

SA-CU100

USER GUIDE



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1. About this user guide

Your Starview user guide provides information on installing and using Starview SA-CU100 for Windows software. This guide also provides information on SA-CU100 features and options.



Note: This guide has references specific to version 3.08.00 of the Starview Display Wall driver and version 9.00.00 of Starview SA-CU100 for Windows. If you're using a previous version of the Starview driver or of Starview software, certain references in this guide may not reflect the software you have.



Note: Depending on your Starview hardware and the source type you're using, certain options documented may not be available.

1.1 Using this guide

This guide assumes you're familiar with basic functions like click, right-click and double-click, and that you're familiar with the basics of the operating system you're using. Also, we use the following conventions:

- **Bold** for headings and for references to text that appears on-screen.
- *Italics* for file names, paths, publication titles, and new terms.
- ***Bold Italics*** for emphasis.
- Keyboard keys in square brackets, with a plus sign separating keys that you press simultaneously. For example: press [Ctrl]+[Alt]+[Del] to start Windows Task Manager.
- Arrows (“→”) to separate ordered directions. For example, “click **OK** → **Close** → **OK**” is the same as “click **OK**, then click **Close**, then click **OK**”.
- [Green](#) for cross-references. If you're viewing online, click green text to jump to what's being referenced.

1.2 More information

This guide assumes your Starview product is properly connected. For more information on the connection setup of your product, see the user guide for your Starview hardware.

We provide additional information in help and “Readme” files. Be sure to check for any last-minute release notes included with your product. Also, check the Starview Web site (www.starviewint.asia) for the latest Starview software, technical support, and product information.

2. Overview of Starview SA-CU100

Starview SA-CU100 for Windows is a program that enables you to manage your Starview display wall. You can use Starview software to create, save, and edit layouts so your source content appears where and how you want it.

2.1 Supported Starview hardware

Starview SA-CU100 for Windows supports the following Starview hardware:

- Starview SA-TU101
- Starview SA-RU102

2.2 Supported operating systems

Starview SA-CU100 for Windows supports Microsoft® Windows® 10 (64-bit), Microsoft® Windows® 11 (64-bit), Windows® Server® 2019, and Windows® Server® 2022.

2.3 Required hardware

To run Starview SA-CU100 for Windows, the following hardware is required:

- USB dongle (hardware lock)

2.3.1 USB dongle

A 21-day free trial of Starview SA-CU100 for Windows is available for download. Following the expiry of the 21-day free trial, you must purchase a software license in the form of a USB dongle to continue using SA-CU100 for Windows software.

To purchase a software license, contact your Starview representative.

3. Installing SA-CU100 software

This section describes how to install Starview SA-CU100 for Windows.

3.1 Before you begin

- Make sure Microsoft .NET Framework 4.7 is installed on your system.
- You may need administrator rights to install or uninstall certain software. For more information, see Windows documentation.

3.2 Installing Starview software

Depending on the hardware installed, launch the *SA-CU100Setup.msi* program, then follow the on-screen instructions.

4. Getting started

This section describes how to access SA-CU100 software and provides an overview of the main interface.

4.1 Accessing Starview software

To access Starview SA-CU100, double-click the **Starview software** icon on your desktop.

4.2 Understanding the main interface

SA-CU100 features and controls are divided into categories on the main interface of Starview SA-CU100

The available categories are:

- SA-CU100 – Connect to a controller and specify the settings for your Starview software (see “[Starview software](#)”, page 12).
- Layouts – Configure and manage your layout, specify the settings of your layout, and make your layout active on the Starview display wall (see “[Layouts](#)”, page 17).
- Windows – Manage your stream windows and modify the properties of your windows (see “[Windows](#)”, page 24).
- Sources – Create sources and modify the settings for your sources (see “[Sources](#)”, page 35).
- Encodings – Add, view, and modify the settings used to encode, stream, or record the desktop or sources available to your display wall (see “[Encodings](#)”, page 46).
- View – Create grids and grid lines and preview your sources (see “[View](#)”, page 59).
- Schedules – Schedule your layouts to change at specified times (see “[Schedules](#)”, page 61).

4.3 Understanding the canvas

The Starview software canvas enables you to manually create your layout and to preview it before making the layout active on your Starview display wall. That is, you can use the canvas to manipulate the layout of your displays and to visualize how your displays appear on your display wall.

4.3.1 Adjusting the settings of your layout

The area in the bottom right-hand corner of the canvas enables you to adjust the zoom level.

You can also view the display resolution and position of your window. To change the display resolution and position of your window, see “Settings”, page 25.

4.4 Using the canvas

This section describes how to use your canvas to manually configure your display wall layout. By dragging your windows, you can rearrange your canvas to more closely match the physical arrangement of your monitors.

4.4.1 Shortcut menu



Note: Depending on your Starview hardware and the source type you’re using, certain options documented may not be available.

Use the shortcut menu to quickly modify your display wall layout.

To access the shortcut menu, right-click the windows on your layout. The menu items include:

Delete	Delete a window from your layout. This option also deletes the marquee text from your layout.
Marquee	Add a marquee to your display wall.
Play	Play an application source.
Pause	Pause an application source that’s playing.
Size	Select a predefined size or specify a custom size for your window, or choose to have your window fit your display wall.
Source	Select a source.
Source settings	Create, view, and modify the settings of your input stream.
Window settings	View and modify the settings of your window.
Z-order	Select which windows are in the foreground and which are in the background.

5. Starview software

This section provides information on your SA-CU100 settings and explains how to connect to a controller.

5.1 Connecting to the controller

IP address	When you start SA-CU100 for the first time, you'll be prompted to manually enter the IP address of the controller you want to connect to. If you don't enter an IP address, you'll be prompted each time you start the application until you enter a valid IP address. Once a valid IP address is entered, the IP address is automatically saved. If UPnP is enabled, the controllers currently on the same subnet as your SA-CU100 system will be automatically discovered. To connect to a controller, select the controller from the drop-down list that appears. If you want to run SA-CU100 on the controller, enter <i>localhost</i> as your IP address.
Port	Enter the port address of the controller. If you never changed the port on your controller, we recommend leaving it at 23.
Use HTTPS connection	Enable this option to use an HTTPS connection. If you use an HTTPS connection, change the port address of the controller to 46272.
Password	If the controller you want to connect to is password protected, SA-CU100 will use the password entered, if one was specified If the password specified is invalid, you'll be prompted to specify a new password.

5.1.1 Recent controllers

This lists the most recently used controllers. To connect to a recently used controller, click the controller you want to open.

5.2 Starview software settings

SA-CU100 settings enable you to manage your windows and controllers.

The screenshot shows a settings window with the following options:

- Confirm window deletions
- Allow windows to overlap
- Confirm window relocation
- Start appliance with no background (If not already started, if supported)
 - Windows always on top (If supported)
 - No window frames (If supported)
- Display warning message in background mode when running locally
- Start appliance with no layout
- Start static capture (If supported)
- Update window position dynamically
- Source to use when adding a window: Least used source
- Size and position of added windows: Maintain aspect ratio of output
- Automatically reconnect to last controller
- Keyboard and mouse exit key: Ctrl + F8
- Start appliance automatically (If supported)

Confirm window deletions	This prompts for confirmation every time a window is deleted from the layout.
Allow windows to overlap	This enables windows to overlap one another.
Confirm window relocation	<p>This option is only available if Allow windows to overlap is disabled.</p> <p>When this option is enabled, you're prompted to confirm the operation to perform when an action (such as moving or resizing a window) creates a window overlap.</p> <p>When this option is disabled, any action that creates a window overlap relocates the bottom window to the first location in your layout where no overlap will occur. If that window is too large to fit in the current layout, the window is relocated to the last location available and resized to fit the available area.</p>
Start appliance with no background (If not already started)	<p>If the appliance isn't already started, enable this option to start the appliance without a background. Otherwise, the appliance starts with the default black background.</p> <ul style="list-style-type: none"> ▪ Windows always on top (If supported) – Enable this to have your Starview software windows (your stream windows) always stay on top of other windows. This option is supported only if Start appliance with no background is enabled and No window frames is disabled. ▪ No window frames (If supported) – Enable this to remove the window frames. This option is supported only if Start appliance with no background is enabled.

Display warning message in background mode when running locally	Enable this to confirm that you want to start the appliance with a background. This option is only valid when you are running SA-CU100 on the appliance and Start appliance with no background is disabled. When running SA-CU100 with a background on an appliance, the interface is only visible on a console display.
Start appliance with no layout	Enable this to access your display wall without first loading the layout.
Start static capture (if supported)	Enable this to prevent the automatic reconfiguration of streams. Enabling this optimizes the capture process, but may affect rendering performance.
Update window position dynamically	This enables you to instantly see where the window is being moved on the Starview display wall.
Source to use when adding a window	You can select one of the following options: <ul style="list-style-type: none"> ▪ No source – No source used. A window is added and labeled None. ▪ Least used source – Use the least used source to the window added. ▪ Prompt – Prompt to select the source to use from a list of sources.
Size and position of added windows	Select how windows are scaled when they're added to your layout. You can select one of the following options: <ul style="list-style-type: none"> ▪ Maintain aspect ratio of source – Use the aspect ratio of the source for the window. This option isn't supported if No source is selected. ▪ Maintain aspect ratio of output – Use the aspect ratio of the output for the window. ▪ Use mouse – Use your mouse cursor to manually size and position the window.
Automatically reconnect to last controller	This enables you to automatically reconnect to the most recently used controller every time you start SA-CU100.
Keyboard and mouse exit key	Define a key combination to exit the virtual keyboard and mouse on your display wall when playing an application source.

5.3 Output layout settings

Sets the multi-display setup of your display wall.

Output layout	The number of displays (horizontal and vertical) in your display wall.
Horizontal bezel	The number of pixels added between displays that are next to each other in your display wall. A bezel area can be occupied by a window but won't be shown on your monitors. The maximum bezel is 25% of the width of your display resolution. A negative value creates a display overlap. An overlapping area in your display wall is visible on both adjoining monitors. The maximum overlap is 100% of the width of your display resolution.
Vertical bezel	The number of pixels added between displays that are one above the other in your display wall. A bezel area can be occupied by a window but won't be shown on your monitors. The maximum bezel is 25% of the height of your display resolution. A negative value creates a display overlap. An overlapping area in your display wall is visible on both adjoining monitors. The maximum overlap is 100% of the height of your display resolution.
Display mode	The display resolution and refresh rate for each display in your display wall.
Color decimation	The highest YUV color space available for the videos shown. If a video is using a higher color space than the one selected, the video is shown at the selected color space. Using a lower color space (YUV 4:2:0) may improve performance.
10-bit mode	Enable this to use a display mode with a color depth of 10 bits per pixel instead of 8 bits per pixel.

5.4 Stopping the appliance

To stop your appliance, click **Stop the appliance**. You'll be prompted to confirm your selection.

5.4.1 Starting the current appliance again

Once your appliance has stopped, the software will be locked until you start the appliance again. To start your appliance again, click **Start the current appliance again**.

5.4.2 Connecting to a different appliance

If you want to connect to a different appliance, click **Connect to a different appliance**. You'll be prompted to enter an IP address and a port address for the new appliance you want to connect to. You may also be prompted to enter a password, if one was specified.

5.4.3 Stopping Starview software

Click **Stop SA-CU100** to stop and exit Starview software. Stopping SA-CU100 for Windows doesn't stop the controller.

5.5 About

Provides information specific to your Starview software (such as the version).

5.6 Exit






Click **Exit** to exit and close SA-CU100. Exiting SA-CU100 doesn't stop the controller.

6. Layouts


This enables you to configure and manage your layout, specify the settings of your layout, and make your layout active on the Starview display wall.

6.1 Layout management options

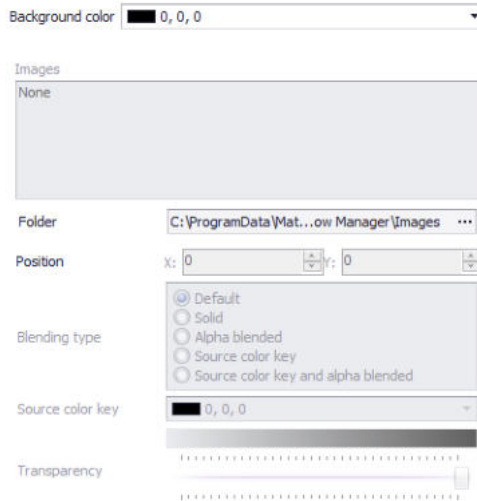
The following describes the basic functions of managing your layouts.

Creating	Click the New () icon, enter a name for your new layout, then click OK . The name field can't be left blank.
Renaming	Click the Rename () icon, enter a new name for your layout, then click OK . Note You can't enter an existing layout name or leave the field blank.
Copying	Click the Copy () icon, enter a name for the layout you want to copy, then click OK . Note You can't enter an existing layout name or leave the field blank.
Deleting	Click the Delete () icon, then click Yes to delete the layout.
Clearing	Click the Clear () icon, then click Yes to clear the windows from a layout.

6.2 Settings

The settings enable you to change the appearance of your layout. To view these settings, click the **Settings** () icon.

6.2.1 Background



Note: Depending on the driver you're using, certain options may not be available.

This option is only available if **Start appliance with no background (If not already started)** in the SA-CU100 **Settings** dialog box is disabled.

Background color	The background color of your layout. Click a color swatch to select that color. You can add a custom color by right clicking one of the color swatches on the bottom two rows.
Images	The background image of your layout. Background images are used at their original resolution and are neither scaled nor tiled on your layout.
Folder	The folder on your controller where your images are located. The default folder referenced for images is: <i>C:\ProgramData\Starview Graphics Inc\Window Manager\Images</i> . (If this folder is hidden, see your Windows documentation for information on how to show hidden folders and files.)
Position	The horizontal (X) and vertical (Y) position of the image on your display wall starting from the upper left corner of the display wall.

Blending type	Select one of the following blending types: <ul style="list-style-type: none"> ▪ Default – The image is solid (opaque). This is the default setting. ▪ Solid – The image is opaque. ▪ Alpha blended – The image is blended with the source content. ▪ Source color key – The image is opaque. The image content that matches the source color key is transparent. ▪ Source color key and alpha blended – The image is blended with the source content. The image content that matches the source color key is transparent. ▪ Destination color key – The content that matches the color key is replaced with the corresponding pixels from the source content.
Source color key / Destination color key	Determines what is transparent according to the blending type.
Transparency	Select the transparency level for your image.

6.2.2 Border

You can change the appearance of your window borders depending on your needs.

Style	The border style for the windows in your layout. You can select one of the following options: <ul style="list-style-type: none"> ▪ None – No border is applied. ▪ Solid – A solid border is applied. ▪ Bumped – A rounded border is applied.
Color	The RGB color of the window border. To select a color, click the color button. This setting has no effect if Style is set to None .
Size	The width, in pixels, of your window border. Some controllers support a negative border size. A negative border is visible inside the window and doesn't increase the window size. This setting has no effect if Style is set to None .

6.2.3 Date and Time

You can change the date, time, and time zone for your controller. Also, you can select if and how the date and time are shown in your layout.

Date and time	The date and time for your controller.
Time zone	The time zone for your controller.

To customize the appearance of the date and time, you can adjust the following settings:

Date format	The format for the date.
Time format	The format for the time.
Font name	The font for the date and time.
Font size	The font size for the date and time. The default is 24 .
Alignment	The alignment of the date and time. Possible values are: <ul style="list-style-type: none"> ▪ Top left ▪ Top center ▪ Top right ▪ Middle left ▪ Middle center ▪ Middle right ▪ Bottom left ▪ Bottom center ▪ Bottom right
Background mode	The background mode for the date and time. You can select one of the following options: <ul style="list-style-type: none"> ▪ Transparent – No background. ▪ Opaque – Background is limited to behind the text. ▪ Opaque full width – Background covers the entire width of the window.
Background color	The RGB color used with an opaque background. If a transparent background is used, this setting is disabled. To select a color, click the color button.
Text color	The RGB color of the text. To select a color, click the color button.
Show/Hide	Click to show or hide the date and time.

A preview of the date and time is shown at the bottom of the dialog box.

6.3 Changing the layout

Starview software allows you to create and preview new layouts, and make them active only when you're ready to go live with your display wall layout.


6.3.1 Preview layout

The Starview software canvas shows a preview of the layout you're currently configuring. This may not be the active layout. The preview shows the dimensions of each output, the setup of your layout, and the windows in your layout.


6.3.2 Active layout

The active layout is the layout currently in use on the Starview display wall.



6.3.3 Make preview layout active

Click the green check mark () icon to set the preview layout as the active layout on the display wall. While a layout is active, the check mark icon turns gray.

6.3.4 Show side panel

With this feature, you can quickly switch between layouts already created. Click the **Show side panel** () icon to view a list of your current layouts on the left-hand side of the screen. When you select a layout from the side panel, the layout is automatically made active.

6.4 Locking the layout

Click the green lock () icon to lock your layout. When a layout is locked, a red lock () appears. While a layout is locked, you can't add, delete, resize, or move your windows. You can only select a different source for your window.

6.5 Managing multiple layouts


This enables you to quickly copy or delete multiple layouts at a time.

6.6 Importing and exporting a layout

Use this option to import or export an existing layout, and apply those settings to another setup.


6.6.1 Exporting

To export an existing layout:

- 1 Click the **Export** () icon.
- 2 Browse to the destination folder where you want to save your layout.
- 3 Enter a name for the layout file you want to export, then click **Save**.

6.6.2 Importing

To import an existing layout:


- 1 Click the **Import** () icon.
- 2 Browse to the folder that contains the layout file.
- 3 Select the layout file you want to import, then click **Open**.

6.7 Marquee

Use this to add, edit, and manage scrolling text (marquee) across your Starview display wall.

6.7.1 Adding and deleting a marquee

To add a marquee:

- 1 Click the **Marquee** icon ()
- 2 Specify the options for your marquee.
- 3 When you're done, click **OK**.

To delete a marquee:

- 1 Select the marquee window in your preview layout.
- 2 Right-click the window, then click **Delete**. You may be prompted to confirm your change.

6.7.2 Marquee options

This enables you to create a marquee across the entire display wall.

To customize the look of your marquee, you can adjust the following settings:

Marquee text	Type the text for your marquee.
Alignment	The Top , Middle , or Bottom alignment of your marquee text. The default is Top .
Height	The height of the marquee text. The default is set to 10% of the vertical resolution of the display wall.
Text color	The RGB color used for the marquee. The default is white.
Transparent	This enables the transparency for the marquee text. When this is enabled, the background color is grayed out.

Background color	The RGB color used for the background. To select a color, click the color button. The default is black.
Font name	The font used for the marquee text. The default is Arial .
Scroll speed	The scrolling speed of your marquee text. The default is 1 .
Blink	This enables your marquee text to blink.
Blink on and off	This sets the blinking rate (on and off) for the marquee text.

7. Windows

This section describes how to manage your windows and modify the properties of your windows.

7.1 Window management options

The following describes the basic functions of managing your windows.

Adding	Click the Add (+) icon. If no free space is available on the wall, other windows will be resized and moved to make room for the new window. If the Use mouse option was selected, you can use your mouse to add a window. For more information, see “ Starview software settings ”, page 13.
Deleting	Select the window you want to delete, then click the Delete (X) icon.

7.2 Defining the Z-order of a window

If windows are overlapping, you may need to control which windows are in the foreground and which are in the background.



Note: This option is available only if windows have been added to the layout.




Note: This option is also only available if the windows are overlapping. To enable window overlapping, enable the **Allow windows to overlap** option. For more information, see “[Starview software settings](#)”, page 13.

The options available in this menu vary depending on whether windows are over or under the selected window.

Send to back	Send the windows to the back layer of the windows.
Send backward	Send the windows backward one layer of windows at a time.
Bring to front	Bring the windows to the front layer of the windows.
Bring forward	Bring the windows forward one layer of windows at a time.

7.3 Settings

The properties enable you to change the appearance of your windows. To view these settings, click the **Settings** () icon.

7.3.1 General





Note: Depending on the driver and product you're using, certain options may not be available.

This enables you to adjust the general settings for your windows.



Label	The name of your window.
Source	The source for the stream in the window.
Left, Top	Enter the position (Left, Top) of the window. Depending on the source type, these settings may have no effect. For more information, see “Adding a source”, page 36 .
Width, Height	Enter the display resolution (Width, Height) for your window.
Maintain aspect ratio	Enable this option to maintain the aspect ratio of your window.
Scaling filter	Choose a scaling filter for your window: <ul style="list-style-type: none">▪ Bilinear (default)▪ Nearest

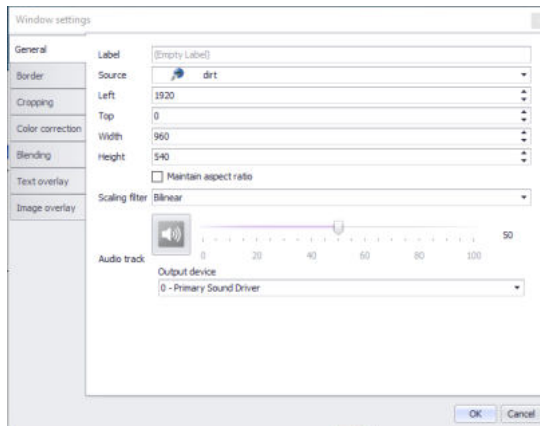
<p>Audio track</p>	<p>Click the audio track () icon to toggle between disabling and enabling the audio of this window. Note: Each window in the layout can play its own audio.</p> <p>Use the slider to set the volume of the audio of this window.</p> <p>From the Output device drop-down list, select the Windows sound device where the audio has to be played (such as your system speaker, monitor, or headphones). The default is Primary sound driver. The Primary sound driver is whatever is set in the operating system's (Windows) sound settings as the default.</p> <p>Note: You can access the Output device setting directly from the window by clicking the audio () icon. You can also access the Audio track settings by right-clicking from the window and selecting the Windows settings option from the context menu that appears.</p>
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7.3.1.1 Select the audio output device

You can select the audio output device through which you would like to hear your video stream's audio. Each window can have the audio playing from a different audio output device simultaneously. For example, for window1 you can have the audio playing from the system's speakers, for window2 from your headphones, and for window3 from your monitor's speakers simultaneously.

To select the output device:

- 1 From the **Windows** menu, click the **Settings** () icon or right-click from the window and select **Window settings** from the context menu options. The **Window settings** screen displays.



2 From the **Output device** drop-down list under the **General** tab, select the audio output device then click **OK**.

- **Primary sound driver** - This is the default audio device that is selected in the Windows Sound settings.
- **[System speaker]** - Audio out of the system.
- **[Monitor]** - Speakers on the monitor.
- **[Headphones]** - Headphone set mapped to the system.

Note: You can also access the **Output device** drop-down list directly from the canvas by clicking on the audio icon from the window.



Note: Once the streaming has started, you cannot disconnect the audio out device. This may lead to undefined behavior.

7.3.2 Border

To customize the look of your window border, you can adjust the following settings:

Style	The border for your window. Possible choices are: <ul style="list-style-type: none">■ Default – The border that was defined for your layout is applied.■ None – No border is applied.■ Solid – A solid border is applied.■ Bumped – A rounded border is applied.
Color	The RGB color of your window border. To select a color, click the color button. This setting has no effect if Style is set to None .
Size	The width, in pixels, of your window border. Some controllers support a negative border size. A negative border is visible inside the window and doesn't increase the window size. This setting has no effect if Style is set to None .

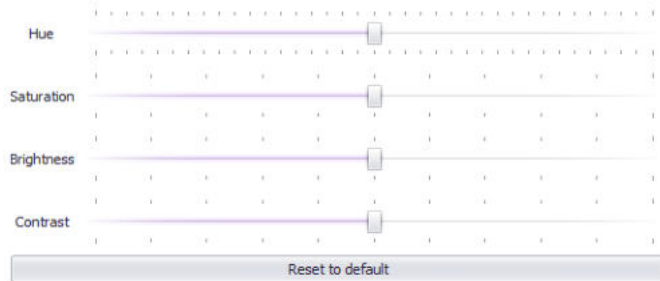
7.3.3 Cropping

Use this to crop the content of your window. Enter the values, in pixels, to crop the **Left**, **Right**, **Top**, and **Bottom** sides of the content of your window. The values listed are based on the original size of the content and may be different than the size of the window.

Click **Reset** to restore window cropping settings to their default values.

7.3.4 Color correction

This enables you to adjust the color settings of your window.



To reset the values to their original levels, click **Reset to default**.

Hue	Increase or decrease the tint or tone of the colors.
Saturation	Increase or decrease the depth of the colors.
Brightness	Increase or decrease how light or dark the colors appear.
Contrast	Change the difference in brightness between the lightest and darkest colors.

7.3.5 Blending

i **Note:** Depending on the driver version and on the product you're using, certain options may not be available.

i **Note:** Depending on the blending type selected, not all options may be available.

7.3.5.1 Blending type

Select one of the following blending types:

Default	The image is solid (opaque). This is the default setting.
----------------	---

Solid	The image is solid (opaque).
Alpha blended	The image is blended with the source content.
Source color key	The image is opaque. The image content that matches the source color key is transparent.
Source color key and alpha blended	The image is blended with the source content. The image content that matches the source color key is transparent.

7.3.5.2 Color key

This is the **Source color key**. This determines what is transparent according to the blending type.

7.3.5.3 Transparency

Select the transparency level for your window.

7.3.6 Text overlay

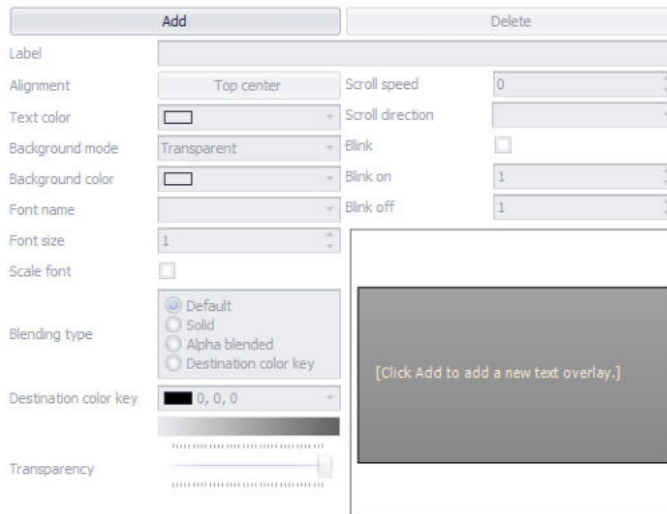


Note: Depending on the driver version you're using, certain options may not be available.

Provides full control of your text overlays by enabling you to adjust such settings as the color of the text, the name and size of the font, the placement of the text, and the scroll speed.

7.3.6.1 Text overlay options

To customize the look of your text overlay, you can adjust the following settings:



Add / Delete	To add a text overlay, click Add , then enter your text next to Label . To edit the properties of a text overlay, select the text in the preview window, then modify its settings. To delete a text overlay, select the text you want to delete in the preview window, then click Delete .
Label	The text of the selected overlay.
Alignment	The placement of the text overlay. Possible values are: <ul style="list-style-type: none"> ▪ Top left ▪ Top center ▪ Top right ▪ Middle left ▪ Middle center ▪ Middle right ▪ Bottom left ▪ Bottom center ▪ Bottom right
Text color	The RGB color of the text overlay. To select a color, click the color button.

Background mode	The background mode for the text overlay. You can select one of the following options: <ul style="list-style-type: none"> ▪ Transparent – No background. ▪ Opaque – Background is limited to behind the text. ▪ Opaque full width – Background covers the entire width of the window.
Background color	The RGB color used with an opaque background. If a transparent background is used, this setting is disabled. To select a color, click the color button.
Font name	The font used for the text overlay. The fonts listed are the ones available on the controller.
Font size	The size of the font used for the text overlay. The default is 24 .
Scale font	Enable this option if you want to scale the font proportionally to the size of the window.
Blending type	Select one of the following blending types: <ul style="list-style-type: none"> ▪ Default – The text overlay is solid (opaque). This is the default setting. ▪ Solid – The text overlay is opaque. ▪ Alpha blended – The text overlay is blended with the source content.
Source color key / Destination color key	Determines what is transparent according to the blending type.
Transparency	Select the transparency level for your text overlay.
Scroll speed	The scroll speed for the text overlay, in the number of pixels the text overlay is moved per frame per second. The default is 0 .
Scroll direction	The scroll direction for the text overlay (Left to right or Right to left).
Blink	Enable this option if you want your text overlay to blink.
Blink on and off	This sets the blinking rate (on and off) for the text overlay.

7.3.7 Image overlay

You can use an image as an overlay over the video input. The image overlay is used over the video input at its original resolution.

7.3.8 Image overlay options

To customize the appearance of your image overlay, you can adjust the following settings:

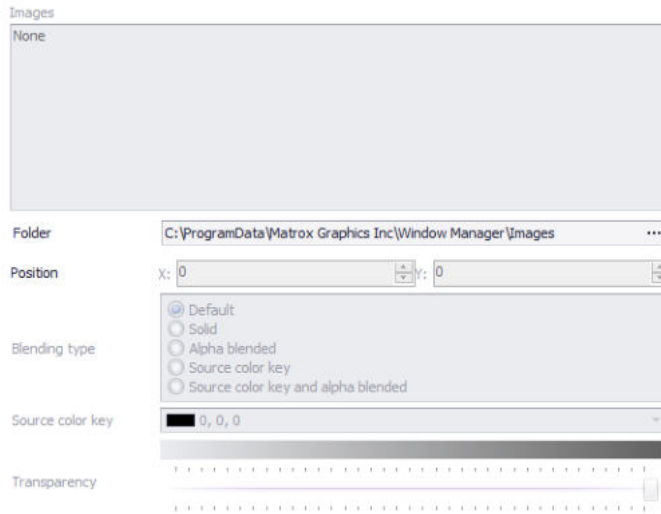



Image	The image overlaid over your window. Overlay images are used at their original resolution and are neither scaled nor tiled in your window.
Folder	The folder on your controller where your images are located. The default folder referenced for images is: <i>C:\ProgramData\Starview Graphics Inc\Window Manager\Images</i> . (If this folder is hidden, see your Windows documentation for information on how to show hidden folders and files.)
Position	The horizontal (X) and vertical (Y) position of the image in your video window starting from the upper left corner of the window.
Blending type	Select one of the following blending types: <ul style="list-style-type: none"> ▪ Default – The image is solid (opaque). This is the default setting. ▪ Solid – The image is opaque. ▪ Alpha blended – The image is blended with the source content. ▪ Source color key – The image is opaque. The image content that matches the source color key is transparent. ▪ Source color key and alpha blended – The image is blended with the source content. The image content that matches the source color key is transparent.
Source color key	Determines what is transparent according to the blending type.

Transparency	Select the transparency level for your image.
---------------------	---

7.4 Show side panel

Click the **Show side panel** () icon to view a list of your windows on the left-hand side of the screen.

Windows are listed according to their Z-order. The first window in the list is the top window on the canvas, and all other windows are underneath it. Selecting a window in the list makes that window the active window on the canvas.

From the side panel, you can also change the Z-order of a window by dragging it to its new position in the list. For more information, see “[Defining the Z-order of a window](#)”, page 24.

While the side panel is visible, the number of a window appears in the upper right corner of the window.

7.5 Pinning a window

When the window is pinned, the content of the window remains at the same size when the window is resized. Resizing the window crops the content of the window.

When the window isn’t pinned, the content of the window scales to the size of the window. Resizing the window doesn’t crop the content of the window.

7.6 Size

Use this to select a predefined or a custom size for your window.


Predefined size	This enables you to select a predefined size for your window.
Custom size	This enables you to specify the size of your window. When you’re done, click OK .
Fit entire wall size	This enables you to resize the window to fit your wall.

7.7 Sources








This shows the list of sources available to the window. The selected source is the source used by the active window.


7.7.1 Source control icons



Depending on your source, the following controls are available by hovering over the window:


- **Keyboard** () – Click this button to use your keyboard and mouse for the application in your video window. To re-enable the use of your keyboard and mouse for your system, use the key combination listed in the lower left corner of your SA-CU100 application window.


These controls are available for windows with the following sources:



- **Third party application** ()
- **VNC viewer** ()
- **Web page (IE)** ()
- **Web page (Chrome)** ()
- **Next** () / **Play-Pause** () / **Previous** () – Use these buttons to pause, resume, and move through the pages of your presentation.

These controls are available for windows with a **PowerPoint presentation** () source.

- **Play/Pause** ( / ) – Click this button to start or pause your stream.


These controls are available for windows with a **VLC stream** () source.

- **Volume** () – Click this button to adjust the volume of the audio source for this window. You can also select the **Output device** from here. Audio can be played on all the sources.

If a stream has an audio source, the volume button has a green check mark () in its lower left corner. If no audio source is present, the volume button has a red no-signal mark () in its lower left corner.

These controls are available for windows with the following sources:

- **SDI** ()
- **HDMI** ()
- **DisplayPort** ()
- **IP source** ()
- **Zoom In** () / **Reset Zoom** () / **Zoom Out** () – Use these buttons to change the size of the content inside your video window.














These controls are available for windows with a **Web page** () source.

8. Sources

This section describes how to add, view, and modify the settings for your sources.

8.1 Source management options

The following describes the basic functions of managing your sources.

Selecting a source	Select a source from the drop down menu.
Adding	To add a source, see “ Adding a source ”, page 36.
Renaming	To rename a source, click Rename , enter a new name for your source, then click OK .
Deleting	To delete a source, select the source you want to delete, then click Delete . Not all source types can be deleted.
Playing	If a source is added to a window, that window is labeled with an icon to identify the type of source. Depending on your source, the following icons may appear: <ul style="list-style-type: none">▪ DisplayPort ()▪ HDMI ()▪ HTML5 ()▪ Image ()▪ IP source ()▪ PowerPoint presentation ()▪ SDI ()▪ Source touring ()▪ Third party application ()▪ VLC stream ()▪ VNC viewer ()▪ Web page (IE) ()▪ Web page (Chrome) ()

8.2 Adding a source



Note: Depending on the driver version or the source you're using, certain options may not be available.



Note: While using *only* a SA-RU102 product, IP sources aren't supported.

The following provides information on how to add a source to SA-CU100.

8.2.1 HTML5

- 1 Click **Add**, then enter a name for your source.
- 2 Select **HTML5** for the type of source you want to add, then click **OK**.
- 3 If necessary, adjust the settings, enter the **URI**, and modify the **Render mode** for your source.
- 4 When you're done, click **OK**.

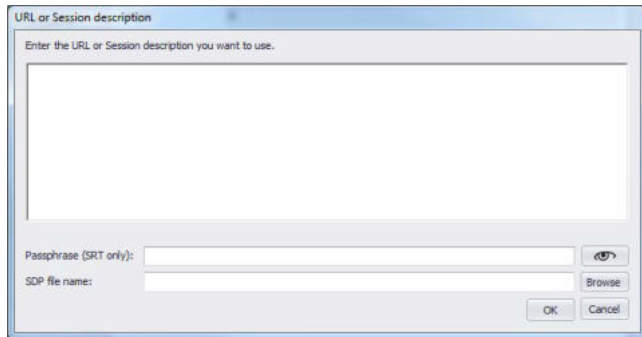
8.2.2 Image file

- 1 Click **Add**, then enter a name for your source.
- 2 Select **Image** for the type of source you want to add, then click **OK**.
- 3 If necessary, adjust the settings for your image.
- 4 Browse to the location of your file.
- 5 When you're done, click **OK**.

8.2.3 IP source

- 1 Click **Add**, then enter a name for your source.
- 2 Select **IP source** for the type of source you want to add, then click **OK**.
- 3 If necessary, adjust the settings for your IP source:
 - a Set the **Rotation**.

- b** Click **Browse** (⋮) to enter the **URL** or the session description for your source. Enter a URL for a stream using RTSP, MPEG-2 TS, or SRT. For a stream using RTP, you can enter a URL or a session description (SDP) in the URL edit box.



For a stream using SRT, you can enter the passphrase in the URL *or* in the passphrase edit box. Click **Show passphrase** (👁) to view the passphrase.

If your session description is saved in a text file, enter the file name in the **SDP file name** edit box or click **Browse** to locate the file. SA-CU100 fills the session description with the file content. The file is used only when configuring the session description. The session description isn't updated automatically.

After entering the URL or session description, click **OK**.

- c** Enable the **Enable auto recovery** option. This enables you to automatically restore a lost connection to an IP source. You can also set the number of auto-recovery attempts and the delay between attempts.
- d** Enable the following advanced options:
- **Connect using multicast first** – This option enables your controller to connect to the IP source using IP multicast. If it's unable to connect using multicast, all other connection attempts will use unicast.
 - **Low latency** – This option enables your controller to reduce the delay between the reception of the stream and its display in the window.
- 4** When you're done, click **OK**.

8.2.4 PowerPoint presentation

- 1 Click **Add**, then enter a name for your source.
- 2 Select **PowerPoint presentation** for the type of source you want to add, then click **OK**.
- 3 Browse to the location of your file.
- 4 When you're done, click **OK**.

8.2.5 Source touring

- 1 This feature enables you to quickly and efficiently cycle through multiple sources.
- 2 Click **Add**, then enter a name for your source.
- 3 Select **Source touring** for the type of source you want to add, then click **OK**.
- 4 A new dialog box will open. Set the **Interval** speed, in seconds, to determine how fast you want your sources to cycle.
- 5 Select the **Sources** you want to use, then move them to the **Selected sources** list.
- 6 Set the order in which you want to view the sources in the **Selected sources** list.
- 7 When you're done, click **OK**.



Note: Source touring does not support audio.

8.2.6 Third party application

- 1 Click **Add**, then enter a name for your source.
- 2 Enter the command executable path for your application.
- 3 When you're done, click **OK**.



Note: When using a third party application as a source, a window may not respect the top and left position set by SA-CU100. Also, some applications may open secondary windows that are undetected by Starview software.

8.2.7 VLC stream

- 1 Click **Add**, then enter a name for your source.
- 2 Select **VLC stream** for the type of source you want to add, then click **OK**.
- 3 Browse to the URI protocol where the VLC stream is located.

- 4 Adjust the volume for the file.
- 5 When you're done, click **OK**.


8.2.8 VNC viewer

- 1 Click **Add**, then enter a name for your source.
- 2 Select **VNC viewer** for the type of source you want to add, then click **OK**.
- 3 Select either **VNC configuration file** or **VNC server**. If you select **VNC configuration file**, choose the proper file. If you select **VNC server**, enter the name of the server.
- 4 When you're done, click **OK**.

8.2.9 Web page (IE or Chrome)

- 1 Click **Add**, then enter a name for your source.
- 2 Select **Web page (IE)** or **Web page (Chrome)** for the type of source you want to add, then click **OK**.
- 3 Enter the URL for the page you want to view.
- 4 When you're done, click **OK**.

8.3 Settings

The properties enable you to change the settings for your sources. To view these settings, click the **Settings** () icon.

8.3.1 General















This provides the general settings for your sources.



Note: Depending on the driver version and on the product you're using, certain options may not be available.



Note: Depending on the blending type and the source selected, not all options may be available.

Width and Height	Specifies the width and height, in pixels, of your source. These fields can only be modified if you're using an HTML5 source.
Type	<p>Specifies the type of connection or source file used by the stream. The possible types are:</p> <ul style="list-style-type: none"> ▪ DisplayPort () ▪ HDMI () ▪ HTML5 () ▪ Image () ▪ IP () ▪ PowerPoint () ▪ SDI () ▪ Source touring () ▪ Third party application () ▪ VLC () ▪ VNC () ▪ Web page (IE) () ▪ Web page (Chrome) () ▪ No source () <p>Also, it specifies if the stream is interlaced or de-interlaced.</p>
Rotation	<p>Change the orientation of your source. You can select one of the following options:</p> <ul style="list-style-type: none"> ▪ 0 degrees ▪ 90 degrees clockwise ▪ 180 degrees ▪ 90 degrees counterclockwise
Color decimation	When enabled, this reduces the colors of the stream from RGB to YUV, and improves performance.
File	Browse to the proper folder.
URL	Browse to the proper folder or URL path of your source.
URI	Browse to the proper folder or URI path of your source.
Enable auto recovery	Enable this to automatically restore the connection to an IP source that was lost.
Auto recovery attempts	Set the number of auto recovery attempts.
Auto recovery attempt delay	Set the delay, in seconds, between the auto recovery attempts.
Connect using multicast first	Try first connecting to the source using IP multicast. If it's unable to connect using multicast, all other connection attempts will use unicast.

Enable low latency	Reduce the delay between the reception of the stream and its display in the window.
Volume	Set the volume level of the audio track.
VNC configuration file / VNC server	Select either VNC configuration file or VNC server . If you select VNC configuration file , choose the proper file. If you select VNC server , enter the name of the server.

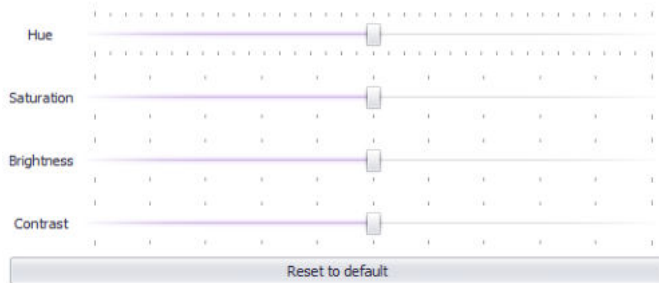
8.3.2 Cropping

Use this to adjust the size of your source. Enter the values, in pixels, to crop the **Left**, **Right**, **Top**, and **Bottom** sides of your source. The sources that can be cropped are IP, Baseband, VLC, Image, and HTML 5.

Click **Reset** to restore window cropping settings to their default values.

8.3.3 Color correction

This enables you to adjust the color settings of your source.



To reset the values to their original levels, click **Reset to default**.

Hue	Increase or decrease the tint or tone of the colors.
Saturation	Increase or decrease the depth of the colors.
Brightness	Increase or decrease how light or dark the colors appear.
Contrast	Change the difference in brightness between the lightest and darkest colors.

8.3.4 Text overlay



Note: Depending on the driver version and on the product you're using, certain options may not be available.

Provides full control of your text overlays by enabling you to adjust settings such as the color of the text, the name and size of the font, the placement of the text, and the scroll speed.

To customize the look of your text overlay, you can adjust the following settings:

<p>Add, Delete</p>	<p>To add a text overlay, click Add, then enter your text next to Label. To edit the properties of a text overlay, select the text in the preview window, then modify its settings. To delete a text overlay, select the text you want to delete in the preview window, then click Delete.</p>
<p>Label</p>	<p>The text of the selected overlay.</p>

Alignment	The placement of the text overlay relative to the window. The possible values are: <ul style="list-style-type: none"> ▪ Top left ▪ Top center ▪ Top right ▪ Middle left ▪ Middle center ▪ Middle right ▪ Bottom left ▪ Bottom center ▪ Bottom right
Text color	The RGB color of the text overlay. To select a color, click the color button.
Background mode	The background mode for the text overlay. The default is Transparent . Select one of the following options: <ul style="list-style-type: none"> ▪ Transparent – No background. ▪ Opaque – Background is limited to behind the text. ▪ Opaque full width – Background covers the entire width of the video output.
Background color	The RGB color used with an opaque background. If a transparent background is used, this value has no effect. To select a color, click the color button.
Font name	The font used for the text overlay. You can only select a font installed on the controller.
Font size	The size of the font used for the text overlay. The default is 24 .
Scale font	Enable this option if you want to scale the font proportionally to the size of the window.
Blending type	Select one of the following blending types: <ul style="list-style-type: none"> ▪ Default – The text overlay is solid (opaque). This is the default setting. ▪ Solid – The text overlay is opaque. ▪ Alpha blended – The text overlay is blended with the source content.
Source color key / Destination color key	Determines what is transparent according to the blending type.
Transparency	Select the transparency level for your text overlay.
Scroll speed	The scroll speed for the text overlay, in the number of pixels the text overlay is moved per frame per second. The default is 0 .

Scroll direction	The scroll direction for the text overlay (Left to right or Right to left).
Blink	Enable this option if you want your text overlay to blink.
Blink on and off	Set the blinking rate (on and off) for the text overlay.

8.3.5 Image overlay

You can use an image as an overlay over the video input. The image overlay is used over the video input at its original resolution.

8.3.6 Image overlay options

To customize the look of your image overlay, you can adjust the following settings:

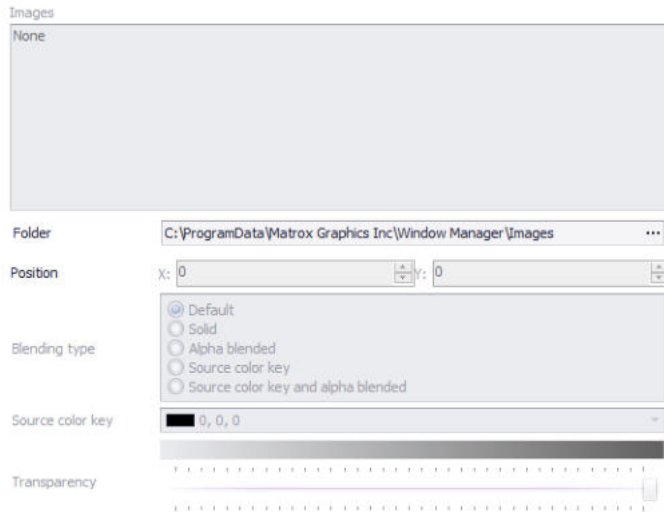


Image	The image overlaid over your source. Overlay images are used at their original resolution and are neither scaled nor tiled.
Folder	The folder on your controller where your images are located. The default folder referenced for images is <i>C:\ProgramData\Starview Graphics Inc\Window Manager\Images</i> . (If this folder is hidden, see your Windows documentation for information on how to show hidden folders and files.)
Position	The horizontal (X) and vertical (Y) position of the image in your video source starting from the upper left corner of the window.


Blending type	Select one of the following blending types: <ul style="list-style-type: none"> ▪ Default – The image is solid (opaque). This is the default setting. ▪ Solid – The image is opaque. ▪ Alpha blended – The image is blended with the source content. ▪ Source color key – The image is opaque. The image content that matches the source color key is transparent. ▪ Source color key and alpha blended – The image is blended with the source content. The image content that matches the source color key is transparent.
Source color key / Destination color key	Determines what is transparent according to the blending type.
Transparency	Select the transparency level for your image.

8.4 Inactive stream

This option lets you determine how an input source will behave if a connection is lost.

Action type	<ul style="list-style-type: none"> ▪ Default – Displays a solid color (black). ▪ Color fill – Displays a solid custom color. ▪ Default image – Displays the default image. ▪ Custom image – Displays a custom image. ▪ None – No action occurs when the stream is inactive.
Action trigger	<ul style="list-style-type: none"> ▪ Detection – When the stream is detected as being inactive. ▪ Inactivity – When the stream is redetected.

8.5 Show side panel

With this feature, you can quickly switch between sources already created. Click the **Show side panel** () icon to view a list of your sources on the left-hand side of the screen. Selecting a source from the list automatically applies it to the active window. You can also drag a source from the list to a window to apply that source.

9. Encodings

This section describes how to add, view, and modify the settings used to encode, stream, or record available sources or a desktop region of your display wall.

9.1 Manage

This provides information (such as type, name, and status) for your recordings, RTSP streams and SRT streams. It also provides options to start/stop, rename, copy, and delete a recording, an RTSP stream, or an SRT stream.

Type	Recording, RTSP stream, or SRT stream.
Name	The name of the Recording, RTSP stream, or SRT stream.
Source	The source used for the Recording, RTSP stream, or SRT stream.
Path / URL	The network path of a Recording or the URL of an RTSP stream or an SRT stream . The URL of an RTSP stream or an SRT stream is only available if the stream is active.
Encoding	The encoding used to create the Recording, RTSP stream, or SRT stream.
Status	RTSP stream or SRT stream – This indicates if the stream is transmitted to the network (Active) or not (Inactive). Recording – This indicates if the recording is recorded on the network path (Active) or not (Inactive).
Start / Stop	Click this to start a Recording, an RTSP stream, or an SRT stream.
Copy	Click this to copy a Recording or an RTSP stream . It's not possible to copy an SRT stream.
Rename	Click this to rename a Recording, an RTSP stream, or an SRT stream.
Delete	Click this to delete a Recording, an RTSP stream, or an SRT stream.

9.2 Encodings

The following describes the basic functions of managing the encoding of a source or desktop. That encoding can then be used to create an SRT stream, an RTSP stream, or a recording.

Selecting an encoding	Select an encoding from the drop down menu.
Adding	To add an encoding, see “ Adding an encoding ”, page 47.
Renaming	To rename an encoding, click Rename , enter a new name for your encoding, then click OK .
Copying	To copy an encoding, click Copy , enter a new name for your encoder, then click OK .
Deleting	To delete an encoding, select the encoding you want to delete, then click Delete .

9.2.1 Adding an encoding



Note: Depending on the driver version or the encoding you’re using, certain options may not be available.

The following provides information on how to add an encoding.

- 1 Click **Add**, then enter a name for your encoding.
- 2 Select **Source** or **Desktop** as the type of encoding you want to add. If you select **Source** as the encoding type, select the **Source** used for your encoding.
- 3 When you’re done, click **OK**.

9.2.2 Settings

This enables you to adjust the settings of your encodings.

Type	<ul style="list-style-type: none"> ▪ Source – Encodes from a source of your display wall. ▪ Desktop – Encodes a region of your desktop.
Source	The physical source or IP source used to encode. This is only available if Type is Source .
Show cursor	Enable this to view the cursor for desktop encodings.
Include audio	Enable this to include audio in the encodings.

Resolution	<p>The resolution of the encoding. The following resolutions are available:</p> <ul style="list-style-type: none"> ▪ Default ▪ QCIF (176 × 144) ▪ CIF (352 × 288) ▪ 4CIF (704 × 576) ▪ D1 PAL (720 × 576) ▪ D1 NTSC (720 × 480) ▪ HD Ready (1280 × 720) ▪ Full HD (1920 × 1080) ▪ Quad HD (2560 × 1440) ▪ 4k/UHD (3840 × 2160) <p>By default, an encoding uses the same resolution as the source.</p>
Frame rate	<p>The number of frames per second used to encode. The maximum supported frame rate is equal to the default frame rate of the encoding type. For a desktop encoding, the default frame rate is set to the refresh rate of the graphics hardware. For a source encoding, the default frame rate is set to the frame rate of the source.</p>
Region	<p>The region of your Source or Desktop used to encode. You need to specify the coordinates of a Source or region of the Desktop to encode.</p>
Configuration status	<p>This displays useful messages when changing the settings.</p>
Encoding profile	<p>The set of parameters used to encode. The following profiles are available:</p> <ul style="list-style-type: none"> ▪ Default – For most streams. ▪ Unknown – Profiles different from the ones predefined in SA-CU100. An Unknown profile was defined using the Straview Network API. ▪ Balanced – Provides a good image quality for most images. ▪ Low motion – Provides a better image quality for static images (such as a computer desktop). ▪ High motion – Provides a better image quality for fast moving images (such as a video). ▪ Low latency – Reduces the delay between the time the video is captured and the time it's available as an encoding.
Reset encoding profile	<p>Resets the settings of the current encoding profile to their default values.</p>

Encoding quality	Select the level of quality for the encoding profile selected. This can range from 1 to 10, with 10 indicating best quality. Modifying this value affects other encoding profile settings.
Chroma sub-sampling	Possible values are: <ul style="list-style-type: none"> ▪ 4:2:0 ▪ 4:2:2 ▪ 4:4:4
Bit rate control	<ul style="list-style-type: none"> ▪ VBR – Variable Bit Rate ▪ CBR – Constant Bit Rate
Bit depth	The number of bits for each color pixel.
H.264 profile	The H.264 profile of the encoding. The profile affects the availability of certain features.
Encoding mode	The mode used to encode the video. <ul style="list-style-type: none"> ▪ Default – The mode best suited for the video capture detected. ▪ High quality – Favors image quality over latency, but may require more delay. ▪ Low latency – Reduces the delay between the time the video is captured on the encoder and the time it's shown on a monitor connected to a decoder. ▪ Desktop – Provides a better image quality for static images (such as a computer desktop).
Target bit rate in Mbps	The target bit rate, in Mbps (megabits per second), for encoding. The actual bandwidth used for your encoding varies according to your source and encoding method. The default is 15.00 Mbps. A lower target bit rate may result in lower image quality. A higher target bit rate may result in lower performance, a higher bandwidth when streamed, and a larger file size when recorded.
Max. bit rate in Mbps	The maximum bit rate for encoding. When encoding, the processor attempts to use the target bit rate but may use up to the maximum bit rate specified. The default is 22.50 Mbps. The maximum bit rate is 200.00 Mbps.
QP minimum	The lowest value for the range of quantization parameters used to compress the various frames.
QP maximum	The highest value for the range of quantization parameters used to compress the various frames. A high maximum increases the level of compression of the frame and should decrease the bit rate but may decrease the image quality.

I-frame interval	A low I-frame interval increases image quality and bandwidth requirements. A high I-frame interval increases image compression and lowers bandwidth requirements.
P-frame interval	A low P-frame interval increases image quality and bandwidth requirements. A high P-frame interval increases image compression and lowers bandwidth requirements.

9.3 RTSP streams

The following describes the basic functions of creating and managing an RTSP stream created from an encoding.

Selecting an RTSP stream	Select an RTSP stream from the drop down menu.
Adding	To add an RTSP stream, see “Adding an RTSP stream” , page 52.
Renaming	To rename an RTSP stream, click Rename , enter a new name for your stream, then click OK .
Copying	To copy an RTSP stream, click Copy , enter a new name for your stream, then click OK .
Deleting	To delete an RTSP stream, select the stream you want to delete, then click Delete .

9.3.1 Adding an RTSP stream



Note: Depending on the driver version or the encoding you're using, certain options may not be available.

The following provides information on how to add an RTSP stream.

- 1 Click **Add**, then enter a name for your RTSP stream.
- 2 Select the encoding you want your RTSP stream to use.
- 3 When you're done, click **OK**.

9.3.2 Settings

This enables you to adjust the settings for your RTSP streams.

RTSP stream	The name of the stream.
Encoding	The encoding used to create your RTSP stream.
Base port	The port number used to transmit your stream. The port number must be a multiple of 6.
RTSP port	The RTSP port number used to transmit your stream.
Suffix	Enter a suffix as part of your stream address. If you're using a media player to decode your stream, the media player may require this as part of the stream address to connect to a stream.
Routing scheme	<ul style="list-style-type: none"> ▪ Unicast – A stream is created for each connection. No additional network configuration is required, because unicast establishes a direct connection between your encoder card and the media player receiving the stream. Since each connection to the stream increases the bandwidth used for that stream, unicast may use more bandwidth. This is the default. ▪ Multicast – A single stream is created for all media players connected to the same multicast address. A stream with a unique multicast address uses less bandwidth. Using multicast may require additional network configuration to support the transmission protocol (some network switches and routers can block multicast signals). For more information, contact your network administrator.

Multicast address	Enter a unique multicast IP address for each stream. Addresses may range from 224.0.0.0 to 239.255.255.255. We recommend using an IP address between 224.2.0.1 and 224.2.255.255. The default is 224.2.0.1. Note: This field is available only when Multicast is selected as the Routing scheme .
Multicast TTL	The number of hops or network nodes (such as network switches or routers) through which a multicast signal can travel. Once the TTL (time to live) number is reached, the receiving network node prevents the signal broadcast further down the network. The value ranges from 1 to 255. The default is 1. Note: This field is available only when Multicast is selected as the Routing scheme .
Reset to default	Click this to reset all encoding settings to their default values.
Configuration status	This displays useful messages when changing the settings.
Status	This indicates if the stream is transmitted to the network (Active) or not (Inactive).
URL	The URL address used by an RTSP client to connect to this stream. The URL is available only while the stream is Active . The URL consists of the internet protocol (<i>rtsp</i>), the IP of your encoder card, the RTSP port, and the RTSP suffix.
Start/Stop RTSP stream	Click this to start or stop transmitting the RTSP stream.

9.4 SRT streams

The following describes the basic functions of creating and managing an SRT (Secure Reliable Transport) stream created from an encoding.

Selecting an SRT stream	Select an SRT stream from the drop down menu.
Adding	To add an SRT stream, see “ Adding an SRT stream ”, page 55.
Renaming	To rename an SRT stream, click Rename , enter a new name for your stream, then click OK .
Deleting	To delete an SRT stream, select the stream you want to delete, then click Delete .

9.4.1 Adding an SRT stream



Note: Depending on the driver version or the encoding you're using, certain options may not be available.

The following provides information on how to add an SRT stream.

- 1 Click **Add**, then enter a name for your SRT stream.
- 2 Select the encoding you want your SRT stream to use.
- 3 When you're done, click **OK**.

9.4.2 Settings

This enables you to adjust the settings for your SRT streams.

SRT stream:

Type:
Encoding:

Base port: Default: 8646
Destination address:
Latency: Default: 40 ms
Encryption: Default: AES-128
Passphrase:

Configuration status: Couldn't apply SRT stream parameters. Destination address isn't supported.

Status:
URL:

SRT stream	The name of the stream.
Encoding	The encoding used to create your SRT stream.
Base port	The port number used to transmit your stream. The default is 8646. The combination of base port and destination address must be unique when transmitting an SRT stream.
Destination address	The IP address of the SRT client receiving the SRT stream. The combination of base port and destination address must be unique when transmitting an SRT stream.
Latency	The maximum buffer size available for managing SRT packets. Default value is 40 ms.

Encryption	The AES encryption level to secure your stream. Possible values are Unencrypted, AES-128, AES-192, or AES-256. The default value is AES-128
Passphrase	The passphrase used to generate the encryption key. To change the passphrase, click Set passphrase and then enter the new passphrase. The passphrase can use any printable character and can be between 10 and 78 characters long.
Configuration status	This displays useful messages when changing the settings.
Status	This indicates if the stream is transmitted to the network (Active) or not (Inactive).
URL	The URL address used by an SRT client to connect to this stream. The URL is only available while the stream is Active . The URL consists of the internet protocol (<i>srt</i>), the destination address, and the base port. It may also include the latency value, the key length, and the passphrase.
Start/Stop SRT stream	Click this to start or stop transmitting the SRT stream.

9.5 Recordings

The following describes the basic functions of creating and managing a recording created from an encoding. The video files created are encoded with an H.264 video and AAC audio codec in MP4 container format.

Selecting a recording	Select a recording from the drop down menu.
Adding	To add a recording, see “ Adding a recording ”, page 57.
Renaming	To rename a recording, click Rename , enter a new name for your recording, then click OK .
Copying	To copy recording settings to a new recording, click Copy , enter a new name for your recording, then click OK .
Deleting	To delete a recording, select the recording you want to delete, then click Delete .

9.5.1 Adding a recording



Note: Depending on the driver version or the encoding you're using, certain options may not be available.

The following provides information on how to add a recording.

- 1 Click **Add**, then enter a name for your recording.
- 2 Select the encoding you want your recording to use.
- 3 Enter a network path including the file name for your recording.
- 4 If credentials are required to access the network path, enter the user name and password to use.
- 5 When you're done, click **OK**.

9.5.2 Settings

This provides the settings for recordings.

The screenshot shows a settings window for recordings. At the top, there's a 'Recording' section with a dropdown menu set to 'New recording', an 'Add' button, and 'Rename', 'Copy', and 'Delete' buttons. Below that is an 'Encoding' section with a dropdown menu set to 'New encoding'. The 'Record to network path' section includes a text field with '\\networkpath\folder' and a three-dot menu. The 'File name prefix' section has a text field with 'Recording.MP4' and a three-dot menu. The 'User name' and 'Password' sections have empty text input fields. The 'Maximum file split length' section has a text input field with '0', a unit dropdown set to 'seconds', and a legend: 'Legend: 0 means unlimited'. The 'Configuration status' section shows 'All recording settings are supported.'. The 'Status' section has a dropdown menu set to 'Inactive' and a 'Start recording' button.

Recording	The name of the recording.
Encoding	The encoding used the create your recording.
Record to network path	The file path where your recording is stored on a network device.

File name prefix	The first part of the file name for your recording. If Maximum file split length is other than 0, SA-CU100 adds a timestamp suffix to the file name prefix to define the file name of your recording. The file type extension (.mp4) is automatically added to the file name when the file is created.
User name / Password	The user name and password to use if your network drive requires user identification.
Maximum file split length (seconds)	Maximum number of seconds of a recording before a new file is created. When set to 0, a single file with no time limit is created. The length of the file may vary by one or two seconds from the specified time. When using multiple files, SA-CU100 adds a timestamp suffix to the File name prefix to define the file name of your recording.
Configuration status	This displays useful messages when changing the settings.
Status	This indicates if the recording is recorded on the network path (Active) or not (Inactive).
Start/Stop recording	Click this to start or stop recording.

9.6 Show side panel

With this feature, you can quickly access the settings and controls for streams and recordings. Enable the corresponding **Show side panel** option to view a list of your streams or recordings on the left-hand side of the screen.

10. View

This section explains how to create grids and grid lines to help you better position your windows and configure your layout.

10.1 Show or hide

This enables you to show or hide various elements (for example, the source logo, output lines, grid lines, Window labels, and source names) on your canvas.

10.2 Snap to

When you create a layout, this feature enables your windows to snap to an object in your layout when you move your windows.


Windows	This snaps the windows to one another.
Output lines	This snaps the window to the lines of the output.
Center of output	This snaps the window to the center of the output. The window must be smaller than the output window.
Center of display wall	This snaps the window to the center of the display wall.
Grid	This snaps the window to the grid lines.
Custom grid lines	This snaps the window to the grid lines you specified. For more information, see “ Grid lines ”, page 59.

10.3 Grid

This enables you to add vertical and horizontal lines to your grid.

10.4 Grid lines

This option enables you to specify the exact position for your grid line.

To add a vertical or horizontal position for your grid line, click the **Add** () icon, then enter the position (in pixels).

To delete a custom grid line, click the **Delete** () icon next to the grid line you want to delete.

10.5 Output labels

This option allows you to show or edit the labels of your outputs.

Show labels	Enable the Show labels option to show the labels of your outputs.
Edit labels	Click Edit labels , enter a new name for the output you want to edit, then click OK .

10.6 Source preview

This option allows you to preview the sources in your canvas. For source preview to work properly, your preview and active layouts must be the same. Otherwise, the windows on your canvas remain gray.

Preview source	Enable the Preview source option to preview your sources.
Frame rate	Adjust the frame rate your for source preview.
Source quality	Adjust the image quality of your source preview.

11. Schedules



Note: Depending on the driver version you're using, certain options may not be available.

This option enables you to schedule your layouts to automatically change at specified times.

From the **Schedule** list, select the schedule you want to use. If you don't want to use a schedule, select **None**.

11.1 Recurring layouts

11.1.1 Interval

Choose this to have selected layouts change at regular intervals.

- 1 Choose an existing schedule or click **Add** to create a new schedule.
- 2 Select **Interval**.
- 3 Set the **Interval** speed, in seconds, to determine how fast you want your layouts to change.
- 4 From the list of **Layouts**, select the layouts you want to use, then move them to the **Selected layout** list.
- 5 When you're done, click **OK**.

11.1.2 Weekly

Choose this to have selected layouts change on scheduled days and times.

11.1.2.1 Adding a new item to the schedule

- 1 Click the **Add** (+) icon.
- 2 Set the **Layout**, **Day**, and **Time**. To change these settings, you can also click the **Settings** (ⓘ) icon next to the item.
- 3 When you're done, click **OK**.

11.1.2.2 Removing an item

To remove an item, click the **Delete** (✖) icon next to the item.

11.1.2.3 Renaming an item

To rename an item, click **Rename**, enter a new name for your item, then click **OK**.

11.2 Scheduled layouts

The **Calendar** feature enables you to create a list of scheduled layouts.

11.2.1 Adding a new item to the calendar

- 1 Click the **Add** (+) icon.
 - 2 Set the **Layout**, **Day**, and **Time**. To change these settings, you can also click the **Settings** (⚙️) icon next to the item.
 - 3 When you're done, click **OK**.
-

11.2.2 Deleting an item

To delete an item, click the **Delete** (✖️) icon next to the item.

11.2.3 Renaming an item

To rename an item, click **Rename**, enter a new name for your item, then click **OK**.

12. Troubleshooting

12.1 Common problems and solutions

This section addresses common problems that could prevent you from using your system or product.

Problem **Unable to connect to a controller**

Cause Communication to the controller isn't being properly established.

Solution Your Starview SA-CU100 software communicates through the telnet port of the controller via TCP-IP. This means that an IP connection from the client needs to be established with port 23 of the controller.

To ensure proper communication, we recommend you do the following:

- Make sure the firewall on both your local and remote systems is properly configured.
- Check the IP configuration of both your local and remote systems.
- Check the physical or wireless network connection.
- Check the configuration of the routers and switches between your local and remote systems.

If problems persist, contact your network administrator.

13. Notes

13.1 General

This section provides more information on issues related to your software.

- Universal Plug and Play (UPnP) is supported with Starview driver version 2.03 or later.

13.2 Sources

This section provides more information on issues related to sources.

13.2.1 Microsoft PowerPoint

- SA-CU100 supports Microsoft PowerPoint Viewer 2010 with Service Pack 1 only.

13.2.2 VNC

- SA-CU100 supports RealVNC viewer version 5.0.3 or later.
- If you specify only a server name, the window automatically scales to fit the wall, regardless of the aspect ratio of the VNC session.

14. Appendix - Creating a display wall layout

Creating a display wall layout involves adding a new layout, adding one or more windows to your layout, selecting a source for your windows, and making your layout active.


14.1 Step-by-step configuration

This section takes you through the step-by-step configuration of your display wall layout.

14.1.1 Create a new layout

When you start MuraControl for the first time, you'll be prompted to create a new layout. To be able to use SA-CU100, at least one layout is required.

To create a new layout:

- 1 Under **Layouts**, click the **New** () icon.
- 2 When prompted, enter a name for your new layout.
- 3 When you're done, click **OK**.




Note: If you don't enter a name for the layout, a default name is assigned. The default name assigned to a layout is **New layout**. The name field can't be left blank.

For specific information about layout settings and options, see [“Layouts”, page 17](#).

14.1.2 Add a window

To add a new window to your layout:

- 1 Under **Windows**, click the **Add** () icon. If no free space is available on the display wall, other windows will be resized and moved to make room for the new window.
- 2 Repeat for every window you want to add.

For specific information about window settings and options, see [“Windows”, page 24](#).


14.1.3 Select your source

To select a source for your windows:

- 1 Select a window from your layout.
- 2 Under **Windows**, go to the **Sources** drop-down menu.
- 3 From the drop-down menu, select a source for your window.

For specific information about source settings and options, see “Sources”, page 35.

14.1.4 Make your preview layout active

When you're done, click the green check mark () icon to set the preview layout as the active layout on the display wall.

15. Customer support

15.1 Starview web

Our website has product literature, press releases, technical material, a sales office list, trade show information, and other relevant material. Visit the Starview website at www.starviewint.asia.

15.2 Technical support

Starview values your business and offers professional support for your Starview product. If you have a problem, we recommend you follow the procedure below for the quickest results.

- 1** Contact your integrator – This is usually the quickest and most effective method of technical assistance. Your integrator is familiar with your complete system. In the case of hardware warranty assistance, the product must be returned to the integrator, who will return it to Starview.
- 2** If your Starview product was provided by your computer manufacturer, contact this manufacturer. For contact information, see your computer documentation or contact the vendor.
- 3** Direct Starview technical support – If you still can't resolve a problem (and your Starview product wasn't provided by your computer manufacturer), you can get technical assistance by contacting Starview technical support at support@starviewint.asia.

15.2.1 Information we need

Please give a complete description of the problem, and include:

- Starview product serial number, model number, revision number, and firmware version.
- For Starview cards – driver type and version, and memory address at which the Starview card is installed.
- Computer brand and model name.
- Monitor brand and model name.
- Operating system, version, and service pack.
- Brand and model of any other cards and devices installed on your system.

15.2.2 Program specific problems

If a problem appears with a specific program, please give us the following information:

- Display settings (color palette, display resolution, and so on) applied when the problem occurs.
- If possible, take note of the file and segment address that caused the problem.
- Detailed steps known to cause the bug, so we can reproduce it.

For technical or sales support, please visit:

www.starviewint.asia

Performance specifications are typical. Due to constant research, specifications are subject to change without notice. For the most up-to-date specifications, please contact an authorized Starview representative.

For assistance with confirming the Jurisdiction & Classification of Starview Asia products, please contact info@starviewint.asia

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