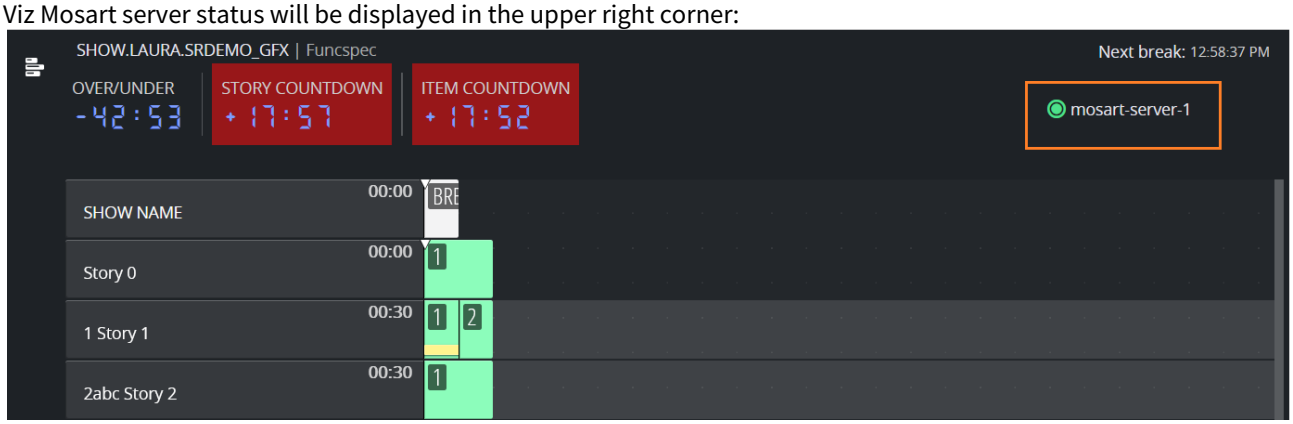
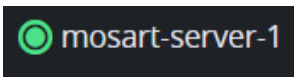
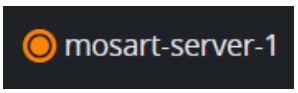
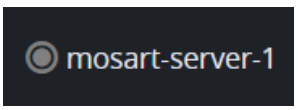


7.1.2 Key features

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.

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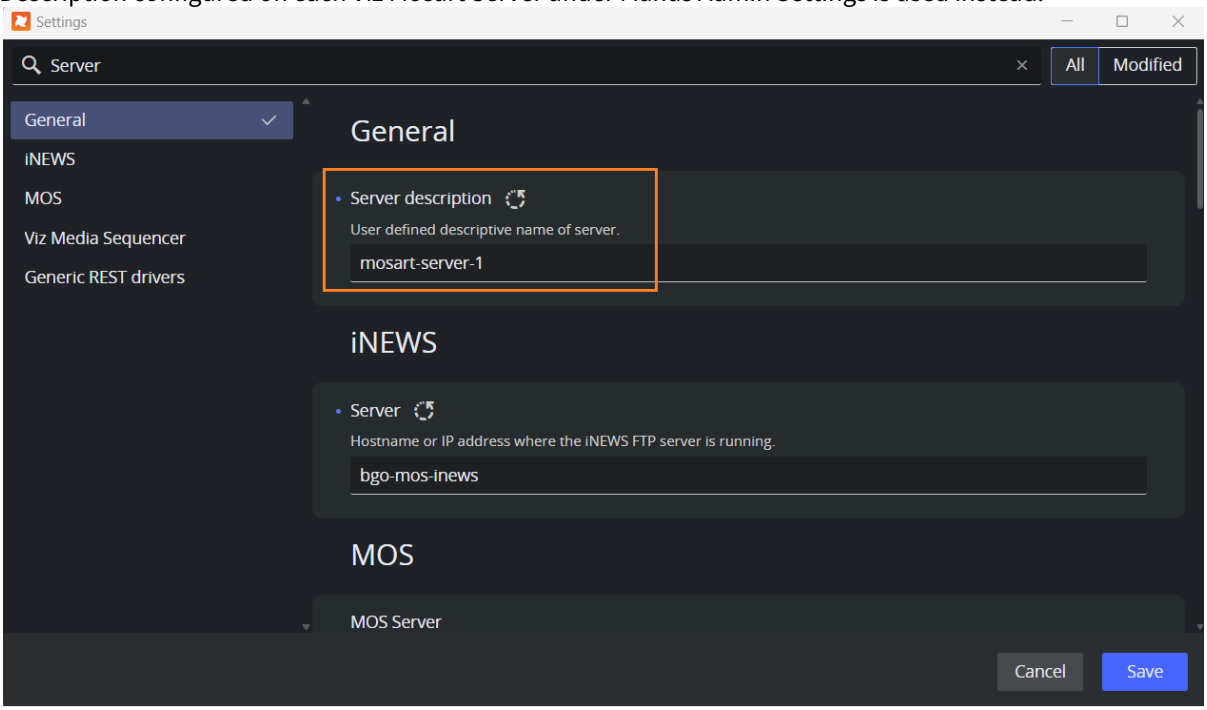
Status	Description
mosart-server-1 mosart-server-2	Viz Mosart is setup with main and backup and backup Mosart server has been configured in Viz Mosart Web Config Tool > Server Configuration.

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.

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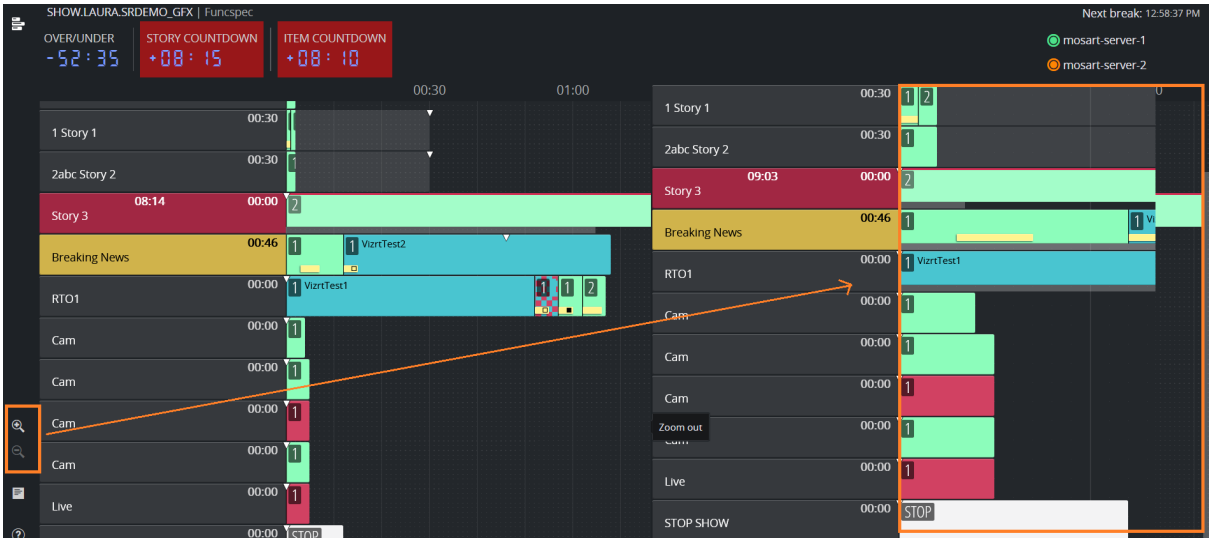


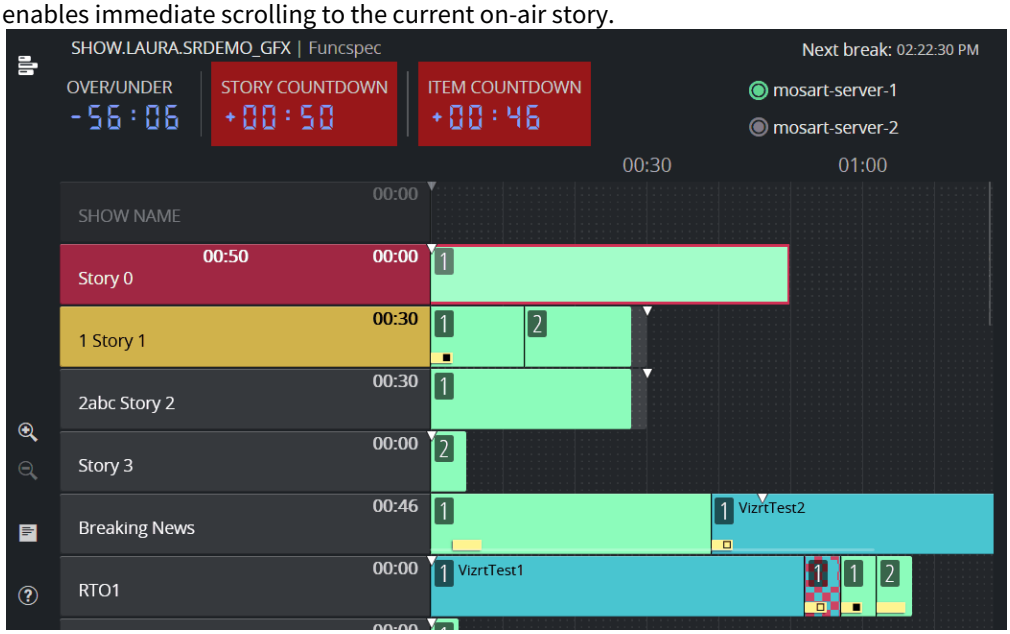
Story Script

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.



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

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7.2 Setup And Administration Of RV

- Setting up the Rundown Viewer
  - Prerequisites
  - Installation and Configuration
- Optional Server Setups
  - Support for Main/Backup Connection
  - Support for HTTPS
- Troubleshooting

7.2.1 Setting up the Rundown Viewer

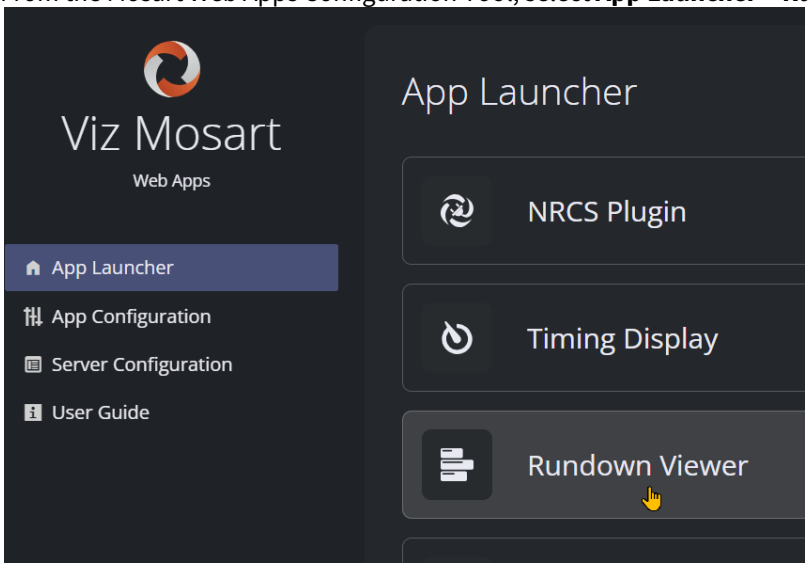
Prerequisites

- 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**.



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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*.

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8 Mosart 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.

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.

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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 Showmaker 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.

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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*.

> ⚠ **Note**: As documentation is updated, it will become available at the Vizrt Documentation Center.

- Setting up Showmaker
  - Prerequisites
  - Installation and Configuration
- Optional Server Setups
  - Support for Main/Backup Connection
  - Support for HTTPS
- Troubleshooting

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.

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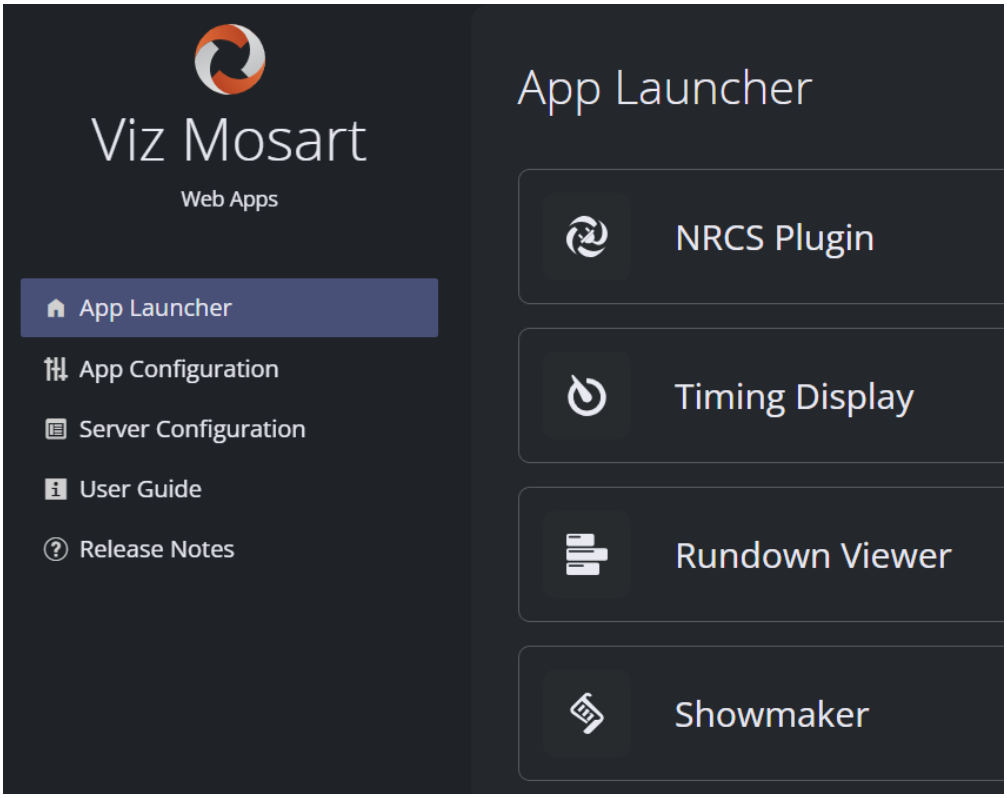

3. With these steps completed, Showmaker is ready to work with Viz Mosart.
   You may need to consider the scenarios presented in Optional Server Setups below.

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*.

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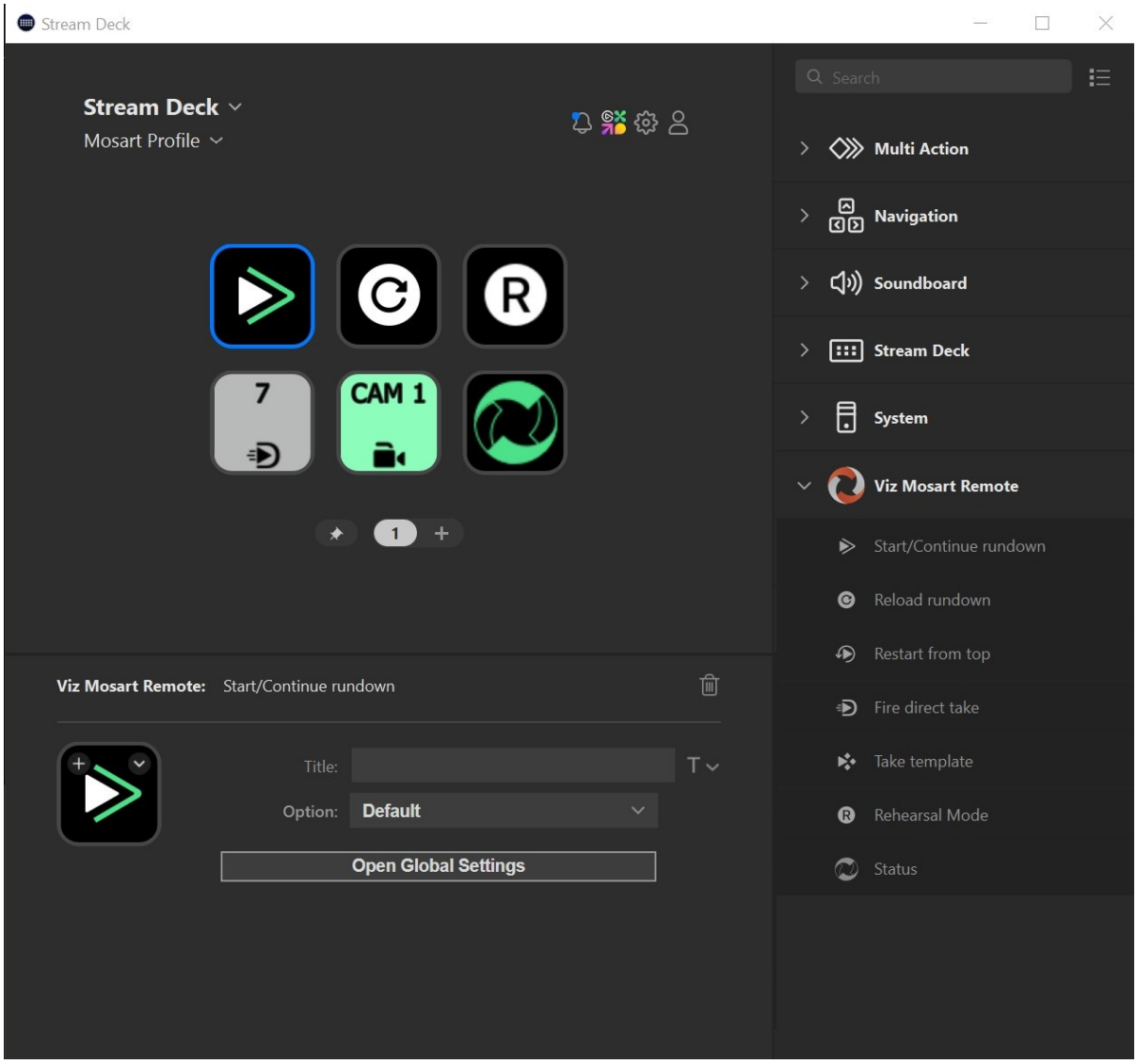
9 Stream Deck

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

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9.1 Installation

9.1.1 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.

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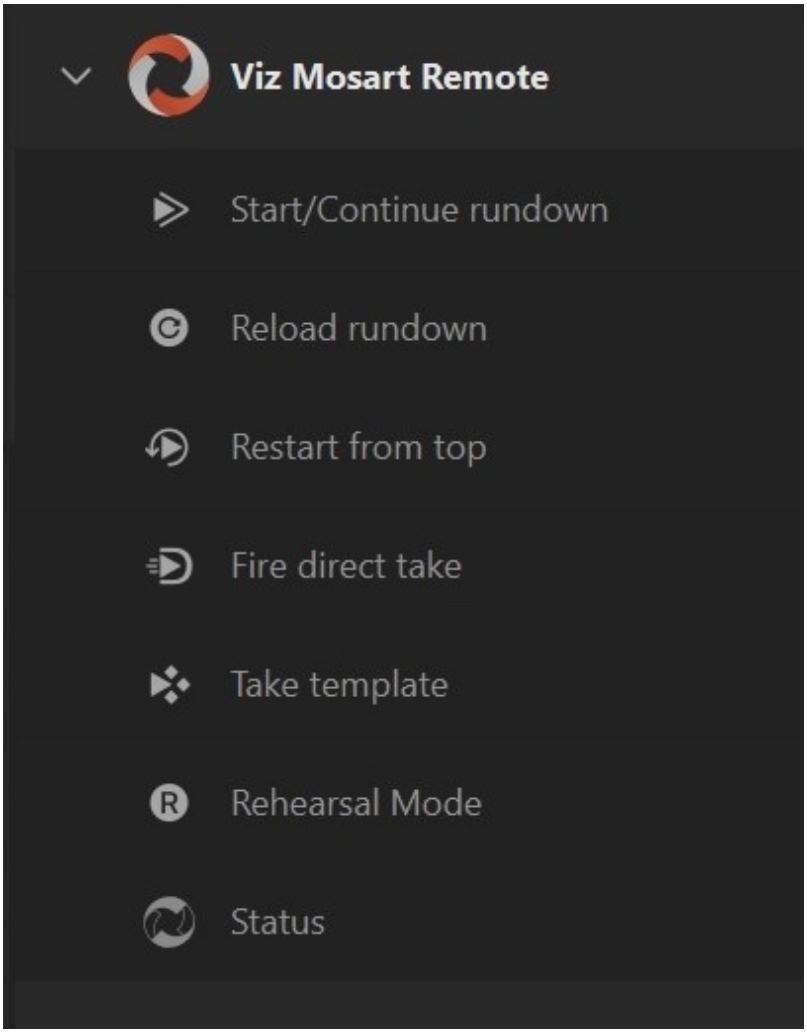

9.2 Configuration

9.2.1 Configuring the Mosart Host

To configure the Viz Mosart host

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

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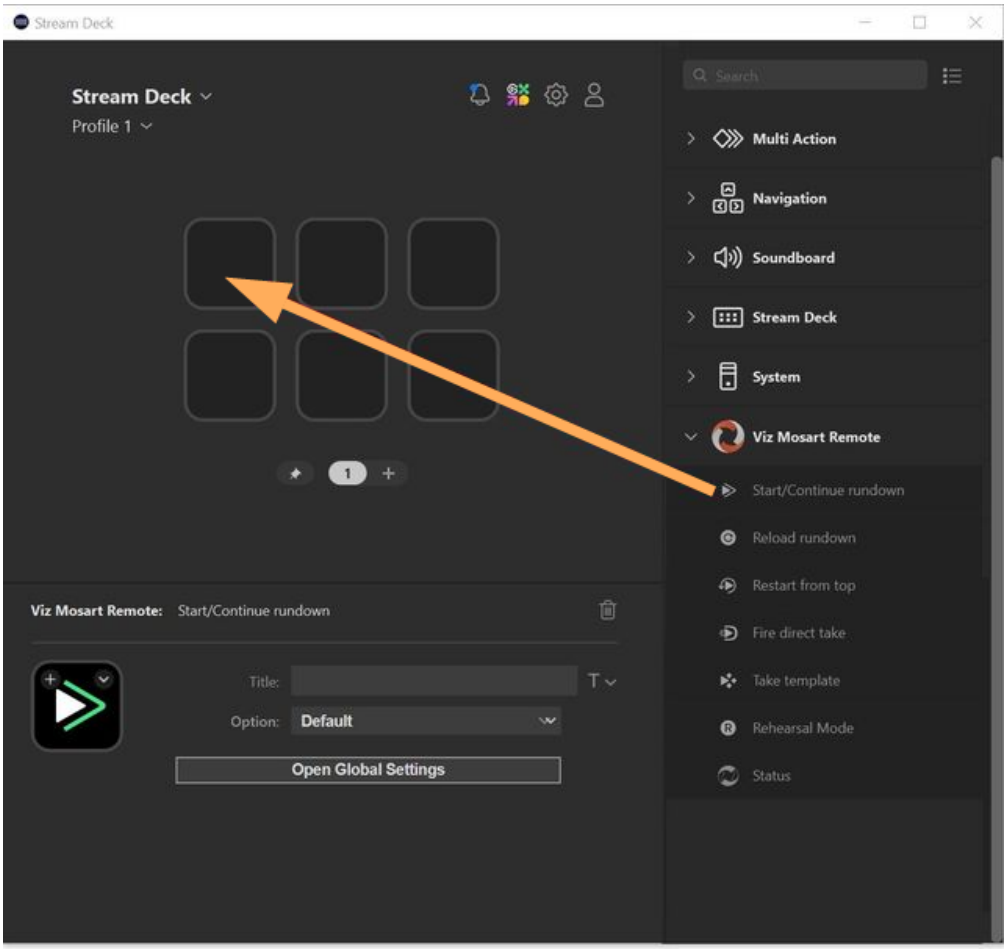
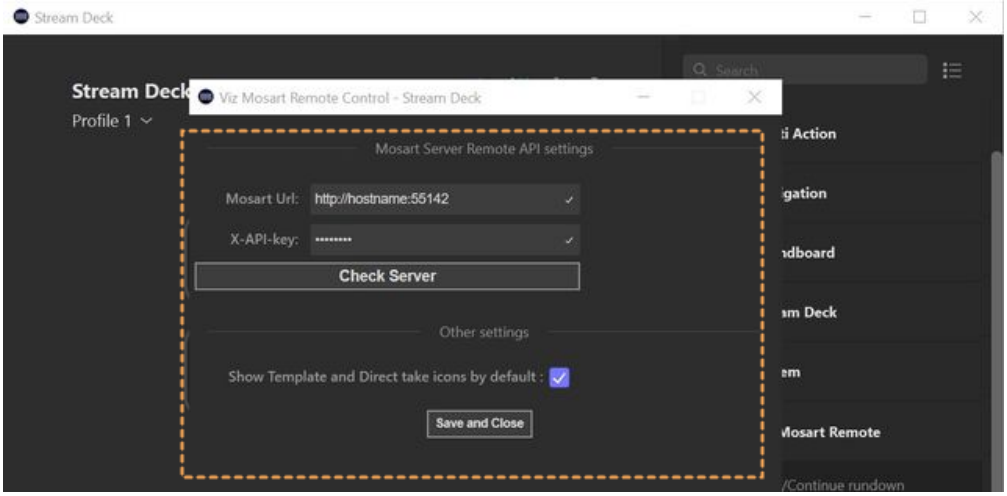


2. Click **Open Global Settings** to configure the plugin.



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.

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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).

9.3 Actions

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

9.3.1 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.

9.3.2 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.

9.3.3 Restart from top

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

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9.3.4 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.

9.3.5 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.

9.3.6 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.

9.3.7 Skip Next

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

9.3.8 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.

9.3.9 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*.

9.4 Status

The status of the current connected server is displayed.

GREEN status - Connected

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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*.

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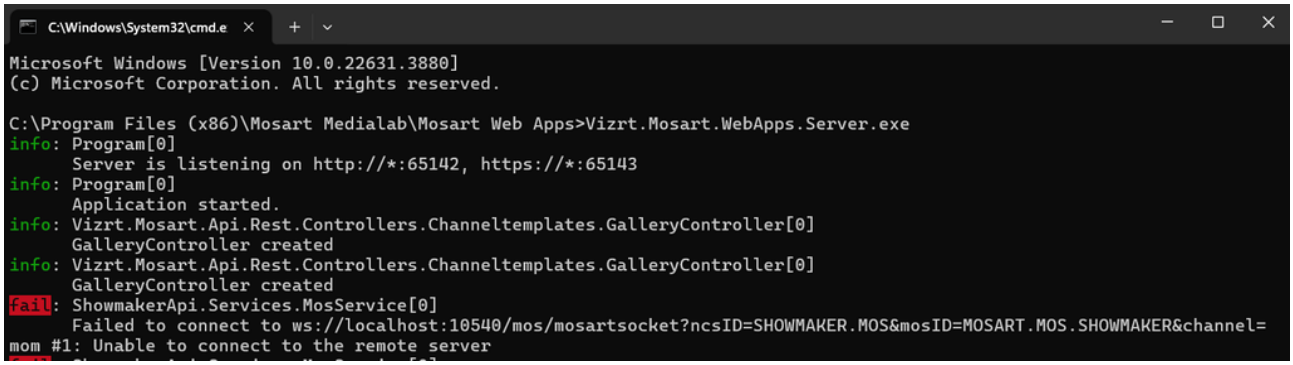
10 Troubleshooting

- Web Apps Configuration Tool
  - The Mosart Web Proxy Service is not running or is not functioning properly
  - The Mosart Web Applications Service is not running or is not functioning properly
  - The External Proxy Service is unreachable or not functioning properly
  - Unable to reach the Viz Mosart Server (main or backup)
  - Viz Mosart Server version might be incompatible with this version of Viz Mosart Web Applications. If HTTPS is used, this must be enabled on both Viz Mosart Server and Viz Mosart Web Applications
  - The Web Applications Service is not running
- Rundown Viewer and Timing Display Issues
- Issues with Mosart Web Server Connecting to the Mosart Server
  - Mosart Remote Control Service (RCS)
  - Firewall Ports
- Browser Logs

10.1 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.



10.1.1 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.

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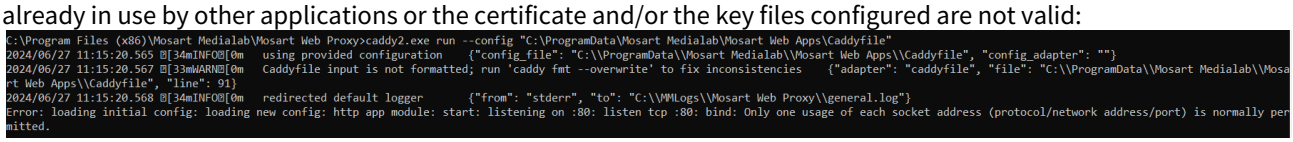
Start the Mosart Proxy Service in console

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:



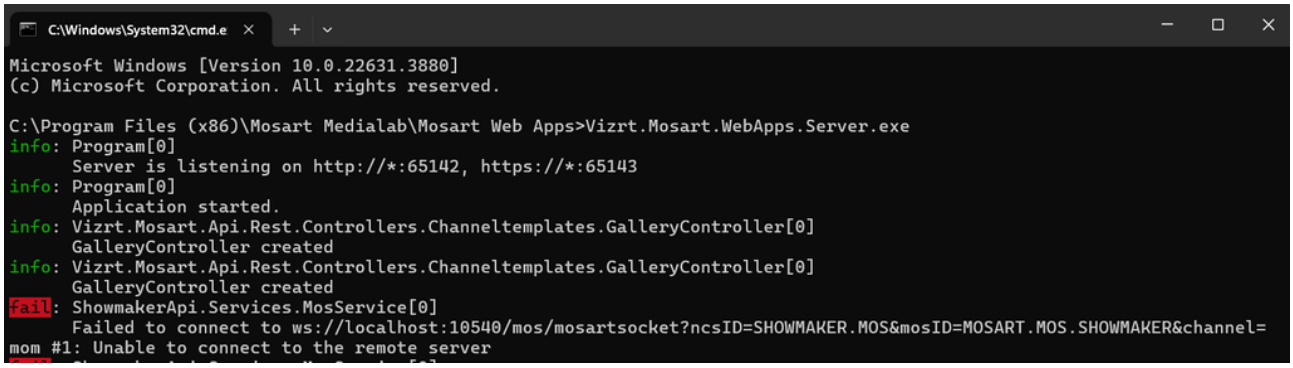
10.1.2 The Mosart Web Applications Service is not running or is not functioning properly

Review the settings in

- The Server Configuration page.
- Web server 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 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.

10.1.3 The External Proxy Service is unreachable or not functioning properly

Review the settings in

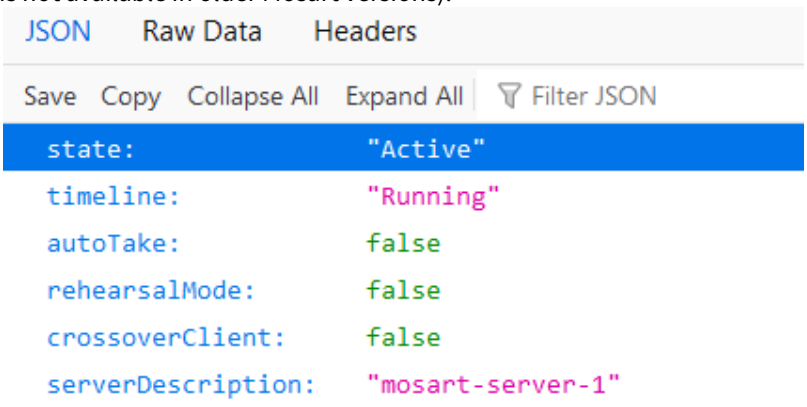
- The Server Configuration page.
- External proxy configurations.
- The web server logs accessible from the error message in the *Mosart Web Applications Configuration Tool.*
- The browser logs. You can investigate the browser logs by typing **CTRL+Shift+I** (this is a toggle) in the Mosart Web Applications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

10.1.4 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://<mosart-server-host>:55167/status* for HTTP or *https://<mosart-server-host>:55168/status* for HTTPS (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:

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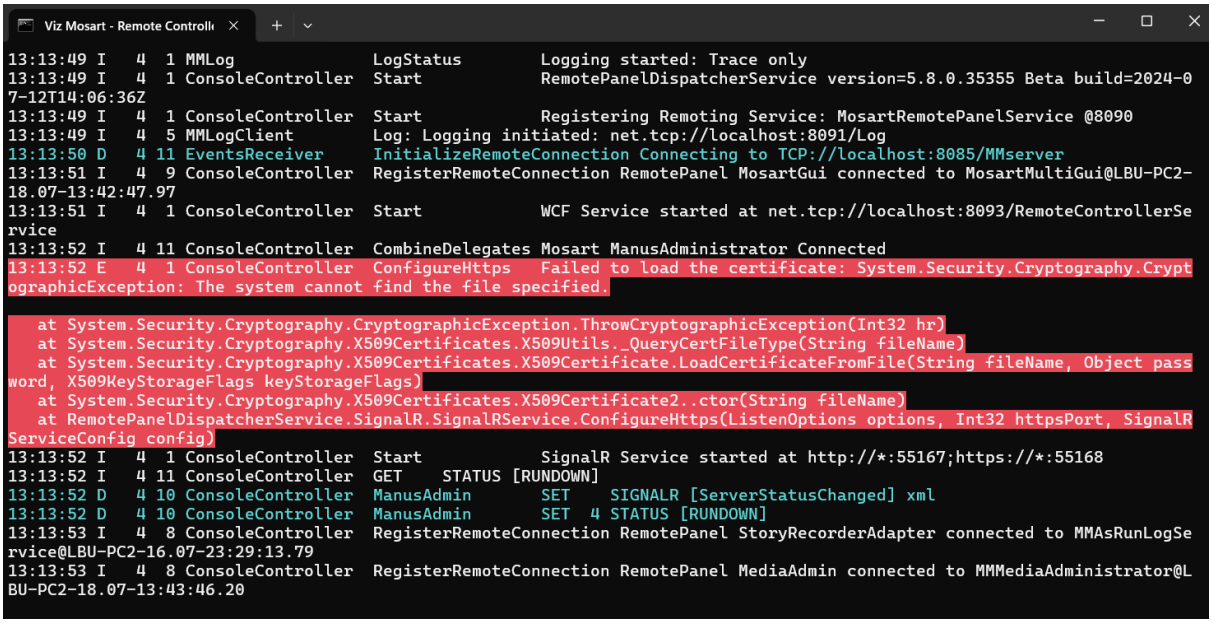

10.1.5 Viz Mosart Server version might be incompatible with this version of Viz Mosart Web Applications.
If HTTPS is used, this must be enabled on both Viz Mosart Server and Viz Mosart Web Applications

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.

10.1.6 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*.

> ⚠ 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.

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- 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.

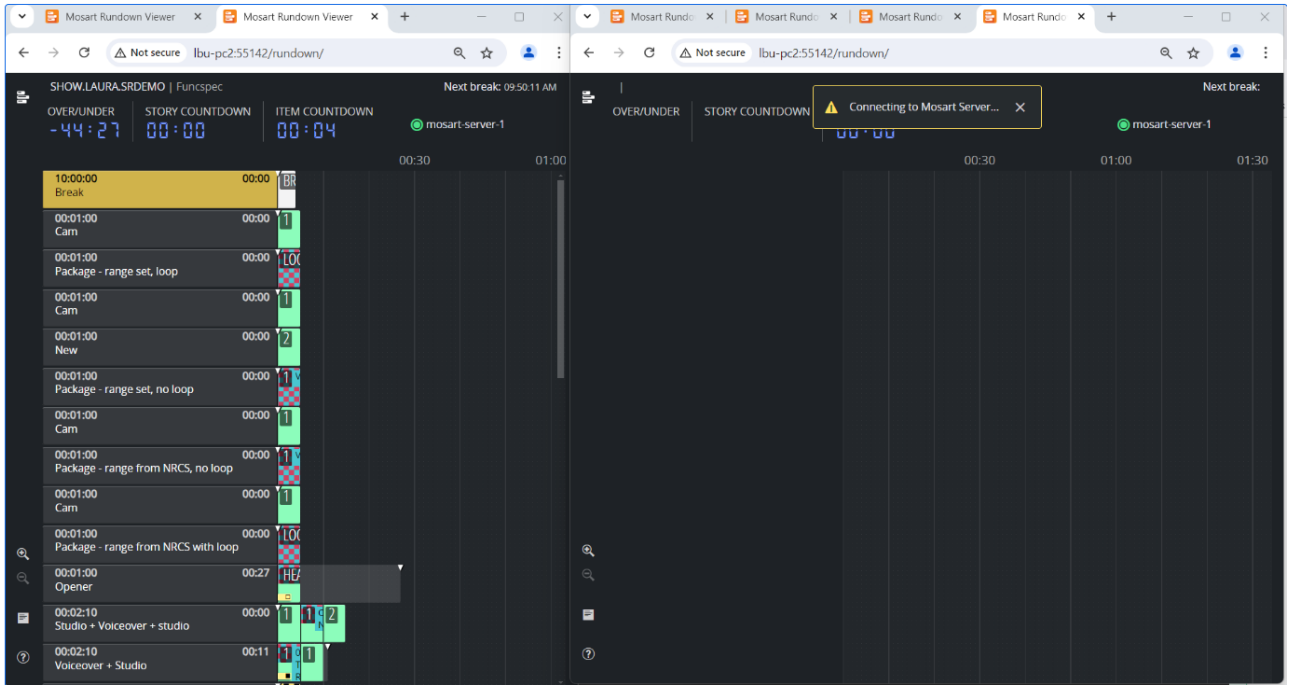
10.2 Rundown Viewer And Timing Display Issues

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.

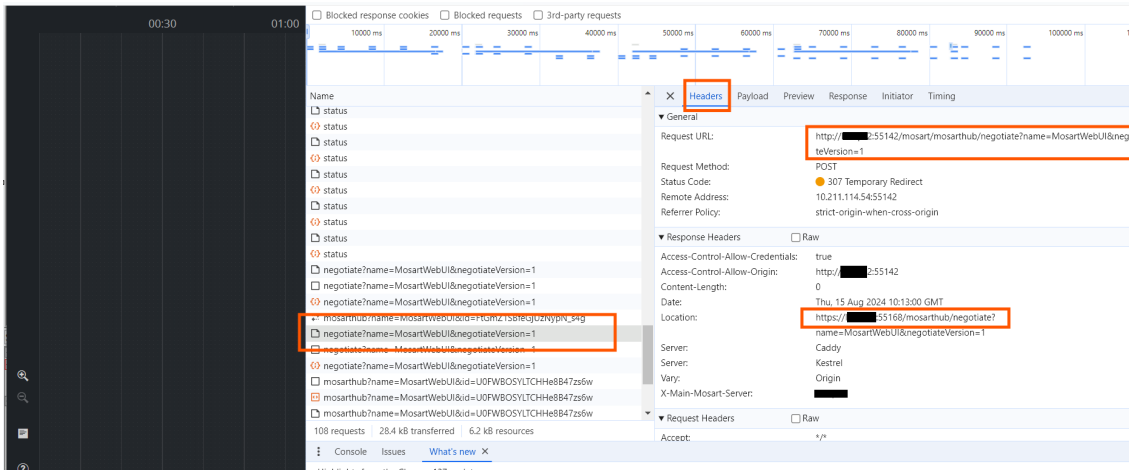
These problems may indicate that HTTPS is not properly configured across all relevant components.

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



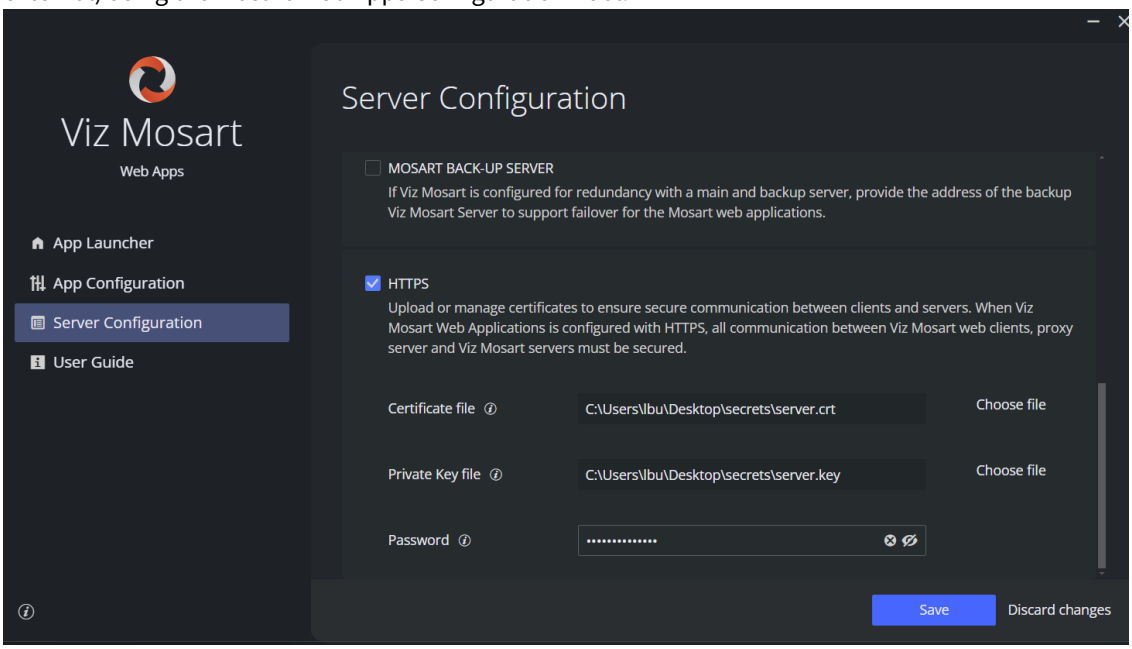
Troubleshooting Steps:

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.



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10.3 Issues With Mosart Web Server Connecting To The Mosart Server

10.3.1 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.

10.3.2 Firewall Ports

- Ensure the default ports have access.

10.4 Browser Logs

10.4.1 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.

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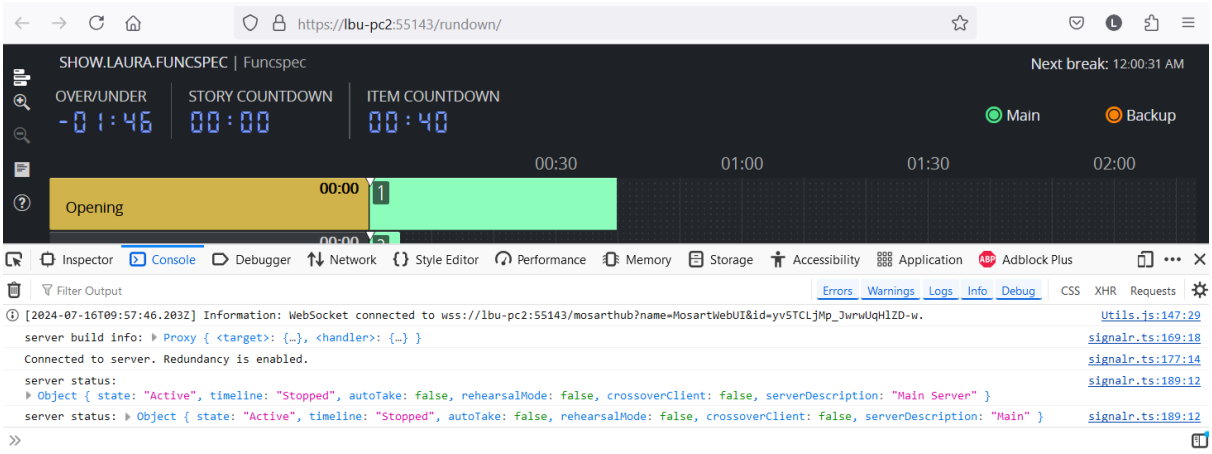

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