

USER MANUAL

AW Video Perspective Renderer

A Crestron Smart Graphics™ module

V04.01

Developed by



ANALOG WAY®
Pioneer in Analog, Leader in Digital

Description

AW Video Perspective Renderer is a high-end Crestron Smart Graphics™ component (SmartObject™), similar to AW Video Compositor object but with the ability to render Perspective Layers screens and change the source of any layer through drag and drop.

Requirements

This module is supported by any 3-series Crestron's processors as long as these processors provide an Ethernet connection. It will only work with Graphics compliant panels such as TSX Series (TSW, TST, ...), TSD2020, TPMC-V Series (V12, V15, V24), DGE-1, DGE-2, Smart Graphics™ XPanel and web XPanel, windows surface pro (windows 8.1 with adobe air 3.5). Apple iPad, Apple iPhone and Android are not supported yet.

Minimum software versions:

Software	Versions
LiveCore™ firmware	4.00.51 or above
SIMPL Windows	4.09.04.01 or above
VTPro-e	6.2.00.03 or above
Smart Graphics™	2.15.02.09 or above
Device database	96.00.003.00 or above
Crestron database	70.00.001.00 or above
Simpl+ cross compiler	1.3 or above

Module features

- Visualization in real time of a Perspective Layer Screen content (Preview and/or Program) with layer positions and source snapshots.
- Layer source management through drag and drop.
- Customizable look and feel.
- Source panel becomes automatically scrollable when the number of sources exceeds panel bound.
- Source panel can be locked in order to restrict users for changing the source assigned to a layer.
- The scene perspective can be modified to visualize hidden layers.
- An additional panel containing all the system layers is available for people who are not comfortable with the scene perspective.

Installation

To install the package, follow these steps:

- Make sure the Crestron VPro-e application is not running. Locate and double-click the program **AW_SmartGraphicsPackage_4.01_setup.exe** then follow the installation instructions.
- Launch VPro-e and create a new program.
- Display VPro-e's smart graphics control browser.
- Look for **"Technidream"** category, you should find the new module in there.
- Drag and drop the module on your panel and customize it.

Updates

Updating the module with a new version requires a few steps:

- Close VPro-e,
- uninstall any previous version using Windows uninstall application procedure.
- Install the new version of the module (see **Installation** section above).
- Check that the version has been correctly installed:
 - Open a program using the Smartgraphics module,
 - Go to VPro-e "Smart Graphics control browser" panel
 - Make a right click on the module to update,
 - Select "update control" and confirm.
 - Open a page using the module and check that the module is rendered correctly.
 - Selecting the module on the page, check in the "Property panel" that "VersionNumber" is set with the correct value.

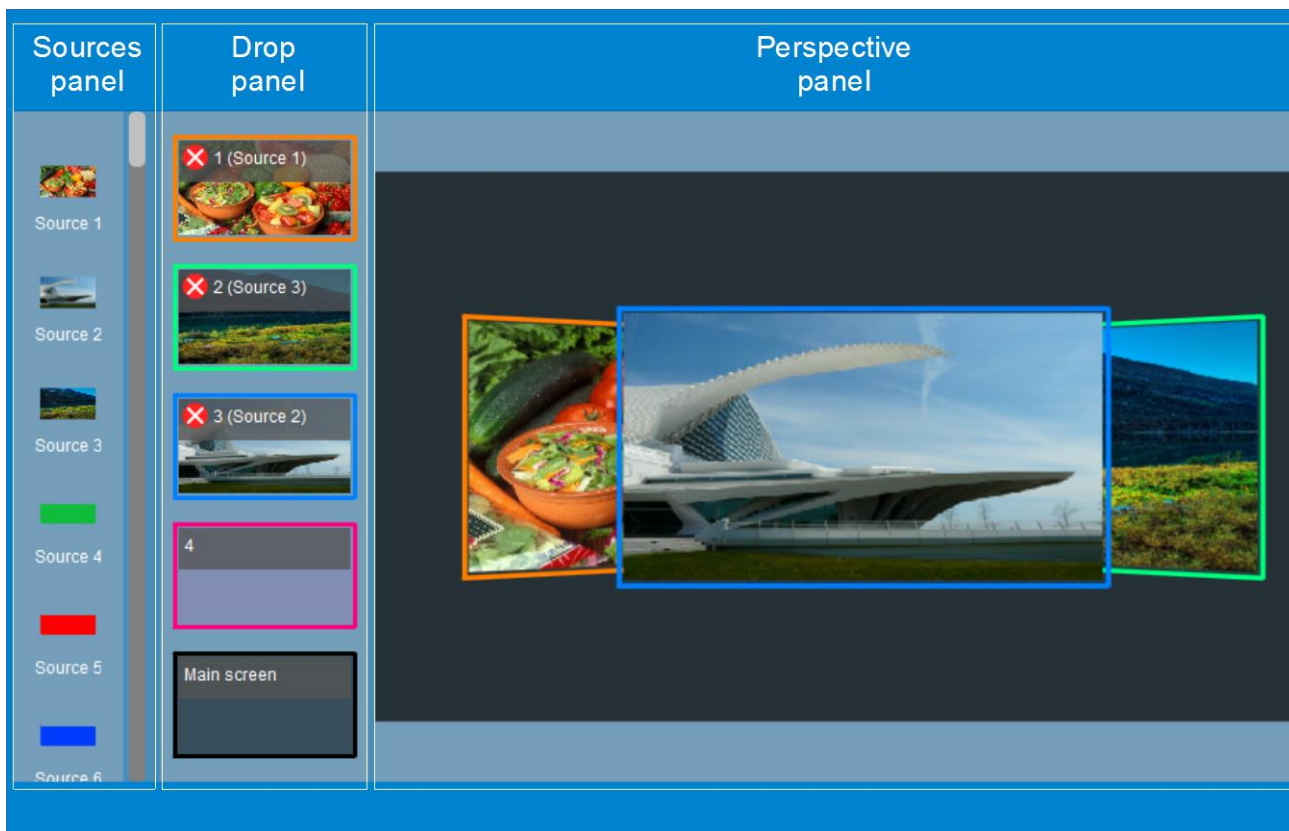
If a module is not correctly rendered in a page after an update:

- Please check that all the modules' properties are set correctly: sometime VPro-e does not copy properties as expected, and some properties are wrongly set.
- If the problem is not resolved, it might be needed to rebuild the broken module: include a new module instance, and copy the old module properties in the new one using right click button.

Window layout

The module's view is composed of three parts:

- A “source panel” containing all the sources defined with the corresponding snapshots. Its scrollbar is displayed automatically if the panel is too small to display all the sources.
- A “drop panel” containing flat representations of the layers shown in the perspective view. The user can drop a source on a layer to assign it to a layer. The aim of this layer is to make source assignment possible even if a layer is not visible or hidden behind another one.
- A “perspective panel” displaying the scene with some perspective effect. End users can also drop sources on any perspective layer for assignment.



VTPro-e properties

General properties	Description
System message Join	It is necessary to set this join correctly in order to synchronize Analog way control system driver with AW Video Perspective Renderer. In case this join is wrong, the module might not be displayed on the panel
System message Join 2	It is necessary to set this join correctly in order to synchronize Analog way control system driver with AW Video Perspective Renderer. In case this join is wrong, the module might not be displayed on the panel
Snapshot url prefix	This join can be used to make snapshot handling more flexible, by providing the ability to let the control system set the ip address of the Analog Way switcher. If a snapshot URL is for example "http://192.168.2.140/assets/Snapshots/capture_in_5.bmp", you can split it into "http://192.168. 2.140/" that can be sent through this join and set the " Source properties->Source-5->Snapshot URL" property with "assets/Snapshots/capture_in_5.bmp". The whole snapshot URL will be rebuilt once the control system sends the first part containing the IP
Window background color	The window background color
Window background alpha	The window background transparency level
Source panel dimension	The source panel dimension. Corresponds either to the width or to the height of the panel depending on the source container orientation
Drop panel dimension	The layer panel list dimension
Target panel margin	The gap (in pixel) between the source panel and the target panel
Scroll bar dimension	The scroll bar dimension. Corresponds either to the width or to the height of the scroll bar depending on the source container orientation
Scroll bar bg color	The scroll bar background color
Scroll bar cursor color	The scroll bar cursor color
Snapshot load speed	The dynamic snapshots refresh rate. Important: higher rates will use more CPU and memory. Recommended value is 'Low speed'

Sources properties	Description
Panel orientation	The source panel orientation (vertical or horizontal)
Vertical/Nb source per column	Defines the number of sources per column. If this value equals '0' the source will be displayed in a single column, otherwise, the sources will be dispatched in multiple columns
Horizontal/Nb source per line	Defines the number of sources per line. If this value equals '0' the source will be displayed in a single line, otherwise, the sources will be dispatched in multiple lines
Disable sources join	Disable the sources
Source dimension	The source's logo width and height in pixels
Vertical source margin	The vertical space between two sources in pixels
Horizontal source margin	The horizontal space between two sources in pixels
Remove hidden sources	Remove hidden sources from the display list
Number of sources	The number of sources
Hide source	If checked, the source will not be displayed
Source hide Join	Join used to hide the source dynamically
Source name	The source name
Source name Join	Join used to set the source name through the program
Source num	This is the source identifier. This number will be sent to the control system while dropping the source on a target. A target receiving this id will retrieve the source's features such as logo or snapshot
Remote image URL	Used to display a remote image, as a source icon
Snapshot URL	The source's snapshot URL
Background Image Path	The default' source static image

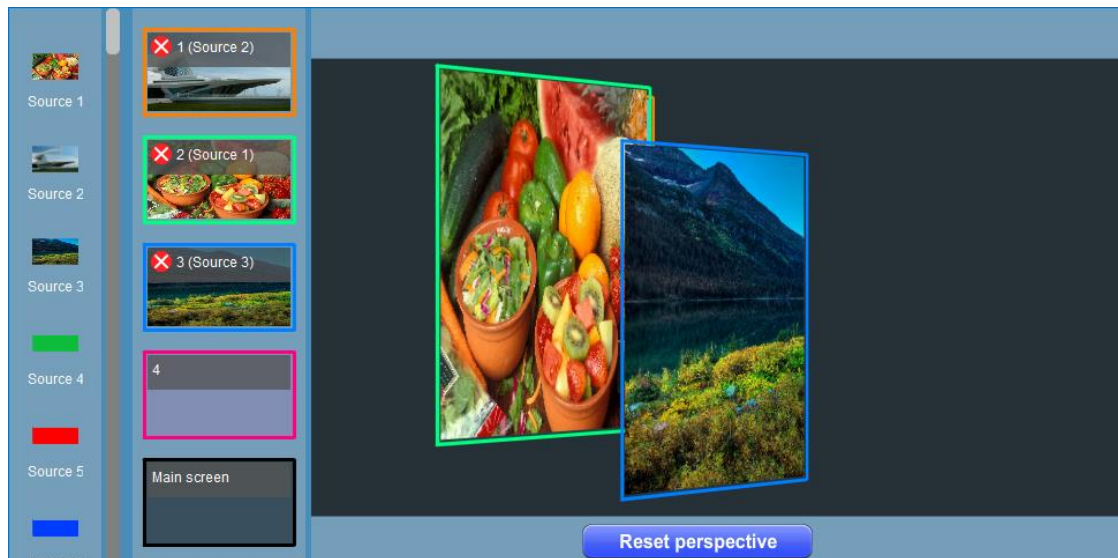
Main target properties	Description
Limit layers drag and drop	The children targets cannot go beyond the main target's borders using touchscreen interface. Note that targets can go beyond that limitation using joins positions even if this option is enabled
Reset perspective	Resets the perspective view to the default
Z mixing	Enable or disable Z mixing support for this screen
Main Screen / Target virtual width	The screen target width
Main Screen / Target virtual height	The screen target height
Main Screen / Main target behaviour / Sources accepted	If this option is selected, the main screen will accept sources
Main Screen / Main target behaviour/Sources rejected	When selected, the main layer will refuse any source
Main Screen / Machine IP address	The LiveCore device IP address
Main Screen / Soft edge background	Background images using frames
Main Screen / Soft edge background / Number of screens	The number of screens in the softedge
Main Screen / Soft edge background/imgs/Background image join	Use this join to select the background image that will get displayed on this screen
Main Screen / Label	The target name
Main Screen / Target Background color	The color of the target background
Main Screen / Background alpha	The alpha of the target background
Main Screen / Analog source join	Analog join used to send the source identifier dropped on a target. It is also used by the control system to set the target's source
Main Screen / Analog join Width	Analog join used to send/receive the main screen width
Main Screen / Analog join Height	Analog join used to send/receive the main screen height
Main Screen / Target name join	Use this join to change the target name. Sending a void string ("") will not have any effect, but sending the string containing only the space character (" "), will remove the title.

Main Screen / Label Background alpha	Choose the alpha of the target name background
Number of target surface	Number of layers (0->60)

Target properties	Description
Label	The target name
Target background color	Choose the color of the target background
Background alpha	The alpha of the layer's background
Analog source join	Analog join used to send the source identifier dropped on a target. It is also used by the control system to set the target's source
Analog join X pos	The analog join used to receive the screen left position
Analog join Y pos	The analog join used to receive the screen top position
Analog join Z pos	The analog join used to receive the screen depth position
Analog join Width	The analog join used to receive the target width
Analog join Height	The analog join used to receive the target height
RotationXJoin	Analog join used to receive the rotation value around X axis
RotationYJoin	Analog join used to receive the rotation value around Y axis
RotationZJoin	Analog join used to receive the rotation value around Z axis
Anchor position Join	Defines the anchor point position which is an enumerated value
Target name join	Use this join to change the target name. Sending a void string ("") will not have any affect, but sending the string containing only the space character (" "), will remove the title
Label background color	Choose the color of the target background name
Label Background alpha	Choose the alpha of the target name background

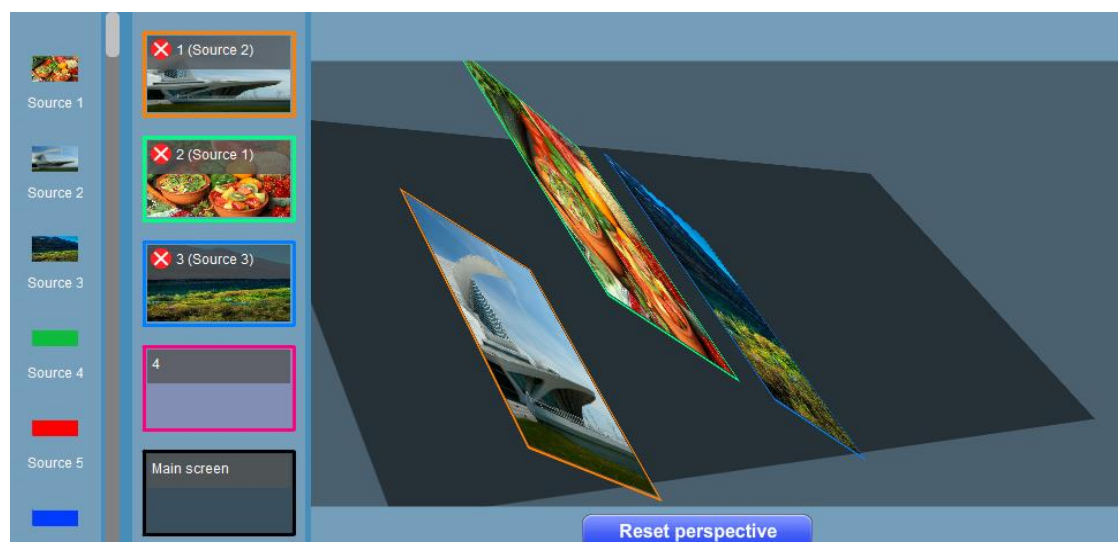
Global perspective

In some cases one of the layer might be hidden behind another one. In the example below the orange surface was set just behind the green one.



In order to allow the user to know exactly the location of one layer which is present in a screen but that cannot be seen directly, the module was given a global perspective mode. Using the mouse or the fingertip, end user will be able to change the global perspective on x and y axis.

Changing the global perspective as shown below (on the same scene), the end user can now see where the orange layer is located.



Notes :

When global perspective is used one can no more drag a source and drop it on a layer in the perspective panel. However, it is still possible to change a layer' source using drag and drop on a layer in the drop panel. The perspective can be reset using the adequate join in order to enable this feature again.

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