



Viz Mosart Web Applications

Version 3.2



Mosart Web Applications



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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.

1 Prerequisites

- A running Viz Mosart system. Individual web apps depend on the Viz Mosart server supporting them, so for the Viz Mosart version required by your Mosart Web Apps release, see the *Mosart Web Apps Release Notes* at [the Vizrt Documentation Center](#).
- To use *Showmaker*, you must have Viz Mosart 5.14.3 or later.

2 Getting Started

1. Collect the latest software bundle from Vizrt's customer download site at <https://download.vizrt.com/products/VizMosart/Latest Version/WebApplications/>.

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

2. Run the downloaded file *MosartWebApplications.Bundle-n.n.n.n.exe*.
The Web Applications that will be installed are listed.

 **Info:** The Installer places these services and applications on the target machine:

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

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

Sidebar entry	What it is for
Home	The landing page, which is also the app launcher: every installed web app is opened from here, per studio where studios are configured.
App Configuration	Per-app settings: NRCS Plugin, Showmaker, Template Editor and Named Overlays Editor.
Server Configuration	The Mosart server addresses, proxy, HTTPS, authentication and the shared integrations.
Studios	Definitions of the studios on a multi-studio site.
Help & Resources	The User Guide, Release Notes, API Docs, the Stream Deck plugin and the Mosart Server settings editor.
Quick setup	Re-enters the guided first-run wizard, at the bottom of the sidebar.

- If your system is *already configured*, open **Home** and launch any of:
 - [Showmaker](#)
 - [NRCS Plugin](#)
 - [Rundown Viewer](#)
 - [Smart Panel](#)
 - [Prompter](#)
 - [Named Overlays Editor](#)
 - [Template Editor](#) (Early Access, shown once enabled in App Configuration).
- If this is your *first running* of the Configuration Tool, or you will start using a new Web App, you must make some one-time configurations, as described in section Configuration Tool. The quickest route on a fresh installation is the **Quick setup** wizard, which opens on first run.

 **Note:** The **Timing Display** web app was removed in Mosart Web Apps 3.1. Its capabilities are provided by **Smart Panel**. See [Timing Display](#) for the migration notes.

2.1 User Guides

Links to a recent version of the documentation.

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

3 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.

For more information about all of the Vizrt products, visit:

- www.vizrt.com
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4 Feedback and Suggestions

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5 Configuration Tool

The Configuration Tool enables rapid setup and management of all your Mosart Web Applications. This section presents advanced, mostly one-off configurations and references for the Mosart system administrator.

On *first run*, you must perform the one-time setups for the Mosart Web Apps. The quickest route is the **Quick setup** wizard, which walks you through the essentials. Everything it sets, and much more, remains available in the pages of this section:

- **App Configuration**: per-application settings for the NRCS Plugin, Showmaker, the Named Overlays Editor and the Template Editor.
- **Studios**: defining production environments for a multi-studio site.
- **Server Configuration**: server addresses, the Mosart API access key, and integrations such as Media Sequencer, Viz Arc and TriCaster live previews.
- **HTTPS and Certificates**: the proxy setup methods, the built-in certificate authority, custom certificates and their requirements.
- **Authentication**: OpenID Connect sign-in and the user roles for the web apps.

5.1 Quick setup

On first run the Configuration Tool opens a guided **Web Apps quick setup** wizard that collects the minimum needed to get the Web Apps talking to Viz Mosart. It detects the machine it is running on and pre-fills what it can.

The wizard has these steps:

1. **Access**: how browsers reach the Web Apps, including the browser port.
2. **Security**: how connections are secured, either plain HTTP or HTTPS. This step only appears when you choose HTTPS, and it is where you pick the certificate approach.
3. **Mosart server**: the Mosart server address, an optional backup server address, and the API access key.
4. **Ready to go live**: a review of everything you entered, with **Activate** to apply it.

A rail on the left tracks your progress. You can jump back to any step you have already reached, but you cannot skip ahead, because each step is validated as you continue. When the wizard finishes, **Go to Home** takes you into the tool.

Info: You do not have to complete the wizard on first run. If you leave it, it is not forced open again the next time you start the tool, and you can re-enter it at any time from **Quick setup** at the bottom of the navigation sidebar.

5.2 Help & Resources

A **Help & Resources** section at the bottom of the navigation sidebar gathers documentation and tools:

Item	What it opens
User Guide	This documentation, in your default browser.

Item	What it opens
Release Notes	The Mosart Web Apps release notes for this version.
API Docs	The Mosart REST API documentation (Swagger), served at <code>http://[web-apps-machine:port]/mosart/swagger</code> . The Mosart Web Applications can be used as a proxy to call the Mosart REST API on the current active server.
Stream Deck Plugin	The Elgato Stream Deck plugin, which is bundled with the installer. See Elgato Stream Deck Plugin .
Mosart Server Settings	The settings editor served by the Mosart server itself, so you can reach Manus Administrator settings without leaving the Configuration Tool. It opens the installation's main Viz Mosart server, and has to be enabled on that server (Enable Manus settings editor in its Remote Control Service settings); until then the item stays dimmed.

i **Info:** With OIDC authentication enabled on the Mosart server, **Mosart Server Settings** cannot be used from a browser. Edit the settings on the Mosart server itself instead: in **Manus Administrator**, type *settings* in the console, or in **AV Automation** use **Devices > Settings**. That is also how you edit a backup server, or any other Mosart server.

5.3 Troubleshooting

See section [Troubleshooting](#).

5.4 App Configuration

Settings here are needed when you use the NRCS Plugin or Showmaker for the first time, or have installed the Mosart Web Apps bundle on a separate server to the Viz Mosart server.

 **Note:** *Showmaker* always requires the NRCS Plugin to be correctly configured.

- [NRCS Plugin](#)
 - [To configure the NRCS Plugin](#)
 - [Template type filter buttons](#)
- [Showmaker](#)
 - [Prerequisites](#)
 - [MOS communication settings](#)
 - [To establish communication between a single MOS device and Showmaker](#)
 - [Default values and multiple MOS devices \(main/backup or multiple studios\)](#)
 - [Feature settings](#)
 - [Asset integrations settings](#)
- [Named Overlays Editor](#)
- [Template Editor \(Early Access\)](#)

5.4.1 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 the selected **NRCS type**, ignore this step)
Enter **Mos ID**. This is a mandatory field if you select NRCS type *ENPS*, *Octopus* or *Other*.

 **Tip:** To find your Mos ID, in the Manus Administrator console, type *settings*. For more details, see the [Viz Mosart Administrator Guide](#), section *Manus Administrator > Settings Editor MOS > NRCS Configuration*.

5. Back in the Web Apps Configuration Tool **App Configuration** page for the NRCS Plugin, in section **ACCESS MOSART TEMPLATES**, specify the location of your Viz Mosart templates. This can be either
 - a. **Local:** By default, this is a local folder C:\channeltemplates. The tool will automatically scan for three files: channeltemplates.xml, avconfig.xml and newsroomsettings.xml. If successfully identified, a green validation message is displayed.
 - b. **A network folder:** When your template folder is on a network drive, click **Choose folder** and navigate to the target folder, and ensure the network folder has adequate permissions.
 - c. **Database:** If template details are stored in a database, enter host access and authentication details.
6. Click **Save**.

Template type filter buttons

The NRCS Plugin shows a row of filter buttons so journalists can narrow the template list to one type. You control which types appear, and in which order, from the NRCS Plugin page in **App Configuration**.

The available types are Camera, Clips, Voice over, Live, Graphics, DVE, Jingle, Telephone, Adlib, Break, Video wall, Sound and Accessories. Put the types your journalists use most first, and leave out the ones your production never uses, so the plugin only offers what is relevant.

Info: To complete the NRCS Plugin one-time setup, you will also need to visit the **Server Configuration** page.

5.4.2 Showmaker

Prerequisites

- A running Viz Mosart 5.14.3 or later.
- *Manus Administrator* is running.
- The *Viz Mosart client UI* is running and can display a rundown.

If either Manus Administrator or Viz Mosart is down, start them now. You only need to do this once after a server reboot.

Info: Users *can* run Showmaker standalone without a connected Viz Mosart. This user scenario would be for early versions of a rundown (running order) where structure is being drafted, rather than operations verified.

MOS communication settings

Showmaker uses standard MOS protocol. These configurable properties define the communication.

A fresh installation has *one* MOS device pointing to your Mosart server: a single row in the **MOS DEVICES** table. While the table has exactly one device, the row also carries the control for handing the matching settings over to Manus Administrator, described below.

To establish communication between a single MOS device and Showmaker

There are two alternative setups, depending on your network structure.

Showmaker is installed on the same server as Viz Mosart

If you are running Showmaker on the *same* server as the Viz Mosart server, the Configuration Tool can write the matching MOS configuration into Viz Mosart for you.

1. From the **App Configuration** page, select *Showmaker*.
2. Review the values in **MOS COMMUNICATION SETTINGS**. If necessary, adjust the defaults by referring to the table below.
3. On the MOS device row, open the Manus Administrator settings control. With a local Viz Mosart server detected, it lets you **inspect the changes and push the settings to Manus Administrator**.

4. A warning reminds you that Manus Administrator must *not* be running at this point. Ensure *Manus Administrator is closed* before continuing.
5. To complete the action, click **Confirm**.

Info: Before anything is written, a backup of the current Manus Administrator settings is created at C:\ProgramData\Mosart Medialab\ConfigurationFiles, so the previous configuration can be restored.

Showmaker is installed on a separate server from Viz Mosart

If you are running Showmaker *on another server than the Viz Mosart server*, Viz Mosart must be set up manually for connecting to Showmaker:

1. Review the values in **MOS COMMUNICATION SETTINGS** and, if necessary, adjust the defaults as presented in the table below.
2. On the MOS device row, open the Manus Administrator settings control. With no local Viz Mosart server detected, it opens the **Settings for Manus Administrator** dialog, showing the values to enter on the Viz Mosart server.
3. On the Viz Mosart server, in the Viz Mosart Manus Administrator console, type *settings*.
4. From the **Settings** menu that appears, navigate to the section **MOS**.
5. Configure the MOS settings as presented in the **Settings for Manus Administrator** dialog in the Web Apps Configuration Tool.
6. Click **Save**.
7. (optional) If changes do not appear immediately, restart the Windows service *Vizrt.Mosart.WebApps.Server*.

Default values and multiple MOS devices (main/backup or multiple studios)

Table Property	Description
NRC S ID	This is the Newsroom System ID for Showmaker. Set this ID on any MOS-enabled NRCS device to establish communication with Showmaker. For Viz Mosart, this value must be set in Viz Mosart Manus Admin. Default: <i>SHOWMAKER.MOS</i> .
Add MOS Device	For defining multiple MOS devices. Click Add MOS Device and follow the guidelines in this table.
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 console > Type settings > MOS section. Default: <i>MOSART.MOS.SHOWMAKER</i> .
MOS Device URL	The URL for connecting to a MOS device. For a Viz Mosart server, the URL is <i>ws://mosart-server-host:10540/mos/mosartsocket</i> . The port in the URL (<i>10540</i>) is the MOS lower port configured in the Settings menu of Manus Admin, under the MOS section. Default: <i>ws://localhost:10540/mos/mosartsocket</i> .

Table Property	Description
Studio	The Studio label that this device belongs to. Type a new name to create a Studio. A <i>Studio</i> is a label that groups one or more MOS devices, representing one production environment: typically a main Viz Mosart server with an optional backup, or a single gallery in a multi-studio site. The Studio exists as long as at least one MOS device references it, and disappears when no device uses the name anymore. Once Studios are configured, each show (and optionally each rundown) can be assigned to a Studio, and that assignment governs which Mosart server or servers the rundown is sent to. Failover without downtime: main and backup Mosart servers under one Studio means a failover keeps the same Showmaker rundowns on air. Per-rundown overrides: a show defaults to one Studio, but individual rundowns can be reassigned, shown with an orange badge in the UI, which is useful for rehearsals or last-minute changes.
Examples	Typical configurations: One studio with main + backup: two rows with the same Studio label and the same MOS ID, and different URLs (<code>studio1-main</code> and <code>studio1-backup</code>). Multiple studios: one or more rows per Studio. Each Studio can have its own main and backup pair, with the same or different MOS IDs. Note: the same MOS device URL cannot be used twice across the table. Duplicates are rejected with an error message.

Feature settings

Story Recorder

Story Recorder lets operators mark stories for recording in Viz Mosart, optionally publish the resulting clips to online platforms (only available with TriCaster) or replace the original story script with the recorded version. To make these controls available in Showmaker:

1. Configure Story Recorder in Viz Mosart first. See the [Vizrt Documentation Center](#), under *Viz Mosart Administrator Guide > Operational Examples > Story Recorder Setup*.
2. In the Configuration Tool, under App Configuration, select **Showmaker**, scroll down to **Feature settings** and turn on **Enable Story Recorder controls**.

Once enabled, every story in Showmaker contains **Record** / **Publish** actions and a **Use recording** toggle. For how operators use these controls, see [Working with Showmaker](#).

Asset 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. The integrations are displayed in the Showmaker integrations sidebar together with the Mosart web app, *NRCS Plugin*.



Info: These integrations appear in the Showmaker integrations sidebar as selectable, embedded MOS plugins (iFrames). They communicate directly with Showmaker in the browser using MOS messages, so no additional server-side configuration is required beyond specifying the URL and MOS Plugin ID.

Viz Pilot: to enable Viz Pilot graphics in the Assets panel

1. If you will run Showmaker with assets from Viz Pilot, select the checkbox for **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. Default: `http://localhost:8177/app/pilotedge/pilotedge.html?mosid=pilot`. Enter the host of your Viz Pilot Edge installation, if not on the same machine.
 - b. **MOS Plugin ID**: The MOS ID that Viz Pilot Edge announces. Default: `PILOT`. This value must match what your NRCS / Mosart side anticipates.
3. Click **Save**.

Viz Flowics: to enable Viz Flowics graphics

1. Select the checkbox for **VIZ FLOWICS GRAPHICS** and ensure you have your Viz Flowics (cloud application) credentials to hand.
2. By following the on-screen information icon, provide values for
 - a. **Integration token**: A token issued by Flowics support. It is stored encrypted and displays as `*****` after saving.
 - b. **Application URL**: Where Viz Flowics is running.
 - c. **MOS Plugin ID**: Default: `flowics.com.mos`. Change only if your NRCS / Mosart side anticipates a different id.
3. Click **Save**. Viz Flowics now appears as a tab in the Showmaker Assets panel.



Info: To complete the Showmaker one-time setup, you will also need to visit the **Server Configuration** page.

5.4.3 Named Overlays Editor

The Named Overlays Editor has its own page in **App Configuration**, where you register the graphics plugin it offers in its provider panel. Configure the Viz Pilot Edge plugin here with a display name, the MOS ID to stamp on overlays created from it, and the plugin URL.

The plugin panel is optional. With none configured, the editor still works for creating custom overlays by hand and for XML import and export. For everything else about the app, see [Setup and administration NOE](#).

5.4.4 Template Editor (Early Access)

Please refer to the section [Setup and Administration of Template Editor](#).

5.5 Studios

A multi-studio site runs one central Mosart Web Apps host against several Viz Mosart back ends. The **Studios** page in the navigation sidebar is where you define them.

 **Note:** Multi-studio support is being delivered in stages. The applications differ in how far they support it today, so check [Studio support per application](#) below when planning a multi-studio installation.

5.5.1 Defining studios

Each studio entry takes:

- **Studio name:** the label used throughout the Web Apps to identify this production environment.
- The Viz Mosart server **hostname or IP** for that studio, and its port.
- An optional **Backup server**, added with **Add backup**, for a redundant pair.
- An **NRCS device**, selected from the devices you have configured.

Use **Add Studio** to create further entries. The page validates the entries as you type and flags clashes, for example the same host used by more than one studio, so a misconfigured studio is caught here rather than when an operator opens an app.

With more than one studio defined, the Home page gains a studio selector: studio-scoped applications launch against the selected studio and connect to that studio's Viz Mosart server, while applications that work across studios are listed under **Cross-studio**. A single-studio installation keeps the flat layout.

 **Info:** When the Mosart servers run HTTPS, confirm the port fields on this page read **55168**. See the [HTTPS and Certificates](#) page.

5.5.2 Studio support per application

Application	How it uses studios
Rundown Viewer	Launches per studio, and can switch studio from a picker in the timers bar.
Smart Panel	Launches per studio from the Home page. Panel layouts are shared by the installation.
Prompter	Launches per studio from the Home page.
Named Overlays Editor	Has its own studio selector in the header toolbar, and works against the selected studio's Mosart server.

Application	How it uses studios
Showmaker	Assigns each show, and optionally each rundown, to a studio, which decides where the rundown is sent. Its studio list comes from the Showmaker MOS devices in App Configuration ; the NRCS device field on this page links a studio to that device.
NRCS Plugin, Template Editor	Work across studios, against the installation's template source.

5.5.3 Editing a studio's Mosart server settings

Mosart Server Settings under Help & Resources opens the settings of the installation's **main** Viz Mosart server only. A studio's own server, and any backup server, are not reachable from there.

To edit the settings of any other Mosart server, open the settings on that machine from a Viz Mosart desktop application: in **Manus Administrator**, type *settings* in the console, or in **AV Automation** use **Devices > Settings**. This is also the way to edit settings when **OIDC authentication is enabled** on the Mosart servers, because the browser-based editor has no sign-in of its own. See [Configuration Tool](#).

 **Note:** Settings that must match across a studio's pair, HTTPS and authentication in particular, have to be applied on the main **and** the backup server separately, and the Mosart Remote Control Service restarted on each. A configuration that works until a failover is usually a backup server that was never updated.

5.6 Server Configuration

Most settings here are needed when you install the Mosart Web Apps bundle on *a separate server* to the Viz Mosart server, move the Web Apps to a different server, or need to define the Viz Mosart backup server. For securing the connections, see **HTTPS and Certificates** and **Authentication**.

- [Server addresses](#)
- [Mosart API Access](#)
- [Media Sequencer](#)
- [Viz Arc](#)
- [Video Clips](#)
- [TriCaster Live Previews](#)

5.6.1 Server addresses

Under the automatic proxy setup, all default settings are pre-filled and no further action should be necessary. If you need to change any values:

- **MOSART MAIN SERVER, Address:** By default, this field contains the address of the Mosart Web Applications. Enter the hostname, IP address, or FQDN of the main Viz Mosart server *if located on another machine*.
- **MOSART BACK-UP SERVER:** When running Viz Mosart with a backup for redundancy, select the checkbox and enter the hostname, IP address, or FQDN of the backup Viz Mosart server.
- **PROXY WEB SERVER, Address:** Hostname or IP address of the machine where the Mosart Web Applications are installed. The system attempts an auto-detect. If the *FQDN is required* (for example, by a certificate), provide this instead.

Click **Save** after changes.

5.6.2 Mosart API Access

The **Authorization Key** is the Viz Mosart server's REST API key, configured on the Mosart server under *Remote Controller Service > Security*. When the Mosart server runs in API-key mode, the web proxy attaches this key to the calls that need it, so the browser never sees the key itself. It is used for:

- **The Named Overlays Editor:** reading and writing named overlays, including the *Sync to backup server* function.
- **Clip search against older Viz Mosart servers** (before 5.16). From Viz Mosart 5.16, clip search uses the server's live connection and does not need the key.
- **Availability checks** the Configuration Tool itself runs, for example whether the Mosart server's settings editor is reachable.



Note: The same key is sent to **every** Viz Mosart server the Web Apps talk to: main, backup, and every studio's servers in a multi-studio installation. All of them must therefore be configured with the same REST API key.



Info: With OIDC authentication enabled on the Mosart servers, the REST API key is not accepted there and this field is not used: the apps send the signed-in user's token instead. See the [Authentication](#) page.

5.6.3 Media Sequencer

Smart Panel can drive a Media Sequencer directly, for button actions that take an MSE graphic and for Asset List widgets that read their content from a Media Sequencer playlist or show.

Under **MEDIA SEQUENCER**, enter the **Address** of the Media Sequencer and its REST API **Port**. The default port is 8580.

5.6.4 Viz Arc

Smart Panel buttons can execute Viz Arc actions. To make them available, enter the **Address** and **Port** of the Viz Arc REST web service under **VIZ ARC**. The default port is 9004. The Configuration Tool probes the host as you type and reports whether the service answers.

 **Note:** The Viz Arc REST web service must be running on that host, and it requires its own licence. The Web Apps server calls Viz Arc on behalf of the browser, so only the Web Apps host needs network access to it.

5.6.5 Video Clips

Video clips (PACKAGE templates) can be presented with various details. This setting controls how clips are labelled in the web apps that list them, such as Smart Panel. Select what to display from the dropdown menu.

5.6.6 TriCaster Live Previews

If your studio uses a TriCaster, Smart Panel can show its video inputs and outputs as *Live previews*. The Mosart web server proxies the streams on behalf of the browser, so it needs the TriCaster address and a user account.

1. In the Configuration Tool, open **Server Configuration** and scroll down to **TRICASTER FOR LIVE PREVIEW**.
2. Enter the TriCaster **Address** and the **Username / Password** of an account with access to the TriCaster web browser URL.

After this, TriCaster sources become selectable as preview sources in the relevant Web App.

 **Info:** NDI sources need no configuration here. Mosart Web Apps discovers NDI sources on the network itself, so a Smart Panel live video element can list and preview them directly. The Web Apps host needs the NDI Runtime installed.

5.7 HTTPS and Certificates

Mosart Web Apps communicates through a proxy server that must be configured. This page covers the proxy setup methods, and how HTTPS and certificates work across the Mosart network.

- [Proxy setup method](#)
 - [Automatic proxy setup](#)
 - [Manual proxy setup](#)
- [Certificates](#)
 - [Automatic \(built-in CA\)](#)
 - [Custom certificate](#)
 - [Which mode to choose](#)
 - [Certificate requirements](#)
 - [Certificate installation](#)
- [Mosart servers over HTTPS](#)

5.7.1 Proxy setup method

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.

Automatic proxy setup

With the onboard proxy web server, configurations are automatically generated based on the settings displayed on the **Server Configuration** page, and all default settings are pre-filled. Selecting HTTPS automatically configures both the Mosart Web Applications and the Mosart Web Proxy (Caddy). You then choose how certificates are provided, either the built-in certificate authority or your own certificate.

 **Info:** If the Mosart Web Proxy and the Mosart Web Applications are configured with *HTTPS* using your own certificate, you must also configure **HTTPS for the Mosart servers** (main and backup, if applicable). See [Mosart servers over HTTPS](#) below.

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.

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**.
3. Select the **HTTPS** check-box and follow the onscreen guidelines.

4. **Web Server Address:** The IP or the hostname of the Viz Mosart web server. The system attempts 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**.

5.7.2 Certificates

With HTTPS enabled under the automatic proxy setup, the **Certificates** setting offers two approaches.

Automatic (built-in CA)

The bundled Mosart Web Proxy contains its own certificate authority. Choose **Automatic (built-in CA)** and the proxy mints the certificates it needs itself, the first time it starts. There is no certificate file to obtain, install or renew.

Because the certificates are issued by a private authority, browsers do not trust them until you say so. The tool therefore exposes the authority's **Root certificate**, with an **Open folder** action that reveals it on disk. Distribute that root certificate to the machines that will use the Web Apps and install it as a trusted root, and the warnings stop.

 **Note:** The root certificate is only created once the web proxy has started, so save the configuration first. Until then the tool reports that it has not been generated yet.

With the built-in CA, the proxy terminates HTTPS for the browser and talks **plain HTTP to everything behind it**: the Mosart Web Apps server and the Viz Mosart servers, including when those run on other machines. Browser traffic is encrypted; the traffic from the proxy onwards is not.

This is also why the built-in CA is only available with the automatic proxy setup, since it lives inside the bundled proxy and cannot serve a manual, external proxy, and why the Authentication section requires custom certificate mode.

Custom certificate

Choose this to supply your own certificate, which is what you need when your organization issues certificates centrally, when the same certificate must cover several Mosart components, or when you want to enable **Authentication**. Provide the certificate file, the private key file and the key password.

For the Mosart Web Proxy, the configured private key is used to automatically generate the unencrypted PEM format that Caddy requires, which is saved in `C:\ProgramData\Mosart Medialab\Mosart Web Apps .`

Which mode to choose

Choose	When
Automatic (built-in CA)	You want browser traffic encrypted quickly, with no certificates to obtain or renew. You accept installing the authority's root certificate on each client machine, and that traffic between the proxy and the servers behind it stays unencrypted. User sign-in is not available in this mode.
Custom certificate	You want user sign-in (OIDC), or you want the traffic to the Mosart Web Apps server and the Viz Mosart servers encrypted as well. Also the natural choice when your organization already issues certificates, since client machines then trust them without further steps.

Certificate requirements

The requirements below apply when you supply your own certificate. With the built-in CA, the proxy handles all of this itself and you only have to distribute its root certificate.

- **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 that the key is encrypted by opening it in an editor and checking that it starts with "-----BEGIN ENCRYPTED PRIVATE KEY-----".
- **Host coverage:** The certificate must include the host where the Mosart Web Applications are installed. The hosts provided in the Mosart Web Config tool are 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.

Certificate installation

When Mosart Web Applications are configured with HTTPS, all communication between clients, proxy servers, and content servers must be secured: the Mosart web clients (*Rundown Viewer*, *NRCS Plugin*, *Smart Panel*, *Showmaker*), the Mosart web server, the proxy server, and the Mosart server (*Mosart Remote Control Service*).

Certificates must therefore 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 an 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 instead issues like pages displaying blank may be experienced.

5.7.3 Mosart servers over HTTPS

When the Web Apps run HTTPS with your own certificate, the Mosart servers (main and backup) must serve HTTPS too, so that rundown updates and commands between the Viz Mosart server and the web applications stay secured.

HTTPS on the Mosart server is configured in the Mosart settings under *Remote Controller Service > Security*, followed by a restart of the Mosart Remote Control Service on each server. The procedure is described in the [Viz Mosart Administrator Guide](#), chapter *Security in Viz Mosart Ecosystem*, section *Securing the Mosart Server*.

Afterwards, confirm on the **Studios** page that the Mosart main and backup server ports read **55168**.

5.8 Authentication

Viz Mosart Web Applications supports authentication using *OpenID Connect*. This page covers the Web Apps half of the setup: what to enter in the Configuration Tool, and the roles the web apps enforce.

Info: This configures the Web Apps half only. For the whole picture, including the identity provider requirements, securing the Mosart server itself, and the end-to-end verification, see the [Viz Mosart Administrator Guide](#), chapter *Security in Viz Mosart Ecosystem*.

- [Prerequisites](#)
- [Roles](#)
 - [Showmaker](#)
 - [Smart Panel](#)
 - [Named Overlays Editor](#)
- [Setup](#)
- [Provider-specific newsroom authentication](#)
 - [iNEWS](#)
 - [ENPS](#)
 - [Octopus](#)

5.8.1 Prerequisites

- HTTPS with a **custom certificate** has to be configured to use authentication; the Authentication section only appears in that mode. See the [HTTPS and Certificates](#) page.
- You need a third party OpenID Connect authentication service, such as Keycloak, Okta, or Microsoft Entra ID. (If you are already using Vizrt's asset management system, *Viz One*, you should already have a Vizrt SSO Keycloak authentication server.)

5.8.2 Roles

Roles grant user permissions: what a user can do with the app. Roles are assigned in your authentication provider, not in the Configuration Tool, either to a single user or to all members of one or more groups. Role *names* are predefined and fixed by Vizrt, but you are free to define or reuse groups as you like. Each application reads them from the `roles` claim.

Showmaker

Role name	Permissions
<code>showmaker-viewer</code>	View only.
<code>showmaker-admin</code>	Full control.

Smart Panel

Role name	Permissions
<code>smartpanel-viewer</code>	Open and use panels, but not edit them.
<code>smartpanel-admin</code>	Full control, including creating and editing panels.

Named Overlays Editor

Role name	Permissions
<code>mosart-viewer</code>	View the overlay list and overlay properties.
<code>mosart-admin</code>	Create, edit, delete and import overlays.

Note: The Named Overlays Editor roles are `mosart-admin` and `mosart-viewer`. From Viz Mosart 5.16 with Mosart Web Apps 3.2, these roles are also enforced by the Mosart server on its Named Overlays REST API, so they gate the API as well as the editor UI. Earlier documentation used the names `namedoverlays-admin` and `namedoverlays-viewer`; those names are not read by any current version.

Note: Roles are only enforced when authentication is enabled. With authentication *off*, every user has full control. Assign roles *before* enabling authentication: a signed-in user with no role for an app gets an unauthorized-access screen, not a read-only view.

Info: The roles must reach the token as a flat, top-level claim named exactly `roles`, present in **both the ID token and the access token**. Keycloak needs a protocol mapper for this; its default nested `realm_access.roles` is not read. See [Vizrt SSO \(Keycloak\)](#) for a walkthrough, and the [Viz Mosart Administrator Guide](#), chapter *Security in Viz Mosart Ecosystem*, for the details of which layer reads which token.

5.8.3 Setup

- Create a new Client/App registration according to your authentication provider guidelines:
 - [Keycloak guide](#)
 - [Keycloak guide for Vizrt SSO](#)
 - [Entra guide](#)
 - [Okta guide](#)
- Your authentication provider must provide the Issuer URL/Authority URL, the Client ID and the Client Secret.
- Open the Mosart Web Application Configuration Tool and select **Server Configuration**.

4. Under the **HTTPS** section, enable the **Authentication** check-box and enter the details obtained at step 2.
5. Add `offline_access` in the **Scopes** field. Without it, an unattended screen, such as a Timing Display on the studio wall, ends up on a login page some hours after sign-in, once the session expires.
6. Click **Save**. Authentication is now enabled.

 **Note:** Enabling OIDC authentication on the **Mosart server** (a separate setting, on the server) switches off its REST API key, which affects integrations that call the Mosart REST API directly. Read *Choosing an Authentication Mode* in the [Viz Mosart Administrator Guide](#), chapter *Security in Viz Mosart Ecosystem*, before enabling it in production.

5.8.4 Provider-specific newsroom authentication

iNEWS

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

ENPS

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

Typically this is a simple edit of the Content Security Policy, from

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

to

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

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

Octopus

NRCS plugin authentication is not currently supported with Octopus.

6 NRCS Plugin

The NRCS Plugin is the tool journalists use to add Viz Mosart template instructions to a story. Find the template you need, adjust its production details, then place it in the story either by dragging it in or with a single **Add to Story** action.

The plugin runs in a browser and is hosted inside the system you already work in: your newsroom computer system (ENPS, iNEWS, Octopus or OpenMedia), *Viz Pilot Edge*, or the Mosart web apps *Showmaker*, *Template Editor* and *Smart Panel*. Some controls adapt to the host, so a few of the actions described in this section are deliberately absent in some of them.

- [Working with the NRCS Plugin](#)
- [NRCS Plugin in Pilot Edge](#)
- [Setup and Administration](#)

 **Info:** 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](#).

6.1 Working with the NRCS Plugin

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

- [User Operations](#)
- [Keyboard Shortcuts](#)
- [Getting Help](#)
- [Error Handling](#)
- [API Documentation](#)

6.1.1 User Operations

Searching for a Template

Choosing a gallery and template set

The header shows the gallery and template set the plugin is currently working with, the gallery name above and the template set name below it. Click either to open the **Select Template Set** dialog.

- **FILTER BY SET NAME** narrows the list of template sets as you type.
- **CHOOSE GALLERY** lists the available galleries. This list only appears when there is more than one gallery to choose from, so an installation that reads templates from a file (a single gallery) never shows it, while an installation that reads them from a template database does.
- Click a template set to apply it and close the dialog. If nothing matches your filter, the dialog reports *No template sets found*.

Filtering by template type

The **Template Types** list on the left filters the template listing to a single type. **ALL** is always the first entry and shows everything. Each type carries the same colour and icon that Viz Mosart uses for it, and it is named with your newsroom's own alias for that type rather than a fixed Vizrt name.

 **Info:** Your administrator decides which types appear and in what order, so this list can differ between installations. See Template type filter buttons.

Searching

Type in the **Search** box to narrow the listing. The list filters live as you type, highlighting the matching text, and matches against both the template *variant* name and the *template type* name. Several words act as an AND: every word you type must match one of the two, in any order. Clear the box with the **x** to return to the full listing.

 **Info:** Search works within the type you have selected in **Template Types**. If a template you expect is missing, select **ALL** and search again.

- ✓ **Tip:** **Ctrl+F** puts the cursor straight into the **Search** box from anywhere in the plugin. Press **Enter** in the box to move focus to the selected template, then use the arrow keys to move around the listing.

Modifying a Template

Click a template in the listing and its production details appear in the editor on the right. The editor shows only the sections that apply to the template you selected, and each section has its own **RESET** button that restores that section to the values held in the template itself.

- ✓ **Tip:** Hover a **RESET** button to see exactly what it will restore, for example *Reset to default: MIX 12*. Pressing **R** resets every section currently shown in the editor.

To modify production characteristics

Newsroom 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 the value of any variable, for this story item only. The template itself is not changed. For example, in a *Video Effects* template, you may wish to change the source of the second input.

⚠ **Note:** The set of variables comes from the template. You can change their values here, but you cannot add a variable that the template does not define. To add one, edit the template in the Viz Mosart Template Editor.

Each variable is presented with the control that suits it:

Variable	Control
A variable bound to a Viz Mosart list: mixer inputs, router sources, router destinations, engine presets or engine top scenes	A drop-down of the values read from your Viz Mosart configuration
A true/false variable	A check box
A timecode variable	A time field in <i>mm:ss</i> or <i>hh:mm:ss</i> , with step buttons. A duration variable is labelled Duration .
The video clip path variable	A text field with a search button that opens the clip picker. See <i>Selecting a video clip</i> below.

Variable	Control
Anything else	A text field

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).
- The three choices are **MIX**, **WIPE** and **EFFECT**. MIX and WIPE take a duration in **Frames**; negative values are rejected. EFFECT takes a named effect from a drop-down of the effects configured for the gallery.
- Switching to a different transition type sets the rate to 0. Switching back to the template's own type restores that template's rate.

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

Timings

Templates that can be timed, that is lower thirds, accessories, play sound and commands, also offer a **Timings** section:

- **AUTO** takes the item automatically, and offers both an **In** and an **Out** time.
- **MANUAL** waits for the operator to take the item, and offers only an **Out** time.

Commands and direct takes

A command template shows a **data** field carrying the command's payload. The one exception is the *Direct Take* command, which instead offers a searchable drop-down of the direct takes configured in Viz Mosart, listed by their recall number and name, so you pick a direct take by name rather than typing its number.

Selecting a video clip

For a template with a video clip path, click the search button in the clip field to open the **Select video clip** dialog. Type in **Enter clip name** and the plugin asks the Viz Mosart media service for matching clips.

- Results are listed by their **full clip name**. Where a name is too long for the row, hovering it rolls the text sideways so you can read the end of it.
- An exact match for what you typed is listed first; the rest keep the media server's own order.
- Long result sets are shown 50 rows at a time, with a **Show more** button that reports how many remain. A line above the list tells you how many of the total you are seeing.
- Where the media server provides them, each row shows a **thumbnail** that can be expanded to a preview, and an information icon carrying the clip description.
- Opening the dialog with an empty search box lists the clips you used most recently, on this machine, so common picks need no search at all.
- Select a clip by clicking it, or keep your hands on the keyboard: **Enter** highlights the first result, the **arrow keys** move the highlight, and **Enter** again takes the highlighted clip and closes the dialog. Click **OK** to confirm, or **Cancel** to leave the field as it was.

If a search cannot be answered, the dialog says which part failed, so you know whether to look at the clip name or call your administrator:

Message	Meaning
<i>No clips found matching your search. Try again or check for typos.</i>	The media server answered, and nothing matched.
<i>Couldn't reach Media Admin</i>	The Mosart server accepted the search but the media service did not answer in time, usually because Media Administrator is stopped or still starting.
<i>Couldn't reach the Mosart server</i>	The Mosart server or the Remote Control Service could not be reached at all.

Adding Template Details to the NRCS

- Drag and drop the template into the required location of the story slug.
- In a MOS-based NRCS, in addition to drag and drop, the **Add to Story** button can be used to add a template to a story.
- There is an **Add to Story** button in two places: on the template row itself, which appears when you hover the row, and below the editor.
- Two shortcuts do the same thing: pressing **Enter**, and double-clicking the template row.

 **Note:** In iNEWS there is no **Add to Story** button. Use iNEWS's own **OK** and **Apply** buttons instead, as described under *Modifying Existing MOS Objects* below. In Viz Pilot Edge, drag and drop and **Add to Story** are both absent, because Pilot Edge provides its own controls; see [NRCS Plugin in Pilot Edge](#).

 **Info:** When the plugin is opened from the Showmaker **Show Assets** page, the button reads **Add to show assets** and saves the item to the show's assets instead of into a story.

 **Info:** 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.

You do not have to watch for this. When Viz Mosart reports that the template set has changed, the **Settings** icon starts blinking orange, and the **Refresh** entry inside the menu turns orange too. **Shift+R** refreshes without opening the menu. A short confirmation appears once the reload is done.

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. Collapsed, the list keeps each type's colour and icon and drops only the labels, so you can still filter. Click again to bring the labels back.
- 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.

 **Info:** In a narrow window the plugin looks after this itself: the **Template Types** panel collapses on its own, and the **Settings** button moves from the top bar to the bottom of the left-hand rail. The divider between the template listing and the editor can also be dragged, so you can give either side more room.

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.

- Hover the template card at the top of the editor and click the **Copy** icon that appears on it. A short confirmation tells you the MOS object is on the clipboard.

 **Note:** This action is not offered when the plugin is hosted in Viz Pilot Edge.

Modifying Existing MOS Objects

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

To modify an existing MOS object

1. On the selected rundown story, double-click the slug or grommet that holds the story's MOS object.
2. The corresponding Viz Mosart template, along with control details such as *newsroom tags*, *crosspoints*, *transitions*, and *timings*, is displayed in the Viz Mosart NRCS Plugin. Make the modifications directly in the Mosart NRCS Plugin window.
3. When finished editing, apply the changes. In the iNews newsroom system, use the **OK**, **Apply**, or **Cancel** buttons (specific to iNews) to modify and close, modify without closing, or cancel the editing, respectively. In a MOS-based NRCS, the plugin includes its own buttons to modify or cancel the editing.

The editing band

While you are editing an existing story item, the editor is framed and carries a band reading **EDITING MODE / Update item**, so it is always clear that what you change will be written back to the rundown rather than added as something new. The information icon in the band explains the same thing. The send button changes with it:

- **UPDATE IN STORY** applies your changes to the item you opened.
- **REPLACE IN STORY** appears when you select a *different* template while editing. The band then reads **EDITING MODE / Replace item** and the editor shows the original template, an arrow, and the template that will replace it, so you can see the substitution before you commit it.

To leave editing without applying anything, use **CANCEL**, the **x** in the band, or press **Escape**.

Info: When the plugin is hosted in Showmaker, moving on to something else closes the pending edit for you, so a later **Update** cannot be applied to the wrong item.

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

To modify MOS objects created with the Mosart NRCS Plugin

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

Info: 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 STORY** (in MOS-based NRCS) or **OK/Apply** (in iNews) on the replacement template.
- Alternatively, you can manually search gallery/template sets to locate a similar template. After editing and applying the changes, the new (active) gallery and template set name are stored in your rundown MOS object.

To edit MOS objects created by ActiveX

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

6.1.2 Keyboard Shortcuts

Open the shortcut list at any time with **K**, or from **Settings > Shortcuts**.

Action	Shortcut
Navigate the template listing	Arrow keys, or W / S / A / D
Add to story	Enter
Cancel editing	Escape
Reset editor values	R
Re-fetch templates	Shift+R
Focus the search box	Ctrl+F
Show keyboard shortcuts	K



Info: The navigation keys are ignored while you are typing in a field, so **W**, **A**, **S** and **D** can still be typed into the search box and into variable values.

6.1.3 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. The menu holds:

Entry	What it does
Refresh	Reloads galleries, template sets and templates from Viz Mosart.
Settings	Opens Plugin Configuration : the newsroom system, the Mos ID , and a Responsive layout option that lets the layout follow the window size.
Shortcuts	The keyboard shortcut list.
Documentation	This user guide.
What's new	The release notes for this version.

Entry	What it does
Give feedback	Opens a mail to the Mosart team.
About	Version information for the plugin.

Info: The newsroom system is usually detected or supplied by the host, in which case it is not offered for editing in **Plugin Configuration**. **Mos ID** is not shown for iNEWS, which does not use it.

6.1.4 Error Handling

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

Error messages include the address of the plugin host, which is useful when reporting a problem. Confirmations and warnings clear themselves after a few seconds, while errors stay until you dismiss them.

Please refer to the [Troubleshooting](#) or contact Vizrt Support if you encounter any error messages.

6.1.5 API Documentation

The Mosart REST API is installed alongside the NRCS Plugin. Its endpoints are documented as an OpenAPI (Swagger) page, served at:

<http://machine-name:55142/mosart/swagger/index.html>

The quickest way to reach it is **Help & Resources > API Docs** in the Configuration Tool, which opens the same page for the host and port your installation actually uses.

Info: Replace *machine-name* and the port with the address of your Mosart Web Apps host. *55142* is the default, and your administrator may have changed it. Over HTTPS the default is *55143*.

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>.

6.2 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.

6.2.1 Hosting NRCS Plugin within Pilot Edge

- [Set Up](#)
- [Working with the Mosart NRCS Plugin in Pilot Edge](#)
- [What is different 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**.
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**.

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**.



Info: Enter the plugin URL exactly as the Configuration Tool gives it. Pilot Edge adds what it needs to identify itself when it opens the plugin, and the plugin recognises Pilot Edge from that, so there is nothing further to append.

Working with the Mosart NRCS Plugin in Pilot Edge

1. In your newsroom system, open the Pilot Edge Plugin.
A new tab **Mosart** appears at the top.
2. Click the tab to open the Mosart NRCS Plugin.
3. **To add a Mosart item to your rundown**, select the item and drag in the **Cross** icon at the top right of the plugin. For a MOS-based NRCS, the **Send to newsroom system** option is also available.
4. **To edit an added item**, Pilot Edge automatically opens the NRCS Plugin inside Pilot Edge. In the iNews newsroom system, use the **OK**, **Apply**, or **Cancel** buttons (specific to iNews) to modify and close, modify without closing, or cancel the editing, respectively. In a MOS-based NRCS, the Pilot Edge plugin includes the **Update in newsroom system** button.

What is different in Pilot Edge

Pilot Edge supplies the controls that place an item in the rundown, so the plugin's own equivalents are deliberately not offered here. Compared with running the plugin directly in a newsroom system:

- There is no **Add to Story** button, and dragging a template out of the plugin does nothing. Use Pilot Edge's **Cross** icon or **Send to newsroom system** instead, and its **Update in newsroom system** button when editing.
- **Copy MOS object to clipboard** is not offered.
- The newsroom system is not shown for editing in the plugin's **Settings**, because Pilot Edge has already told the plugin what it is.

You still select a gallery and template set, filter and search templates, and edit variables, transitions and timings exactly as described in [Working with the NRCS Plugin](#).

i Info: Your edits are handed to Pilot Edge as you make them. Every time you select a different template or change a value, the plugin passes the updated Mosart item and its description straight to Pilot Edge, so what Pilot Edge shows for the item always matches what you have in front of you. There is no separate step in the plugin to confirm a change; you commit it with Pilot Edge's own button.

6.3 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](#)
- [Template Type Filter Order](#)
- [Clip Search](#)
- [Hide Effects from Users](#)
- [Integrating with an NRCS](#)
 - [ENPS](#)
 - [iNEWS](#)
 - [Octopus](#)
 - [OpenMedia](#)
 - [Showmaker](#)
- [Troubleshooting](#)

6.3.1 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.

6.3.2 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*.



Info: Make sure to execute *all* instructions, including the one-time edits to the Mosart Remote Dispatcher Service. These are only required when you supply your own certificate. If you use the built-in certificate authority, the bundled web proxy handles HTTPS itself and there is nothing to edit. See [Certificates](#).

6.3.3 Verifying the Mosart Installation

1. After following the mandatory App Configuration and Server Configuration procedures, the Windows services that serve the web apps are running. These are *Mosart Web Applications*, which hosts the NRCS

Plugin and the REST API it uses, and *Mosart Web Proxy*, which publishes them to browsers. On the Viz Mosart server itself, the *Mosart Remote Control Service* provides the connection to Viz Mosart.

2. You can check that the NRCS Plugin is accessible by either clicking **Home > NRCS Plugin** in the Configuration Tool, or following the **Preview URL** next to the **Copy** button on the NRCS Plugin page of **App Configuration**.

Info: The plugin URL is built from the address of your Mosart Web Apps host, the NRCS type and, where the newsroom system uses one, the *Mos ID*:

`http://machine-name:55142/plugin?nrcs={type}&mosid={mosid}`

- 55142 is the default port of the Mosart Web Proxy, and 55143 is the default over HTTPS. Your administrator can change both, so always take the URL from the Configuration Tool rather than assembling it by hand.
- *mosid* is omitted for iNEWS, which does not use it.
- *nrcs* is omitted when the NRCS type is set to **Other**. The operator then chooses the newsroom system in the plugin's own **Settings**.

3. 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).

6.3.4 Template Type Filter Order

The plugin's **Template Types** list is admin-controlled: you decide which template types appear as filters and in what order, once, for everyone using the plugin. Put the types your journalists reach for most at the top and leave out the ones your production never uses.

This is set on the NRCS Plugin page of **App Configuration**. For the procedure, see Template type filter buttons.

Info: The **ALL** filter is always first and cannot be moved or removed. Any supported type you do not place explicitly keeps its original position, after the ones you did place. Where your newsroom defines its own alias names for template types, the rows are shown with those names, so the list reads the same as the plugin does.

6.3.5 Clip Search

Templates that carry a video clip offer a clip picker that searches your media server by clip name. For it to return results:

- **Media Administrator must be running** on the Viz Mosart server. It is the service that performs the search. If it is stopped or still starting, the plugin reports that it could not reach Media Admin.
- The **Mosart Remote Control Service** must be reachable from the Mosart Web Apps host, as for every other Viz Mosart connection.

Authorization key

Current Viz Mosart servers answer clip searches over the Mosart server's own real-time connection, which needs no separate key. Older Viz Mosart versions do not offer that, and the plugin falls back to the REST media search, which does require the **Authorization Key** to be configured. If clip search fails only on an older Mosart server, this is the first thing to check. See Mosart API Access.

Multi-studio sites

On a site with several studios, the plugin searches the media of the studio it was launched for, so an operator working on studio B does not get studio A's clips. Launch the plugin from the studio's entry so that it carries the studio with it. See Studios.

Clip thumbnails

Where your media server supplies them, clip results carry thumbnails and a preview. TriCaster thumbnails are fetched by the Mosart web server on the browser's behalf, using the TriCaster credentials from **Server Configuration**, so operators do not need network access to the TriCaster and the thumbnails work over HTTPS. If clip thumbnails are blank for a TriCaster source, check the TriCaster address, username and password. See TriCaster Live Previews.

6.3.6 Hide Effects from Users

In some production situations, there may be an effect recalled from specific templates, that should only be run under specific circumstances (for example, on an ME row).

Unintentionally selecting such an effect from the NRCS plugin (or the Viz Mosart GUI) can give unplanned on-air consequences.

To hide an effect from the user

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

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

 **Info:** **Hide From User** is applied the same way to switcher sources and to whole template sets, not only to effects, so you can keep any of them out of the operator's reach. The one deliberate exception is the Template Editor: when the plugin is embedded there, hidden items are shown, because that is the tool used to build the templates that reference them.

6.3.7 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 Configuration Tool.

The NRCS Plugin supports connections to

- [ENPS](#)

- [iNEWS](#)
- [Octopus](#)
- [OpenMedia](#)
- [Showmaker.](#)

It can also be hosted in [Viz Pilot Edge](#), and inside the Mosart web apps *Template Editor* and *Smart Panel*.

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

ENPS

1. In the Configuration Tool select **App Configuration > NRCS Plugin** and copy the value of **Preview URL**.
2. On the ENPS machine, navigate to **System Maintenance > MOS Configuration**.
3. Paste the NRCS Plugin's copied URL.

Info: The URL comprises the Plugin's URL plus Viz Mosart's *MosId* value, in the form:
`http://machine-name:55142/plugin?nrsc=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

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, enter 'URL = ', and at that exact spot paste the URL copied from the Configuration Tool (**App Configuration > NRCS Plugin**, the value of **Preview URL**). Then append
`mosItemBrowserProgID = Mosart.ActiveX`
`mosItemEditorProgID = Mosart.ActiveX`

Example:

URL = `http://machine-name:55142/plugin?nracs=iNews`

`mosItemBrowserProgID = Mosart.ActiveX`

`mosItemEditorProgID = Mosart.ActiveX`

**Info:**

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



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

iNEWS Clients without HTML5 Support

Installing the iNEWS Client Addon

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

1. From the Vizrt FTP /products/VizMosart/Latest Version/WebApplications/ download and run the iNEWS Client Addon utility, *MosartNRCSPlugin-iNEWSClientAddon-<version>.exe*
2. From the Configuration Tool select **App Configuration > NRCS Plugin** and copy the value of **Preview URL**.
3. In **Mosart NRCS Plugin - iNEWS Client Addon**, paste-in the URL of the Plugin.



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



Info: To change the configured URL after the installer was closed, simply open a command prompt and execute:

```
"%programfiles(x86)%\Vizrt\Mosart NRCS Plugin - iNEWS\MosartNCSPugin.exe" url "https://machine-name:55142/plugin/?nracs=iNews"
```



Note: If you use authentication, iNEWS only works through this *iNEWS Client Addon*. Hosting the plugin as a plain HTML plugin does not support authentication. See Provider-specific Newsroom Authentication.

Octopus

1. From the Configuration Tool select **App Configuration > NRCS Plugin** and copy the value of **Preview URL**.
 2. Log-in to Octopus with Admin privileges.
 3. From the sidebar, navigate to **MOS Devices > Devices**, select *mosart* and click **Edit**.
 4. Select the **Plugins** tab.
 5. Fill in the plugin entry, providing a unique name, a version, and the URL to the Viz Mosart NRCS Plugin (*copied* in step 1).
 6. Setup is complete.
- When editing a selected rundown, the user right-clicks for **New > Create using** <given name of the Plugin>

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

 **Note:** Plugin authentication is not currently supported with Octopus.

OpenMedia

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

 **Info:** Both OpenMedia hosting modes are supported. OpenMedia 5.5 and later embeds the plugin in a WebView2 control and exchanges MOS messages through it; earlier versions host it as a plain HTML plugin. The plugin detects which of the two it is running in, so there is nothing to configure for this.

Showmaker

See section [Setup and Administration of Showmaker](#) in this guide.

 **Info:** No separate NRCS setup is needed for Showmaker. It embeds the plugin itself, as one of the integrations in its Assets panel, and again on its **Show Assets** page.

6.3.8 Troubleshooting

See section [Troubleshooting](#).

7 Timing Display

- Note: Timing Display has been retired.** The Timing Display web app was removed from Mosart Web Apps 3.1.
- All capabilities are now provided by **Smart Panel**, which is the recommended solution going forward.
 - To convert existing Timing Displays, see [Moving from Timing Display to Smart Panel](#) below.
 - For Mosart Web Apps 3.0 or earlier, use the Timing Display documentation for your version, as described under [Documentation for earlier versions](#).

7.1 Moving from Timing Display to Smart Panel

Smart Panel covers everything the Timing Display did, and adds control surfaces the Timing Display never had: buttons that fire Viz Mosart commands, audio faders, live video, graphics lists, and the ability to output a whole panel as an NDI source. Rather than only timing, a single panel can now host both timing information for the studio floor and controls that operator needs.

Everything you built a Timing Display for has a direct equivalent:

In the Timing Display	In Smart Panel
Timer fields driven by the active rundown	The Timer item, which shows a live timer or countdown driven by Viz Mosart. The Label item does the same for text values.
Editing grid for laying out timers	The panel canvas. Drag an item to move it and drag a corner or edge handle to resize it; items snap to the grid defined in Panel properties .
Drag and drop timing details from a list	The component palette on the left of the editor. Every placed item also appears in the searchable Panel Items list.
Text formatting: color, bold, alignment, show label	Item properties: Text color , Font weight , Text alignment and the label settings, plus a background color with optional transparency.
Customizable audio countdown	Audio Countdowns in the editor. The same eight events are available: End of Current Story, Start of Next Break, End of Rundown, End of Current Package, End of Current Break, End of Current Voice Over, End of Current Float/Adlib and End of Current Item, each with a configurable offset before or after the event.

In the Timing Display	In Smart Panel
Viz Mosart server status field	The Connection Status widget, which shows the server connection state including the main and backup beacon.
View Mode and Edit Mode	The editor and Display mode . Use the browser's own full-screen mode for an unattended screen.
Several named displays for different positions	Several panels. Each is listed on the Smart Panel landing page and opens independently.
Distributing a display with <i>Copy link</i>	Copy link on the panel card, shared the same way.
Browsing on a tablet or phone	Unchanged. A panel opens on any device with a browser.

7.1.1 Rebuilding your displays

Info: Existing Timing Display layouts are not converted automatically. A Timing Display layout is a flat list of timer fields, whilst a Smart Panel layout is a canvas of positioned items, so there is no meaningful automatic mapping between them. Saved Timing Display layouts are no longer read, the panels you want must be built once-only in Smart Panel.

In practice this takes a few minutes per display. To shorten it further, Smart Panel ships with a set of ready-made default panels that cover the usual Timing Display arrangements: pick one in the panel picker when you create a new panel, then adjust it rather than starting from an empty canvas.

Your audio countdown files do not need to be moved. Smart Panel reads them from the same media folder on the Mosart Web Apps host that the Timing Display used, so files already placed there remain available.

7.1.2 Note for Administrators

A **TimingDisplay** configuration section is still present on the Mosart Web Apps host, and its service endpoints remain in place. This is expected: Smart Panel uses them for panel layouts, images, audio countdown files and the media folder setting, along with the TriCaster credentials used for live video. Keep this configuration in place. Only the Timing Display web app itself has been removed.

7.2 Documentation for Earlier Versions

If you are still running Mosart Web Apps 3.0 or earlier, the Timing Display documentation for your version remains published at the [Vizrt Documentation Center](#). Select your version there, for example the [the 3.0 User Guide](#), and open its Timing Display section.

8 Rundown Viewer

The Mosart Rundown Viewer provides a convenient web browser view of the current Viz Mosart rundown. It is a read-only display: it shows what Viz Mosart is doing and sends nothing back, so it is safe to leave open on any screen.

- Displays the active Viz Mosart rundown, story by story, with each story's items and timings.
- Marks which items take automatically, and scrolls straight back to the story on air.
- Can show the story script, the timeline, or the Viz Mosart keyboard shortcut layout, either alongside the rundown or on their own.
- Supports a variety of devices, for example an iPad or a networked phone, and works as an unattended gallery or studio-floor display.



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

This section describes:

- [Working with the Rundown Viewer](#)
- [Setup and Administration of RV](#)

8.1 Working with the Rundown Viewer

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

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

- [Opening the Rundown Viewer](#)
- [Key Features](#)
 - [Viz Mosart server status](#)
 - [Rundown display](#)
 - [Timers](#)
 - [Keyboard shortcuts panel](#)
 - [Choosing what to display](#)
 - [Display settings](#)

8.1.1 Opening the Rundown Viewer

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

1. In the Configuration Tool, select **App Launcher > Rundown Viewer**.
2. The Rundown Viewer opens in your default web browser.

On a site with several studios, launch it for the studio you want, and it connects to that studio's Viz Mosart server. See Studios.

8.1.2 Key Features

Viz Mosart server status

The Viz Mosart server status is displayed in the upper right corner.

Status	Description
Active	The Viz Mosart server is active.
Idle	The Viz Mosart server is idle.
Down or unreachable	Manus Administrator is not running, or the Mosart Remote Control Service (RCS) is not running, or it cannot be reached.
Main and backup	Two indicators are shown when Viz Mosart is set up with a main and a backup server, and the backup has been configured in the Configuration Tool under Server Configuration.

By default the indicator shows the hostname, IP address or FQDN configured for the main and backup servers in Server Configuration. In newer versions of Viz Mosart, the *Server Description* configured on each Viz Mosart server under Manus Administrator settings is used instead.

Rundown display

The rundown is shown story by story, in running order, with each story's items along its row.

- **Story scaler.** You can expand the viewing area for the items in a story row, which is useful for reading full text details on an item. Adjust the story scaling to the column width you want.
- **Go to on-air story.** A navigation button scrolls immediately to the story currently on air, so you can get back to it after browsing elsewhere in the rundown.
- **Autotake indicator.** An item that is set to take automatically is marked with a vertical line and an arrow at the end of its planned-duration bar, matching the autotake marker in the Viz Mosart rundown window. This tells you at a glance which items advance by themselves and which wait for the operator.
- **Story script.** The script for a story can be read alongside the rundown, or on its own. See *Choosing what to display* below.

Timers

A timer bar carries the rundown's timing information, including the time to the next break.

Keyboard shortcuts panel

The Rundown Viewer can display the Viz Mosart keyboard layout, showing which shortcut is mapped to which physical key, including the navigation keys and the numeric keypad. It is a reference display rather than a control surface: use it to see and to teach the keyboard mapping in use.

The panel takes up to half the screen alongside the rundown. To fill the whole window with it, for example on a dedicated monitor in a training room, open the Rundown Viewer with the `keyboard` parameter described below.

Choosing what to display

The Rundown Viewer can be opened showing only part of its content, which is what makes it useful as a wall or gallery display. Add one of these parameters to the URL:

Parameter	What you get
<code>?show-story-script</code>	The rundown together with the story script.
<code>?story-script</code>	The story script only.
<code>?timeline</code>	The timeline only.
<code>?keyboard</code>	The keyboard shortcut panel only, filling the window.

Parameter	What you get
<code>?studioId=<studio></code>	Connects to a particular studio's Viz Mosart server on a multi-studio site.

- ✓ **Tip:** Because each of these is just a URL, a browser in kiosk or full-screen mode pointed at one of them makes a self-contained display that needs no operator. Several screens can show different views of the same rundown at the same time.

Display settings

Settings control how much of each story is shown, so the rundown can be tuned to the screen it is on. They are remembered in the browser you set them in, so each display can differ.

Setting	What it does
Max lines	How many lines of a story title are shown, from 1 to 4, or 4+ for no limit. Fewer lines fit more stories on screen; more lines make long titles readable.
Full title on cue	Shows the complete story title for the cued story, whatever the line limit.
Full title on air	Shows the complete story title for the story on air.
Show full story title	Shows complete titles throughout, rather than only for the cued and on-air stories.

Settings are applied with **Save**, and **Cancel** discards what you changed.

- ✓ **Tip:** For a wall display, keep **Max lines** low so more of the rundown fits, and turn on **Full title on cue** and **Full title on air** so the two stories that matter most are always fully readable.

- i **Tip:** For an explanation of the elements in a Viz Mosart rundown, see the [Viz Mosart User Guide](#), under **User Interface**, the section **Rundown Window**.

8.2 Setup and Administration of RV

- [Setting up the Rundown Viewer](#)
 - [Prerequisites](#)
 - [Installation and Configuration](#)
 - [Access](#)
 - [Multiple Studios](#)
 - [Setting up an unattended display](#)
- [Optional Server Setups](#)
 - [Support for main and backup connection](#)
 - [Support for HTTPS](#)
- [Troubleshooting](#)

8.2.1 Setting up the Rundown Viewer

Prerequisites

- A running Viz Mosart system, with *Manus Administrator* running and the *Viz Mosart client UI* running and displaying a rundown.



Info: Individual Rundown Viewer features depend on the Viz Mosart server supporting them, for example the autotake indicator. For the Viz Mosart version required by your Mosart Web Apps release, see the *Mosart Web Apps Release Notes* at [the Vizrt Documentation Center](#).

Installation and Configuration

The Rundown Viewer needs no configuration of its own. It reads the shared Mosart server settings that the other Mosart Web Apps use.

1. Ensure your Viz Mosart system is operating under normal working conditions, as above.
2. From the Mosart Web Apps Configuration Tool, select **App Launcher > Rundown Viewer**.

Access

The Rundown Viewer has no roles of its own. Where authentication is enabled for Mosart Web Apps, users sign in as they do for the other apps, but there is no separate viewer or author permission to grant for this app: anyone who can reach the URL can read the rundown. It is a display, so it sends no commands to Viz Mosart.

Multiple Studios

On a site that runs several Viz Mosart back ends from one Mosart Web Apps host, the Rundown Viewer shows the rundown of one studio at a time.

- Define the studios once in the Configuration Tool. See [Studios](#).
- Launch the Rundown Viewer for a studio from the Home page, or open it with `?studioId=<studio>` .

- Only studios whose back end is a Viz Mosart server are offered, since those are the ones with a rundown to show.

Setting up an unattended display

The Rundown Viewer is often put on a gallery or studio-floor screen with nobody driving it. Because each view is just a URL, that needs no special deployment:

1. Decide what the screen should show, and add the matching parameter to the URL. The options are listed under [Choosing what to display](#): the rundown, the rundown with the story script, the script alone, the timeline alone, or the keyboard shortcut panel alone.
2. Point a browser at that URL in kiosk or full-screen mode.
3. Set the display options once on that screen. They are stored in that browser, so each display keeps its own settings and you can tune one screen without affecting the others.

i Info: Because the settings live in the browser, replacing the machine or clearing its browser data resets that screen to the defaults. Note down the settings you chose for any screen you would not want to reconfigure from memory.

8.2.2 Optional Server Setups

Support for main and backup connection

- If you have a *backup server* for redundancy, define the environment in *Server Configuration*. The Rundown Viewer then shows an indicator for each of the two servers.

Support for HTTPS

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

8.2.3 Troubleshooting

See section [Troubleshooting](#).

9 Showmaker

9.1 About Showmaker

Showmaker is a lightweight, web-based, efficient MOS-rundown creation tool, eliminating the need of a complex newsroom system.

Showmaker provides all features needed to quickly create and control a Viz Mosart show, with rundowns and stories that contain automation templates, graphics, clips and scripts.

9.1.1 Typical Usage

- Standalone creation of Viz Mosart-automated shows.
- Provide an independent backup for a newsroom system.
- Quickly get on air. Especially useful at the beginning of a project:
 - The automation is prepared in advance, not requiring any newsroom system.
 - If you are using a newsroom system, all automation can be prepared upfront in Showmaker.
- Enables non-journalist skeleton staff (for example, in the middle of the night) to get breaking news on-air.

 **Info:** Showmaker is not intended as a replacement for a newsroom system. Showmaker offers self contained, quick and easy creation and management of a Viz Mosart rundown.

9.1.2 Key Features

- **Shared production:** Team members collaborate in a single place, preparing and managing rundown content for automated or semi automated productions. You can see who else is in a rundown while you work, leave comments on a story, and draw a colleague in with an **@mention** that reaches them in their own inbox.
- **Structured workspace:** Visually organize with a clear overview, shows, rundowns and rundown templates, all in one place.
- **Automation integration:** Add and edit Viz Mosart templates.
- **Graphics gathered:** Optional Viz Flowics (HTML graphics) and [Viz Pilot Edge](#) graphics all in the same tool.
- **Show assets:** Keep a show's recurring graphics in one place and drop them into a story when needed, either from the assets panel or by typing a slash command straight into the script.
- **Story crafting:** Rapid modification of scripts, manual items, and timing information in a single, elegant UI. Item durations can be calculated from the script itself, using your own reading-speed presets, and a story's duration follows the items inside it.
- **Video clips:** Search the media server by clip name, preview a clip at full resolution before committing to it, and, where a TriCaster is used, upload a clip to its clip server from inside Showmaker.
- **Synchronized operations:** Updates display immediately in the active Viz Mosart rundown.
- **Confidence before air:** An attributed change history shows who changed what in a rundown and when, and an undo step recovers a story or item deleted by mistake.
- **Controlled access:** Where authentication is enabled, the people who build shows and the people who only need to read them can be separated by role.

- **Future-proofed:** Modern, secure, web-based architecture.

9.2 Why Showmaker

Traditional newsroom systems are powerful but complex, with long onboarding, heavy configuration, and far more functionality than many productions actually need. Showmaker takes the opposite approach. Light, focused, and built around the small set of tasks needed to drive a Viz Mosart rundown: open a show, build stories, add automation and graphics, go on air. New users are productive in minutes rather than days, a practical choice for teams wishing to move away from a heavyweight NRCS or that need a fast, self-contained way to run shows.

Showmaker is also designed to be the operator's own workspace. The show banner, with its image, title and program window, makes each show immediately recognizable for the people who run and own the content. A fast and focused tool that operators can familiarly return to.

9.2.1 Typical Workflow

Showmaker takes you from a blank screen to a ready-for-air rundown in five short steps:

1. Create a show.
2. Build the rundown.
3. Populate the stories with Viz Mosart templates and other instructions.
4. Activate the rundown so that it syncs with Viz Mosart.
5. Mark it ready to air, so that it becomes the operator's active rundown.

9.3 Showmaker in your Ecosystem

Showmaker is part of the suite of *Mosart Web Apps*, browser-based tools served from a single host and included with every Viz Mosart delivery.

Showmaker covers the role played by a newsroom system in a traditional setup, owning the rundown and pushing it to Viz Mosart for playout.

Component	Role for Showmaker	Required?
Viz Mosart Server	Receives the Showmaker rundown (over MOS, with Showmaker acting as a virtual NRCS) and plays it on air. Also the source of the Viz Mosart automation template sets that Showmaker displays in its Assets panel.	Yes
Mosart Web Apps Configuration Tool	Required for one-time setup: - Point Showmaker at the Viz Mosart server or servers. - Point Showmaker at any optional graphics integrations. See Setup and Administration of Showmaker .	Yes, once only
NRCS Plugin	A Mosart Web App that Showmaker embeds, to read Viz Mosart template sets and to import data from a connected NRCS.	Yes, bundled

Component	Role for Showmaker	Required?
Viz Pilot Edge	Showmaker embeds a Pilot Edge panel, for editing Pilot Edge graphic templates in place.	Optional
Viz Flowics	Showmaker embeds a Flowics panel, for real-time cloud-based HTML5 graphic editing.	Optional
Prompter	The Mosart Web Apps prompter reads the scripts written in Showmaker, and can follow the rundown as it plays.	Optional

Technically, Viz Pilot Edge, Viz Flowics and the Mosart NRCS Plugin display asset panels inside Showmaker as iframes that exchange MOS messages directly in your browser, so you do not have to open separate applications.

9.4 Getting Started

Here you learn to open Showmaker, recognize the main views, understand some important terminology, then create and run your first rundown.

- [Opening Showmaker](#)
 - [Authentication](#)
- [Tour of the Interface](#)
- [Key Terms](#)
- [Your First Rundown](#)
- [Getting Help](#)

9.4.1 Opening Showmaker

First try this

Showmaker runs in a web browser. Enter the URL your administrator provided. It will look something like this:

```
https://<your-mosart-web-apps-host>/showmaker
```

Otherwise, launch the Mosart Web Apps Configuration Tool

- Click the desktop shortcut, or run `C:\Program Files\Vizrt\MosartWebApplicationsConfiguration\MosartWebApplicationsConfiguration.exe`.
- From **App Launcher**, select **Showmaker**.

Authentication

Whether you need to sign in depends on how your administrator has configured Mosart Web Apps.

- **Authentication off:** you reach Showmaker without signing in. This is the default.
- **Authentication on:** you are redirected to your organization's identity provider and sign in there. Once in, your email appears in the user avatar at the top right.

 **Info:** Showmaker is one of several Mosart Web Apps, and the same host serves them all. Switching between them does not require signing in again.

Roles

Your role decides what you can do. When authentication is on, Showmaker reads your role from the identity provider:

- **showmaker-admin:** full access to create, edit, activate and put rundowns on air.

- **showmaker-viewer:** read-only access to browse shows, rundowns and templates. Editing controls are hidden or disabled.

Info: If you sign in successfully but are told you do not have access, you have been authenticated but not granted either Showmaker role. Ask your administrator to add one in your identity provider. If instead you are told your access could not be checked, the check itself failed rather than being refused, and you can retry.

Troubleshooting

If Showmaker opens but you cannot see any shows, or the rundown table cannot reach a Viz Mosart server, the one-off configuration is still needed. See [Setup and Administration of Showmaker](#).

9.4.2 Tour of the Interface

Showmaker has three views:

- **Landing page:** select a show and browse its rundowns or rundown templates.
- **Rundown page:** build and edit a single rundown.
- **Rundown template page:** build and edit a single rundown template.

Info: All three are described in detail in [Working with Showmaker](#).

9.4.3 Key Terms

Showmaker organizes content hierarchically. A *show* contains *rundowns*, each rundown is made of *stories*, and each story holds the *items*, *notes* and content that go on air.

Term	Meaning
Show	Top-level container. Holds the rundowns and rundown templates for a single programme or production.
Rundown	An ordered sequence of stories that Viz Mosart can run on air.
Rundown template	A reusable rundown structure. A rundown created from a template is independent of it.
Story	A slice of a rundown. Holds the automation items, manual items, graphics, clips and scripts that share a context.
Story item	One automation step inside a story, that is a Viz Mosart template instruction.
Manual item	A story item taken to air by the operator during the show, rather than executed automatically.

Term	Meaning
Story note	A free-text block pinned to the top of a story. Not sent to Viz Mosart. Can be dragged under an item to become that item's script.
Script	Presenter or editorial text attached to a specific item. Sent to Viz Mosart with the rundown.
Graphic overlay	A Viz Pilot Edge or Viz Flowics element attached to an item.
Clip	Video media attached to an item. Only compatible story item types accept one, for example <i>Package</i> or <i>Voice over</i> .
Show asset	A graphic saved to the show for reuse, so recurring graphics do not have to be rebuilt story by story.
Reading-speed preset	A named reading speed, usually per presenter, used to calculate an item's duration from its script.
Comment and mention	A note left on a story, optionally addressed to a colleague with @. Unread comments and mentions are gathered in the activity panel.
Studio	A label grouping one or more MOS devices, for example the main and backup Viz Mosart servers of one gallery, or several galleries on one site. Assigned per show, and overridable per rundown.
Active	Toggle on a rundown. When on, the rundown is synced live with Viz Mosart and appears in the Viz Mosart UI.
Ready to air	Toggle on a rundown. When on, the rundown is added to the Viz Mosart Rundowns > NCS active > READYTOAIR rundown, where the operator can take it on air.
ON AIR	A chip on a rundown when Viz Mosart is currently running it.
Floated story	A story marked to be skipped during payout. Drawn with diagonal stripes in the story list.

9.4.4 Your First Rundown

A short walk-through that introduces the core concepts. It assumes Showmaker is connected to a working Viz Mosart system, as described in [Setup and Administration of Showmaker](#).

1. **Create a show.** On the landing page, open the show menu and choose **New show**. Give it the title *My first show*, select a **Studio**, and create it.
2. **Create a rundown.** With the show open, create a new rundown, title it *Demo*, and set a planned duration of 10 minutes. Creating it takes you to the rundown page.
3. **Name the first story.** A story already exists. Click *Untitled* and rename it *Intro*.
4. **Add an automation item.** From the assets panel on the right, open the Viz Mosart templates if they are not already showing, then drag a template onto the story. Alternatively, select the template and click **ADD TO STORY**.
5. **Add a script.** Click the script area on the item and type a line or two. If your show has script timing turned on, the item's planned duration is calculated from the reading speed as you type.
6. **Sync it with Viz Mosart.** Turn on **Active** for the rundown. It is now live-synced, so it appears in the Viz Mosart UI and every edit you make is reflected there immediately.
7. **Offer it to the operator.** Turn on **Ready to air**. The rundown is added to the **Rundowns > NCS active > READYTOAIR** rundown in Viz Mosart, where the operator can take it on air.

You have now built and aired your first Showmaker rundown. To go deeper into any step, see [Working with Showmaker](#).

 **Tip:** Deleted a story or an item by mistake? A toast offers **Undo**, and **Ctrl+Z** does the same.

9.4.5 Getting Help

The **?** icon in the top-right corner of every page opens the help menu.

Option	Opens
Keyboard Shortcuts	The list of available shortcuts. See Keyboard Shortcuts .
Documentation	This user documentation.
What's new	The Showmaker release notes.
Give feedback	A feedback mail to the Showmaker team.
About	Showmaker version and build information. Worth including in a feedback mail.

9.5 Working with Showmaker

You make and organize your shows in the **Landing page** and the **Rundown page**. For a guided first-time tour, see [Getting Started](#).

- [Common Actions](#)
- [Landing Page](#)
 - [Show](#)
 - [Studio Assignment](#)
- [Show Assets](#)
- [Rundowns View](#)
 - [New Rundown](#)
- [Rundown Operations](#)
 - [1 Rundown information bar](#)
 - [2 Assets panel](#)
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- [Show Assets](#)
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 - [Who else is here](#)
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 - [The activity panel](#)
- [Timing from the Script](#)
 - [Reading-speed presets](#)
- [Recording a Story](#)
- [Quick Guide to Rundown Operations](#)
 - [To add a Viz Mosart template](#)
 - [To add a graphic](#)
 - [To manage a story and its items](#)
 - [To work with video clips](#)
- [Rundown Templates View](#)
- [Keyboard Shortcuts](#)
 - [Landing page](#)
 - [Rundown editor and rundown template editor](#)
 - [Global](#)
- [Examples, Videos, Further Guidance](#)
 - [Viz University](#)
 - [Documentation updates](#)

9.5.1 Common Actions

Shows, rundowns, and rundown templates share the same set of management actions where they appear in Showmaker.

Action	What it does
Open	Opens the entity for editing. Click the row, or press Enter on the highlighted row.
Edit	Opens a properties dialog (title, start time, planned duration, banner image, default-on-create, Studio).
Duplicate	Creates an independent copy of the entity. Rundowns and templates are duplicated within the same show.
Set as default	(Shows only) Opens this show automatically the next time you launch Showmaker.
Delete	Removes the entity. For shows, a confirmation dialog adds two safeguards, described under <i>Show actions</i> below.
Create rundown template from rundown	(Rundowns only) Saves the rundown as a reusable Template in the same show.
Show assets	Navigates to Show assets page where users can manage a list of assets related to a specific show.

9.5.2 Landing Page

Showmaker opens on the landing page. From here you pick a show, browse its rundowns or rundown templates, and decide which rundown is sent to Viz Mosart.

Show

A *show* is a container for related rundowns and rundown templates, typically one program or production. Each show can hold any number of rundowns and templates.

The **show banner** at the top of the landing page is both a functional space and an identity space. Functionally it is the show selector, content counter, and action menu. As an identity surface, the banner image, title, and program window personalize the workspace and signal ownership of the rundowns and templates beneath it.

Show actions

- **Open:** Pick a show from the dropdown.
- **New show:** Create a new show.

- Show title: Required.
- Starts at / Ends at: (optional) When both are set, every new rundown and rundown template in this show inherits these values, and the planned duration is displayed automatically. Both can be overridden per rundown.
- Banner image: (optional) A convenient identifier for the active show.
- Studio: Selectable when a MOS device is configured. This is an administrator configuration task.
- **Edit show:** Modify any of the above on an existing show, plus the default option for a new rundown (start blank, or seed from a specific rundown template) and the script-timing settings described under *Timing from the Script* below.
- **Set as default:** See *Common Actions*.
- **Delete show:** Deleting a show can affect every rundown and rundown template inside it, so a confirmation dialog provides two safeguards:
 - Choose what happens to the contents: delete the show with all its rundowns and templates, or move them to another show first so nothing is lost.
 - Type the show name to confirm. The **Delete** button stays disabled until the name matches exactly.

Studio Assignment

Each show in Showmaker originates from a *Studio*, the physical production environment under the control of a Viz Mosart server.

Normally a rundown is associated with the show's original studio, but Showmaker allows rundowns to be shared between studios: you can point a single rundown at a different Studio without changing the show. This is useful for rehearsals and last-minute changes.

 **Info:** Studios are defined once when Showmaker is installed. See [Setup and Administration of Showmaker](#).

Above the list of rundowns, the Studio badge tells you about the rundown's origins.

What you see	Status	Meaning
Grey-outlined studio badge	Default	All rundowns inherit this studio.
Orange badge	Overridden	This rundown overrides the show's default studio.
"Assign to studio" button	Unassigned	No studio is set. Click to pick one.

9.5.3 Show Assets

Show assets are graphics saved on the show so they can be reused in any story of any rundown in that show. Instead of rebuilding the same lower third or bug edition after edition, you build it once, save it, and insert it wherever you need it.

To save a graphic as a show asset from an existing rundown

1. In a rundown, select a graphic you have added from the Pilot plugin.
2. Click **Save to show assets**. Showmaker confirms with *Saved to show assets*.

A graphic already in the library reports "<name>" *is already in show assets* instead of being added twice.

To insert a show asset into a story

1. Open the story you want to add the graphic to.
2. Click **Insert show asset** and pick the asset from the list. The search field narrows a long library.
3. Edit the graphic's text inline once it is on the story.

To manage the library

Click **Assets** on the show banner to open **Show assets page**. From here you can browse the library, add assets and remove ones you no longer need, without opening a rundown. An empty library shows *No assets added yet*. To add an asset from this page, build the item in a plugin on the right, then send it with the plugin's add button.

Insert assets from the script

You can insert a show asset without leaving the script. Type / in the script and Showmaker offers your show assets inline; keep typing to filter the list, then choose an asset to insert it at the caret.

A graphic inserted this way is timed from the script rather than from the start of the story: Showmaker takes it on air at the point in the read where the caret was, using the story's reading speed. Move the graphic's position in the script and its timing follows.

9.5.4 Rundowns View

Switch between **Rundowns** and **Rundown templates** to filter the list. The rundown view shows every rundown in the current show, with a search field that filters by title as you type, and a **New rundown** button.

New Rundown

Opens a dialog with two creation paths. The default follows the show's setting for new rundowns.

- **Start from scratch:** creates an empty rundown.
- **Use a rundown template:** creates an independent copy of the selected template.

Starts at and **Planned duration** are pre-filled from the show's settings. Change them here to override for this rundown only.

Rundown list details

Column	Description
Rundowns	Rundown title. An ON AIR chip appears when Viz Mosart is currently running it.
Stories	Number of stories in the rundown.
Planned duration	Planned length of the rundown.
Start time	Rundown start time.

Column	Description
Created / Edited	When the rundown was created, and when it was last edited.
Active	Toggle for MOS active. See <i>Putting a rundown on air</i> .
Ready to air	Toggle for ready-to-air. See <i>Putting a rundown on air</i> .

Putting a rundown on air

Two toggles control how a rundown reaches Viz Mosart. Use them in this order:

1. **Active:** turn on to live-sync the rundown with Viz Mosart. Your rundown appears in the Viz Mosart UI, and edits in Showmaker are reflected immediately.
2. **Ready to air:** turn on to add this rundown to the Viz Mosart **Rundowns > NCS active > READYTOAIR** rundown, where the operator can take it on air.

9.5.5 Rundown Operations

Double-clicking a rundown opens the Rundown page. This is where you build the rundown. It has four areas.

1 Rundown information bar

- **Home:** back to the landing page.
- **Title and status badges:** the rundown name with **MOS active** and **Ready to air** badges when on.
- **Studio badge:** click to override or reset. See *Studio Assignment*.
- **Starts at:** start time, inherited from the rundown or its template.
- **Planned duration:** turns red when the total story duration exceeds it.
- **Options menu:** Edit, Duplicate, Create template, Paste story (when one is on the clipboard), Delete.
- **Activity:** opens the comments and change history for the rundown. See *Collaborating on a Rundown*.
- **Help menu:** the top-right ? icon.
- **User avatar:** when signed in, next to the ? icon. Click for your account and to sign out. This identity is shared across all Mosart Web Apps.

2 Assets panel

Holds the building blocks that you add to stories.

- **Viz Mosart automation templates:** always available. The set depends on the connected Viz Mosart server's template set.
- **Show assets:** the graphics saved for reuse in this show. See *Show Assets* below.
- **Viz Pilot Edge:** available when Viz Pilot Edge is configured.
- **Viz Flowics:** available when Viz Flowics is configured.

3 Story editor

The centre panel lists all stories and their content in order. Selecting a story in the story list scrolls the editor to it.

- **Saving and live sync.** All edits save automatically as you make them; there is no Save button. While the rundown is **Active**, changes are pushed to Viz Mosart over a live connection.
- **Undo.** If you delete a story or an item by mistake, a toast offers **Undo**, and **Ctrl+Z** does the same.
- **Copy and paste a story.** **Copy story** puts a story on the clipboard; **Paste story** appends the copy at the end of the rundown, and **Paste story as next** puts it after the current one. The clipboard works across rundowns and templates in the same session.

Story header

- **Story title:** editable inline.
- **Auto / Manual toggle:** a per-story view filter. *Auto* hides manual items so you see only what runs automatically; *Manual* shows only manual items. Each story has its own setting, and it does not affect what is sent to Viz Mosart.
- **Planned duration:** the story's duration. This can be calculated for you; see *Timing from the Script*.
- **Options menu:** Float, Copy, Duplicate, Paste item, Paste story as next, Delete.
- **Comments:** opens the comments for this story.

Story body

The editing area inside a story, where you add and arrange the elements that control Viz Mosart templates, graphics, timing and scripts. A story can hold any combination of:

- **Automated item:** a Viz Mosart template that runs automatically.
- **Manual item:** an item the operator can select during the show. Manual items are styled differently from scheduled ones so the two are not confused, and they are listed separately.
- **Story note:** pinned to the top of the story, a free-text field for editorial context or instructions. It stays visible while you build the automation underneath, and can be dragged under any item to become that item's on-air script.
- **Script field:** presenter or editorial text attached to a specific item.
- **Graphic:** a Viz Pilot Edge or Viz Flowics element attached to an item.
- **Clip:** a video playback element from the media server, attached to an item.

Secondary items

An item can carry *secondary* items, for example an overlay graphic attached to a camera template. Secondary items have their own actions, available from the handle or by double-clicking.

Each secondary item has a **target button** that gathers its destination and timing in one place. From it you set where the graphic goes and how it comes off air:

Take-out method	Meaning
Duration	Taken out after a set time.

Take-out method	Meaning
Item end	Taken out with its item.
Story end	Taken out with the story.
Open end	Taken out manually by the operator.

Overlay graphics can also have their destination changed here, without leaving the rundown editor. Dragging a secondary item shows a placeholder where it will land, and secondary items can be moved between the scheduled and manual tabs.

4 Story list and navigation panel

An ordered list of every story in the rundown, with controls to add, reorder, float, copy and delete.

- **Add story (+)**: appends a new empty story. Hold **Shift** to add it as the *next* story, below the selected one.
- **More options: Import stories** brings in stories from a prepared CSV or Excel file, mapping each row to a new story at the end of the rundown. **Paste** pastes a story from the clipboard.
- **Story options** (click the handle without dragging): **Float story** marks the story to be skipped during playout. Floated stories are drawn with diagonal stripes and are not sent to air, but stay in the rundown for reference. Also **Copy**, **Duplicate** and **Delete**.
- **Drag to reorder**: drag a row by its handle. Numbering updates automatically.
- **Items counter**: the number of scheduled and manual items in the story.



Tip: Adding a story is a frequent action, so there are two ways to do it: the **+** icon in the story list header, and the button at the foot of the editor area. Both append a new empty story; the lower one also scrolls it into view.

9.5.6 Show Assets

Recurring graphics, such as a programme's standard lower thirds or a sponsor bug, do not have to be rebuilt for every story. A show can keep its own library of ready-made graphics, and any of them can be dropped into a story when needed.

Saving an asset

Build the graphic in a plugin panel as usual, add it to a rundown, select it, then use **Save to show assets**. The asset then belongs to the show and is available in every rundown in it.

There is also a dedicated **Show Assets** page for managing the library on its own. There you build a graphic in the plugin panel on the right and send it with the plugin's add button. When the NRCS Plugin is opened from this page, its send button reads **Add to show assets** rather than **Add to Story**.

Using an asset

Open the **Assets** panel and select **Show assets**. Assets can be filtered by type. Until anything is saved, the panel reads *No assets added yet*.

Inserting a graphic from the script

You can also reach the show's assets without leaving the script. Type **/** in a script field and a menu of the show's graphics appears; pick one and it is attached to the item.

i Info: A graphic inserted this way is taken on air at the point in the script where you typed it, calculated from the reading speed, rather than at the start of the item. This means the graphic appears when the presenter reaches that line.

9.5.7 Collaborating on a Rundown

Several people can work on the same rundown at once, and Showmaker makes their presence and their changes visible rather than silent.

Who else is here

The people currently in the rundown are shown as avatars. Each person gets their own colour, and viewers are distinguished from editors, so you can tell at a glance who is reading and who is working.

Comments and mentions

- Every story can carry comments. Open **Story comments** from the story, type in **Add a comment...** and send it. Replies keep the conversation together.
- Type **@** in a comment to mention a colleague. They are notified, and the comment is marked so they can see they were mentioned.
- A story with activity you have not seen is flagged, so you do not have to open each story to check.

The activity panel

The activity panel has two tabs:

- **Comments:** every comment and mention in this rundown, with unread ones counted. Mentions from other rundowns are gathered separately, so a mention cannot be missed just because you were somewhere else.
- **Changes:** an attributed timeline of what changed in this rundown, showing who did it and when. Use it before air to review what has moved since you last looked.

i Info: The mention picker is populated from the people who have signed in to Mosart Web Apps. With authentication switched off there are no identities to choose from, so the picker is empty.

9.5.8 Timing from the Script

A story's timing can be derived from the material itself rather than typed in by hand. Both settings are per show, in **Edit show**.

- **Auto-calculate planned duration from script:** when a script is added to a story item, the item's planned duration is set from the talent's reading speed.
- **Auto-calculate story duration:** each story's planned duration is set from the sum of its item durations.

Reading-speed presets

Reading speed varies by presenter, so it is kept as a named list of **reading-speed presets**: a preset name, for example the talent's name, and a speed. Add as many as you need, then pick the right preset for a script.

Info: One preset is the show's default and cannot be deleted, so there is always a speed to fall back on. Delete is disabled on that preset, with a tooltip explaining why.

9.5.9 Recording a Story

Where *Story Recorder* is enabled by your administrator, each story carries recording controls:

- **Record:** marks the story to be recorded by the Story Recorder feature.
- **Publish:** marks the story for online publishing. This is available with a TriCaster only.
- **Use recording:** replaces the story's script with the recorded version.

If you do not see these controls, they have not been enabled. See Feature settings.

9.5.10 Quick Guide to Rundown Operations

To add a Viz Mosart template

1. Open the Viz Mosart assets panel on the right. The coloured templates represent automation commands controlling devices such as cameras, video servers, graphics engines and audio mixers.
2. Pick a template and adjust its properties as needed.
3. Click **ADD TO STORY**, or drag the template onto a story.

To add a graphic

1. Open the panel for Viz Mosart, [Viz Pilot Edge](#) or [Viz Flowics](#), or select **Show assets** for one you have already saved.
2. Pick a graphic and adjust its properties.
3. Click **ADD TO STORY**. The graphic is attached to the selected item.

Info: Which graphics panels you see depends on how your administrator has configured Showmaker.

To manage a story and its items

- Click an item's handle to reveal its actions. You can copy, duplicate, edit, add a script to, change the timing of, or delete it.
- Click the script icon to edit the script.
- Drag an item's handle to change its execution order.

To work with video clips

- Search the media server by clip name. Results show the full clip name, and a thumbnail where the media server provides one.
- Open a clip to preview it at full resolution, with a transport bar, before committing to it.
- Where a TriCaster is used, a clip can be uploaded to its clip server from inside Showmaker.

9.5.11 Rundown Templates View

A *rundown template* defines the structure of a rundown without specific content. Use templates for recurring programmes and standard show formats. Template lists work like the *Rundowns View*, so refer to that section for how to manage them.

- i Info:** The differences, reflecting what a template is for:
- **Template editing is local.** Once a rundown has been created from a template it is independent, so editing the template later affects only new rundowns created from it.
 - **No Active or Ready to air.** Templates are never synced to Viz Mosart and never go on air, so those badges and controls are absent.
 - **No Studio badge.** Studio assignment is a rundown property. A rundown created from a template inherits the show's studio, or whatever override is set on the rundown.
 - **Options adapted for templates:** Edit properties, Duplicate template, Create rundown from template, Paste story (when one is on the clipboard), and Delete.

9.5.12 Keyboard Shortcuts

Open this list inside Showmaker at any time with **K**, or pick **Keyboard Shortcuts** from the Help menu.

Landing page

Action	Shortcut
Open show	O
New show	S

Action	Shortcut
Edit show	E
Browse list of rundowns	↑ / ↓
Create new rundown	R
Create new template	T
Focus search (Find)	F
Switch Rundowns / Templates tab	V
Make active	A
Go, ready to air	G
Delete rundown	Delete

Rundown editor and rundown template editor

Action	Shortcut
Home, return to library	H
Make active	A
Go, ready to air	G
Edit rundown	Shift + E
Browse stories	Shift + ↑ / ↓
Add story	N
Edit story title	E

Action	Shortcut
Reorder story	Shift + Alt + ↑ / ↓
Copy / paste story	Ctrl + Shift + C / V
Delete story	Shift + Delete or Shift + Backspace
Navigate items	↑ / ↓
Reorder item	Alt + ↑ / ↓
Copy / paste item	Ctrl + C / V
Delete item	Delete or Backspace
Undo delete	Ctrl + Z
Add script to item	S
Edit script section	Shift + S
Toggle manual assets	M
Import from CSV	Ctrl + I

Global

Action	Shortcut
Show keyboard shortcuts	K

9.5.13 Examples, Videos, Further Guidance

Showmaker is evolving rapidly. Below is a starting point for finding useful descriptions online.

- [A short introductory video](#) takes you through the basics.
- [Making rundowns easy and intuitive to create](#), with drag-and-drop access to Viz Mosart templates.

- [A three-minute clip](#) linking Viz Mosart operations to the show's rundown with newsroom tags.

Viz University

Showmaker training is offered free of charge to registered customers at [Viz University](#).

Documentation updates

As development evolves, the documentation is continually updated. Between software updates, the latest documentation is available at the [Vizrt Documentation Center](#).

9.6 Setup and Administration of Showmaker

Showmaker needs a few one-off configurations before it is fully usable. This section covers them, both for the system administrator and for the Showmaker user.

Info: Documentation is continually updated, see the latest version at the [Vizrt Documentation Center](#).

- [System Administrator Only](#)
- [Setting up Showmaker for Daily Use](#)
 - [Prerequisites](#)
 - [Installation and Configuration](#)
 - [Studios](#)
 - [Roles and Access](#)
 - [Video Clips](#)
 - [To work with the Story Recorder feature](#)
 - [Graphics Integrations](#)
- [Optional Server Setups](#)
 - [Support for main and backup connection](#)
 - [Support for HTTPS](#)
- [Troubleshooting](#)

9.6.1 System Administrator Only

- Follow the standard setup described in section Configuration Tool, together with the Showmaker-specific instructions, then return to this page.

9.6.2 Setting up Showmaker for Daily Use

Prerequisites

- Viz Mosart 5.14.3 or later.
- *Manus Administrator* running.
- The *Viz Mosart client UI* running and able to display a rundown.

Info: Individual Showmaker features depend on the Viz Mosart server supporting them, so for the version required by your Mosart Web Apps release, see the *Mosart Web Apps Release Notes* at the [Vizrt Documentation Center](#).

Installation and Configuration

You can open a standalone, pre-production rundown in Showmaker with no additional configuration. To work with Viz Mosart templates, or to test the rundown against Viz Mosart, complete the one-off steps below.

To manage Viz Mosart templates

To work with Viz Mosart template sets in Showmaker, the bundled *NRCS Plugin* must be correctly configured, because Showmaker embeds it to read those template sets.

- Follow the *Showmaker* instructions under App Configuration.

To connect to Viz Mosart

1. Ensure your Viz Mosart system is operating under normal working conditions. As a minimum, Manus Administrator must be running, and the Viz Mosart UI must be running and displaying a rundown.
2. In the Configuration Tool, open App Configuration and confirm the required setup is complete, including the MOS communication settings that let Showmaker act as a newsroom system towards Viz Mosart.
3. Consider the scenarios under *Optional Server Setups* below.
4. Continue with [Getting Started](#).

Studios

A *Studio* groups the MOS devices that make up one production environment, typically a main Viz Mosart server with an optional backup, or one gallery on a multi-studio site. Showmaker uses studios to decide which Viz Mosart server a rundown is sent to, and operators can override the studio on an individual rundown.

Studios are created in the MOS communication settings, and a site running several Viz Mosart back ends from one Mosart Web Apps host defines them on the **Studios** page. See Studios.

Roles and Access

Showmaker has two roles, which are only enforced when authentication is enabled. With authentication off, everyone has full control.

Role name	Permissions
showmaker-viewer	View only.
showmaker-admin	Full control.

Roles are assigned in your authentication provider, not in the Configuration Tool, and are read from the [roles](#) claim. See Roles.

Info: A user who signs in with neither role is shown a screen explaining that they do not have access, rather than an empty show list. If that appears unexpectedly, the user is authenticated but has not been granted a Showmaker role in your identity provider. If instead the screen reports that their access could not be checked, the check itself failed and it offers a retry.

Comments and mentions

The **@mention** picker is populated from the people who have signed in to Mosart Web Apps. With authentication switched off there are no identities to harvest, so the picker stays empty and mentions cannot be used. If your teams rely on mentions, enable authentication.

Video Clips

Showmaker's clip picker searches the media service on the Viz Mosart server, so:

- **Media Administrator must be running** on the Viz Mosart server. It performs the search.
- Current Viz Mosart servers answer clip searches over the Mosart server's own real-time connection, needing no separate key. Older versions fall back to the REST media search, which requires the **Authorization Key** to be set. See Mosart API Access.
- How clips are labelled in the lists is controlled by the **Video Clips** setting. See Video Clips.

TriCaster

Two Showmaker features use a TriCaster, and both need its address and credentials entered once under **TRICASTER FOR LIVE PREVIEW**. See TriCaster Live Previews.

- **Uploading a clip** from Showmaker to the TriCaster clip server.
- **Clip thumbnails** from a TriCaster, which the Mosart web server fetches on the browser's behalf so that operators need no direct access to the device and thumbnails work over HTTPS. If TriCaster clip thumbnails are blank, check the address, username and password.

To work with the Story Recorder feature

Story Recorder lets operators mark stories for recording in Viz Mosart, optionally publish the resulting clips to online platforms (TriCaster only), or replace the original story script with the recorded version. To make these controls available in Showmaker:

1. Configure Story Recorder in Viz Mosart first. See the [Vizrt Documentation Center](#), under *Viz Mosart Administrator Guide > Operational Examples > Story Recorder Setup*.
2. In the Configuration Tool, open **Showmaker > Feature settings** and turn on **Enable Story Recorder controls**.

Once enabled, every story in Showmaker gains **Record** and **Publish** actions and a **Use recording** toggle. For how operators use these controls, see [Recording a Story](#).

Background on Story Recorder itself is in the [Vizrt Documentation Center](#), under *Viz Mosart User Guide > Operation > Story Recorder*.

Graphics Integrations

Showmaker can host graphics panels alongside the Viz Mosart templates. Both are optional and both are registered once in the Configuration Tool, under the Showmaker asset integration settings:

- **Viz Pilot Edge**, for editing Pilot Edge graphic templates in place.
- **Viz Flowics**, for cloud-based interactive HTML5 graphics. This needs an integration token issued by Flowics support, which is stored encrypted.

See Asset integrations settings. Both panels are embedded in the browser and exchange MOS messages with Showmaker directly, so beyond the URL and MOS plugin ID there is no further server-side setup.

9.6.3 Optional Server Setups

These settings are usually performed by a system administrator.

Support for main and backup connection

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

Support for HTTPS

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

9.6.4 Troubleshooting

See section [Troubleshooting](#).

10 Smart Panel

- [Why Smart Panel](#)
- [Where Smart Panel Fits](#)
 - [Optional integrations](#)
- [Key Features](#)
- [Typical Workflow](#)

Smart Panel is a web-based tool for building and operating custom panels that drive Viz Mosart. It is aimed at operators, technical directors, producers and presenters who want a tailored control surface for their show: the buttons, faders, timers and previews they need, arranged the way they want, on any device with a browser.

10.1 Why Smart Panel

Live control rooms have always relied on hardware panels: dedicated boxes of buttons and faders wired to the automation system. They work, but every change to the show means a hardware change, every new operator means a new physical workstation, and every studio ends up with a different layout that lives only in someone's head.

Smart Panel takes the opposite approach. Panels are designed in the browser and opened on any screen: a touch monitor in the gallery, a tablet at the presenter's desk, a laptop in a remote control room. An operator can drop in a take button, a story countdown, a live preview and an audio fader, arrange them, and have a working panel in minutes.

Smart Panel is also designed to feel like the operator's own surface. Each panel has its own name, aspect ratio and visual identity, so the same Viz Mosart system can host a presenter panel, a director panel and an audio panel side by side without confusion. The aim is a control surface that is quick to build, easy to share, and pleasant to use on air.



Info: Smart Panel does not replace Viz Mosart itself. It is a configurable front-end for Viz Mosart's automation, timing and audio commands.

10.2 Where Smart Panel Fits

Smart Panel is one of the **Viz Mosart Web Apps**, a suite of browser tools served by a single backend that ships with every Viz Mosart installation. The other apps in the suite include the Rundown Viewer, Showmaker, the NRCS Plugin, the Prompter, the Named Overlays Editor, the Template Editor and the Configuration Tool. They share a host and a single sign-in, so once you reach one of them you can move between the others without signing in again.

Within the suite, Smart Panel plays the role a hardware control panel would play in a traditional setup: it sends automation commands to Viz Mosart and shows live state back to the operator.

Component	Role for Smart Panel	Required?
Viz Mosart Server	Receives Smart Panel's commands (take, cue, transition, audio, and so on) and streams back live timing, rundown and device state.	Yes

Component	Role for Smart Panel	Required?
Mosart Web Apps Configuration Tool	The one-off setup that points Smart Panel at the Viz Mosart server or servers, and registers the optional integrations described below. See Setup and Administration of Smart Panel .	Yes (once)
Mosart Web Apps server	Hosts all the web apps (sign-in, navigation, shared help), stores Smart Panel panels and uploaded images, and does the work for features the browser cannot do alone, such as receiving NDI video.	Yes (bundled)
Mosart Web Proxy	The reverse proxy that routes browser traffic to the right backend, either the web apps or the Viz Mosart server.	Yes (bundled or external)

Smart Panel uses the Mosart Web Apps server for storage, while live data and command execution go to the Viz Mosart server. If Viz Mosart is offline the panel still opens, showing placeholder values, so panels can be designed without a live show on air.

10.2.1 Optional integrations

Some panel features reach beyond Viz Mosart. Each is registered once in the Configuration Tool and then becomes available to every panel on the system. Set up only the ones you need.

- **TriCaster:** makes the studio's TriCaster inputs and outputs available as live preview sources, and lets a button take a TriCaster macro.
- **Media Sequencer:** lets a button take an MSE graphic, and lets an Asset List read its content from a Media Sequencer playlist or show.
- **Viz Arc:** lets a button run a Viz Arc action.

Info: NDI needs no entry in the Configuration Tool. The Mosart Web Apps server discovers NDI sources on the network itself and can also publish a finished panel back out as an NDI source. Both directions require the NDI Runtime on the Mosart Web Apps host. Earlier releases used a separate Viz Coder service for this; that is no longer the case, and Coder does not need to be installed.

10.3 Key Features

- **Panel editor:** design panels on a configurable grid, with an item palette, a properties pane and a per-panel aspect ratio. Ready-made preset panels give you a starting point instead of an empty canvas.
- **A wide item library:** buttons, two-state toggles, timers, labels, static text and images, live video, audio faders, and widgets for the timeline, story script, current and next item type, connection status, device statuses, audio toggles, video transition, the prompter, asset lists, and embedded web pages.

- **Live integration with Viz Mosart:** buttons trigger automation commands, from template takes and timeline control to audio, overlays and transitions, while timers, labels and indicators update in real time.
 - **Beyond Viz Mosart:** buttons can also drive a TriCaster, a Media Sequencer or Viz Arc, so one surface can cover more than the automation system.
 - **Live video in and out:** show NDI, TriCaster, streamed or file-based video inside a panel, and publish the panel itself as an NDI source for a video device or mixer.
 - **Multiple panels:** build separate panels for different roles, such as director, audio and presenter, and open the right one per device.
 - **Browser-based and device-agnostic:** runs in any modern browser, on touch screens and standard monitors, tablets and laptops.
 - **Edit and display modes:** design a panel in the editor, then open it in display mode on the operator's screen to run it on air.
 - **Roles:** where authentication is enabled, panel authors and panel users can be separated, so operators can run panels without being able to change them.
-

10.4 Typical Workflow

1. Open Smart Panel and create a panel, either blank or from a preset, giving it a name and an aspect ratio.
2. Place items from the palette onto the grid and configure each one: its text, command, source and colors.
3. Save the panel.
4. Open it in display mode on the operator's screen and use it to drive Viz Mosart on air.

For the step-by-step version, see [Get Started](#). For the full reference, see [Working with Smart Panel](#).

10.5 Get Started

This page walks you through opening Smart Panel, recognizing the main views, the core terminology, and building and running your first panel.

For an overview of Smart Panel and where it fits, see the [Smart Panel](#) introduction.

- [Open Smart Panel](#)
- [Tour of the Interface](#)
- [Key Terms](#)
- [Your First Panel](#)

10.5.1 Open Smart Panel

Smart Panel runs in a web browser. Open it at `http(s)://<server>:55142/smartpanel` (port 55143 for HTTPS), where `<server>` is the hostname or IP of the Mosart Web Apps host. Your administrator may have changed those ports.

You can also open Smart Panel from the **App Launcher** in the Configuration Tool.

Smart Panel is one of the Mosart Web Apps, so the same host serves the other apps in the suite, and switching between them does not require signing in again.

Signing in and what you are allowed to do

Whether you sign in depends on how your administrator configured Mosart Web Apps:

- **Authentication off (the default install):** you reach Smart Panel without signing in, and everyone has full control. Command buttons may still fail to reach the Viz Mosart server if it requires an API key.
- **Authentication on:** the first time you open the page you are redirected to your organization's identity provider and signed in there. What you can do then depends on your role.

Role	What you can do
smartpanel-admin	Full control: create, edit, duplicate and delete panels, as well as run them.
smartpanel-viewer	Open and use panels, but not edit them. Opening a panel takes you straight to display mode.

Roles are granted in your identity provider, not in Smart Panel. If you sign in and are told you do not have access, you are authenticated but have not been given either role: ask your administrator. For the administrator's side of this, see [Setup and Administration of Smart Panel](#).

 **Note:** If Smart Panel opens but an **Offline** chip stays in the app bar, the connection to Viz Mosart could not be established. You can still design panels, but live values are replaced by placeholders. See the troubleshooting notes in [Setup and Administration of Smart Panel](#).

10.5.2 Tour of the Interface

Smart Panel has three main views.

Landing page

At `/smartpanel`, this lists the saved panels. From here you create a new panel or open an existing one.

- Click a panel to open it. If you can edit, it opens in the editor; if you can only view, it opens in display mode.
- Each card has a **Copy link** button, for handing the panel to whoever needs to run it.
- The card's options menu offers **Display mode**, **Duplicate Panel** and **Delete Panel**.
- **New panel** opens the picker, where you start from a blank canvas or from one of the ready-made preset panels.

Panel editor

At `/smartpanel/<panel>/edit`, this is where you design a panel. It has four areas:

1. **App bar** (top): a back arrow, the panel name (click to rename), an **Edit** and **Preview** switch so you can try the panel without leaving the editor, **Save**, an **NDI Stream** control for publishing the panel as an NDI source, a more-options menu holding **Audio Countdowns**, **Duplicate Panel**, **Copy Link** and **Delete Panel**, and the ? help icon. An **Offline** chip appears here when Viz Mosart is unreachable.
2. **Components palette** (left): the nine item types you can place on the canvas, namely Timer, Label, Text, Image, Widget, Fader, Button, Toggle and Live.
3. **Canvas** (center): the panel grid. Click a palette item, then click an empty cell to drop it. Click an existing item to select it.
4. **Properties pane** (right): split into **Panel Items**, a searchable list of everything placed on the panel, and the property editor below it. The editor shows **Panel Properties** when nothing is selected, and **Item Properties** for the selected item.



Tip: Both side panes can be resized by dragging their inner edge, and pressing **K** shows the keyboard shortcuts.

Display mode

At `/smartpanel/<panel>`, without `/edit`, the panel runs touch-friendly and full-width, ready for the operator's screen. This is what you use on air, and it cannot be edited. Reach it from the **Display mode** action on the panel card, or from a copied link. For a completely bare screen, use the browser's own full-screen mode.

Help menu

The ? icon at the top right of every page opens the help menu:

Option	Opens
Keyboard shortcuts	The shortcut reference. Also available by pressing K .

Option	Opens
Documentation	This Smart Panel user documentation.
What's new	The release notes for the current version.
Give feedback	An email to the Smart Panel team (mosart-feedback@vizrt.com).
About	Smart Panel version and build information.

User avatar. When you are signed in, your avatar appears at the top right next to the help icon. Click it for your account and to sign out. Smart Panel shares its identity provider with the other Mosart Web Apps, so signing in or out applies to them all in the same browser session.

10.5.3 Key Terms

Term	Meaning
Panel	A single panel design: a grid of items plus its own name, aspect ratio, background, padding and font size presets. Stored on the server, so everyone who can reach it sees the same panel.
Item	One thing on a panel: a button, timer, label, image, fader, and so on.
Edit mode	The panel open at <code>/smartpanel/<panel>/edit</code> , with the app bar, the palette and the properties pane.
Display mode	The panel open at <code>/smartpanel/<panel></code> , with no <code>/edit</code> . This is what you run on air, and it cannot be edited.
Grid	The rows and columns the canvas is divided into. Items snap to cells. Set in Panel Properties .
Aspect ratio	The shape of the canvas. Choose a preset, set a custom ratio, or pick <i>None</i> to stretch to fit the window. Set per panel in Panel Properties , so each panel suits its target screen.
Panel Properties	The pane shown when no item is selected. Controls background color, default padding, grid size, aspect ratio and the font size presets that items refer to as S, M and L.
Item Properties	The pane shown when an item is selected. Controls its text, color, font, padding, command binding and any type-specific options.

Term	Meaning
Panel Items	The searchable list of every item on the panel. Useful when items overlap or the panel is busy.
Offline	A chip in the app bar meaning the connection to Viz Mosart is not established. Live data is replaced with placeholder values so you can keep designing.
Preset panel	A read-only starting point offered in the New panel picker. What you create from one is a normal, editable panel.

10.5.4 Your First Panel

A short walk-through that uses every core concept once. It assumes Smart Panel is connected to a working Viz Mosart system. If the **Offline** chip is showing you can still complete the design steps, and only the last step needs a live server.

1. **Create a panel.** On the landing page, click **New panel**, choose a blank panel, name it *My first panel* and create it. Smart Panel opens it in the editor.
2. **Set the canvas shape.** With nothing selected, the right pane shows **Panel Properties**. Pick an **Aspect ratio** that matches your target screen, for example a landscape ratio for a wall-mounted touch monitor. Leave the grid as it is for now.
3. **Add a take button.** Click **Button** in the palette. The cursor picks up a preview. Click an empty cell near the bottom of the canvas to drop it, and its **Item Properties** open on the right. Set the **Label** to *Take*, leave the target as **Mosart**, set the command type to **Template**, choose **Program** as the output, then pick any template from the picker, for example a camera template.
4. **Add a story countdown.** Click **Timer** in the palette, then click a cell at the top of the canvas. In **Item Properties**, choose **Current Item Countdown** as the timer type. The item shows a placeholder countdown, or a live one if Viz Mosart is connected.
5. **Add a label.** Click **Label**, click a cell next to the timer, and choose **Current Item Slug** so it shows the name of the on-air item. Set **Font size** to *M*.
6. **Try it without leaving the editor.** Switch the app bar from **Edit** to **Preview**. The palette and handles step out of the way so you can see the panel as an operator would.
7. **Save.** Click **Save** in the app bar. The panel is stored on the server, and anyone who can reach it can now open it.
8. **Run it.** Go back to the landing page and choose **Display mode** on your panel's card, or use **Copy Link** and open that link on the operator's screen. Tap the take button and, with Viz Mosart connected, it sends the template you bound in step 3.

You have now built and operated your first panel. To go deeper into any step, see [Working with Smart Panel](#).

10.6 Working with Smart Panel

This section is the working reference for everyday use of Smart Panel: managing your panels, shaping the canvas, placing and configuring panel items, binding buttons to commands, and using a finished panel on air. It assumes you have followed [Get Started](#) at least once and have a working connection to Viz Mosart.

- [Managing Panels](#)
- [The Editor](#)
 - [The app bar](#)
 - [Panel Properties](#)
 - [Working with Panel Items](#)
- [Item Reference](#)
 - [Timer](#)
 - [Label](#)
 - [Text](#)
 - [Image](#)
 - [Widget](#)
 - [Fader](#)
 - [Button](#)
 - [Toggle](#)
 - [Live](#)
- [Running a Panel On Air](#)
 - [Streaming a panel as an NDI source](#)
 - [What to avoid while live](#)
 - [Touch operation](#)
- [Keyboard Shortcuts](#)

10.6.1 Managing Panels

All panels live on the Mosart Web Apps server, so anyone who can reach the Smart Panel URL sees the same list and works on the same panels. The **landing page** (</smartpanel>) is the entry point for panel management.

Smart Panel also ships with a small library of read-only **preset panels**. Presets are not listed on the landing page and cannot be edited in place: they are offered as starting points in the **New panel** picker. Anything you create from one is a normal, editable panel, and the preset itself stays untouched.

From the landing page you can:

- **Create a panel.** Click **New panel** to open the picker. Choose a blank panel to start from an empty canvas, or one of the presets to begin with a ready-made layout. Name it and create it; Smart Panel opens it in the editor.
- **Open a panel.** Click its card. If you have edit rights it opens in the editor at </smartpanel/<panel>/edit> ; if you can only view panels it opens straight in display mode.
- **Open a panel to run it.** Choose **Display mode** from the card's options menu, or navigate to </smartpanel/<panel>> without </edit> .
- **Hand a panel to an operator.** Use the **Copy link** button on the card. The link opens the panel in display mode.

- **Duplicate a panel.** Choose **Duplicate Panel** from the card's options menu, or from the more-options menu inside the editor.
- **Rename a panel.** Open it in the editor and click the panel name in the app bar.
- **Delete a panel.** Choose **Delete Panel** from the card's options menu, or from the editor's more-options menu. Deletion is permanent and removes the panel for everyone, so confirm before deleting a panel that may be in use.

 **Info:** Panel names do not have to be unique. Two panels may share a name, so if your team relies on names to tell panels apart, agree on a convention.

 **Note:** If you try to leave the editor with unsaved work, Smart Panel asks what to do rather than discarding it silently. Save before you navigate away if you want to keep the changes.

10.6.2 The Editor

The editor has an app bar across the top and three working areas below it:

- The **Components** palette on the left, holding the item types you can place.
- The **canvas** in the middle, which is the panel itself.
- The **Properties** pane and the **Panel Items** list on the right.

Both side panes can be resized by dragging their inner edge, so you can give the canvas more room while working on a dense panel, or widen the properties pane when configuring an item with many settings.

The app bar

The app bar carries the panel name, which you click to rename, and:

- An **Edit** and **Preview** switch. **Preview** shows the panel as an operator would see it without leaving the editor, which is the quickest way to check spacing and legibility.
- **Save**, and, while a save is pending, the option to **Discard** the changes instead.
- **NDI Stream**, which publishes this panel as an NDI source and stops it again.
- A more-options menu holding **Audio Countdowns**, **Duplicate Panel**, **Copy Link** and **Delete Panel**.
- The **?** help menu, and an **Offline** chip whenever Viz Mosart is unreachable.

 **Tip:** Press **K** at any time for the keyboard shortcut list. See *Keyboard Shortcuts* at the end of this page.

Panel Properties

With no item selected, the right pane shows **Panel Properties**. These apply to the canvas and govern the whole panel.

Property	What it controls
Aspect ratio	The shape of the canvas. Pick one of the presets, choose <i>Custom</i> and enter your own width and height, or choose <i>None</i> to stretch to fit the browser window. Match this to your target screen so the panel looks right on air.
Grid (rows and columns)	How finely the canvas is divided. Items snap to cells. Increase the counts for fine-grained panels, decrease them for chunky touch buttons.
Background color	The color behind all items. Pick something that contrasts with your item colors and is comfortable to look at for a long show.
Default padding	The padding applied to new items. Any item can override it with its own padding.
Font size presets	Three named sizes, small, medium and large, defined once here in pixels. Items then refer to them as S , M or L instead of carrying their own pixel values. Changing a preset updates every item that uses it.

Working with Panel Items

Panel items are the building blocks of a panel. They all behave the same way on the canvas, whatever their type.

Adding an item. Click an item type in the palette. The cursor then carries a preview. Click an empty cell on the canvas to drop it, and its settings appear in the properties pane. Press **Escape** to cancel placement.

Selecting an item. Click it on the canvas, or its entry in the **Panel Items** list. The selected item shows its handles and its properties populate the pane.

Moving and resizing. Drag the item body to move it, and a corner or edge handle to resize it. Items snap to the grid. With an item selected you can also nudge it with the **arrow keys** and resize it with **Shift** and the arrow keys.

Copying an item. Use **Ctrl+C** and **Ctrl+V**, or the **Duplicate** action in the **Panel Items** list.

Deleting an item. Select it and press **Delete**, or use the **Delete** action in the **Panel Items** list.

The Panel Items list. Every placed item appears in this searchable list. Use it when items overlap and you need to reach one underneath another, when the panel is busy and you want to jump straight to something by name, or simply to confirm what is on the panel.



Tip: Give each item a descriptive **Custom name** (for example *Take button*, *Story countdown*). The name appears in **Panel Items**, and naming as you go pays off quickly as the panel grows.

Properties shared by every item

Regardless of type, every item offers:

- **Custom name** and **Show name**: the name used in **Panel Items**, and whether it is also drawn on the item itself.

- **Background color** and **Text color**, entered as hex values. Most types also offer a transparency option for the background.
- **Font weight** (normal or bold) and **Text alignment** (left, center or right).
- **Font size**: **S**, **M** or **L** from the panel presets, or **Fit** to auto-scale the text to the item bounds. **Fit** adds **Min font size** and **Max font size** to bound the scaling.
- **Padding**, defaulting to the panel-wide value.
- Position and size on the grid.

10.6.3 Item Reference

The palette holds **nine** item types.

Item	What it is for
Time r	A live timer or countdown driven by Viz Mosart. The basis of a timing display for the control room or the studio floor.
Label	A live text value from Viz Mosart, such as the current item slug or story name.
Text	Static text that does not change at runtime. Titles, group headers, instructions, branding.
Image	A static image uploaded to the server. Logos, role icons, decoration.
Widget	A category hosting eleven built-in sub-widgets, from the timeline to the asset list.
Fader	An audio fader bound to a Viz Mosart audio channel.
Button	The main interactive item. Sends a command when tapped.
Toggle	A two-state button that both reflects and flips a Viz Mosart state.
Live	A live video preview, with an optional click action.

Timer

Shows a live timer or countdown driven by Viz Mosart, synchronized with the active rundown. Use it to build timing displays: one on the studio floor counting the current item, another in the control room counting packages to keep the producer updated.

Pick the value from the **Timer type** drop-down. There are twenty-one:

Group	Types
Current item	Current Item Countdown (the default), Current Item Time
Current story	Current Story Countdown, Current Story Planned Duration, Current Story Time
Next	Next Break Time, Next Item Duration, Next Live Countdown, Next Story Planned Duration
Rundown	Current Rundown Out, Rundown Elapsed Time, Rundown Over/Under, Rundown Out Over/Under
Time and break	Time of Day, Time to Next Break, Time to Rundown Out, Duration to Next Break, Duration to Rundown Out
Story Recorder	Story Recorder Preroll Countdown, Story Recorder Recording Time, Story Recorder Countdown

Besides the shared properties, a Timer offers **Show overtime background**. With it on, the timer changes its background color once it passes zero, which is what you want for countdowns and over/under timers.

Info: There is no per-threshold coloring. Over-time appearance comes from **Show overtime background** plus the background color you choose, not from separate warning and critical colors.

Label

Shows a live text value from Viz Mosart. The same role as a Timer, but for text. Pick the value from the **Label** drop-down; there are ten:

Group	Sources
Current	Current Item Slug (the default), Current Story Name, Current Video Server Channel, Current Graphics Channel
Next	Next Item Slug, Next Story Name, Next Video Server Channel, Next Graphics Channel
Rundown and server	Rundown Name, Server Description

Info: The list is fixed. There is no free-form expression, so a Label cannot be bound to an arbitrary Viz Mosart value that is not one of the ten. Long values can overflow a narrow item, so either size it generously, drop to a smaller preset, or use **Fit** with sensible bounds.

Text

Static text, typed by you rather than read from Viz Mosart. Use it for section titles such as *Cameras* or *Audio*, group headers, on-screen instructions, and branding such as *Studio 3*.

The only type-specific property is the text itself. Manual line breaks are preserved, so you can lay out a caption over several lines instead of relying on wrapping. The same applies to button labels.

Info: Text items never update on air. If the value should change with the show, use a Label instead.

Image

A static image uploaded to the Mosart Web Apps server and stored with the panel, so every device that opens the panel gets the same file. Use it for studio logos, small role icons next to related buttons, and visual markers that help an operator orient themselves.

- **Upload image** opens a file picker. Allowed formats are **.jpg**, **.png**, **.gif** and **.webp**, and the maximum file size is **5 MB**. Until something is uploaded, the item shows a placeholder on the canvas.
- **Fit** has five values: **None** renders at the file's own pixel size, **Contain** letterboxes inside the item bounds, **Cover** fills and crops, **Fill** stretches, and **Scale-down** behaves like Contain but never enlarges.
- **Background color** shows through wherever the fit mode leaves space, or where the image itself is transparent.

Info: There is no opacity property. To dim an image for a watermark effect, bake the transparency into a PNG before uploading it.

Widget

Widget is a category rather than a single item. Drop one on the canvas and pick which of the **eleven** built-in sub-widgets it should render from the **Widget type** drop-down. Each sub-widget adds its own properties below the drop-down.

Sub-widget	What it shows
Connection Status	The Viz Mosart connection state, including the main and backup beacon. This is the default when a new Widget is dropped.
Timeline	The Viz Mosart timeline for the current story.
Story Script	The script for the current story.
Current Item Type	A visual indicator of the on-air item's type, such as camera, package or graphic.
Next Item Type	The same, for the next item.

Sub-widget	What it shows
Device Statuses	Live status indicators for the connected Viz Mosart devices, showing connected, disconnected or standby.
Audio Toggles	A group of audio mute and unmute toggles. You choose which channels appear.
Video Transition	The next video transition, with the transitions you choose made available.
Asset List	A filtered list of the assets in the rundown. See below.
Prompter	Prompter output and remote control, so a panel can drive the Prompter without leaving Smart Panel.
Iframe	An external URL embedded in the panel.

Apart from Iframe, every sub-widget is driven by Viz Mosart and needs a live connection to show real data. Without one they show placeholder content.

Asset List

The most configurable sub-widget. It lists the assets available in the show and can be narrowed down heavily, so several Asset Lists on one panel can each cover a different job, for example manual overlays, overlays on the current story, fullscreen graphics, and everything in the rundown.

- **Source:** the Viz Mosart rundown, or a **Media Sequencer** playlist or show. Choosing Media Sequencer adds the profile and the playlist or show to read from, and requires the Media Sequencer to be configured.
- **Story filter:** all stories, the on-air story, or the next story.
- **Execution filter:** all items, scheduled items only, or manual items only.
- **Asset types:** show or hide each of Camera, Video, Live, Graphics, DVE, Float, Overlay graphic and Accessories independently.
- **Destination filter:** restrict graphics to a particular graphics destination.
- **Thumbnails:** off, small, medium or large.
- **Show story name** and **Show script:** add context to each row.
- **Show status filter** and **Show execution filter:** expose those two filters to the operator in display mode, so they can narrow the list themselves rather than having it fixed at design time.

Rows carry the item slug and, for overlay graphics, their on-air status, so an operator can see what is already live before taking something.

Iframe

- **URL:** the address to embed. The frame is loaded directly.
- **Enable click action:** when on, the whole iframe area acts as a button and the command options appear. When off, clicks pass through to the embedded site.

Note: The embedded site decides whether it may be framed. If it sends `X-Frame-Options: DENY` or a restrictive `Content-Security-Policy: frame-ancestors`, the frame stays blank and Smart Panel cannot override it.

Fader

An audio fader bound to a Viz Mosart audio channel. The operator drags the bar to change the level on air. It renders as a vertical bar with the channel name at the top and the current level in dB at the bottom, showing $-\infty$ at the floor.

Use it for any source that needs continuous control: a presenter microphone, a music bed, a remote feed. The **Fader name** drop-down is populated from the audio channels Viz Mosart is currently reporting, so name each fader after its source (INPUT 1, INPUT 2 and so on) and operators can tell at a glance which channel they are riding.

Note: The channel list only exists while Viz Mosart is reachable. With the connection down the drop-down is empty, so faders can only be bound while Viz Mosart is connected.

Button

The main interactive item. A button first picks *what it talks to*, then *what it sends*.

Choosing the target

Target	What you can send
Mosart	A template take, a timeline command, a control command, or Prompter play/pause. See below.
TriCaster	A TriCaster macro, chosen by folder and then by name.
MSE	Take a graphic. Pick the Media Sequencer profile, whether the graphic comes from a playlist or a show, and then the element itself.
Viz Arc	A Viz Arc action, chosen by project and then by action.

The TriCaster, MSE and Viz Arc targets need their integration configured first. See [Setup and Administration of Smart Panel](#).

Viz Mosart commands

With **Mosart** as the target, the **command type** is one of:

- **Template:** takes a Viz Mosart template. Choose the output, **Program** to take on air or **Preview** to cue, then pick the template from a picker that lists the whole template catalogue by category and lets you search it.

- **Timeline:** one of ten timeline actions, namely Toggle Rehearsal Mode, Open Rundown, Reload, Start Continue, Skip Next, Unskip Next, Skip Next Sub Item, Unskip Next Sub Item, Start From Top, and Take Server Out Of Idle. **Open Rundown** can point at a specific rundown, or leave the choice to the operator at runtime.
- **Control Command:** the full Viz Mosart control command set, from autotake and direct take through overlay graphics, audio, crosspoints and studio setup. Commands that need arguments take them in the parameters field, in URL query form (`param1=value1¶m2=value2`). For example `engine_switcher` needs an engine name. Leave it blank for commands that take none.
- **Prompter Play/Pause:** starts and stops prompter scrolling.

Test action at the bottom of the command section fires the configured command straight from the editor, so you can confirm a binding without leaving it.

 **Note: Test action** sends the real command to the connected Viz Mosart server. Do not use it during a live show unless you mean to. Control command parameters are also passed through as typed: a typo fails silently from the operator's point of view, so check the Viz Mosart server log if a button appears to do nothing.

Appearance and confirmation

Buttons carry the full color and font controls, so use color and a short, unambiguous label (*TAKE*, *CUE*, *CAM 1*) to make the purpose obvious at a glance. For an action you do not want fired by accident, turn on the confirmation option and the operator is asked before the command is sent.

Toggle

A two-state button. Unlike a plain Button, which fires and forgets, a Toggle also *reflects* the current state in Viz Mosart, so the operator can see at a glance which way it is set and does not have to look elsewhere to confirm it.

The state a Toggle can flip is **Rehearsal mode**. Placed on a panel, it shows whether Viz Mosart is currently in rehearsal and switches it when tapped.

 **Info:** If you want a one-way action instead, or a state that Toggle does not cover, use a Button. **Toggle Rehearsal Mode** is also available as a plain timeline command on a Button, which flips rehearsal without showing its state.

Live

Embeds a live video preview on the panel. Use it for camera and source previews, and any other picture the operator needs to glance at. A common arrangement is a Live preview paired with its own take button, both labelled with the same source name so the link between what you see and what you cut to is obvious.

Source type offers four choices:

Source type	What to select
NDI	An NDI source, picked from the sources Mosart Web Apps has discovered on the network. The server receives the NDI stream and passes it to the browser, so nothing needs installing on the operator's machine.
TriCaster	A TriCaster input or output, from the TriCaster configured in the Configuration Tool.
HTML video	A video URL the browser can play directly, such as an <code>.mp4</code> or <code>.webm</code> file. Useful for pre-recorded clips.
Stream	A <code>ws://</code> or <code>wss://</code> OvenMediaEngine signalling URL, or an <code>http://</code> or <code>https://</code> stream or video URL.

Each source type remembers its own URL, so switching between them while experimenting does not lose what you entered for the others.

Enable click action turns the preview into a button as well: the same command options a Button offers appear below the checkbox, so tapping the picture can take that source. With it off, clicks on the preview do nothing.

Info: If a source cannot be reached, the picker says which part failed rather than simply showing an empty list. The messages and their remedies are listed under [Setup and Administration of Smart Panel](#). Earlier releases required a separate Viz Coder service for NDI; that is no longer used.

10.6.4 Running a Panel On Air

To check a panel while you are still designing it, switch the app bar from **Edit** to **Preview**.

To run it for real, open it in display mode: choose **Display mode** on the panel's card, use **Copy Link** and open that link on the operator's screen, or navigate to `/smartpanel/<panel>` without `/edit`. The panel fills the window, touch-friendly and ready for use, and cannot be edited there. For a completely bare screen, use the browser's own full-screen mode.

On air:

- Timers, labels and indicators update live from Viz Mosart.
- Buttons send their command as soon as they are tapped, unless confirmation is turned on.
- Faders apply level changes as they are dragged.
- An **Offline** chip appears in the app bar if the connection drops. Live values are replaced by placeholders and commands may fail until it returns.

Streaming a panel as an NDI source

A finished panel can also be sent out as an NDI source, so it can be taken as a picture on a video device or mixer rather than only viewed in a browser. Start and stop this with **NDI Stream** in the app bar.

What to avoid while live

- Editing the panel an operator is currently using. Saves take effect on their next page load, unsaved editor changes are not reflected on their screen, and a misclick in the editor can fire a real command.
- Renaming or deleting a panel that is in use.

Touch operation

- Use an aspect ratio that matches the touch monitor. A mismatch leaves dead bands at the edges that operators tap by accident.
- Avoid tiny items. A button smaller than a fingertip is unreliable under pressure.
- Keep clear contrast between active and idle states so the operator can see which action just fired.

10.6.5 Keyboard Shortcuts

Press **K** to see this list in the app.

Action	Shortcut
Move between panels	Arrow keys
First or last panel	Home / End
Move the selected item	Arrow keys
Resize the selected item	Shift + arrow keys
Delete the selected item	Delete
Copy item	Ctrl+C
Paste item	Ctrl+V
Cancel placement	Escape
Show keyboard shortcuts	K

10.7 Setup and Administration of Smart Panel

- [Setting up Smart Panel](#)
- [Live Video Sources](#)
- [Integrations for Button Actions](#)
- [Roles and Access](#)
- [Multiple Studios](#)
- [Using HTTPS](#)
- [Troubleshooting](#)

Smart Panel installs together with Mosart Web Apps. There is no dedicated **Smart Panel** section in the Mosart Web Apps Configuration Tool: the panel reuses the shared Mosart server, authentication and HTTPS settings. Configure those once and Smart Panel is ready.

Some panel features reach further than Viz Mosart, and each of those has its own one-time entry in the Configuration Tool: a **TriCaster** for live video and macros, a **Media Sequencer** for graphics, and **Viz Arc** for Viz Arc actions. Set up only the ones your panels use.

10.7.1 Setting up Smart Panel

Follow these steps in order. Each one builds on the previous, so do not skip ahead.

Step 1: Check your Viz Mosart version.

Smart Panel is part of the Mosart Web Apps suite that ships with Viz Mosart, and individual panel features depend on the Mosart server supporting them. For the Viz Mosart version required by your Mosart Web Apps release, see the *Mosart Web Apps Release Notes* at [the Vizrt Documentation Center](#).

Step 2: Make sure Viz Mosart is running.

Smart Panel talks to a live Mosart server for automation commands, timing and rundown data. Before you continue, check that:

- **Manus Administrator** is running.
- The **Viz Mosart UI** is running and displaying a rundown.

If either is down, start it now. You only need to do this once after a server reboot.

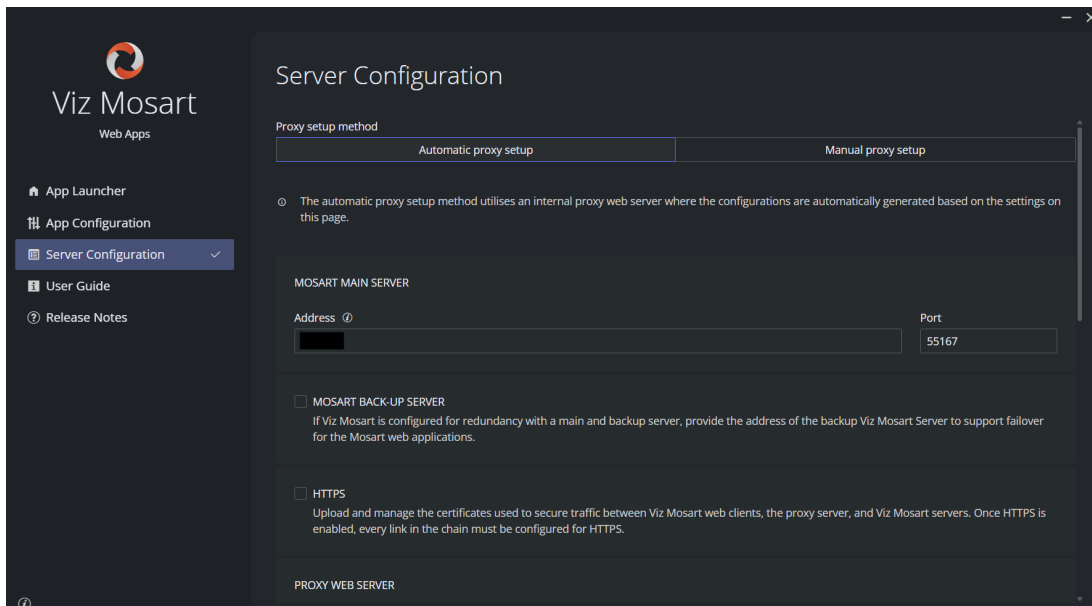
Step 3: Open the Mosart Web Apps Configuration Tool.

This is where every Mosart Web App, including Smart Panel, is set up. You should already have it from the Mosart installation.

Step 4: Point the Web Apps suite at your Mosart server.

In the Configuration Tool, open **Server Configuration** and fill in the main (and optional backup) Viz Mosart server addresses.

Smart Panel does not have a separate connection screen, it uses these shared settings to talk to the Mosart server.



Step 5: (Optional) Enable live video previews.

If you plan to show video in the **Live** element, set up the sources you need now. See *Live Video Sources* below.

Step 6: (Optional) Set up the integrations your buttons need.

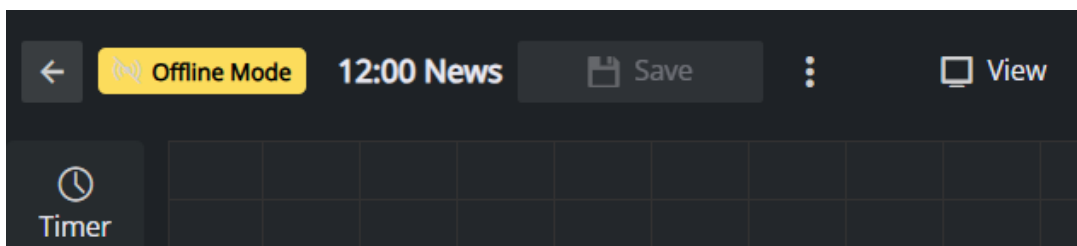
Buttons can drive a TriCaster, a Media Sequencer or Viz Arc as well as Viz Mosart. See *Integrations for Button Actions* below.

Step 7: (Optional) Turn on HTTPS and authentication.

By default Mosart Web Apps runs without HTTPS or sign-in. If your site needs them, configure both in the Configuration Tool. See *Using HTTPS* and *Roles and Access* below.

Step 8: Open Smart Panel and verify.

Browse to `http(s)://<your-mosart-web-apps-host>:port/smartpanel` (the default port is 55142 for HTTP and 55143 for HTTPS). You should see the landing page, empty on a fresh install and ready for a **New Panel**. Open or create any panel and check that the **Offline** chip in the app bar is **not** shown. If it is, the connection to Viz Mosart did not come up. See *Troubleshooting* below.



Tip: The two small beacons in the app bar show the main and backup Mosart server state, and hovering one reports the Viz Mosart Server version it is connected to. If the main server is idle, clicking its beacon takes it out of idle.

10.7.2 Live Video Sources

The **Live** element supports four source types. Only the first two need anything configured:

Source type	What to configure
NDI	Nothing in the Configuration Tool. Mosart Web Apps discovers NDI sources on the network itself and streams the one you pick to the browser. The NDI Runtime must be installed on the Mosart Web Apps host ; without it the source list reports that the NDI runtime is not available on the server.
TriCaster	The TriCaster address, username and password, entered once under TRICASTER FOR LIVE PREVIEW . Both TriCaster inputs and outputs are then selectable. See TriCaster Live Previews.
HTML video	Nothing. Point the element at a video URL the browser can fetch directly, for example an <code>.mp4</code> or <code>.webm</code> file. Useful for pre-recorded clips.
Stream	Nothing on the Mosart side. Enter either a <code>ws://</code> or <code>wss://</code> OvenMediaEngine signalling URL, or an <code>http://</code> or <code>https://</code> stream or video URL.



Info: Live video works over HTTPS. Both NDI and TriCaster are served by the Mosart web server on the browser's behalf, over the same origin as the rest of the app, so there is no separate host for the browser to reach and no mixed-content problem. Earlier releases required a separate Viz Coder service for NDI; that is no longer used and does not need to be installed.

Streaming a panel out as NDI

A panel can also be sent the other way, as an NDI output, so a finished panel can be taken as a source on a video device or mixer. This is started and stopped from the panel's own app bar and uses the same NDI runtime on the Mosart Web Apps host, so nothing extra is configured for it.

10.7.3 Integrations for Button Actions

A button can target Viz Mosart, a TriCaster, a Media Sequencer or Viz Arc. Viz Mosart needs nothing beyond the server address from Step 4. The others each need their one-time entry in the Configuration Tool:

- **TriCaster:** uses the same TriCaster credentials as live video. With those in place, a button can take a TriCaster macro, chosen by folder and name.
- **Media Sequencer:** enter the Media Sequencer address and REST API port (default 8580) under **MEDIA SEQUENCER**. This enables buttons that take an MSE graphic, and Asset List elements that read their content from a Media Sequencer playlist or show. See Media Sequencer.

- **Viz Arc:** enter the address and port of the Viz Arc REST web service (default 9004) under **VIZ ARC**. The Configuration Tool probes the host as you type and tells you whether the service answers. The Viz Arc REST web service requires its own licence, and only the Mosart Web Apps host needs network access to it. See Viz Arc.

10.7.4 Roles and Access

Smart Panel has two roles, which are only enforced when authentication is enabled. With authentication off, everyone has full control.

Role name	Permissions
smartpanel-viewer	Open and use panels, but not edit them.
smartpanel-admin	Full control, including creating and editing panels.

Roles are assigned in your authentication provider, not in the Configuration Tool, and are read from the `roles` claim. See Roles.

Info: A user who signs in with neither role is shown a screen explaining that they do not have access, rather than an empty panel list. If that appears unexpectedly, the user is authenticated but has not been granted either Smart Panel role in your identity provider.

10.7.5 Multiple Studios

On a site that runs several Viz Mosart back ends from one Mosart Web Apps host, Smart Panel is opened per studio, and the panel then drives the Viz Mosart server belonging to that studio. Define the studios once on the **Studios** page of the Configuration Tool, and launch the app for a studio from the Home page. See Studios.

10.7.6 Using HTTPS

If Mosart Web Apps is served over HTTPS, define the environment using the Server Configuration menu in the Mosart Web Apps Configuration Tool. Smart Panel inherits the same HTTPS setup as the other Web Apps. There are no Smart Panel-specific certificates to manage.

10.7.7 Troubleshooting

- [The "Offline" chip stays on in the app bar](#)
- [The Live element reports a problem](#)
- [Buttons do not execute](#)
- [Layout not saved between sessions](#)

The "Offline" chip stays on in the app bar

The **Offline** chip means Smart Panel has lost contact with Viz Mosart. The panel keeps working, but timers, labels, and faders display fixed sample values instead of live data. As soon as the connection comes back, the chip disappears and live values resume automatically.

If the chip does not clear after a few seconds, work through the checks below in order.

1. **Is Mosart Server configured?** Open the Mosart Web Apps Configuration Tool, go to **Server Configuration** and confirm the main Mosart Server host is set. Save and reopen Smart Panel.
2. **Is Mosart Server running and reachable?** On the Mosart Server machine, confirm **Manus Administrator** is running and a rundown is loaded. If it is, but Smart Panel still shows Offline, the Mosart Web Apps host can not reach the server, check the network connection between the two machines.
3. **Using a custom reverse proxy?** Smart Panel always calls `/mosart/...` on the Mosart Web Apps host (SignalR hub, REST API, status endpoints). The bundled Caddy proxy forwards `/mosart/*` to Mosart Server automatically. If you replaced Caddy with your own proxy (nginx etc.), make sure it forwards `/mosart/*` to the Mosart Server.
4. **Is authentication misconfigured?** If OIDC is on, an expired or rejected JWT causes the page to reload. Persistent reload loops mean the identity provider is rejecting the token. Re-check the OIDC settings.
5. **Check the browser console.** Open the browser developer tools (F12), reload Smart Panel, and look at the **Console** tab for red error messages. They usually point directly at one of the causes above (server unreachable, authentication rejected, network blocked).

The Live element reports a problem

The source picker states which part failed, so read the message before changing anything:

Message	What to do
NDI runtime is not available on the server	Install the NDI Runtime on the Mosart Web Apps host.
Can't reach the NDI source service	Check that Mosart Web Apps is running.
No NDI sources found	The runtime is fine and nothing is advertising. Check the sources are powered on and on the same network as the Mosart Web Apps host.
TriCaster is not configured	Set the TriCaster host, username and password in the Configuration Tool.
TriCaster rejected the credentials	Correct the username and password in the Configuration Tool.
Can't reach TriCaster	Check the TriCaster is powered on and reachable on the network.

Message	What to do
Can't load this video	For an HTML video source, check the link, that the file exists, and that the format is one the browser supports.

Buttons do not execute

If timers and labels work (no Offline chip) but a Button click does nothing, check:

- The button's **Command type** is filled in and, for Template buttons, a template is selected.
- For a TriCaster, Media Sequencer or Viz Arc button, that the matching integration is configured. See *Integrations for Button Actions* above.
- **Authentication mismatch between Mosart Server and Mosart Web Apps.** Smart Panel needs the same authentication mode on both sides:
 - **If Mosart Server is configured with OIDC**, Mosart Web Apps must also have HTTPS and OIDC enabled (**Server Configuration** in the Configuration Tool).
 - **If you want to run over HTTP** (not recommended), Mosart Server must have a REST API key configured (RestApiKey), and Smart Panel must be opened with that key as a URL parameter (?apikey=<key>). Note that this exposes the key in browser history and logs.
 - To confirm the underlying REST endpoint is responding, open the Mosart Server Swagger page in a browser:
 - **HTTP:** `http://<mosart-server-host>:55167/swagger/index.html`
 - **HTTPS:** `https://<mosart-server-host>:55168/swagger/index.html`
 If the Mosart Server is configured with a REST API key (RestApiKey), click Authorize in Swagger and supply the same key (header X-API-Key) before invoking any endpoint. If neither an API key nor OIDC is configured on the Mosart Server, the REST API is not usable, the Swagger page may load, but every call returns 401.

Layout not saved between sessions

Layouts are stored in a single file, *smartPanelLayouts.json*, under *C:\ProgramData\Mosart Medialab\Mosart Web Apps*. The built-in default layouts are part of the Mosart Web Apps installation and cannot be lost. If user-created layouts disappear after a server restart, check that this folder is included in your normal backup routine and has not been wiped by a reinstall.

11 Template Editor (Early Access)

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

✓ **Tip:** Watch a 2' introduction [here](#).

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

11.1 Info: Early Access

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

11.2 Safety first

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

11.3 Template storage

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

11.4 Control access

As a web-based app, the new Template Editor is available to *all* users on the local network. To control access, this version also offers **authentication**.

Once configured, the permissions apply to *all* Viz Mosart Web Apps.

11.5 Template Editor

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

11.6 Benefits of the new Template Editor

- **Web-based:** Accessible from a browser on any computer on the network.

- **A dashboard for the whole library:** Template sets are browsed as a list, a tree or side-by-side columns, with each set's templates and their inheritance laid out in a table, so the structure of the library is visible rather than implied.
- **Inheritance made visible:** A set's inheritance chain is shown level by level, and each template is annotated as inherited, a local addition, or an override of an inherited version, so you can see at a glance where a template's behaviour actually comes from.
- **Timeline view:** Gives a clear visual overview of all commands and their precise timing.
- **Sequences:** A sequence editor for building named, timed series of items on their own timeline.
- **Simplified command model:** Fewer, more powerful commands, to make template creation easier.
- **Easier to learn:** A clean, intuitive UI and keyboard shortcuts throughout lower the learning curve, even for new users.

11.7 How the new Template Editor Works

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

- Template Editor directly modifies the same `channeltemplates.xml` file as the old editor.
- The data format is the same, so changes are backwards compatible. Both editors can be used side by side.
 - `<custom data-type="emoji" data-id="id-0">:warning:</custom>` However, there is no mechanism for synchronizing between them:
 - Saving in the *old editor*: Requires a browser refresh in the *new editor* to view the changes.
 - Saving in the *new editor*: Requires a restart of AV Automation for changes to take effect in a rundown and to see the changes in the *old editor*.
 - There are no conflict or collaboration features: The latest save wins.
- This version supports a limited set of commands:
 - When opening an existing template, only the supported commands are visible.
 - When saving, unsupported commands are preserved, even though you do not see them. They are not lost.
 - All commands still appear in the old editor.
- Commands have been simplified, but may take some time to get used to:
 - The previous distinction between *Device Commands* and *Control Commands* is gone. Now you see a unified list.
 - Some commands have been unified for simplicity. For example, the command **Set source** can set a *Keyer*, *AUX* or *Crosspoint*, depending on which properties have been configured.
 - This change is only *visual*. When saving a **Set source**, the command is converted to a **SET_CROSSPOINT** *Control Command* in the file and is visible in the old editor.
 - For more details, see [Transitioning from the old Template Editor](#).

11.8 Further Information

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

11.9 Working with Template Editor

The Template Editor has two working surfaces: the **dashboard**, where you browse galleries, template sets, templates and sequences and see how sets inherit from one another, and the **editor**, where you build one template's commands on a timeline.

- [The Dashboard](#)
 - [Browsing template sets](#)
 - [The set summary](#)
 - [The templates table](#)
 - [Sequences](#)
 - [Managing sets](#)
- [The Editor](#)
 - [Template title bar](#)
 - [Commands list and timeline](#)
 - [Audio fader panel](#)
 - [Command properties](#)
- [Keyboard Shortcuts](#)
 - [Templates table](#)
 - [Template sets](#)
 - [Template editor](#)
 - [General](#)

11.9.1 The Dashboard

The Template Editor opens on the dashboard, headed **Galleries**. On the left are the template sets, and on the right the contents of the selected set.

Browsing template sets

The sets pane can be laid out three ways, chosen from its view options:

- **List view:** a flat list of sets, filtered as you type with **Filter by set name**.
- **Tree view:** sets nested under the sets they are based on, so the inheritance structure itself is the navigation. Folders open only when you toggle them, and **Space** toggles the selected folder.
- **Column view:** each level of the inheritance chain as its own column, side by side, in the style of a column file browser.

The sets pane is resizable, and each set row carries its own actions for editing or deleting the set.

The set summary

Selecting a set shows a summary card before you open anything:

- **Inheritance chain:** the set's ancestry, level by level, from the set itself back to the root, with the current set marked.

- **Template breakdown:** how the set's visible templates divide into *Inherited (unchanged)*, *Overrides (shadow parent)* and *New local (no parent version)*, with the total visible.

This answers the everyday questions about a set, namely what it adds, what it changes and what it merely passes through, without opening a single template.

The templates table

The selected set's templates are listed with their title and description, main identifier, status, created and last-edited dates. A search field filters the table, and each row's annotation tells you where the template comes from: inherited, an override, or local to this set.

- **Creating a template:** **Create new** asks for a title, a type and an optional description. The combination of type and title must be unique within the set.
- **Editing an override safely:** a template that overrides an inherited one behaves as you would hope. Renaming it, or changing its type, saves a copy in the current set and keeps the inherited template. Deleting the override restores the inherited version from the parent set, and the confirmation dialog says exactly that, naming the set the inherited version comes from.
- **Hiding a template:** a template can be marked **Hide from user**, and a set can block an inherited template entirely. A row marked *Hidden in this set* means playout skips it there, and the inherited version is blocked in that set.

Sequences

Next to **Templates**, the dashboard has a **Sequences** tab. A sequence is a named, timed series of items, each with an in-point and a duration in frames, built on its own timeline.

- **New sequence** creates one in the selected set; a search field filters the list.
- Open a sequence and add items with **Add item....** Each row carries its **In (ff)** and **Dur (ff)**, and items are reordered by dragging, or with **Move up** and **Move down**.
- On the timeline, drag an item to adjust its offset and drag its edge to set its duration, zooming in and out as needed. A **Graphics out** marker sets where graphics are taken out.

Managing sets

Add set creates a new template set: a name, and optionally the set it is **Based on**, which is what places it in the inheritance tree. Recall settings for the set are grouped in the same dialog, and a template whose recall is not wired up is flagged with a warning that it will not recall on air unless a matching direct take exists. Deleting a set removes the templates in it, and the confirmation says so; the deletion cannot be undone.

11.9.2 The Editor

Opening a template takes you to the editor. **H**, or the back control, returns to the dashboard.

Template title bar

The header shows the selected template's name, variant, description and location, and carries:

- **Mix Delay:** a frame-based delay applied to specific command types (main source switches, region source switches, audio fades) when the template is taken to air, for [fine-tuning on-air action timings](#). If Mix Delay is enabled, individual command offsets are ignored. Mix Delay becomes available once the template has a Switch Main or Switch Region command.
- **Save**, and a menu with **Edit** (rename, change type, update the description or the Mix Delay value) and **Delete**.
- The ? help menu: **Keyboard Shortcuts**, **Documentation**, **What's new**, **Give feedback** and **About**.

Commands list and timeline

The **Commands** panel presents two complementary views, switched between **Timeline** and **List**. Both are interactive and synced with the **Command properties** panel.

- **Timeline view:** a visual representation of when each command executes during the *Cue*, *Take* and *Out* phases, showing offsets and transition lengths. Multi-phase commands, such as *Switch Main* or *Switch Region*, are visible across the phases they act in. Offsets and transition rates can be adjusted by dragging directly on the timeline.
- **List view:** the same commands and their core properties in a compact linear layout, for quick review when precise timing visualization is not required.

Info: Commands are grouped by *device* category (for example switcher commands, audio mixer commands), not by execution sequence. This reflects the structural grouping within a template, but not necessarily the order Viz Mosart executes them at runtime.

Adding commands

1. Click the **+** button at the top right of the **Commands** view to open the command library.
2. Browse by device type (for example *Switcher*, *Audio Mixer*). Each command entry has a short description, with **Show more** for details.
3. Select a command and click **Add**. Editing continues immediately in **Command properties**.

Tip: To add several commands in a row, hold **Shift** when you click **Add**. The dialog stays open so you can keep going.

Info: A command created in the desktop Template Editor may carry an annotation that some behaviours, such as how Mix Delay applies, can differ. See [Transitioning from the old Template Editor](#).

Audio fader panel

The **Audio Fader** panel gives a quick overview of all **Set Fader** commands in the template, showing each configured channel's source name (for example *MIC 1*) and its level in dB. Adjust a level by dragging the fader directly, and select the command in the list or timeline to change its other parameters, such as the trigger.

Command properties

The **Command properties** panel shows the configurable options for the selected command. Which properties appear depends on the command and the device it targets; the full set is documented in the [Command Reference](#).

11.9.3 Keyboard Shortcuts

Press **K** anywhere, or pick **Keyboard Shortcuts** from the **?** menu.

Templates table

Action	Shortcut
Move selection up / down	↑ / ↓
Jump to first / last template	Home / End
Open selected template	Enter
Open in new tab	Ctrl + Enter
Edit selected template	F2
Delete selected template	Delete

Template sets

Action	Shortcut
Move selection, collapse / expand	↑ / ↓, ← / →
Edit selected set	F2
Delete selected set	Delete

Template editor

Action	Shortcut
Create new template	Ctrl + Alt + N
Delete template	Ctrl + Delete
Add command	Ctrl + Alt + C
Edit template properties	Ctrl + Shift + E
Edit template mix delay	Ctrl + Shift + ↑ / ↓
Save template	Ctrl + Shift + S
Back to dashboard	H

General

Action	Shortcut
Show keyboard shortcuts	K



Info: In this version, only file-based templates are supported, so there is no gallery to choose: the file is the single template source. Support for gallery-based template databases will be introduced in a future release.

11.10 Setup and Administration of TE

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

1. **Open the Configuration Tool.**

After installing the Web Apps bundle, the **App Launcher** opens, showing all available applications. Template Editor is listed as one of the applications, but must be enabled before it becomes accessible.

2. **Enable Template Editor.**

- a. Go to **App Configuration**.

- b. Select **Template Editor**.

- c. Review the important notes shown there before enabling. The application is in early access, and the notes describe its current limitations.

3. **Save and launch.** Once you have enabled the Template Editor:

- a. Click **Save** to apply the change. This restarts the Web Apps service.

- b. After the restart, the **Open** button becomes available. Click **Open** to launch Template Editor in your default browser, at `/templateeditor` on the Mosart Web Apps host.

4. **Confirm the template storage file location.**

Template Editor shares the template storage path configured on the **NRCS Plugin** page.

- Ensure the **Local** file storage path is valid and accessible.



Info: Templates stored in a *database* are not supported in this version. Only file-based storage works with the Template Editor.

5. **Control access.**

As a web-based app, the new Template Editor is available to all users on the local network.

- To control access, this version also offers **authentication**. Once configured, the permissions affect *all* Viz Mosart Web Apps.



Note: The Template Editor writes to the same `channeltemplates.xml` that your production uses. Back the file up before exploring, and prefer a staging environment. See the safety notes on [Template Editor \(Early Access\)](#).

11.11 Command Reference

This guide covers command function, parameter structure, and how they are used in typical workflows.

- [Video Switcher Commands](#)
 - [Command Structure](#)
 - [Region](#)
 - [Layer](#)
 - [Channel](#)
 - [Source](#)
 - [Switch Main](#)
 - [Properties](#)
 - [Switch Region](#)
 - [Command properties](#)
 - [Set Source](#)
 - [Command properties](#)
 - [Examples](#)
- [Audio Mixer Commands](#)
 - [Set Fader](#)
 - [Command properties](#)
- [Fine-tuning On-Air Action Timings](#)
 - [Delay mechanism summary](#)
- [Template Terms and Definitions](#)
- Commands in this description are organized by the *type* of device they control (for example a *switcher* or *audio mixer*) with examples illustrating their common usage scenarios.
- For users familiar with the existing *desktop Template Editor*, a separate section, [Transitioning from a Desktop Template Editor](#), highlights key differences in behavior and compatibility.
- As the Template Editor evolves, more command types will be added.

11.11.1 Video Switcher Commands

Command Structure

For video switcher (vision mixer) commands that assign a source, such as *Switch Main*, *Switch Region*, or *Set Source*, Template Editor uses a hierarchical structure that precisely defines source destination, in the form:

Region → Layer → Channel → Source.

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

Here's a breakdown of each element:

Region

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

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

Layer

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

- The *Background* (also referred to as *Main*) layer represents the base layer of the visual composition, the foundation onto which all other visual elements (graphics, overlays, picture-in-picture, etc.) are added. This layer may support A/B transitions (Preview + Program). In traditional switchers, this corresponds to the background video source of any M/E bank, not just the Program output. Each M/E has a base input (the *Background*), which can have keys and effects stacked above it. In modern, layer-based switchers like Panasonic Kairos, it serves as a virtual construct to simulate this foundation. The web-based Template Editor uses this concept to unify how the base layer is addressed across both traditional and fully composited switcher architectures.

Note: This layer is *not* available when region *Auxiliary* is selected.

- *Layer 1*, *Layer 2*, *Layer 3*, and so on, are used to place content on top of the main background layer. Each of these layers currently has just one video bus (called *A*) and currently does not support transitions between *two* sources like traditional A/B transitions.

Examples are:

- [Panasonic Kairos](#) supports multiple layers in both *single* and *dual-bus* modes.
- [TriCaster](#) M/Es allow multi-row compositions (A, B, C, D).
- [Viz Engine](#) treats superchannels as layers with A/B buses.

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

Channel

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

Source

The actual input, such as a camera, live feed, graphics input etc., referenced by its name (crosspoint) configured on the Viz Mosart server in AV Automation in the menu

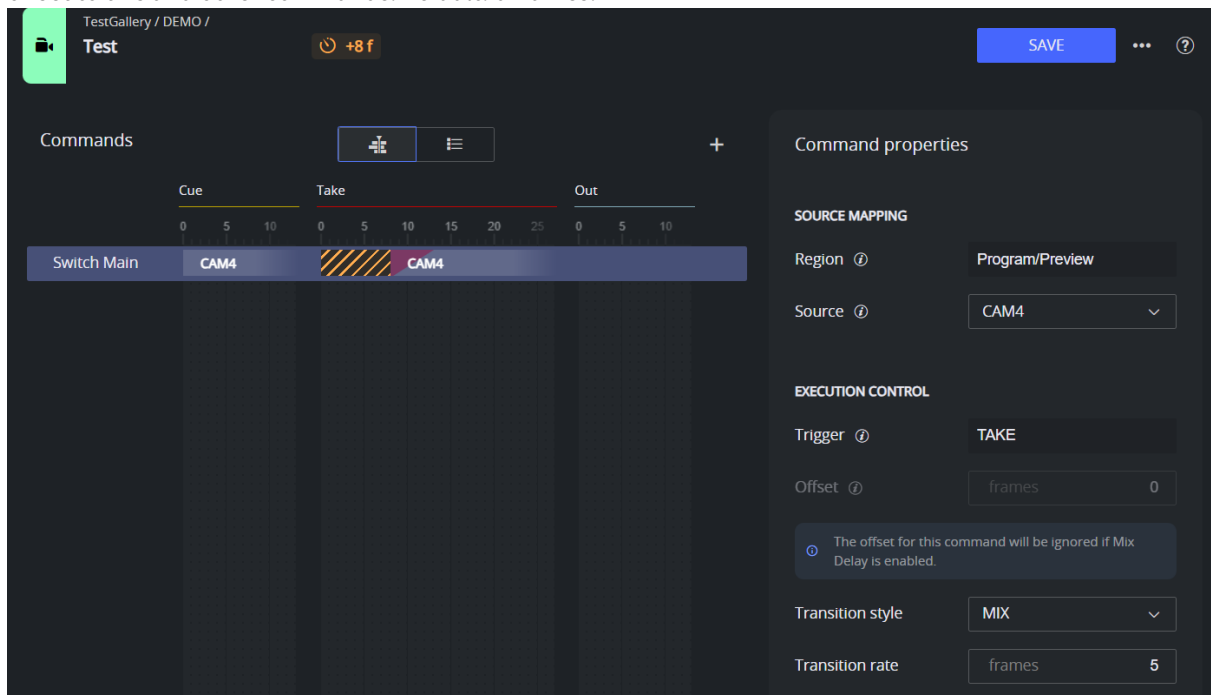
Devices > A/V Setup > Video Config. (for example, *CAM1*, *LIVE1*).

Switch Main

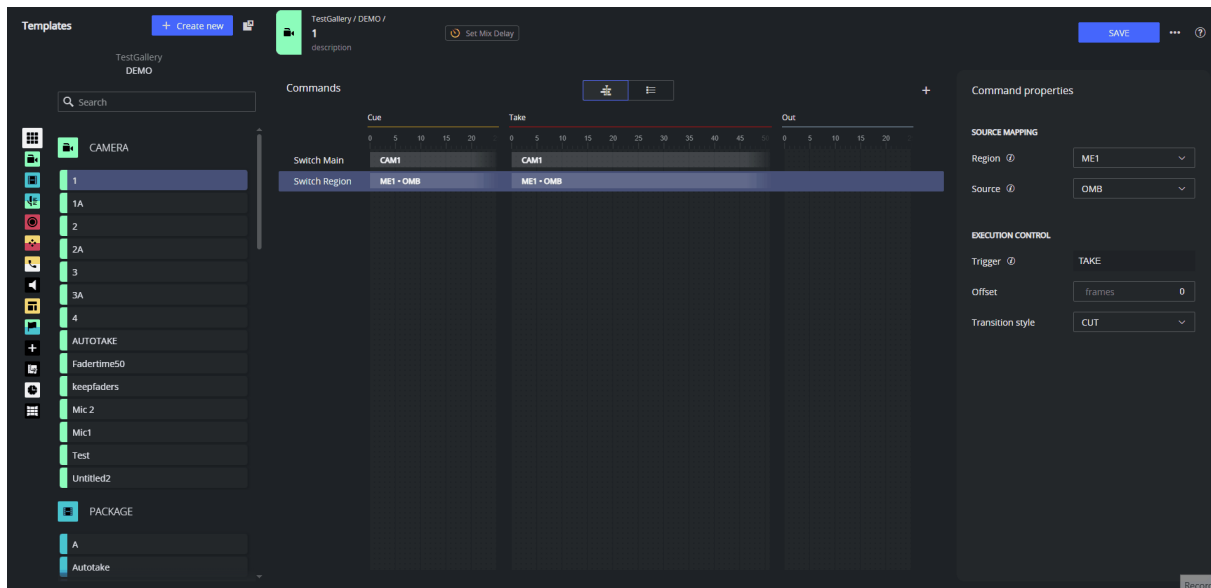
The **Switch Main** command sets the source on the main output (*Program/Preview*) of the switcher. This can be a direct source like a camera, graphic, or video feed (for example, *CAM1*), or a secondary region (for example, *ME1*) that is being composed elsewhere.

Properties

- **Region:** Program/Preview (the main output). This can not be changed.
- **Source:** The desired source (e.g., CAM1). *Default:* the first command in the list.
- **Trigger:** Specifies where the command is executed. This can not be changed. The command transitions the selected source on the main output from Preview (B) to Program (A) when the template is taken on air. In the Properties on the command on TAKE is visualized, but in the Timeline view, both the commands on CUE and on TAKE are visualized.
- **Offset:** Optional delay in frames. Ignored when [Mix Delay](#) is enabled; instead, the Mix Delay applies a unified offset to this and other commands. *Default:* 0 frames.



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



Switch Region

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

Command properties

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



Info: Limitations with current version

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

Set Source

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

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

Command properties

- **Region:** Specifies the mixer region where the source should be applied. For example, *Program/Preview (PP)*, *ME1*, *ME2*, *Auxiliary*, etc.
- **Layer:** Indicates the layer within the selected region. Can be *Background* (except when **Region** is set to *Auxiliary*) or a numbered layer (for example, *Layer 1*, *Layer 2*, etc.).
- **Channel:** Defines the channel to assign the source to, A or B. This is only applicable when the **Layer** is set to *Background*.
- **Source:** The source to be assigned (for example, *CAM1*, *LIVE1*). If left empty, the first available source in the drop-down list is used by default.
- **Trigger:** Specifies when the command should be executed, on *CUE*, *TAKE*, or *OUT*.
- **Offset:** An optional delay (in frames) before the command is executed. In this version, the *Offset* property can only be applied if the **Trigger** is set to *CUE*.

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

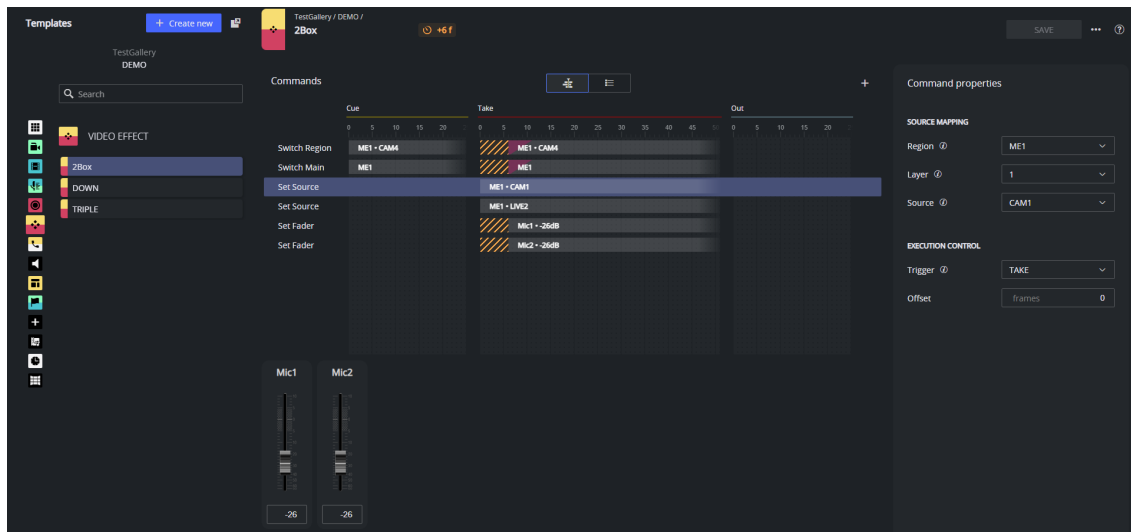
Examples

- **Assigning keyers for a 2Box composition.**

This template uses two **Set Source** commands to assign video sources to different keyer layers on the *ME1* region.

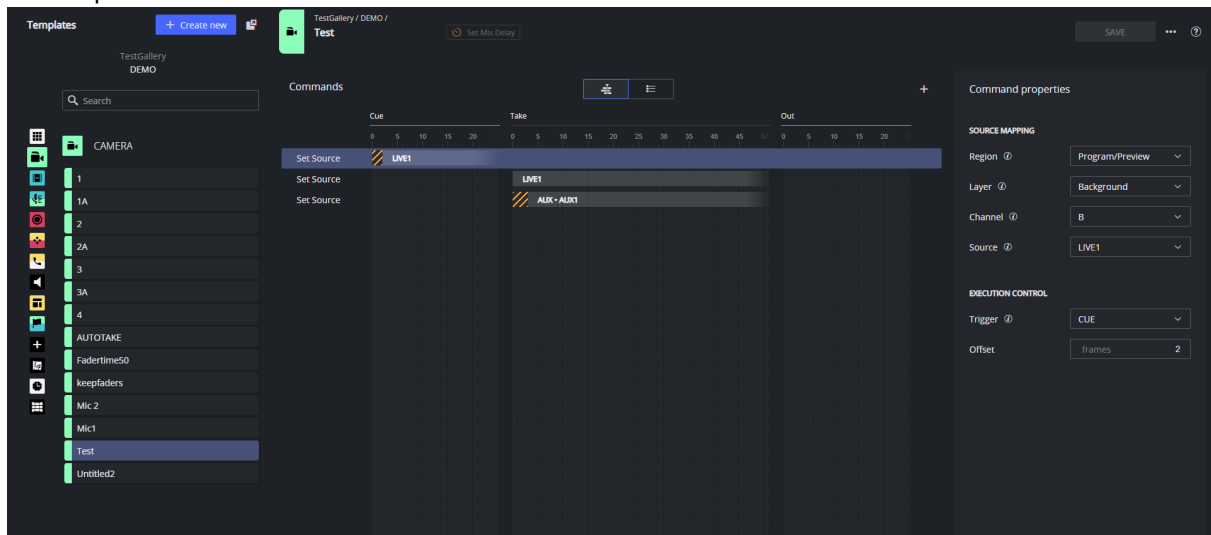
- The first command maps *CAM1* to *Layer 1*, used as the left video box.
- The second command maps *LIVE2* to *Layer 2*, used as the right video box.

This setup is commonly used in 2Box or split screen layouts, where two speakers or feeds need to be shown side by side, with the ME handling the composition.



- **Taking multiple sources simultaneously**

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



11.11.2 Audio Mixer Commands

Set Fader

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

Command properties

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

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

The screenshot displays the Viz Mosart web application interface. At the top, there's a header with 'TestGallery / DEMO / Test' and a '+4 f' indicator. A 'SAVE' button is visible in the top right. The main area is divided into 'Commands' and 'Command properties'.

Commands: This section shows a timeline with three columns: 'Cue' (0-10), 'Take' (0-25), and 'Out' (0-10). A 'Set Fader' command is highlighted, showing 'Mic1 -50dB' in the 'Take' column. Below the timeline, there are two fader controls for 'Mic1' and 'Mic3'. 'Mic1' is set to -50 and 'Mic3' is set to 0.

Command properties: This panel on the right shows the configuration for the selected 'Set Fader' command:

- Source:** Mic1
- Level:** dB, -50
- Trigger:** TAKE

11.11.3 Fine-tuning On-Air Action Timings

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

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

Some commands support both, depending on their configuration.

Mix Delay introduces a shared delay (in frames) applied to eligible commands when the template is taken on-air. It's useful when you want multiple commands delayed together, in a coordinated way.

In addition to a template's Mix Delay, some commands also support their own **Offset** property, an individual delay in frames.

Delay mechanism summary

Command Type	Mix Delay applies if	Offset applies if
Switch Main	Trigger is <i>TAKE</i>	Mix Delay is not set
Switch Region	Trigger is <i>TAKE</i>	Mix Delay is not set
Set Source	Layer is <i>Background</i> and Trigger is <i>TAKE</i>	Trigger is <i>CUE</i>
Set Fader	Trigger is <i>TAKE</i>	Not supported

11.11.4 Template Terms and Definitions

Some common terminology used in template and show design:

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

11.12 Transitioning from the old Template Editor

Here we review considerations when adopting the new Template Editor.

- [Mapping Desktop Template Editor Commands to the Web Apps Template Editor](#)
- [Currently Unsupported Command Properties](#)
- [Examples](#)
- [Legacy commands](#)

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

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

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

11.12.2 Currently Unsupported Command Properties

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

Switcher Crosspoint

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

Switcher XPoints ✕

Crosspoint 1

Mix Effect 1
PP

Crosspoint
CAM1

Audio link
none

Crosspoint PP

☐ Set ME in PP

☐ Cross Point Hold

Mix Delay
0

Mix Delay Out
0

☐ Transition Only

Down stream keyer

Off delay

☐ DSK Off

☐ DSK 2 On
0

☐ DSK 3 On
0

☐ DSK 4 On
0

OK

Cancel

Undo

KeyFill

- Audio link
- Key Enable

Template Editor | DEMO: CAMERA + 1

File ▾ Template ▾ Template Set ▾ DB ▾

DEMO
CAMERA + 1

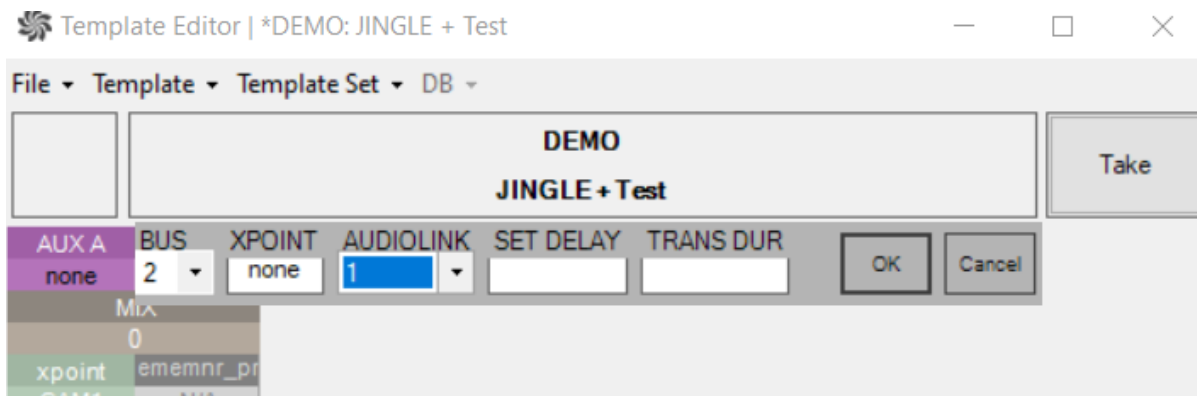
Take

Key 1	BUS	XPOINT	AUDIOLINK	MIXEFFECT	KEY SET DELAY	KEY ENABLE
CAM5	1	CAM5	none	ME1	2	On

OK Cancel M2

Auxiliaries

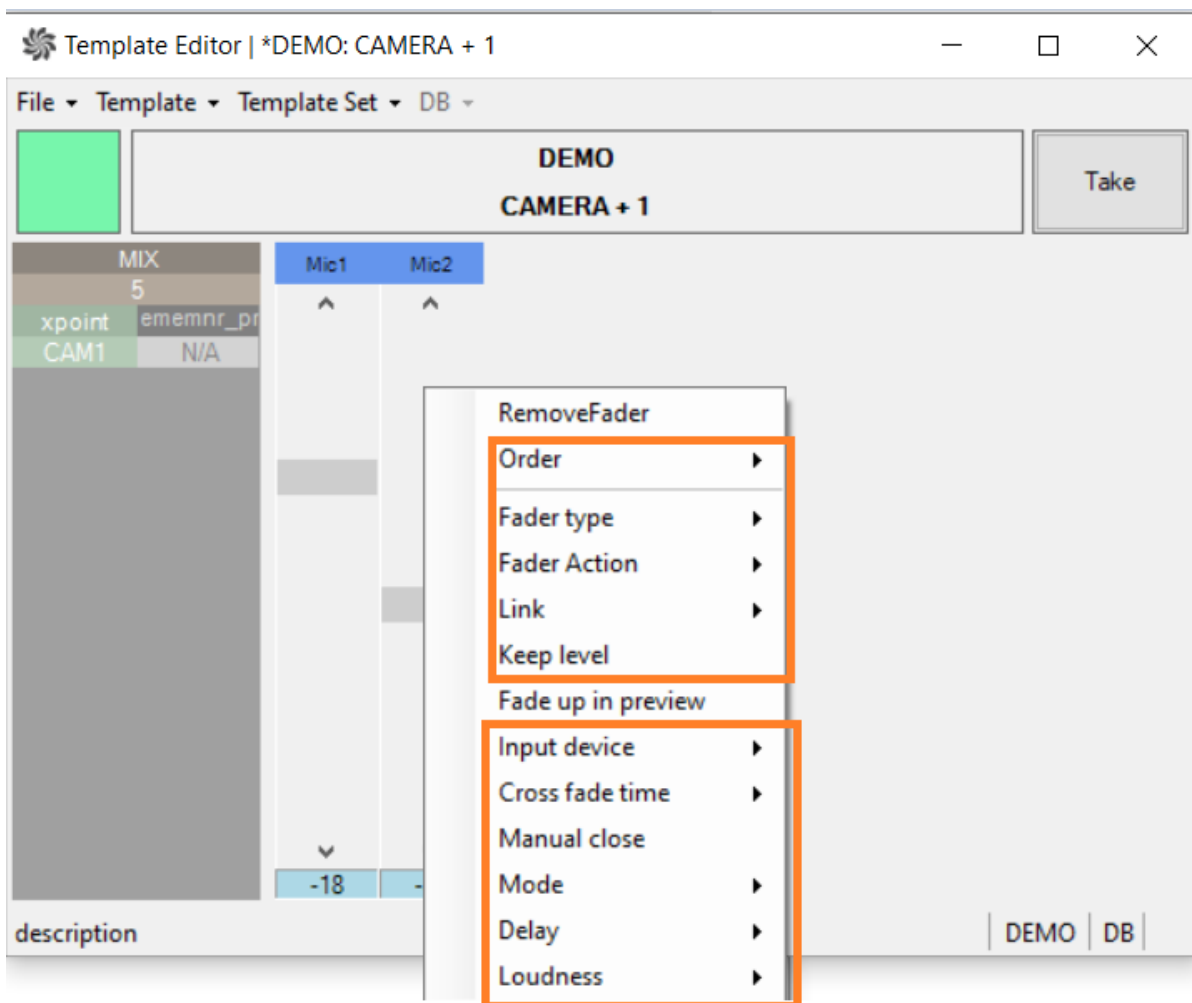
- Audio link
- Trans Dur



Faders

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

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



Control Commands

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

- SET_CROSSPOINT as a continue point:

Template properties

GeneralControl CommandsNewsroom tags orderDestination panel

☐ Commands On Cue

Commands to be cued

	Offset (ff)	Command	Value	Parameter
*				

☐ Command On Take

Control commands Take

	Command	Value	Parameter
*			

☒ Continue Points

Cue Next Item Index

Continue Points

	Autotake (ff)	Command	Value	Parameter	Description
		SET_CROSSPOINT	ME1	1:CAM1	No description
*					

☐ Command On Take Out

Control command Take Out

☐ Hide from user

Cancel

OK

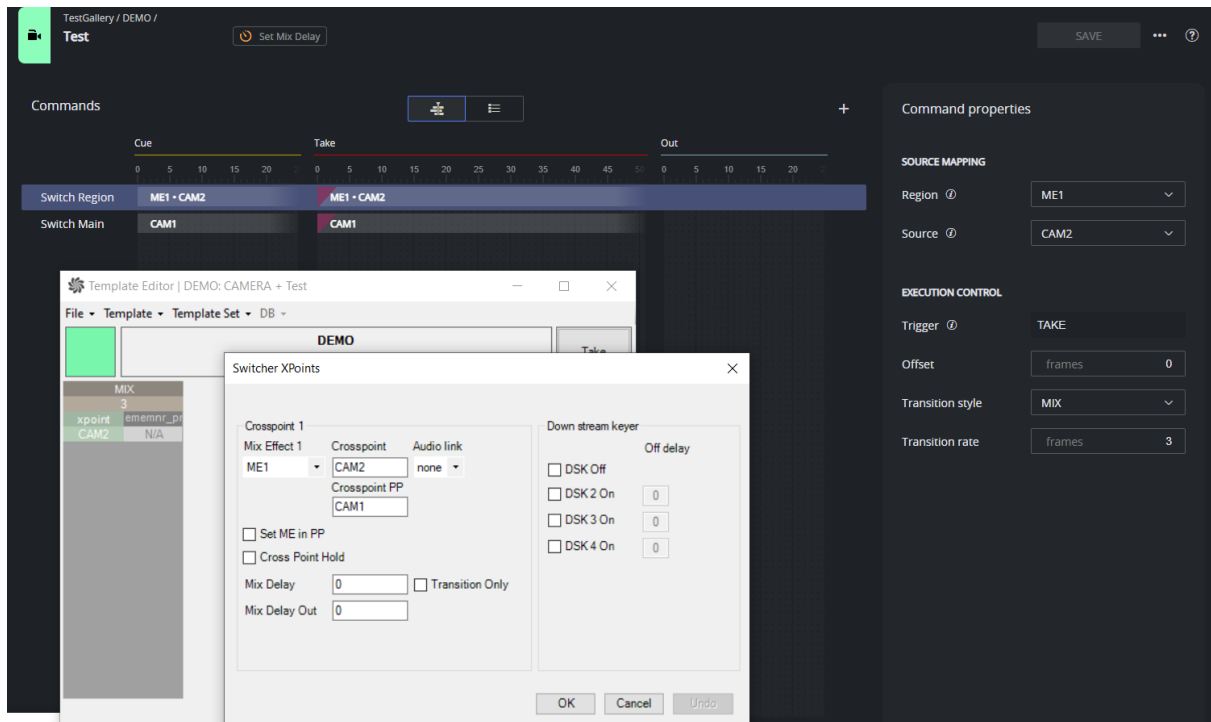
- i

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

11.12.3 Examples

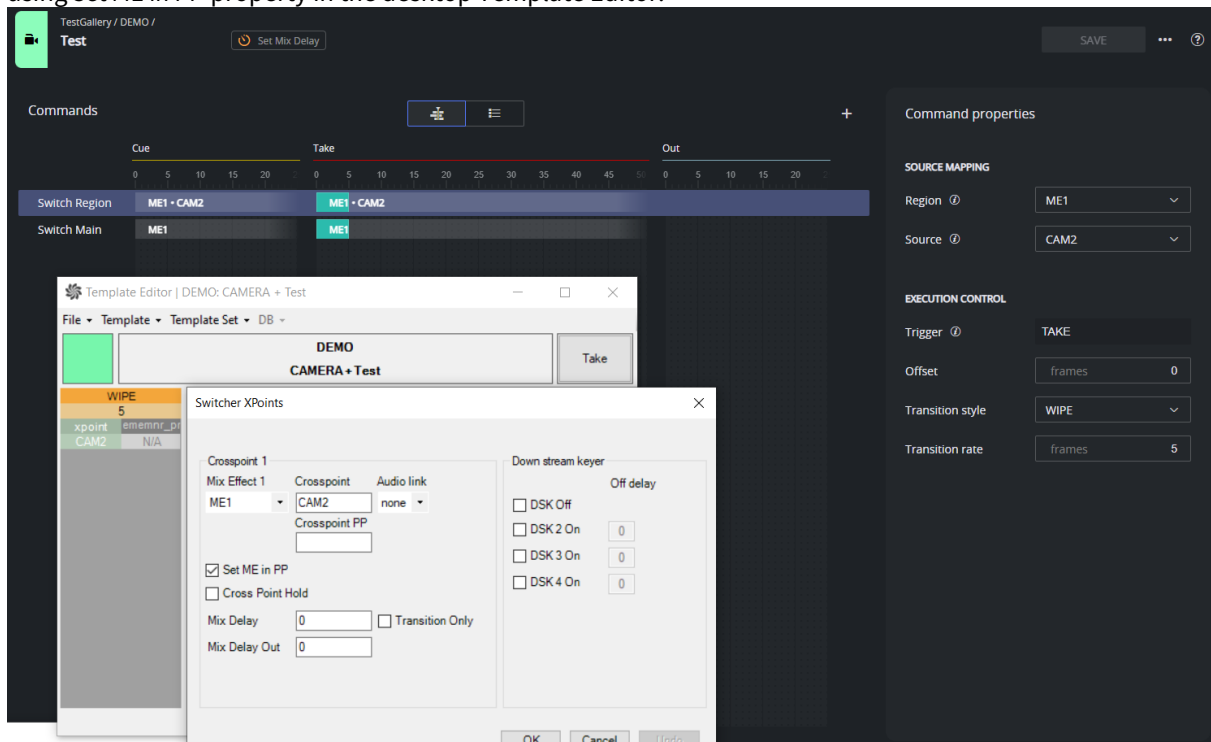
Here are some examples of templates created in the desktop Template Editor and how they are represented in the new Template Editor.

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



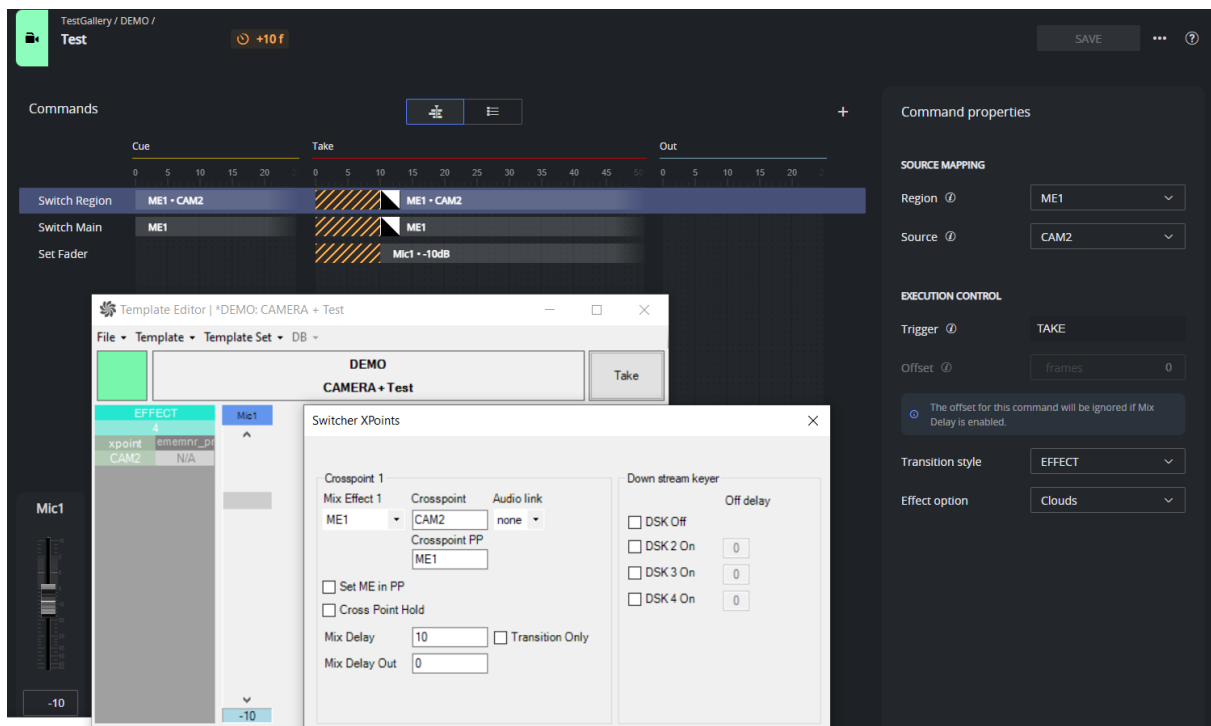
2. Switch M/E into the main output (PP) with a WIPE and rate > 0.

Note: The same commands could be executed in the web-based if *Crosspoint PP* is set to ME1 instead of using *Set ME in PP* property in the desktop Template Editor.

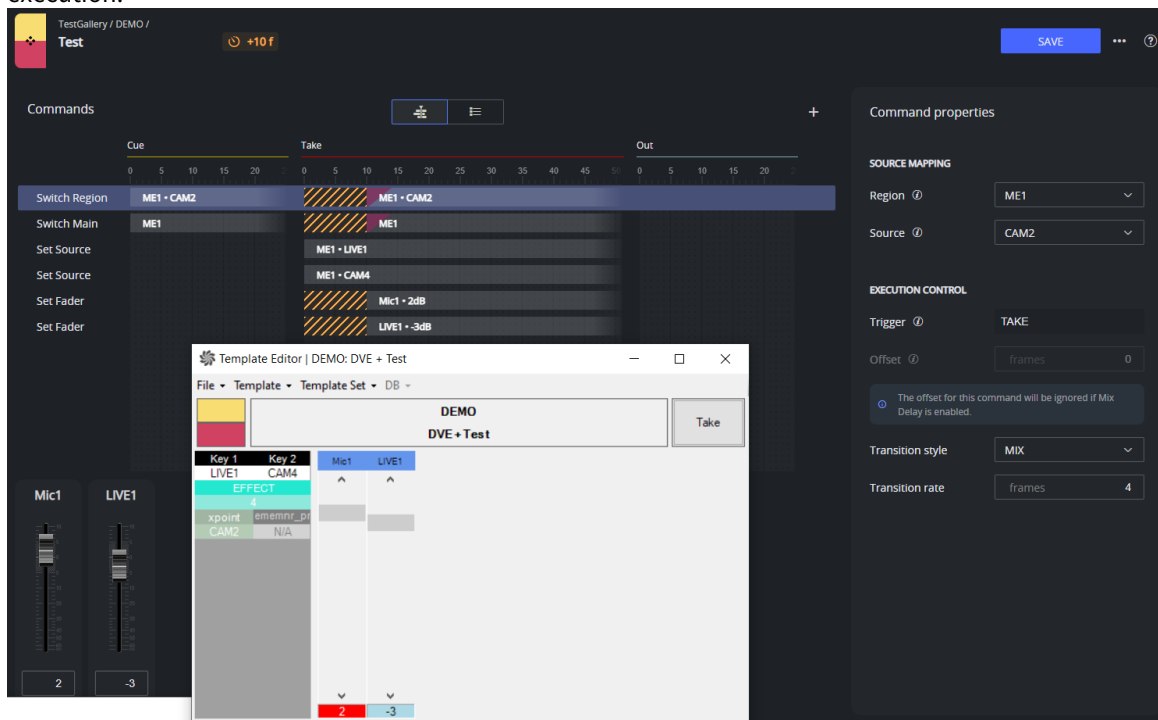


3. Switch a Mix/Effect (M/E) source into the main output using an effect transition, while also applying a mix delay across multiple commands.

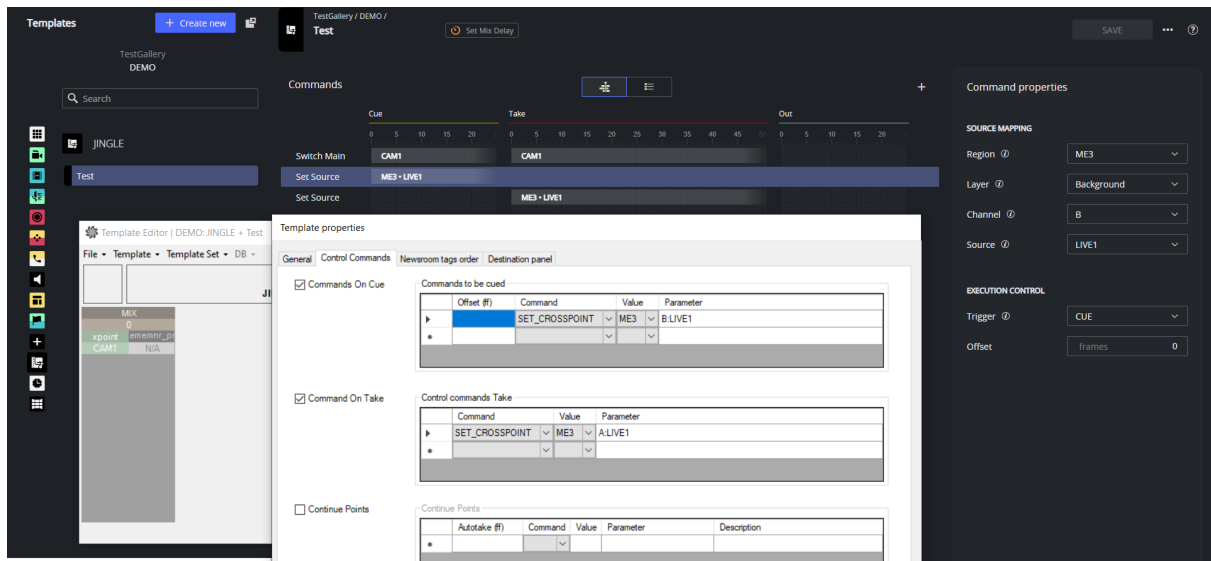
In addition, an audio fader adjustment is performed as part of the same template.



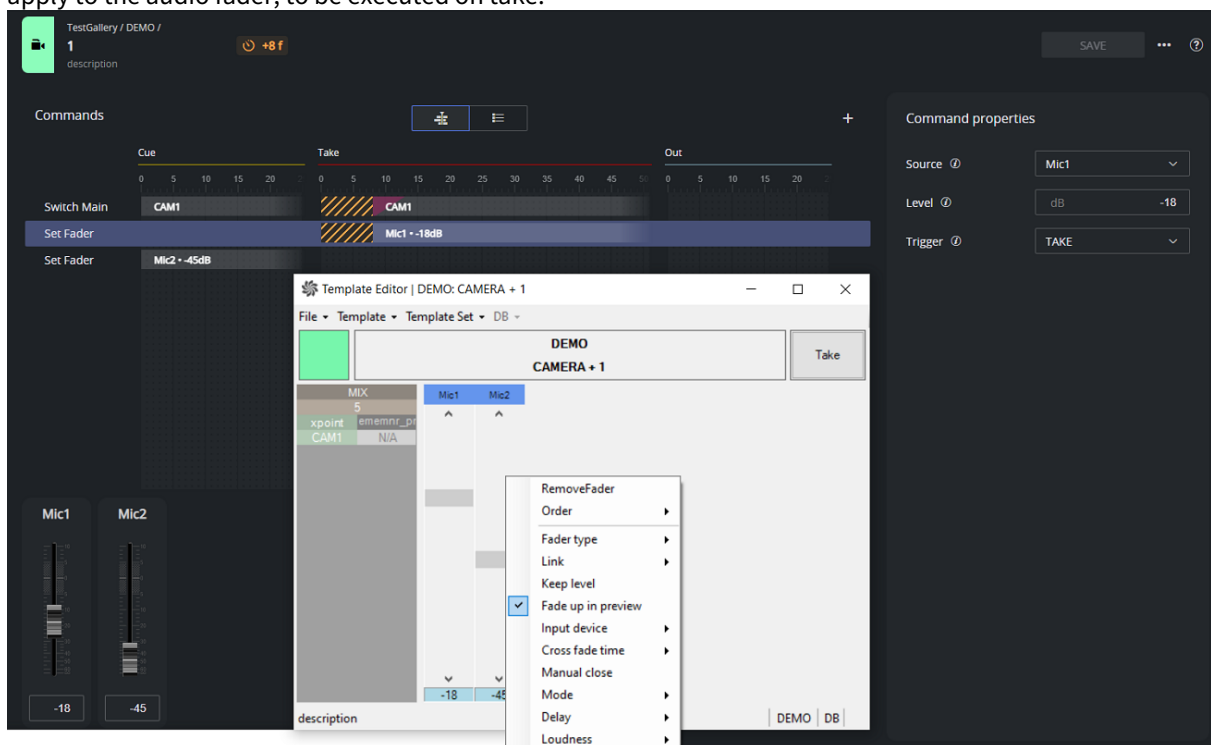
4. Take a DVE composition with multiple video and audio elements.
In this template, two video sources (LIVE1 and CAM4) are inserted into a DVE layout (via ME1), which is then switched into the main output using a mix transition with a custom rate. Simultaneously, two audio faders (LIVE1 and MIC1) are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



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



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



11.12.4 Legacy commands

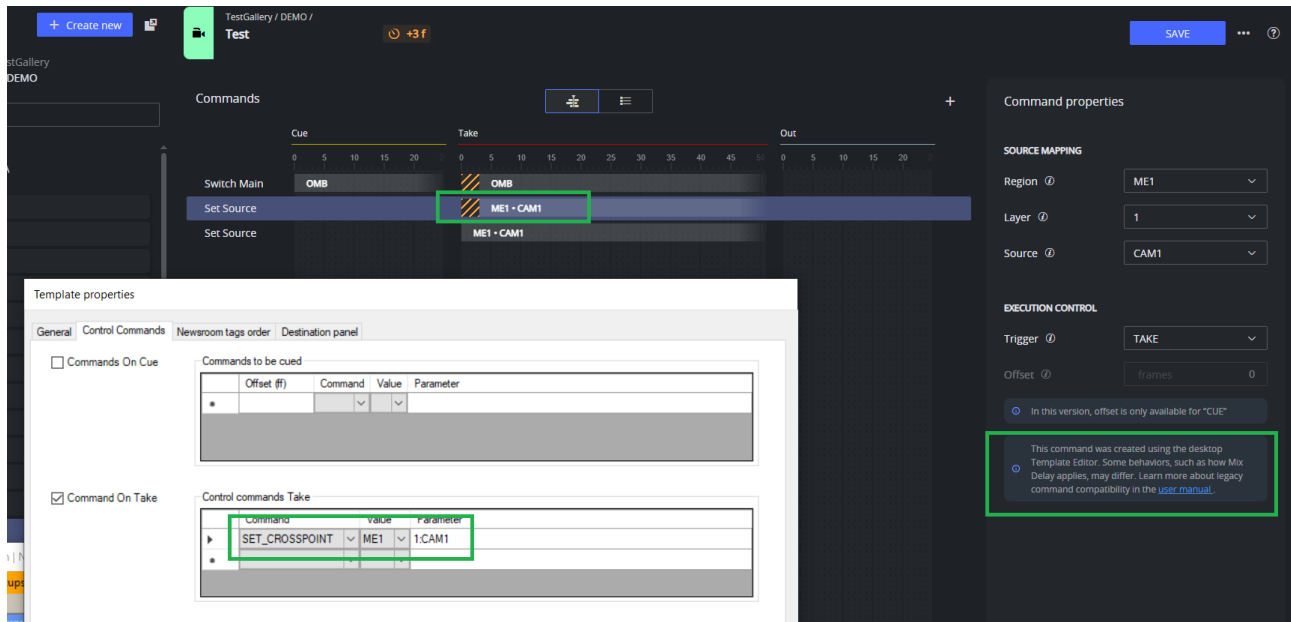
Control Commands to set the Source on a Mixer Region Keyer

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

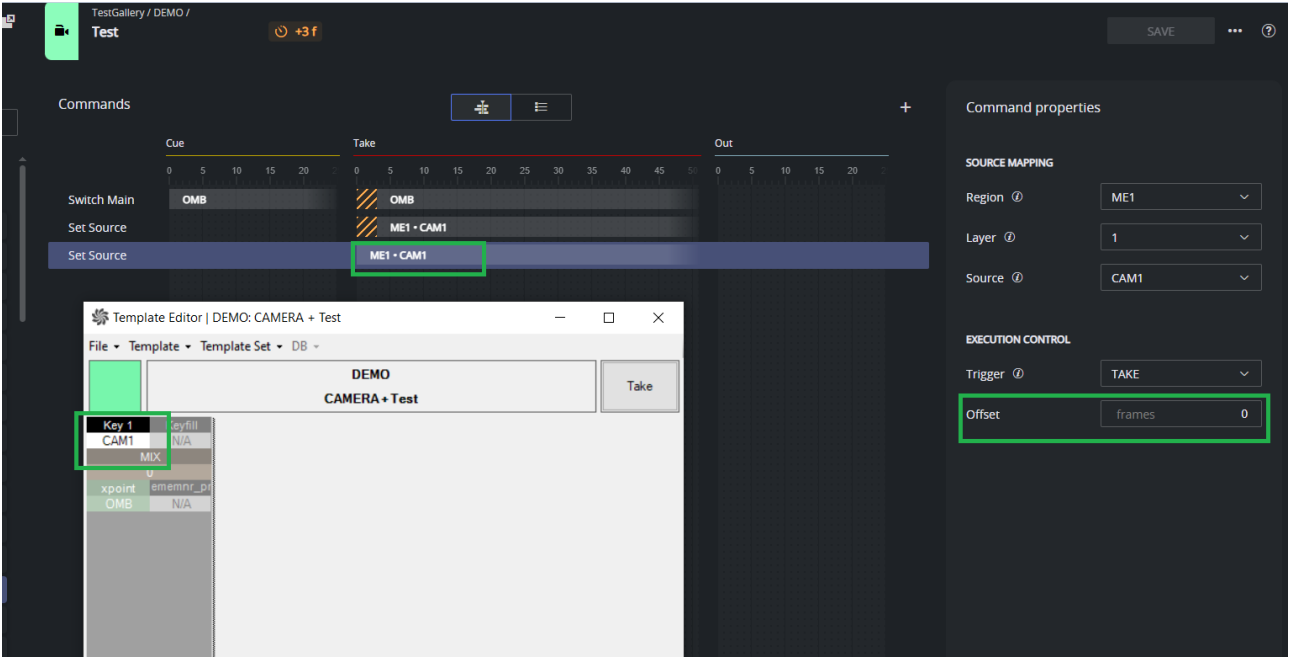
SET_CROSSPOINT on take ME1 "1:CAM1"

This instructs Mosart to switch ME1 to input CAM1, using the bus number 1 to specify the source.

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



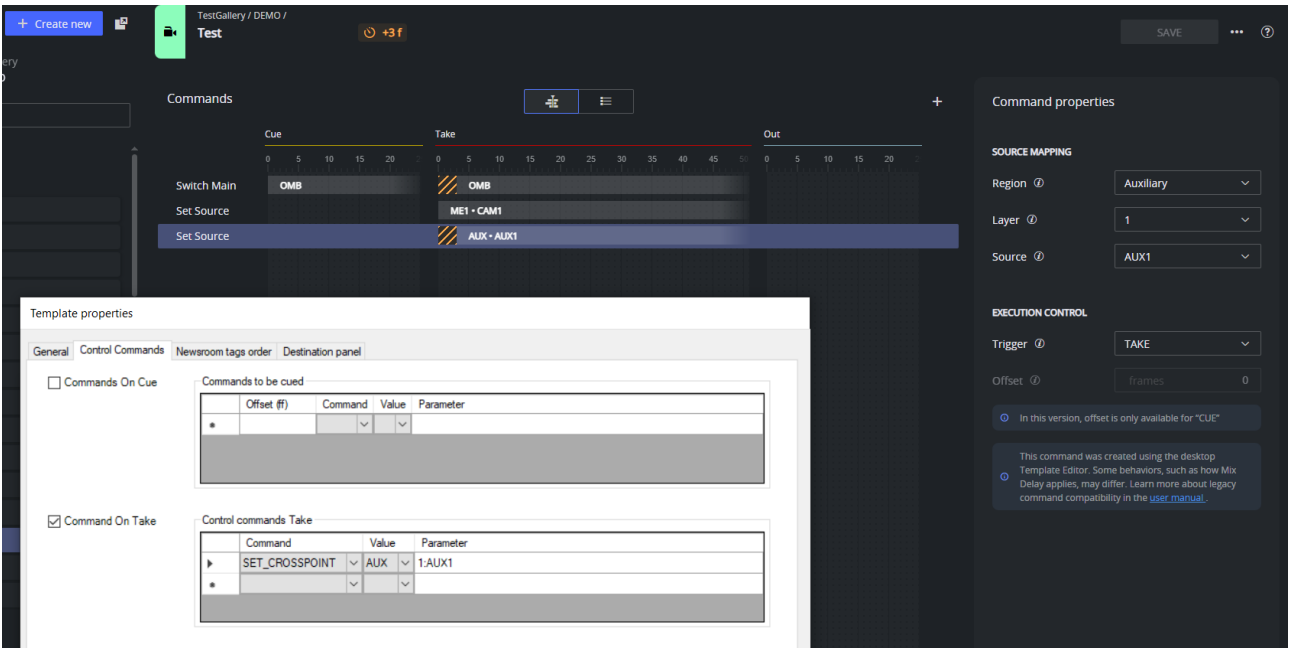
However, if you recreate a command in the web-based editor with the *same Region and Source settings*, the command will be exported to the desktop Template Editor as a **KeyFill** command. **Mix Delay** will not apply to this command. Instead, you can use the **Offset** property to delay the command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



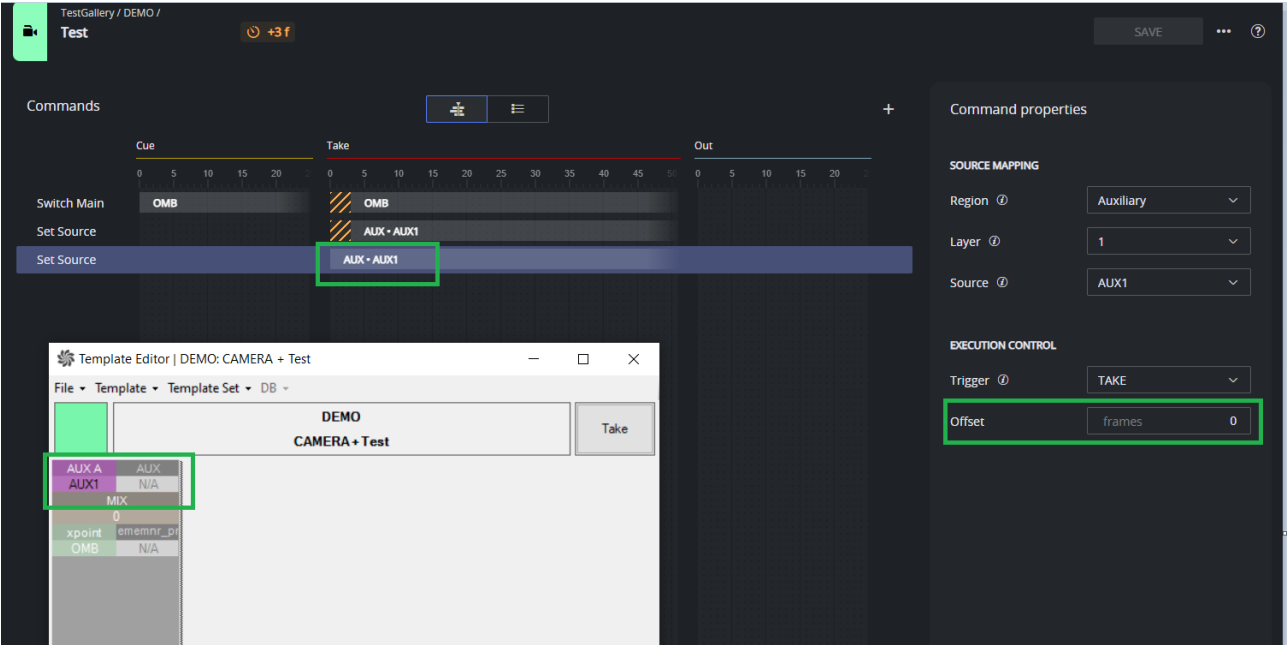
Control Commands to set the Source on an Auxiliary

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

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



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



12 Prompter App

The Prompter is a browser-based teleprompter that displays the script from the live Viz Mosart rundown on any connected device: a laptop, a tablet, or a dedicated prompter screen. It needs no additional hardware or software beyond a web browser.

- Follows the on-air rundown automatically: as items are taken on air, the script rolls to the current item and reads ahead across items that have no script of their own.
- A reading cue band and cue arrows mark the line being read, at an adjustable position on the glass. The band can be switched off independently of the arrows.
- On-screen controls and keyboard shortcuts for scroll speed, text size, and manual transport.
- Mirrored output (horizontal and vertical) for teleprompter glass rigs.
- Can be played and paused from a Smart Panel button, and embedded in a Smart Panel as a live widget.
- A display-only mode that shows the rolling script alone, for passive output screens.

12.1 Typical Usage

The Prompter is aimed at presenters, anchors, and prompter operators. In a typical setup, the Prompter runs full screen on the studio prompter display (or on the talent's tablet or laptop) while Viz Mosart drives the show. The presenter reads from the cue line; the script rolls automatically as the automation takes each item, so nobody has to drive the prompter by hand. For rehearsal, or whenever the operator prefers to control the pace, the manual transport controls are available at all times.

12.2 Prerequisites

- Viz Mosart 5.1.0 or later.
- The Prompter installs as part of the **Mosart Web Applications** bundle. No separate installation is required.
- It is opened from the **App Launcher** in the Mosart Web Apps Configuration Tool.

This section describes:

- *Working with the prompter* describes the prompter view, following the on-air rundown, the on-screen controls and settings, the reading cue, and remote control from Smart Panel.
- *Setup and administration of Prompter* covers installation, opening the app, the connection to the Viz Mosart server, stored settings, and troubleshooting.

12.3 Working with the Prompter

The Prompter presents the script of the current Viz Mosart rundown as classic teleprompter text: large white type on a black background, rolling at a steady reading pace.

Info: To read a script in the Prompter, a standard Viz Mosart setup must first be running with a loaded rundown.

12.3.1 Opening the Prompter

1. From the Mosart Web Apps Configuration Tool, select **App Launcher > Prompter**.
2. The Prompter opens in your default web browser. On a system configured with multiple studios, it opens for the selected studio.

Until a script is available, the Prompter shows one of the following messages in the reading area:

Message	Meaning
Connecting to Mosart...	The Prompter is establishing its connection to the Viz Mosart server.
Waiting for the Mosart Server	The connection is up, but no live timing is arriving from Viz Mosart. Check that Manus Administrator is running.
No rundown loaded	Load a rundown in Viz Mosart and it appears in the Prompter automatically.

A connection chip in the top right corner of the screen shows the live connection state at all times: **Connecting...**, **No Mosart Server**, or **Connected**.

12.3.2 The Prompter View

The whole rundown renders as one continuous script, in running order. What the reading area shows depends on whether the Prompter is following the live item or being browsed.

The view keeps itself up to date: stories and script added, edited, deleted or reordered elsewhere (in Showmaker or in the newsroom system) appear in the Prompter automatically, without reloading the page.

While Following the Live Item

During normal on-air operation the reading area is kept as clear as possible, so nothing but script passes through the cue line:

- The in-flow story headers and item labels fade out, so they never roll up through the reading area and distract the talent.
- Instead, a fixed banner at the top of the screen carries that context: the on-air story and item, so the presenter always knows what is live. Items with nothing to read are tagged **No script** in the banner.

- The state strip stays visible in the top left corner, with the on-air timers just below it. Both are described below.

While Browsing

The moment the operator scrolls or steps away from the on-air item, the full structure of the rundown reappears:

- Every story appears as a numbered header showing its name, and its planned duration when one is set. The on-air story's header also shows a live countdown to the next story.
- Each item in a story is labelled with its Mosart template (for example, a camera or package name) in the template type color, together with the item's planned duration when one is set. Items with script show their script below the label; items with no script show the label only.

In both states, a thin progress bar along the bottom edge of the screen shows the reading position within the whole rundown, and the name of the loaded rundown appears in the top right corner while the control bar is visible.

Story headers of rundowns created in Showmaker also offer an **Edit in Showmaker** button, which opens that story in Showmaker in a new browser tab. Like the control bar, it is only shown while the controls are visible, so it disappears once they auto-hide.

State Strip

Once a rundown is loaded, a compact state strip stays visible in the top left corner of the screen and shows two words. It is deliberately exempt from the control bar auto-hide, so the operator can always read the transport and follow state without touching anything. It is hidden in the connecting and empty states, where a transport word would be misleading, and in display-only mode.

State	Meaning
RUNNING	The script is rolling.
PAUSED	The script is not rolling.
HOLD	A rundown is loaded but the Viz Mosart timeline is not running (a programme hold).
FOLLOWING	The Prompter is tracking the on-air item.
PREVIEW	Follow is on, but the operator has scrolled away from the on-air item. Highlighted as a warning; a Jump to live button is offered.
MANUAL	Follow the rundown is switched off; the operator drives the scroll. Highlighted as a warning.

Timers

While **Follow the rundown** is on and the on-air item is found in the loaded rundown, an elapsed timer sits below the state strip in the top left corner, counting up to show how long the on-air item has been live.

A second timer joins it only while an item with **no script** is on air. It counts down to the moment the next scripted item is due to roll, adding together the time left on the on-air item and the planned durations of any further no-script items ahead of it, so a run of back-to-back packages reads as one shrinking number. If the on-air item runs long, the countdown crosses zero and turns red to show that the next script is overdue.

12.3.3 Following the On-Air Rundown

With **Follow the rundown** switched on (the default), the Prompter follows the production automatically, item by item:

- When a rundown is taken on air, scrolling starts automatically; nobody has to press play.
- Taking an item that has script brings that item's script to the cue line and rolls it at the reading pace. The roll holds when the last line of the item's script reaches the cue line, so the Prompter never rolls ahead of what is on air.
- Taking the same item again (a re-take) re-anchors its script to the cue line and rolls it again from the top.
- A take always restarts the roll, even after a manual pause. A manual pause holds only between takes.

Reading Ahead over Items with No Script

When an item with no script is taken on air (a package, a full-screen graphic, a break, a live source), there is nothing for the talent to read, so the roll stops. What happens next depends on the **Read ahead during no-script items** setting (default on):

- **On:** The Prompter brings the next scripted item in the rundown to the cue line so the presenter can read ahead. The reading cue turns amber, band and arrows alike, to signal that the script on the cue line is not yet on air, and the countdown timer shows when it is expected to roll. The moment that item is taken, it rolls from where it already sits.
- **Off:** The Prompter freezes in place until the next scripted item is taken.

In both cases the on-air banner keeps showing the live story and item, tagged **No script**.

Browsing While On Air

Scrolling by hand (mouse wheel, touch drag, **Home**, or stepping between items) while *Follow* is on switches the Prompter to **PREVIEW**: the roll stops so the operator can read anywhere in the rundown without being pulled back. To return:

- Select **Jump to live** (or press **L**) to snap back to the on-air item and resume following.
- Or simply wait: the next take automatically returns the Prompter to the live item.

On a touch screen, a stationary tap only reveals the controls. It takes a real drag to switch to PREVIEW, so touching the glass cannot knock the Prompter off air mid-read.

While following, if the on-air item is not present in the loaded rundown (for example it was removed after the rundown was loaded), the Prompter stops the roll and shows the warning *On-air item is not in the rundown* rather than rolling stale script.

12.3.4 The Control Bar

A floating control bar at the bottom of the screen keeps the essential controls within reach. It hides after four seconds without input and reappears on any mouse movement, touch, or key press. It also stays put while the settings panel or the Help menu is open.

Control	Description
Settings	The gear button opens the settings panel (see below).
Scroll speed	A slider from 0.25× to 3× in quarter steps, with a numeric readout. The speed is a constant reading pace: the roll advances relative to the text size, so the talent reads the same words per minute at any text size. 1× approximates a typical news reading pace.
Start/pause scrolling	The round button in the center of the bar starts and pauses the roll (also the Space key).
Text size	A slider from 24 pt to 96 pt in 3 pt steps, with a readout in points.
Help	Opens a menu offering Keyboard shortcuts , Give feedback and About . The Documentation and What's new entries are listed but not yet selectable.

The speed and text size controls, the play button and the reading cue are all hidden while one of the messages above is shown, since there is no script to drive.

12.3.5 Settings

The gear button on the control bar opens the full settings panel. Every setting takes effect immediately and is remembered by the browser on that machine, so each prompter position keeps its own setup.

Group	Setting	Description
Text & display	Font	The typeface for the script text (default Open Sans). The list offers common fonts found on the machine; Show all installed fonts expands it to every installed font (requires a browser permission; available in Chromium-based browsers such as Chrome and Edge).
Text & display	Text size	The script text size, 24 pt to 96 pt in 3 pt steps (default 42 pt). The same setting as on the control bar.

Group	Setting	Description
Text & display	Margins	Extra horizontal margins around the script, 0 to 20 percent of the screen width (default 3 percent).
Text & display	Mirror horizontally	Flips the output left-to-right for teleprompter glass rigs.
Text & display	Mirror vertically	Flips the output top-to-bottom.
Scrolling	Speed	The reading pace, 0.25× to 3× in quarter steps (default 1×). The same setting as on the control bar.
Scrolling	Follow the rundown	Tracks the on-air item and rolls its script automatically (default on). Off hands full manual control to the operator.
Scrolling	Read ahead during no-script items	While an item with no script is on air, brings the next scripted item to the cue line so the talent can read ahead (default on). Shown only while Follow the rundown is on.
Cue indicator	Off / Left / Right / Both	Where the cue arrows appear: on the left edge, the right edge, both edges, or not at all (default Both). Off hides the entire cue indicator, band included.
Cue indicator	Highlight band	Shows or hides the translucent highlight band across the script, independently of the arrows (default on). Not shown while the cue indicator is Off.
Cue indicator	Position	The vertical position of the cue line, 25 to 75 percent from the top of the screen, in 5 percent steps (default 25 percent).

12.3.6 The Reading Cue

The reading cue marks the line the talent should be reading. It consists of two parts:

- **Cue arrows** at the left and/or right edge of the screen, per the Cue indicator setting.
- An optional translucent **highlight band** across the full width of the script.

When following the rundown, each item taken on air aligns its script to the cue line, and the auto-roll keeps the current text passing through it. The cue's vertical position is adjustable in the settings.

Some talent find the full-width band distracting at large studio text sizes. The **Highlight band** setting turns the band off while keeping the arrows, matching the arrow-only cue of traditional prompters. Setting the cue indicator to **Off** hides everything, band and arrows alike.

While the Prompter is reading ahead over an item with no script, the band and the arrows turn amber as a reminder that the text on the cue line is not yet on air.

12.3.7 Manual Transport

For rehearsal, or whenever the operator wants full control of the pace, switch **Follow the rundown** off (the **F** key). The state strip reads MANUAL and the Prompter no longer reacts to takes; the script moves only when the operator drives it:

- Start and pause the roll with the play button or **Space**.
- Adjust the pace with the speed slider or the **Up** and **Down** arrow keys.
- Change the text size with the slider or the **+** and **-** keys.
- Step to the previous or next item with **Page Up** and **Page Down**.
- Scroll freely with the mouse wheel or by touch; press **Home** to return to the top.

The same transport controls also work while Follow is on: they simply switch the Prompter to PREVIEW until the next take or a Jump to live.

i Info: The Prompter uses the operating system's *Reduce Motion* accessibility setting. With it on, jumps between items are made instantly instead of being smooth-scrolled. The reading roll itself is unaffected.

12.3.8 Keyboard Shortcuts

Press **K** (or select **Help > Keyboard shortcuts**) to show this list in the app.

Command	Keys
Start / pause scrolling	Space
Faster / slower	↑ / ↓
Larger / smaller text	+ / -
Follow the rundown	F
Jump to live	L
Previous / next item	Page Up / Page Down
Mirror horizontally	H
Mirror vertically	V
Cue indicator	C
Scroll to top	Home
Keyboard shortcuts	K

The plus and minus keys work on both the main keyboard and the numeric keypad. Shortcuts do not fire while the keyboard focus is inside a control, a menu or a dialog, so the focused control keeps its own key handling; and the transport keys stay inactive until a rundown is loaded.

12.3.9 Remote Control from Smart Panel

The Prompter can be driven from a Smart Panel:

- A panel button with the **Prompter Play/Pause** action starts and pauses the roll. The play/pause state is shared, so every open Prompter window starts and stops together.
- The **Prompter** widget embeds the live prompter output in a panel, script only with no controls, for confidence monitoring alongside other panel items.

Display preferences (font, text size, mirroring, the cue indicator) remain local to each Prompter window and are not affected by remote control.



Tip: To add buttons and widgets to a panel, see the [Smart Panel](#) section of this guide.

12.4 Setup and Administration of Prompter

- [Prerequisites](#)
- [Installation](#)
- [Opening the Prompter](#)
- [Connection to the Viz Mosart Server](#)
- [Optional Server Setups](#)
- [Stored Settings](#)
- [Remote Control](#)
- [Troubleshooting](#)

12.4.1 Prerequisites

- Viz Mosart 5.1.0 or later.
- A running Viz Mosart system. As a minimum, the Viz Mosart Remote Control Service must be reachable, and Manus Administrator must be running with a loaded rundown for a script to appear.
- A modern browser. The latest Chrome or Edge is recommended, as for all Mosart Web Applications.

12.4.2 Installation

The Prompter requires no separate installation and no additional configuration:

- It installs as part of the **Mosart Web Applications** bundle and is listed in the installer's application list.
- It is served from the Mosart Web Apps host at `/prompter` and routed through the Mosart Web Proxy, like the other web applications.

12.4.3 Opening the Prompter

1. Ensure your Viz Mosart system is operating under normal working conditions (Manus Administrator running, a rundown loaded).
2. From the Mosart Web Apps Configuration Tool, select **App Launcher > Prompter**.

On a system configured with multiple studios, the Prompter is opened per studio: the App Launcher opens it against the studio you select, and the app connects to that studio's Viz Mosart server.

12.4.4 Connection to the Viz Mosart Server

The Prompter receives the rundown, the script, and live timing over the same server connection as the other Mosart Web Applications, as defined in the Configuration Tool under *Server Configuration*. By default it connects to the Mosart Web Apps host it was served from, which proxies the connection to the configured Viz Mosart server.

For special setups, the connection can be adjusted with URL parameters:

Parameter	Description
<code>?display</code>	Display-only mode: shows the rolling script and its reading cue only. The control bar, the state strip, the timers, the on-air banner, the connection chip, the placeholder messages and the <i>Edit in Showmaker</i> buttons are all hidden; the thin reading-position progress bar along the bottom edge remains. This is the mode used when the prompter output is embedded in a Smart Panel widget, and it suits any passive output screen.
<code>?signalr=<url></code>	Overrides the address of the Viz Mosart server connection (the Mosart SignalR hub), for example <code>?signalr=http://mosartserver:55167/mosarthub</code> . Normally not needed; the default routing through the web proxy is recommended.
<code>?studioId=<id></code>	Connects the Prompter to a specific studio on a multi-studio system. Set automatically when the app is opened from the App Launcher; useful when bookmarking a prompter display for a particular studio.

Note: The two address parameters are not combined. If `?signalr` is given, it wins and `?studioId` is ignored, so use one or the other.

12.4.5 Optional Server Setups

Support for Main/Backup Connection

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

Support for HTTPS

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

12.4.6 Stored Settings

All Prompter settings (font, text size, margins, mirroring, speed, Follow the rundown, read-ahead, and the cue indicator) are stored locally in the browser on each machine. Nothing is stored on the server:

- Each prompter position keeps its own setup. A studio prompter screen, the director's laptop, and a presenter's tablet can each hold different text sizes and cue positions.
- Settings survive reloads and browser restarts on the same machine and browser profile.
- Clearing the browser's site data resets the Prompter to its defaults.

12.4.7 Remote Control

The Mosart Web Apps host provides a shared prompter control channel used by Smart Panel:

- A Smart Panel button with the **Prompter Play/Pause** action toggles the roll on every connected Prompter. The button calls the Mosart Web Apps host at `/api/v1/prompter-control/toggle`; the host holds the shared play/pause state and pushes it to every Prompter over the `/prompter-control` WebSocket channel, so the current state is also restored whenever a Prompter reconnects.
- The Smart Panel **Prompter** widget embeds the prompter output (display-only mode) in a panel.
- Display preferences remain local to each Prompter window; remote control affects only the transport.

No additional configuration is required; the control channel is part of the standard Mosart Web Applications installation. Note that it is a separate channel from the Viz Mosart server connection: remote play/pause keeps working even while the Prompter shows *Waiting for the Mosart Server*.

12.4.8 Troubleshooting

Symptom	What to check
<i>Connecting to Mosart... does not go away</i>	The Prompter cannot open its connection to the Viz Mosart server. Check that the browser can reach the Mosart Web Apps host, that the Mosart Web Proxy service is running, and that the proxy can reach the Viz Mosart Remote Control Service on the server configured under <i>Server Configuration</i> in the Configuration Tool.
<i>Waiting for the Mosart Server, or the connection chip shows No Mosart Server</i>	The connection is up, but no live timing has arrived for several seconds. Viz Mosart broadcasts timing about once a second while it is running, so this points at the Viz Mosart side rather than the network. Check that Manus Administrator is running and that the Viz Mosart server is correctly configured under <i>Server Configuration</i> in the Configuration Tool.
<i>No rundown loaded</i>	The connection is healthy. Load a rundown in Viz Mosart and it appears automatically.
<i>On-air item is not in the rundown</i>	An item is reported on air but is not in the loaded running order, so the Prompter has parked rather than rolling stale script. Typical causes are an item removed after the rundown was loaded, a pre-roll, or a stale on-air reference. The warning clears as soon as an item that is in the rundown is taken. Shown only while Follow the rundown is on.
The script does not roll on a take	Check the state strip: it must read FOLLOWING. If it reads MANUAL, switch Follow the rundown on; if it reads PREVIEW, select Jump to live . Also note that an on-air item with no script does not roll; the Prompter reads ahead or holds, per the read-ahead setting.

Symptom	What to check
The Prompter tile in the App Launcher shows a warning icon	The Configuration Tool cannot reach the main Viz Mosart Server for the selected studio, so the Prompter (and the Rundown Viewer) may not function properly. The Configuration Tool's status banner gives the reason: either the Viz Mosart Remote Control Service is not running, or the Viz Mosart Server version may be incompatible with this version of Mosart Web Applications. If HTTPS is used, it must be enabled on both the Viz Mosart Server and Mosart Web Applications. Verify <i>Server Configuration</i> , then check the Viz Mosart web server log files or the Windows Event Viewer logs.
The Smart Panel Prompter Play/Pause button has no effect	The button reaches the Prompter over a WebSocket channel served by the Mosart Web Apps host, not over the Viz Mosart server connection. Check that the Prompter window can reach the host and that WebSockets are not blocked between them. The transport is all the button controls: if the state strip reads MANUAL, the roll starts but the Prompter still does not follow takes.

For general connectivity issues, please also refer to the *Troubleshooting* section for the Mosart Web Applications.

13 Named Overlays Editor

The **Named Overlays Editor** is a web-based tool for creating and managing the named overlay graphics that Viz Mosart triggers during a live show. Named overlays are pre-configured graphics, such as lower thirds, tickers, breaking news banners and full-screen graphics, that are recalled by name from templates and control commands.



Tip: Refer to the [Viz Mosart Administrator Guide](#), section Overlay Graphics Interface > Named Overlay Graphics.

The editor lets users set up overlay graphics from different sources, configure how they behave on air (timing, destination handler, and when they are taken out), and organize them for use in automation workflows. It is part of the Mosart Web Apps package and is served alongside the other Mosart web applications.

13.1 Key Features

- **Create, edit and delete overlay graphics**, with field-level guidance and validation.
- **Viz Pilot Edge integration:** browse graphics templates from a Viz Pilot Data Server in an embedded plugin
- **Custom overlays:** create overlays by hand with full control over every field.
- **NamedCG actions:** have Mosart clear all on-air graphics, or take out a specific graphic, whenever an overlay is taken on air.
- **NCS content placeholders:** map newsroom metadata, such as the story slug or item ID, into overlay content fields for substitution at runtime.
- **XML import and export:** import overlays from XML, including the legacy Mosart `NamedOverlayGraphics.xml` format, and export the current set for backup or migration.
- **Search, filter and sort:** find overlays by text, filter by handler or out mode, and sort by name, handler, provider, or the order they were added.
- **Sync to backup server:** in a main/backup setup, one click copies the main server's named overlays to the backup server, so the two stay aligned. Syncing is not automatic in this version, so run it after changing overlays, but what used to be a manual file exercise is now a single button, with a report of what was copied and removed.
- **Mosart server status:** a live connection indicator for the main and backup servers, right in the toolbar.
- **Thumbnail previews** for Pilot Edge graphics, resolved from the Pilot Data Server.

13.2 Typical Workflow

1. **Configure the graphics provider.** An administrator sets up the Viz Pilot Edge plugin. See *Setup and administration* for details. The provider is optional: custom overlays and XML import work without it.
2. **Open the Named Overlays Editor** from the App Launcher in the Mosart Web Apps Configuration Tool, or browse directly to `/namedoverlayseditor/` on the Mosart Web Apps host.
3. **Add overlay graphics.** Use the sidebar to open Viz Pilot Edge, browse the available templates, and send one to the editor. Alternatively, create a custom overlay by hand.
4. **Configure overlay properties.** For each overlay, set the destination handler, the take-in delay in frames, and when the graphic is taken off air, which can be after a set duration (Timecode), at the end of the background item, at the end of the story, on an open end, or manually. Optionally add NamedCG actions and NCS content placeholders.

5. **Organize and review.** Use search, filters and sorting to manage the overlay list, adjust descriptions and settings, and delete overlays you no longer need.
6. **Back up or migrate.** Export the overlay set to XML for backup or to move it to another environment. In a main/backup setup, use **Sync to backup server** after your changes so the backup carries the same overlays. Overlays themselves live on the Mosart server and are available to automation as soon as they are created.

**Related pages**

- [Working with NOE](#): the interface, adding and editing overlays, actions, placeholders, import and export, and keyboard shortcuts.
- [Setup and Administration NOE](#): prerequisites, provider configuration, authentication and roles, main and backup servers, and troubleshooting.

13.3 Working with NOE

You can create and manage Viz Mosart overlay graphics with the Named Overlays Editor.

- [Overview](#)
- [The Overlay Table](#)
- [Adding Overlays](#)
- [Editing an Overlay](#)
- [Managing Overlays](#)
- [NamedCG Actions](#)
- [NCS Content Placeholders](#)
- [XML Import and Export](#)
- [Keyboard Shortcuts](#)

13.3.1 Overview

The Named Overlays Editor interface consists of the following areas:

- **Toolbar** (top): the search field, three filter dropdowns (handler, out mode, provider), a count of the overlays currently listed, the sort dropdown, the Mosart server indicator, and the help button.
- **Sidebar** (left): **Pilot Edge** opens the graphics plugin panel, **Custom** creates an overlay by hand, and below the separator **Import XML** and **Export XML**. In a redundancy setup an additional **Sync to backup server** button appears.
- **Provider panel** (left, resizable): embeds the Viz Pilot Edge plugin as a panel. The panel width can be resized by dragging the edge.
- **Overlay table** (center): one row per overlay, with sortable columns. Before any overlays exist it shows *No overlays added yet*.



Who can edit

- Creating, editing, deleting and importing overlays requires the administrator role.
- Users with the viewer role see the overlay table and can open properties (editing controls are unavailable).
- When authentication is disabled, everyone is treated as an administrator.
- See [Setup and Administration](#) for role names.

Server Indicator

At the right of the toolbar, a status dot and label show the Mosart server the editor is working against. The label is the server's own name as reported by Viz Mosart, falling back to *Main* when no name is available. The dot distinguishes an active server from an idle one and from a server that cannot be reached, and hovering it shows the server version. In a redundancy setup a second label appears for the backup server.

Help

The **Help** button, marked with a question mark at the right of the toolbar, opens a menu with three entries:

- **About:** Application version and build information.
- **Keyboard Shortcuts:** Keyboard shortcut reference, also listed below.
- **Help:** Introduction to named overlays, with a link to *Named Overlay Graphics* in the Viz Mosart Administrator Guide.

13.3.2 The Overlay Table

Each overlay occupies one row. The columns are:

Column	Shows
(first, unlabelled)	Graphic's thumbnail when one is available, and an icon identifying the provider the overlay came from. Hovering the icon names the provider.
Slug	Overlay name, used to recall it from templates and control commands.
Description	A free-text description.
Handler	Destination handler, for example CG or DSK.
Out on	Graphics Out On mode, for example Timecode or Story end.
In	Take-in delay in frames.
Duration	Duration in frames.
Action	Configured NamedCG action, shown as a small badge, when one is set. Empty when the action is None.
(last, unlabelled)	Row action buttons, that appear on hover.

All columns except **Action** can be sorted by clicking the column header, which is often quicker than the sort dropdown when you are looking for one particular overlay. **In** and **Duration** sort numerically.

Hovering a row reveals three buttons:

- **Edit:** opens the **Edit overlay** dialog.
- **Open graphic:** sends the overlay back to the Pilot Edge plugin for re-editing. It is enabled when the overlay carries a provider element reference, or when it has a graphics ID and a Pilot Edge plugin is configured; otherwise it is greyed out.
- **Delete:** deletes the overlay, after confirmation.

13.3.3 Adding Overlays

There are two ways to add overlay graphics to the editor, plus XML import.

From Viz Pilot Edge

1. Click the **Pilot Edge** button in the sidebar. The Pilot Edge plugin opens in the provider panel.
2. Browse or search for a graphics template in the Pilot Edge interface.
3. Select a template and send it from the Pilot Edge plugin.
4. The editor receives the graphic data and opens the overlay dialog with fields already filled in from the template, including the slug, graphics ID, MOS ID, Pilot template name, and concept.
5. Review and adjust the properties as needed, then confirm.



Tip: When importing from Viz Pilot Edge, the overlay's thumbnail is automatically resolved from the Pilot Data Server and shown in the first column of the table.

Custom Overlays

1. Click the **Custom** button in the sidebar, or press **N**. The **Add custom overlay** dialog opens.
2. Fill in the two required fields, which are marked with an asterisk:
 - **Slug:** the unique name that templates and control commands use to recall this overlay, for example `LOWERTHIRD`. It must be unique across all overlays.
 - **Graphics ID:** the graphic's ID in the graphics system, for example the Pilot element ID.
3. Optionally complete the rest of the dialog, which is organized into **General** (Description and MOS ID), **Integration & Timing** (Handler Name, In, Duration and Graphics Out On), **NCS Content**, and **Actions**.
4. Click **Add**.

Every field has an information icon next to its label with a short description of what the field does.

13.3.4 Editing an Overlay

Double-click a row, or select it and press **Enter**, or click the **Edit** button that appears on hover. The **Edit overlay** dialog opens with the same sections as the add dialog. Click **Save** to apply your changes, or **Cancel** to discard them.

General

- **Slug:** the overlay name. It is read-only once the overlay exists, because templates and control commands refer to it.
- **Description:** free text, shown in the table and in the Overlay Graphics Interface.
- **Graphics ID:** the graphic's ID in the graphics system.
- **MOS ID:** the MOS ID of the graphics device that plays this overlay.
- **Pilot Template** and **Concept:** the Pilot template and concept names, shown only for overlays that came from Pilot Edge, and read-only.

Integration & Timing

- **Handler Name:** the destination handler that plays this graphic, typed as free text. The values Viz Mosart recognizes are CG, DSK, PKSPLIT, LAYOUT, MIXER, VSAR, and CONTENT1 to CONTENT4.
- **In:** the delay in frames from trigger until the graphic is taken. The default is 0, meaning no delay.

- **Duration:** the number of frames the graphic stays on air, used when **Graphics Out On** is set to *Timecode*. The default is 125 frames.
- **Graphics Out On:** when the graphic is taken off air. Nothing is selected by default, so choose one of:
 - **Timecode:** taken out after the configured Duration.
 - **Open End:** stays on air until something else takes it out.
 - **Manual:** taken out manually by the operator.
 - **Background End:** taken out when the background item ends.
 - **Story End:** taken out when the story ends.



Info: **Duration** only affects playout when **Graphics Out On** is *Timecode*. With any other out mode the value is stored but does not control when the graphic leaves air.

Re-editing the Graphic Only

To change the graphic rather than its overlay settings, use **Open graphic** on the row. The Pilot Edge provider panel opens, if it is not already open, with the graphic loaded for editing. Make your changes in the Pilot Edge interface and send the graphic back, and the overlay is updated with the new graphic data.

13.3.5 Managing Overlays

Search

Use the search field in the toolbar to filter overlays by text. The search matches the overlay name (slug), description, handler name, graphics ID, MOS ID, and template type. Press **Ctrl+K**, or **Command+K** on macOS, to focus the search field.

Filter

Three filter dropdowns narrow the table. Each one offers only the values actually used by your existing overlays, so the choices reflect your own overlay set rather than every value the editor supports:

- **All Handlers:** filter by handler name.
- **All Out Modes:** filter by the Graphics Out On mode.
- **All Providers:** filter by where the overlay came from, either Pilot Edge or Custom.

The overlay count next to the filters shows how many overlays are listed, so you can see at a glance how much a filter has narrowed the table.

Sort

Click any sortable column header to sort by that column. The sort dropdown in the toolbar offers the same orderings by name:

- **Newest first** (default): overlays appear in the order they were added, newest at the top.
- **Name (A-Z):** alphabetical order by slug.
- **Handler:** grouped by handler name, then alphabetical by slug.
- **Provider:** grouped by provider, then alphabetical by slug.

Delete

To delete an overlay, click the **Delete** button on the row, or select the row and press **Delete**. A **Delete overlay** dialog asks you to confirm, naming the overlay, for example *Are you sure you want to delete LOWERTHIRD?*

-  **Note:** *Deleting an overlay cannot be undone.* The confirmation dialog is the only safeguard, so check the overlay name before confirming.
- To keep a copy you can restore later, first [export the overlay set to XML](#).

13.3.6 NamedCG Actions

The **Actions** section of the overlay dialog controls what Mosart does to other on-air graphics when this overlay is taken. Choose one of three options:

Action	What it does
None (default)	No action when this overlay is taken. Other graphics are left alone.
Clear	Takes out all on-air graphics. Use it for overlays that need a clean screen before appearing.
Take out	Takes out stored on-air graphics matching a criterion, chosen below.

With **Take out** selected, choose which graphic to remove:

Option	Description
Last	Takes out the last graphic that was taken on air.
Last locator	Takes out the last locator graphic.
Last manual	Takes out the last manually triggered graphic.
Custom regex	Takes out all on-air graphics whose slug matches a regular expression. You can add multiple patterns.

Whatever you choose is shown in the **Action** column of the table, so you can see at a glance which overlays clear or take out other graphics.

13.3.7 NCS Content Placeholders

The **NCS Content** section of the overlay dialog adds placeholders that resolve from the newsroom system at runtime, so a single overlay can carry values from whichever story or item it is played in.

Placeholders are switches, grouped by scope. Turn on the ones you want the overlay to carry:

Scope	Placeholders
Story	Rundown ID, Story ID, Slug
Item	Rundown ID, Item ID, Slug, Type, Variant, Template

Each group also has a **Custom XPath** field with an **Add custom placeholder** button, for pulling a value the standard placeholders do not cover. Enter the XPath expression and add it to the group.

13.3.8 XML Import and Export

Export

To export all overlays as an XML file:

1. Click the **Export XML** button in the sidebar, below the separator.
2. A file named `NamedOverlayGraphics.xml` is downloaded to your computer.

The exported file contains all overlay definitions including their properties, MOS XML content, and configured actions. Use it for backup, for migration between environments, or to import into another instance of the Named Overlays Editor.

Import

To import overlays from an XML file:

1. Click the **Import XML** button in the sidebar.
2. Select an XML file from your computer.
3. If the file contains overlays whose slugs already exist in the editor, a confirmation dialog lists the duplicates and offers **Skip Duplicates**, which keeps the existing overlays, or **Replace Duplicates**, which overwrites them with the imported versions. **Cancel** abandons the import.
4. A notification summarizes how many overlays were added, skipped, or replaced.

Info: Import accepts both the editor's own export format and the legacy Mosart `NamedOverlayGraphics.xml` format. All imported overlays are treated as **Custom** provider overlays.

13.3.9 Keyboard Shortcuts

Select **Keyboard Shortcuts** from the help menu in the toolbar to view this list in the editor.

Keys	Action
Ctrl+K, or Command+K on macOS	Focus search
N	New custom overlay

Keys	Action
Up arrow / Down arrow	Navigate list
Enter	Open properties
Delete, or Backspace on Windows	Delete selected overlay
Escape	Close panel or clear selection

 **Info:** **N** is a plain key press, without **Ctrl** or Command, because browsers reserve **Ctrl+N** for a new browser window. Shortcuts are ignored while a text field, dropdown, or dialog has focus, so they cannot interfere with typing. The shortcuts that create, delete, or modify overlays do nothing for users with only a *Viewer* role.

13.4 Setup and Administration NOE

This page describes how to install, configure, and administer the Named Overlays Editor in a Viz Mosart deployment.

- [Prerequisites](#)
- [Accessing the Editor](#)
- [Authentication and Roles](#)
- [Configuring the Viz Pilot Edge Plugin](#)
- [Main and Backup Servers](#)
- [Troubleshooting](#)

13.4.1 Prerequisites

Requirement	Details
Mosart Web Apps	The Named Overlays Editor is served by the Web Apps server and is included in the Mosart Web Apps installation package. The server must be installed and running.
Viz Mosart automation system	A running Mosart server is required. The editor reads and writes the named overlays on the Mosart server and shows in the toolbar whether it is connected to the main or the backup server.
Viz Pilot Edge (optional)	Required only if you want to import graphics from a Viz Pilot Data Server. Pilot Edge is a web plugin hosted by the Pilot Data Server.
Web browser	A modern web browser. The editor is a single-page application that runs entirely in the browser.

13.4.2 Accessing the Editor

Once the Web Apps server is running, the Named Overlays Editor is served at: `https://<server-address>/namedoverlayseditor/`

Replace `<server-address>` with the host name or IP address of the machine running the Web Apps server. The editor can also be opened from the App Launcher in the Mosart Web Apps Configuration Tool.

If authentication is enabled, you are redirected to a sign-in page before the editor opens. See *Authentication and roles* below.

13.4.3 Authentication and Roles

The editor recognises two roles. You assign them in your identity provider, not in the Configuration Tool, and the editor reads them from the `roles` claim in the user's token.

Role name	What the user can do
<code>mosart-admin</code>	Everything: view overlays, create, edit, delete, import and export them, update a graphic from the provider panel, and sync overlays to the backup server.
<code>mosart-viewer</code>	View the overlay list and overlay properties. No create, edit, delete, import, or sync. The editing controls are not shown.

Assign the roles before you enable authentication

A signed-in user who holds neither role does not get a read-only view. The editor shows an unauthorized-access screen and nothing else, because it fails closed. An identity provider with no Mosart roles configured therefore locks out everybody, which reads as a fault in the editor rather than as missing configuration. Assign a role to every user who needs the editor before you turn authentication on.

The roles must reach both tokens

Two layers check the user, and they read two different tokens:

Layer	Reads	Decides
Mosart Web Apps server	the ID token	whether the editor opens at all, and whether the editing controls are shown
Mosart server	the access token	whether the REST API accepts the request

This is the most common misconfiguration. If the roles are present in only the ID token, the editor looks completely correct and every save fails.

The claim must be flat, top-level, and named exactly `roles`. A nested claim, such as Keycloak's default `realm_access.roles`, is not read: the Web Apps server matches the claim name exactly.

Confirm that your provider emits the claim in both tokens. In Keycloak this means adding a protocol mapper for the roles and enabling it for the ID token and the access token separately. In Microsoft Entra ID, app roles that you have defined and assigned are emitted in a `roles` claim with no further claim mapping.

Where roles are enforced

Hiding the editing controls in the browser is not the whole protection. The Mosart server checks the role on every named overlays REST call, so a viewer cannot create, change, or delete an overlay by calling the API directly.

Info: Enforcement on the Mosart server requires Viz Mosart 5.16 or later with Mosart Web Apps 3.2 or later, and OIDC authentication enabled on the Mosart server itself, under *Remote Controller Service > Security* in the Mosart settings.

With authentication disabled, every user is treated as an administrator, no request is refused, and the roles have no effect.

Messages you may see

Message	What it means
The Mosart Server refused this operation for your user.	You are signed in, but your user does not hold the role this operation needs. Viewing needs <code>mosart-viewer</code> or <code>mosart-admin</code> , changing anything needs <code>mosart-admin</code> . Ask an administrator to assign the role in the identity provider. This is not a certificate or key problem.
The Mosart Server rejected the request as unauthenticated.	No valid credential reached the Mosart server. If you are signed in, your session has most likely expired: reload the page. Only when authentication is disabled does this point at the REST API key, which must match the key in the Configuration Tool. While OIDC authentication is on, the Mosart server ignores the REST API key entirely, so changing that key does not fix this.
No active Mosart Server.	Not a permissions problem. Automation must be running and on air on the main or the backup server before overlays can be loaded or saved.

13.4.4 Configuring the Viz Pilot Edge Plugin

The Pilot Edge plugin panel is configured in the Configuration Tool, on the **Named Overlays Editor** page of **App Configuration**:

1. In the Configuration Tool, open **App Configuration** and select **Named Overlays Editor**.
2. Select the checkbox for **VIZ PILOT GRAPHICS AND ELEMENTS**.
3. Provide values for:
 - **Application URL:** where Viz Pilot Edge is running. Default: `http://localhost:8177/app/pilotedge/pilotedge.html?mosid=pilot&sendbutton`. Enter the host of your Viz Pilot Edge installation if it is not on the same machine.
 - **MOS Plugin ID:** the MOS ID stamped on overlays created from this plugin. Default: `PILOT`.
4. Click **Save**.

Tip: The settings are stored in the `NamedOverlaysEditor` section of the Web Apps server configuration, under `MosPlugins`, with the plugin type `pilot`. Editing the file by hand is not required: the Configuration Tool writes it for you.

Info: The same Configuration Tool page also shows a **VIZ FLOWICS GRAPHICS** section. The Named Overlays Editor does not currently offer a Flowics panel, so those settings have no effect on this editor in this version.

Info: The plugin panel is optional. With no plugin configured, the editor still works for creating custom overlays and for XML import and export.

13.4.5 Main and Backup Servers

The toolbar shows whether the editor is working against the **Main** or the **Backup** Mosart server.

In a redundancy setup, named overlays live on both servers, and the two can drift apart if overlays are edited while one of them is unavailable. To align them, use **Sync to backup server** in the sidebar. It makes the backup server's overlays identical to the main server's: every overlay on the main server is copied across, replacing any overlay with the same slug, and overlays that exist only on the backup are removed. A confirmation dialog appears first, and a notification reports how many overlays were copied and removed.

Note: The **Sync to backup server** button is only shown to administrators, and only when the editor detects that a backup server is configured. In a single-server installation it does not appear at all.

The sync always reads from the main server and writes to the backup server explicitly, so it is safe to run during a failover: it will not copy the backup onto itself. Because it removes overlays that exist only on the backup, make sure the main server holds the set you want before running it.

Where overlays are stored

Overlays are stored on the Mosart server in `NamedOverlayGraphics.xml`, not in the browser and not on the Web Apps host. Any editor instance pointed at the same Mosart server sees the same overlay set, and the overlays are available to Mosart automation as soon as they are created. To keep a copy outside Mosart, use **Export XML** in the editor.

For background on named overlays and how Viz Mosart uses them, see *Named Overlay Graphics* in the Viz Mosart Administrator Guide. The editor links to it directly from **Help** in its help menu.

13.4.6 Troubleshooting

Symptom	What to check
The toolbar does not show a connected Mosart server	Check that the Mosart server is running and reachable, and that the server connection is correctly configured in the Configuration Tool under <i>Server Configuration</i> .
The overlay list stays empty on a server that has overlays	The editor cannot reach the Mosart server. Check the connection indicator in the toolbar and the server configuration.

Symptom	What to check
The provider panel opens but stays empty	The plugin URL is not reachable from the browser. Open the URL directly in the same browser to confirm, and check that the Pilot Data Server is available.
Thumbnails are missing for Pilot Edge overlays	Thumbnails are resolved from the Pilot Data Server. Check that it is reachable from the browser.
Editing controls are missing	The signed-in user holds <code>mosart-viewer</code> rather than <code>mosart-admin</code> . See <i>Authentication and roles</i> above.
The editor shows an unauthorized-access screen instead of opening	The signed-in user holds neither <code>mosart-admin</code> nor <code>mosart-viewer</code> . Check that the role is assigned in the identity provider, and that it is spelled exactly as above: the earlier <code>namedoverlays-</code> names are no longer recognised.
The editor opens and looks correct, but every save is refused	The roles most likely reach the ID token but not the access token. The Mosart server reads the access token. See <i>The roles must reach both tokens</i> above.
Reads work but writes are refused for an administrator	Confirm the role name in the token is <code>mosart-admin</code> , and that the Mosart server was restarted after OIDC authentication was enabled. Every setting under <i>Remote Controller Service > Security</i> requires a restart of the Remote Control Service.
The Sync to backup server button is missing	It appears only for administrators, and only when a backup server is detected. Check the redundancy configuration for the Mosart server.

For general connectivity issues, see section [Troubleshooting](#).

14 Troubleshooting

- [Where to start](#)
- [Web Apps Configuration Tool](#)
- [Sign-in and permission issues](#)
- [Slow loading or a client limit in the live apps](#)
- [Issues with Mosart Web Server Connecting to the Mosart Server](#)
- [Browser Logs](#)

14.1 Where to start

Symptom	Look at
The Configuration Tool reports a service as offline, or a page does not load at all	Web Apps Configuration Tool, below: the proxy, the web applications service, or the external proxy
Apps open, but no rundown data or timers arrive	Unable to reach the Viz Mosart Server, and Issues with Mosart Web Server Connecting to the Mosart Server
Content loads slowly, or only the first 5 to 6 clients work	Slow loading or a client limit in the live apps
Sign-in problems, an unauthorized-access screen, or saves that fail while the app looks fine	Sign-in and permission issues
503 or 504 from a studio route	Not a fault in the Web Apps: no Viz Mosart server in that studio's pair is currently on air

14.2 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.

```

C:\Windows\System32\cmd.e  +  v
Microsoft Windows [Version 10.0.22631.3880]
(c) Microsoft Corporation. All rights reserved.

C:\Program Files (x86)\Mosart Medialab\Mosart Web Apps>Vizrt.Mosart.WebApps.Server.exe
info: Program[0]
      Server is listening on http://*:65142, https://*:65143
info: Program[0]
      Application started.
info: Vizrt.Mosart.Api.Rest.Controllers.Channeltemplates.GalleryController[0]
      GalleryController created
info: Vizrt.Mosart.Api.Rest.Controllers.Channeltemplates.GalleryController[0]
      GalleryController created
fail: ShowmakerApi.Services.MosService[0]
      Failed to connect to ws://localhost:10540/mos/mosartsocket?ncsID=SHOWMAKER.MOS&mosID=MOSART.MOS.SHOWMAKER&channel=
mom #1: Unable to connect to the remote server

```

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

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

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

Review the settings in

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

Start the Mosart Proxy Service in console

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

```

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

```

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

```
C:\Program Files (x86)\Mosart Medialab\Mosart Web Proxy>caddy2.exe run --config "C:\ProgramData\Mosart Medialab\Mosart Web Apps\Caddyfile"
2024/06/27 11:15:20.565 @[34mINFO@[0m using provided configuration {"config_file": "C:\ProgramData\Mosart Medialab\Mosart Web Apps\Caddyfile", "config_adapter": ""}
2024/06/27 11:15:20.567 @[33mWARN@[0m Caddyfile input is not formatted; run 'caddy fmt --overwrite' to fix inconsistencies {"adapter": "caddyfile", "file": "C:\ProgramData\Mosart Medialab\Mosart Web Apps\Caddyfile", "line": 91}
2024/06/27 11:15:20.568 @[34mINFO@[0m redirected default logger {"from": "stderr", "to": "C:\\MMLogs\\Mosart Web Proxy\\general.log"}
Error: loading initial config: loading new config: http app module: start: listening on :80: listen tcp :80: bind: Only one usage of each socket address (protocol/network address/port) is normally permitted.
```

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

A common *offline* error occurs when the Windows service fails to start because its port is already in use. The default port is **65142** for HTTP and **65143** for HTTPS, and it can only be changed in the configuration file at C:\ProgramData\Mosart Medialab\Mosart Web Apps\serverSettings.json.

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

Review the settings in

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

You can also try restarting the service with the **Restart** button in the error message in the Configuration Tool.

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.

```

C:\Windows\System32\cmd.e x + v
Microsoft Windows [Version 10.0.22631.3880]
(c) Microsoft Corporation. All rights reserved.

C:\Program Files (x86)\Mosart Medialab\Mosart Web Apps>Vizrt.Mosart.WebApps.Server.exe
info: Program[0]
Server is listening on http://*:65142, https://*:65143
info: Program[0]
Application started.
info: Vizrt.Mosart.Api.Rest.Controllers.Channeltemplates.GalleryController[0]
GalleryController created
info: Vizrt.Mosart.Api.Rest.Controllers.Channeltemplates.GalleryController[0]
GalleryController created
fail: ShowmakerApi.Services.MosService[0]
Failed to connect to ws://localhost:10540/mos/mosartsocket?ncsID=SHOWMAKER.MOS&mosID=MOSART.MOS.SHOWMAKER&channel=
mom #1: Unable to connect to the remote server

```

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.

14.2.3 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.

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

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

Check the status of the Viz Mosart server

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

HTTP

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

HTTPS

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

Using a Web proxy

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



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

Info: `/status` needs no credential, even when the Mosart server runs with authentication enabled, so it stays usable as a health check. The versioned alias `/api/v1/status` does require one.

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

JSON	Raw Data	Headers
Save	Copy	Collapse All
Expand All	Filter JSON	
state:		"Active"
timeline:		"Running"
autoTake:		false
rehearsalMode:		false
crossoverClient:		false
serverDescription:		"mosart-server-1"

If no response is received:

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

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

- Please review the corresponding version [Release Notes](#) for product interoperability.

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

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

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

- Check the status to the Viz Mosart server as described [above](#).

If the server answers on its status endpoint but requests through the web apps fail with 500 and authentication is enabled, the cause is usually on the Mosart server itself: it cannot reach the identity provider. See the [Viz Mosart Administrator Guide](#), chapter *Security in Viz Mosart Ecosystem*.

14.3 Sign-in and permission issues

These apply when authentication is enabled. The web apps read the user's roles from the token your identity provider issues; roles are never assigned in Viz Mosart. For the full setup and the identity provider requirements, see the [Viz Mosart Administrator Guide](#), chapter *Security in Viz Mosart Ecosystem*, and the [Authentication](#) page.

Symptom	Cause
A signed-in user gets an unauthorized-access screen	That user holds no role for the app. Assign one in the identity provider. Note that a user with no role does not get a read-only view.
Everybody is locked out right after enabling authentication	No roles assigned yet, or the role names do not match. The Named Overlays Editor roles are <code>mosart-admin</code> and <code>mosart-viewer</code> ; earlier documentation used <code>namedoverlays-admin</code> and <code>namedoverlays-viewer</code> , which no current version reads.
An app looks correct, with all its controls, but every save fails	The roles reached the ID token only. They must be present in both the ID token and the access token: the Web Apps server reads the ID token to decide what the app shows, the Mosart server reads the access token to accept or refuse the call.
An unattended screen, such as a wall display, shows a login page some hours after it was started	The <code>offline_access</code> scope is missing in the Scopes field, so the session cannot be refreshed.
The NRCS Plugin stays blank inside ENPS, with no certificate warning	Either the Content Security Policy on the identity provider does not list the ENPS host under <code>frame-ancestors</code> , or the certificate is not trusted on that machine. An embedded plugin often shows no warning at all, just a blank page.
Mosart Server Settings under Help & Resources is dimmed, or asks for sign-in when opened	The settings editor is not enabled on that Mosart server, or OIDC authentication is enabled and the editor has no browser sign-in. See Configuration Tool .
An integration that used to work now returns 401	Expected if it authenticates with the Mosart REST API key: enabling OIDC on the Mosart server switches the key off.

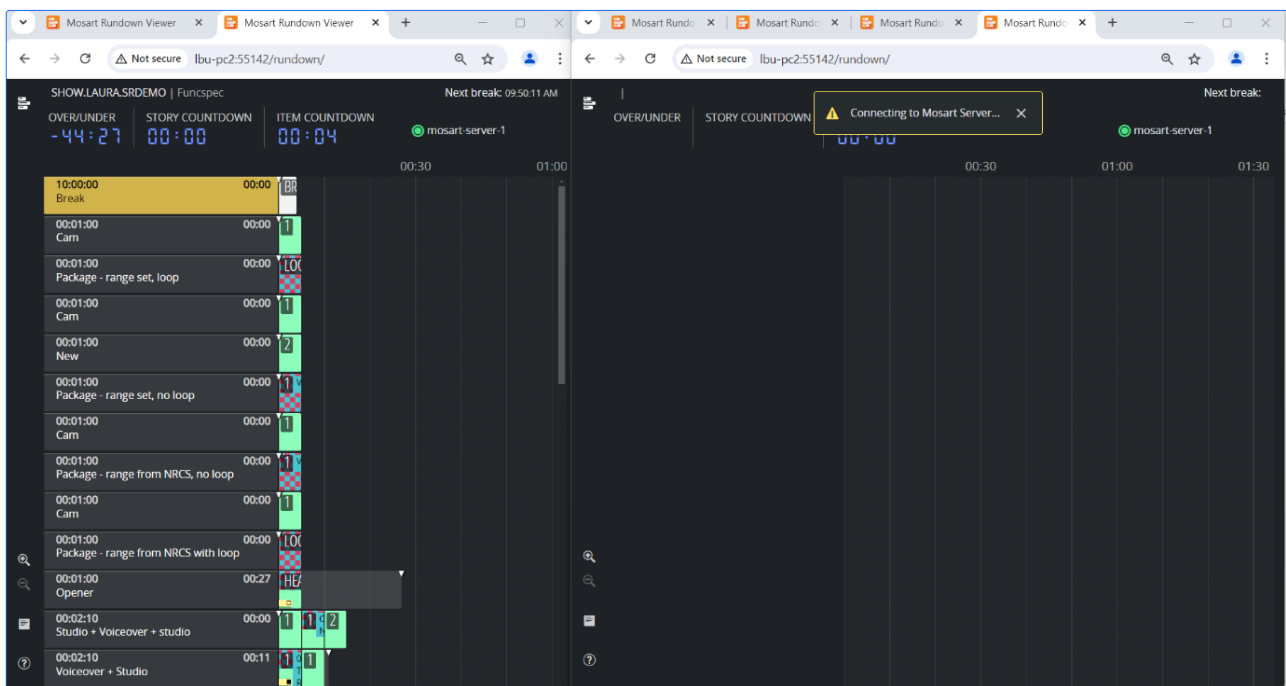
14.4 Slow loading or a client limit in the live apps

If you experience the following issues with the live apps (Rundown Viewer, Smart Panel, Prompter):

- 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.

14.5 Issues with Mosart Web Server Connecting to the Mosart Server

14.5.1 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 **SignalR allowed origins** lets you specify an exclusive list of origins that may access the SignalR service used for communication with the RCS.

To configure it, open the Mosart settings on the Viz Mosart server, from Manus Administrator (type *settings* in the console), AV Automation or Media Administrator, and go to **Remote Controller Service > Security**:

1. Set **SignalR allowed origins** to a semicolon-separated list of origins, including the fully qualified domain name of your Mosart server, for example `https://app.example.com;https://admin.example.com`. Left empty, the auto-detected host names are used.
2. Restart the Mosart Remote Control Service. The setting is marked "Requires restart".

 **Note:** For Mosart applications that rely on SignalR for real-time communication, such as the Rundown Viewer, Smart Panel and Prompter, defining the allowed origins is essential when a failure to recognize an FQDN prevents communication with the RCS.

 **Info:** In earlier versions this value was set as `SignalRAllowedOrigins` by hand in the RCS configuration file *RemoteDispatcherServiceConfig.xml*. Use the setting above instead; a value edited directly in the installation folder can be replaced on upgrade.

14.5.2 Firewall Ports

- Ensure the default ports have access.

14.6 Browser Logs

14.6.1 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:

Application	Address
NRCS Plugin	<i><code>http(s)://<your-hostname>:<web-proxy-port>/plugin/?nrCS=ENPS&mosid=mosart</code></i>
Rundown Viewer	<i><code>http(s)://<your-hostname>:<web-proxy-port>/rundown</code></i>
Smart Panel	<i><code>http(s)://<your-hostname>:<web-proxy-port>/smartpanel</code></i>
Prompter	<i><code>http(s)://<your-hostname>:<web-proxy-port>/prompter</code></i>
Showmaker	<i><code>http(s)://<your-hostname>:<web-proxy-port>/showmaker/</code></i>
Named Overlays Editor	<i><code>http(s)://<your-hostname>:<web-proxy-port>/namedoverlayseditor</code></i>
Template Editor	<i><code>http(s)://<your-hostname>:<web-proxy-port>/templateeditor</code></i>

In a multi-studio installation, add `?studioId=<studio>` to open a studio-scoped app against that studio.

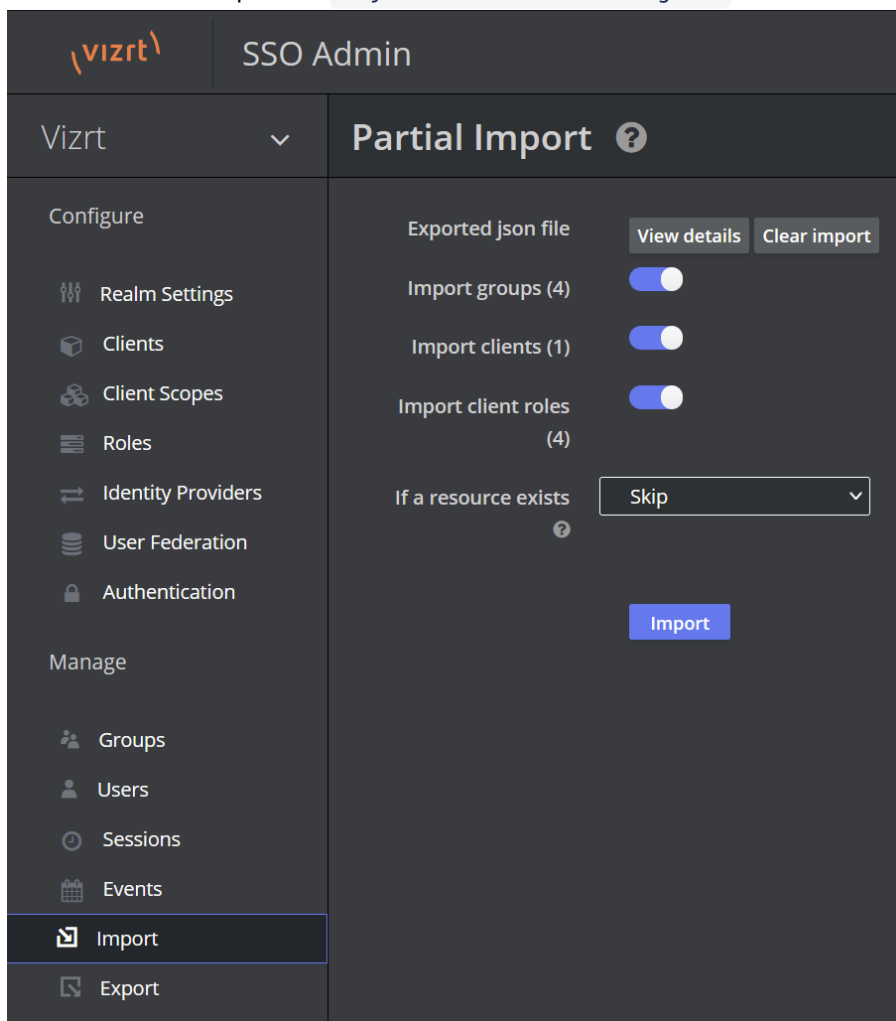
2. Type **CTRL+Shift+I** (this is a toggle) in the browser and inspect the **Console** tab or the **Network** tab.

15 Appendix

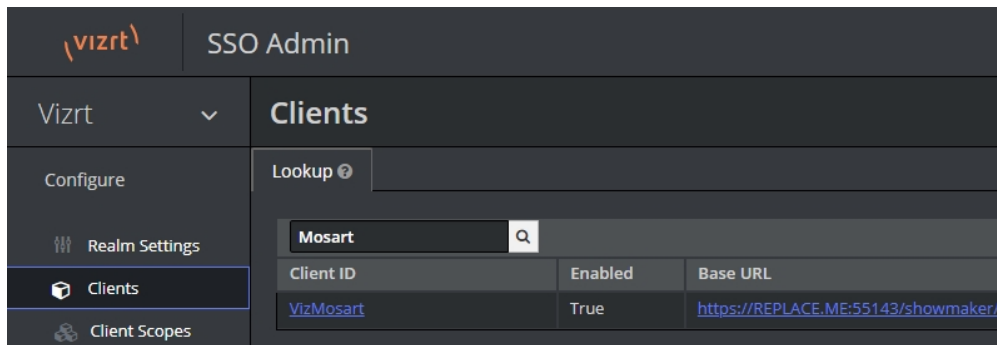
15.1 Vizrt SSO (Keycloak)

To connect the Mosart Web Applications to a Vizrt SSO (for example, when running together with a Viz One authenticated by SSO), perform the following steps:

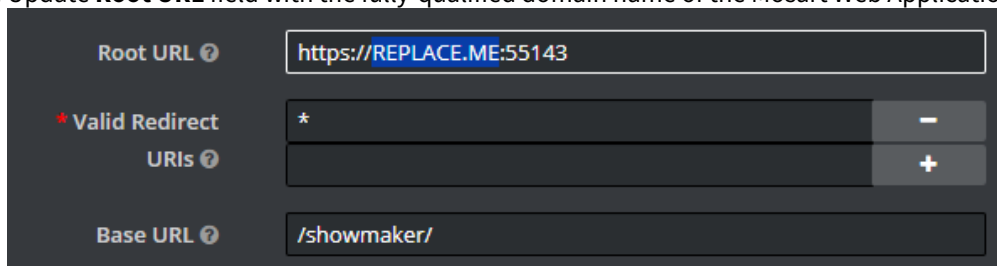
1. Download the `keycloak-mosart-sso.json` file from the same folder that you got the installer on [Vizrt's FTP](#) server.
2. Log in to the Viz One SSO Admin pages, and go to the **Import** tab in the left menu.
3. Click **Select file** and pick the `keycloak-mosart-sso.json` file.



4. Review the options and when ready, click **Import**.
5. Go to the **Clients** tab, find and open the *VizMosart* client that was just imported.



6. Update **Root URL** field with the fully-qualified domain name of the Mosart Web Applications server.

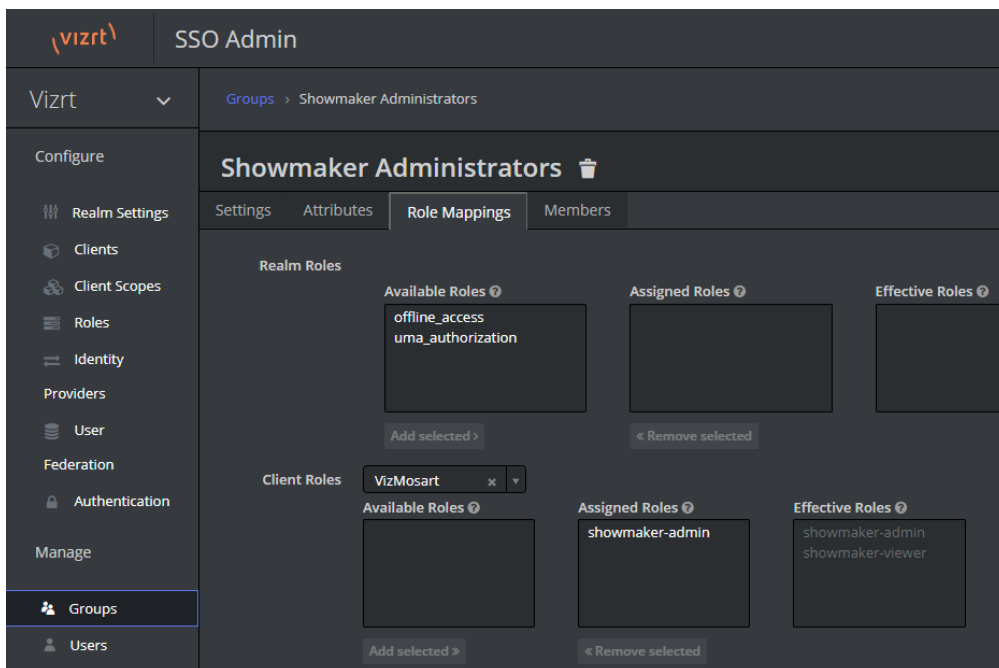


7. Manage users and groups to assign the two Mosart Web Application roles as desired. The roles are defined by the selected **Client ID** *VizMosart*, as shown in the screenshot. The imported configuration includes example groups which you can use as-is, customize, or replace with your own groups.



Info:

- Groups do not directly grant permissions, they assign corresponding *roles* to all group members.
- Roles grant user permissions.
- The *showmaker-admin* role implicitly grants *all* other Pilot roles.



8. Use the Configuration Tool to configure OIDC settings for the target server.
 - a. **Issuer URL** is typically the Viz One server's base URL followed by `/auth/realms/Vizrt`.
 - b. **Client ID** must be `VizMosart` when using the imported configuration.

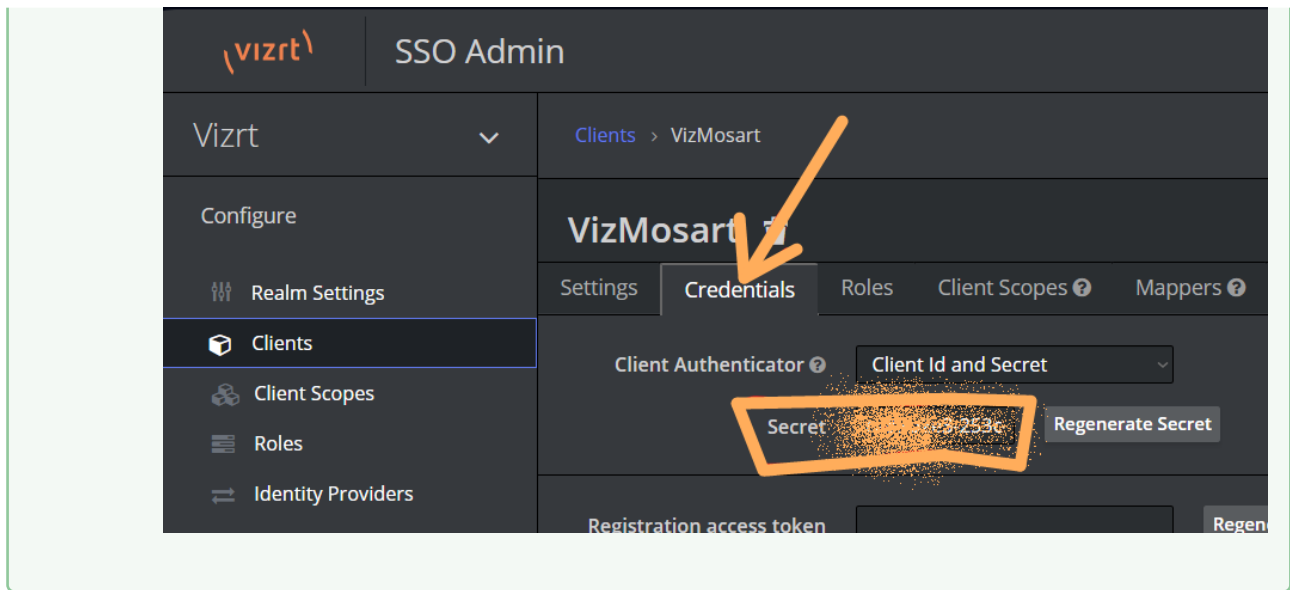
☒ Authentication
OpenID Connect enables the application to launch sign-in flows and receive verifiable answer about the current user.

Issuer URL ⓘ

Client ID ⓘ

Secret ⓘ ⓘ

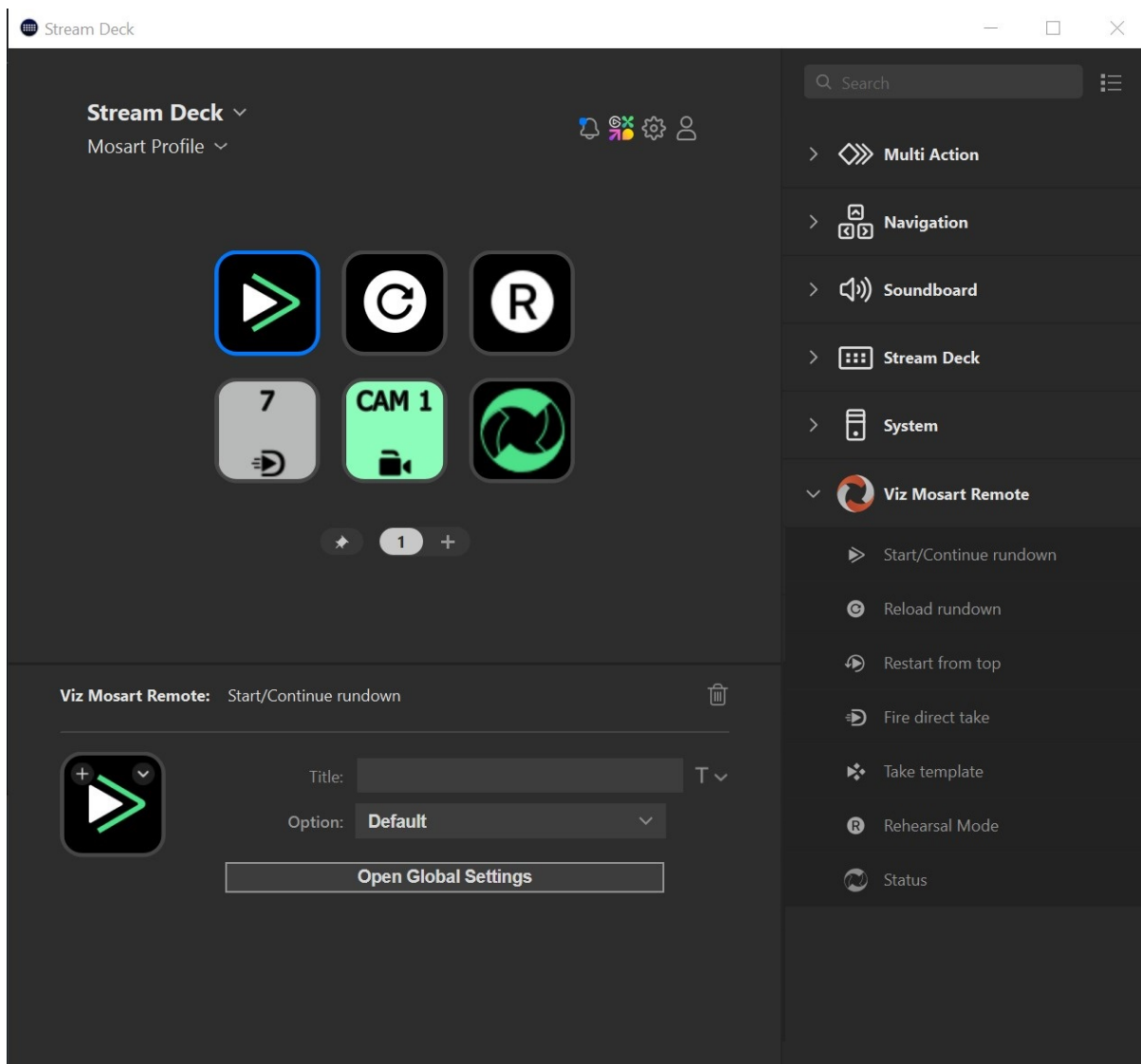
- ✓ **Tip:** The *Secret* key can be obtained from the Vizrt SSO Administration console.
- Select **Clients > Credentials** (tab).
 - Copy the value of **Secret**.



15.2 Elgato Stream Deck Plugin

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 Viz Mosart server and all actions are triggered without needing a Mosart GUI open, active or in focus.



- [Installation](#)
- [Configuration](#)
- [Actions](#)
- [Status](#)

15.2.1 Installation

Software Download

To download Stream Deck for Windows

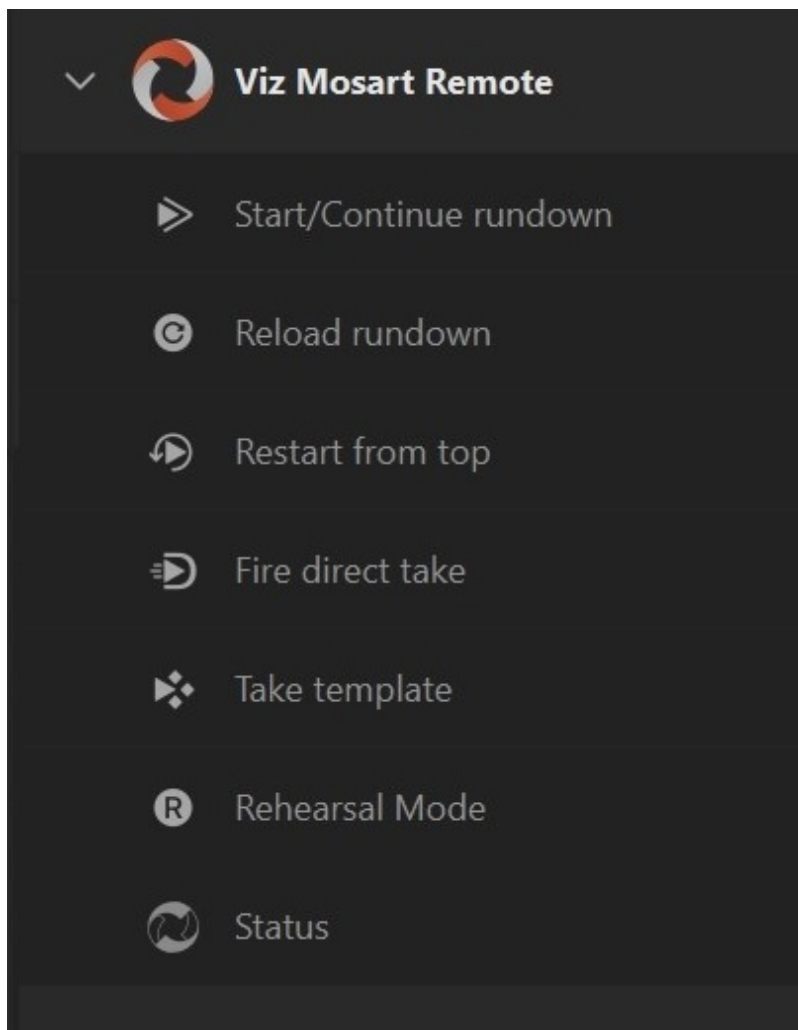
1. From Elgato's site, <https://www.elgato.com/us/en/s/downloads> select *Stream Deck for Windows* software and download.
The Stream Deck utility starts up automatically after install.

 **Info:** 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:** Viz Mosart Web Apps has to be installed if you want to use the Stream Deck plugin with Mosart

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.

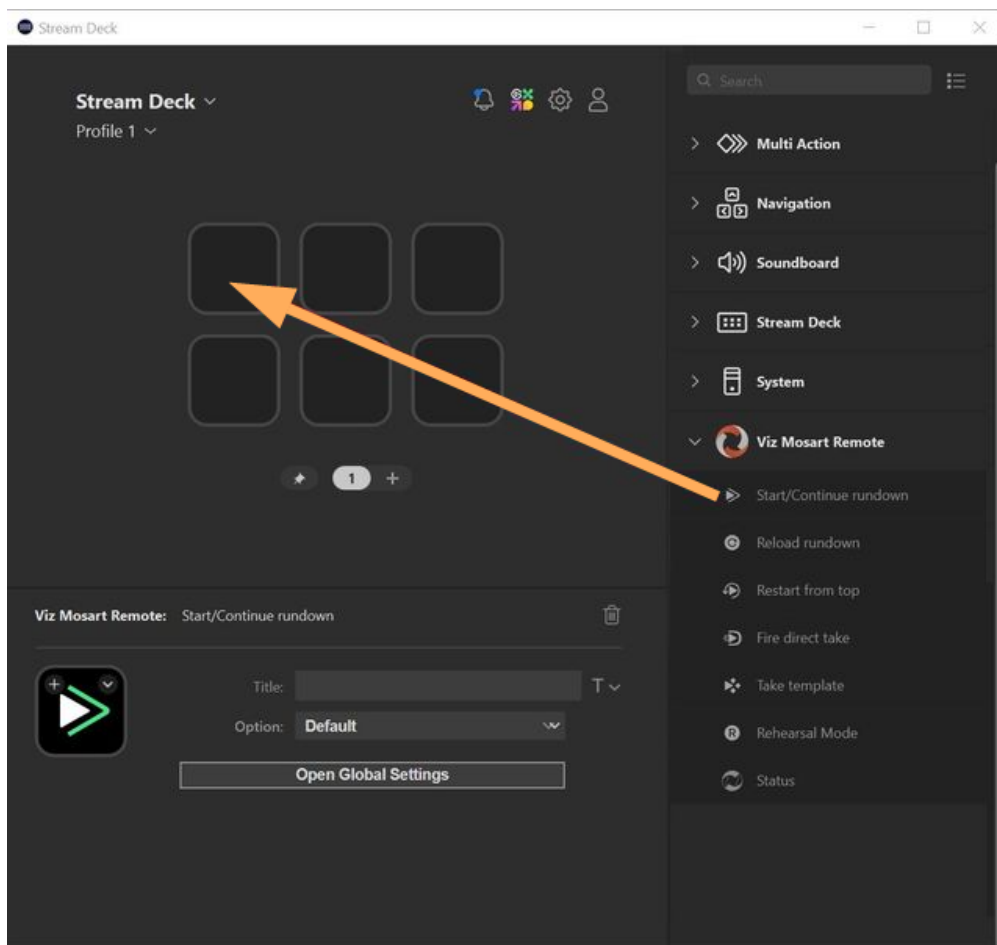


15.2.2 Configuration

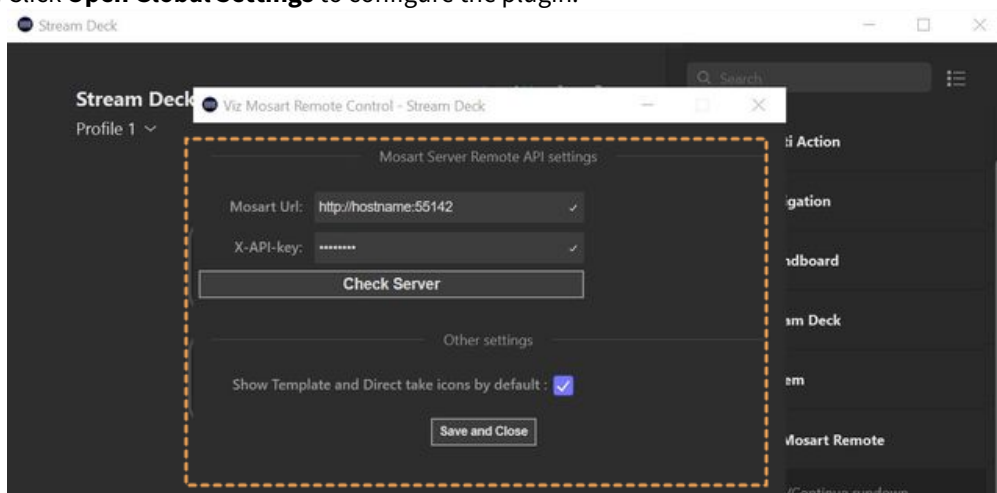
Configuring the Mosart Host

To configure the Viz Mosart host

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



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



3. In field **Mosart Url**, enter the URL of the hostname of where your Mosart Web Applications are installed (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.

i Info: 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.

i Info: 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).

15.2.3 Actions

- [Start/Continue Rundown](#)
- [Reload Rundown](#)
- [Restart from Top](#)
- [Fire Direct Take](#)
- [Take Template](#)
- [Rehearsal Mode](#)
- [Skip Next](#)
- [Unskip Next](#)
- [Control Command](#)

Start/Continue Rundown

Start or Continue a rundown. This action is the equivalent of a Mosart GUI timeline key, *Start Continue*.

Options

- **Default:** The next template's default transition.
- **Mix or Wipe:** Presents the *rate* entry field.
- **Effect:** The number of the effect.

Reload Rundown

This action triggers a rundown reload event. The timeline is stopped and the current rundown reloaded from the NRCS. No additional parameters.

Restart from Top

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

Fire Direct Take

Trigger a given Direct Take template. You must provide the *number* of the desired template. You can also optionally show or hide the Direct Take icon.

Take Template

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

- **Template Type:** Selection of template type first to be used. For example, *Camera*, *Package*.
- **Variant:** Exact variant name derived from your *channel templates* belonging to the chosen template type.
- **Program/Preview:** Select the preferred way of inserting this template into the current running story
- **Show Icon:** Show/Hide the Template type icon on the Stream Deck device button.

Rehearsal Mode

Choose whether to enable/disable/toggle Rehearsal mode.

A Rehearsal Mode icon on the Stream Deck device displays *yellow* when Rehearsal Mode is activated, either from this action or from the Mosart GUI.

Skip Next

By choosing *Skip Type* in the drop-down menu, the user can skip either the next item or sub-item, in the rundown.

Unskip Next

By choosing *Skip Type* in the drop-down menu, the user can unskip (undo) a skipped item or sub-item, in the rundown.

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: For 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*.

15.2.4 Status

The status of the current connected server is displayed.

 GREEN: Connected

 YELLOW: Standby/Idle

 RED: Not connected

This key is disabled on the Stream Deck device, pressing performs no action.



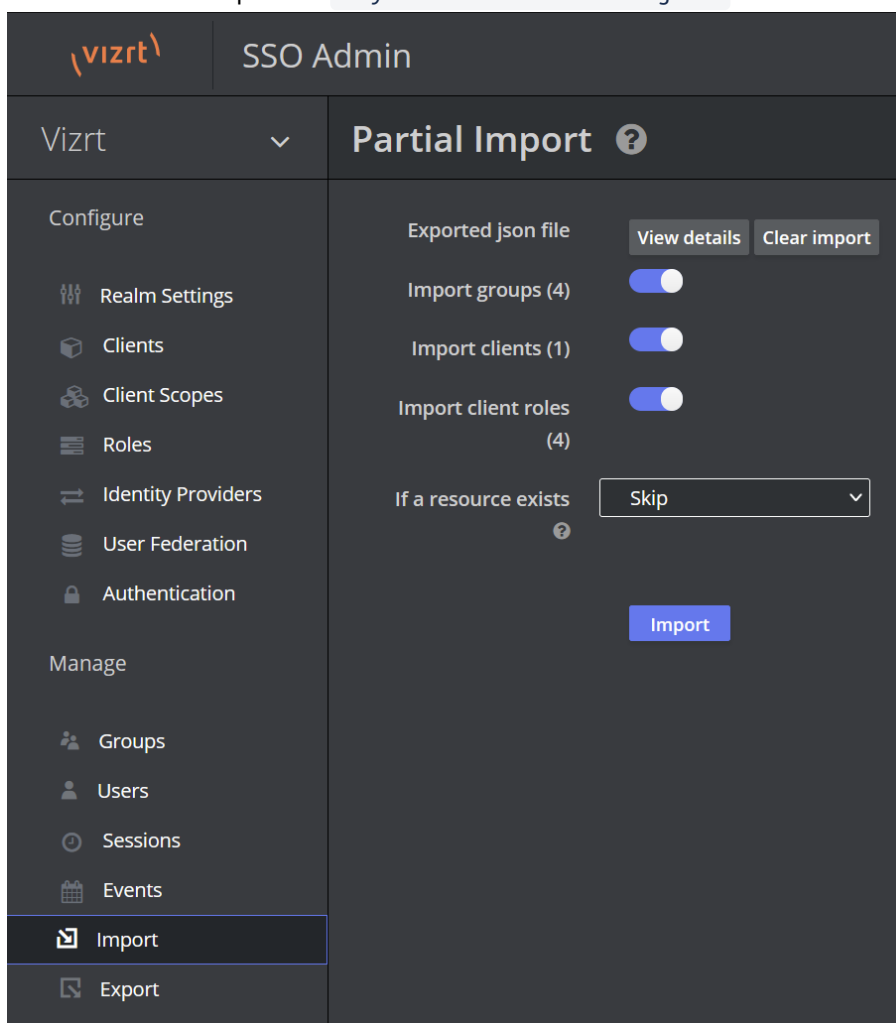
Note: When installing the Mosart Plugin, you may need to close and reopen the Stream Deck client application, to enable displaying of *status*.

15.3 Vizrt SSO (Keycloak)

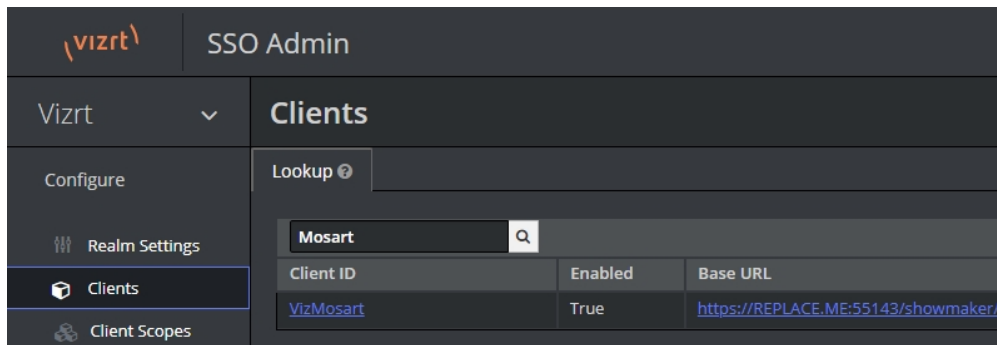
15.3.1 Working with Vizrt SSO (Keycloak)

To connect the Mosart Web Applications to a Vizrt SSO (for example, when running together with a Viz One authenticated by SSO), perform the following steps:

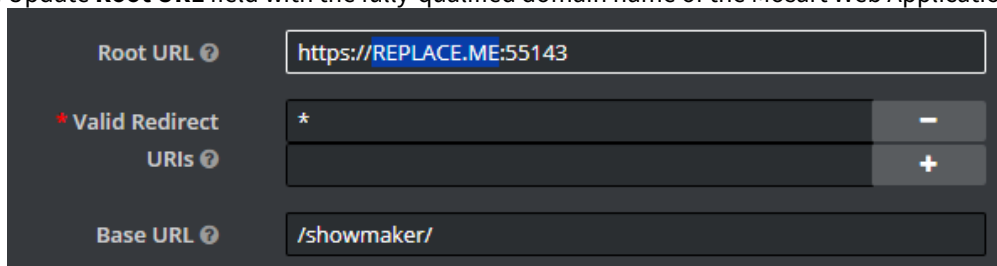
1. Download the `keycloak-mosart-sso.json` file from the same folder that you got the installer on [Vizrt's FTP](#) server.
2. Log in to the Viz One SSO Admin pages, and go to the **Import** tab in the left menu.
3. Click **Select file** and pick the `keycloak-mosart-sso.json` file.



4. Review the options and when ready, click **Import**.
5. Go to the **Clients** tab, find and open the *VizMosart* client that was just imported.



6. Update **Root URL** field with the fully-qualified domain name of the Mosart Web Applications server.

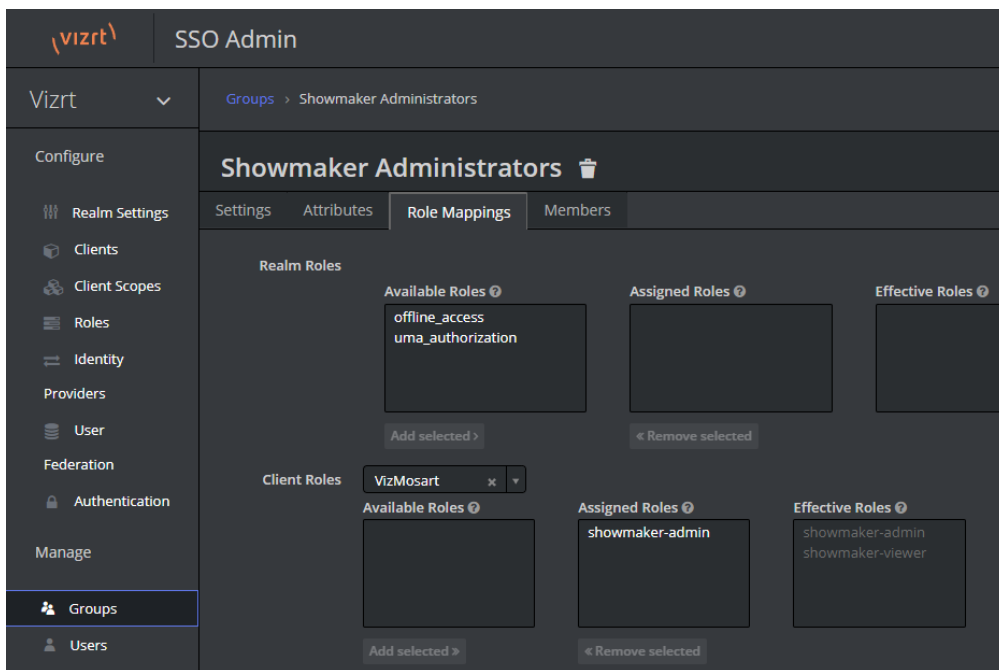


7. Manage users and groups to assign the two Mosart Web Application roles as desired. The roles are defined by the selected **Client ID** *VizMosart*, as shown in the screenshot. The imported configuration includes example groups which you can use as-is, customize, or replace with your own groups.



Info:

- Groups do not directly grant permissions, they assign corresponding *roles* to all group members.
- Roles grant user permissions.
- The *showmaker-admin* role implicitly grants *all* other Pilot roles.



8. Use the Configuration Tool to configure OIDC settings for the target server.
 - a. **Issuer URL** is typically the Viz One server's base URL followed by `/auth/realms/Vizrt`.
 - b. **Client ID** must be `VizMosart` when using the imported configuration.

☒ Authentication
OpenID Connect enables the application to launch sign-in flows and receive verifiable answer about the current user.

Issuer URL 

Client ID 

Secret  

-  **Tip:** The *Secret* key can be obtained from the Vizrt SSO Administration console.
- Select **Clients > Credentials** (tab).
 - Copy the value of **Secret**.

