BrightEye™
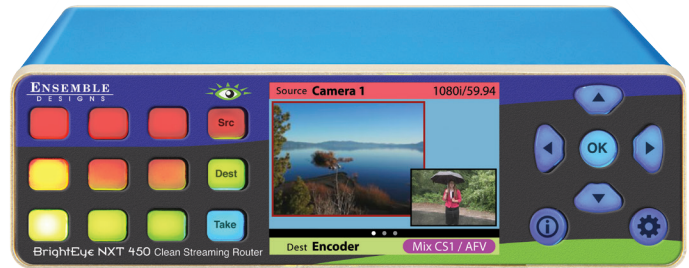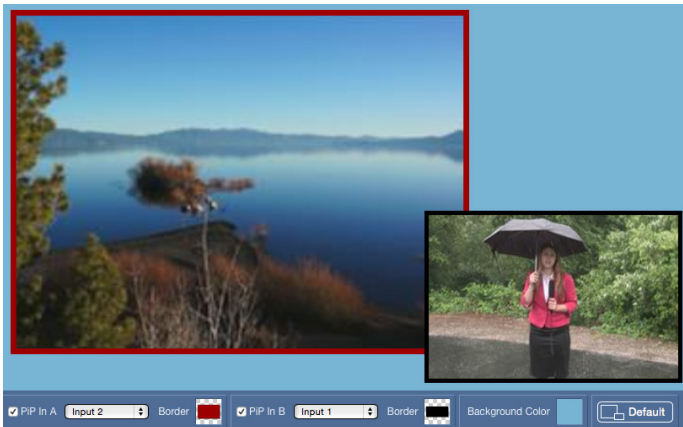
PiP-Efx Picture in Picture Option
Quick Start Guide

for BrightEye NXT Router Models 450, 445, 430-X and 410-H

ENSEMBLE
D E S I G N S

What Do I Get from the PiP-Efx Option?

- **High Resolution Picture in Picture Effects**

- **Dual PiP Windows Over a Matte Background**

- **Intuitive Web Interface, Use a Laptop, Tablet, Smartphone**

- **Fully Adjustable Crop, Size, and Position Controls for Both Images**

- **Customizable Border Effects**

- **Instant Recall of Layouts from User Presets**

- **Fully Routable Output to Any Destination on the Router**

- **Dissolve and Cut to PiP-Efx**

- **Switch Sources within PiP-Efx On The Fly**

- **Mix and Match Video Formats within PiP-Efx**

The PiP-Efx Option for the BrightEye NXT 450, 445, 430-X and 410-H Compact Routers provides a flexible and configurable dual source Picture-In-Picture mode for lecture capture, corporate boardroom, field news reporting, and many other applications. PiP-Efx can be a single insert over a full screen video background, or dual PiP inserts over a matte background.

Built-in Up/Down/Cross conversion allows PiP input signals of different formats and frame rates to be combined together into the PiP output. Simply set the PiP output standard and you're done.

PiP-Efx, a software license option purchased from the factory, can be installed in the field. Each license is tied to the serial number of a specific unit. On power up with no license, a free 1 hour "time limited demo" is active.

Getting Started

Configure Resources to Enable PiP-Efx

Enter your PiP-Efx License

Navigate to the BrightEye NXT's **Settings > Resources** menu in your web browser. Enter your PiP-Efx License number in the PiP-Efx License field. The green dot indicates a valid license number.

Select PiP-Efx as the Resource for DVP 1

From the DVP 1 Mode pulldown, select PiP-Efx. The Status field displays "Power Cycle for PiP-Efx."

The PiP-Efx License field has two valid states:
Blank: On power up, a free 1 hour "time limited demo" is active
Valid PiP-Efx License: Green dot indicates a valid license

Power Cycle the BrightEye NXT
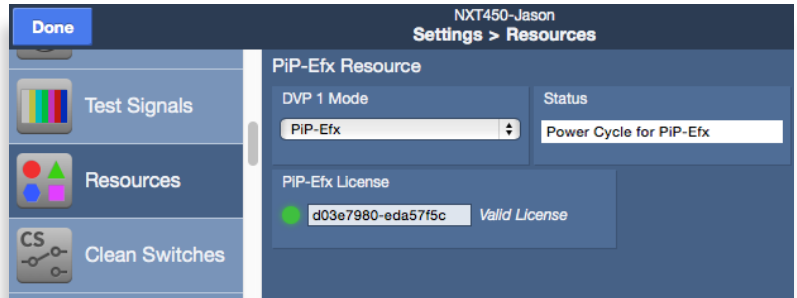
Power cycle your BrightEye NXT by either:

Disconnecting and reconnecting the power cord,

OR

Entering ":10000" after the unit's IP address in your browser. For example: "192.168.1.100:10000". The NXT's Support Functions page displays. Click Reboot.
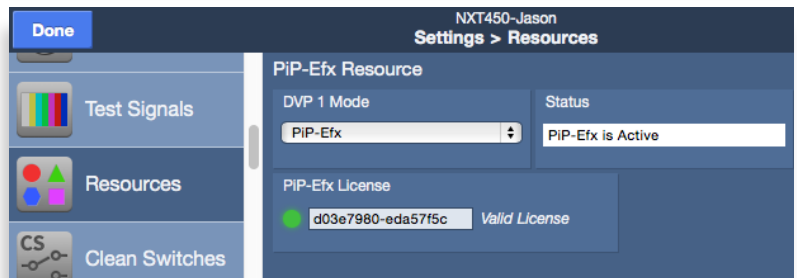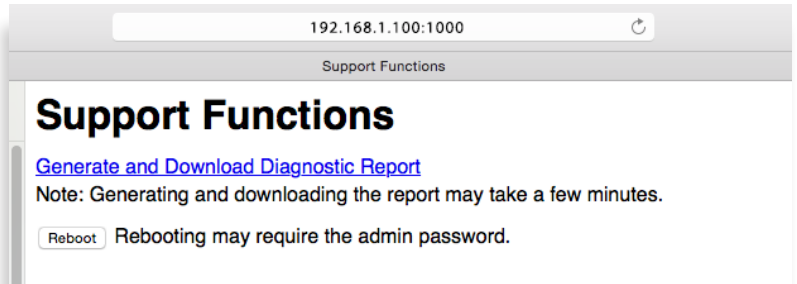

Verify that PiP-Efx is Active

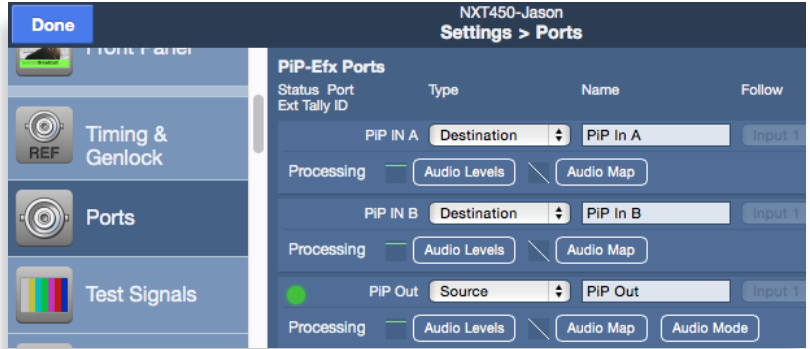After the power cycle, verify that the Status field displays "PiP-Efx is Active".

Configure Ports

Navigate to the **Settings > Ports** menu. Scroll down to the PiP-Efx Ports. Reassign Port Types as follows:

PiP IN A: Destination
PiP IN B: Destination
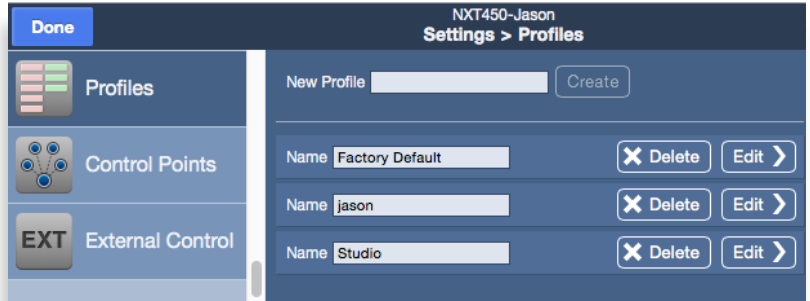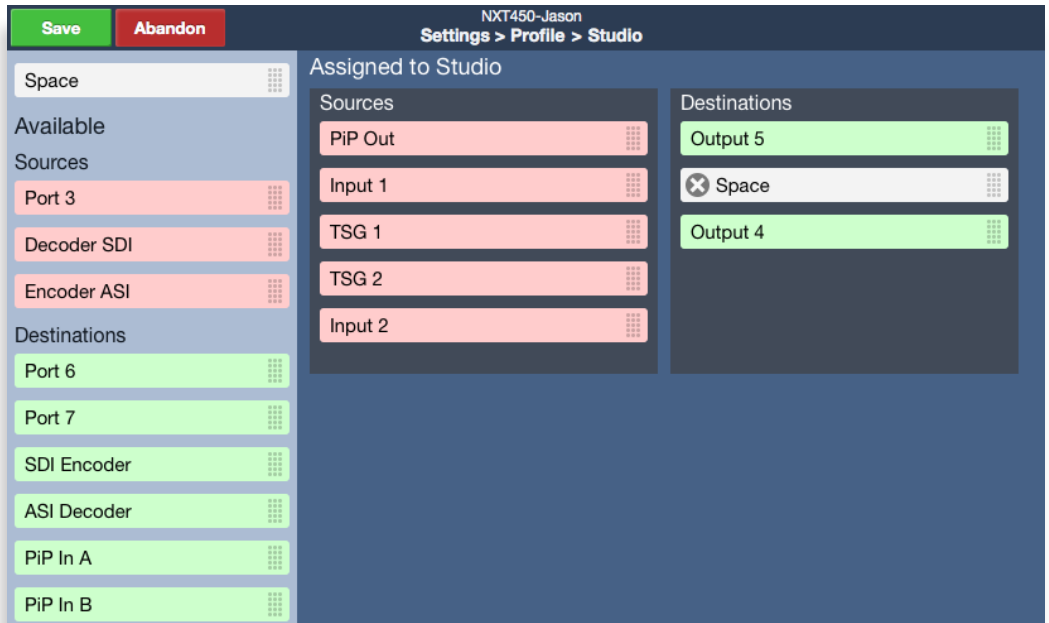PiP Out: Source

Map PiP into Profile(s)

In order to make the PiP output available as a source in the router, it must be added to the Assigned Sources for each applicable Profile.

Navigate to the **Settings>Profiles** menu and click the Edit button for the Profile you want to modify.

Click and drag PiP Out into the Sources column. Click Save.

Follow this process for each applicable Profile.

Set the Output Standard for PiP

Navigate to the **Settings > Picture in Picture** menu.
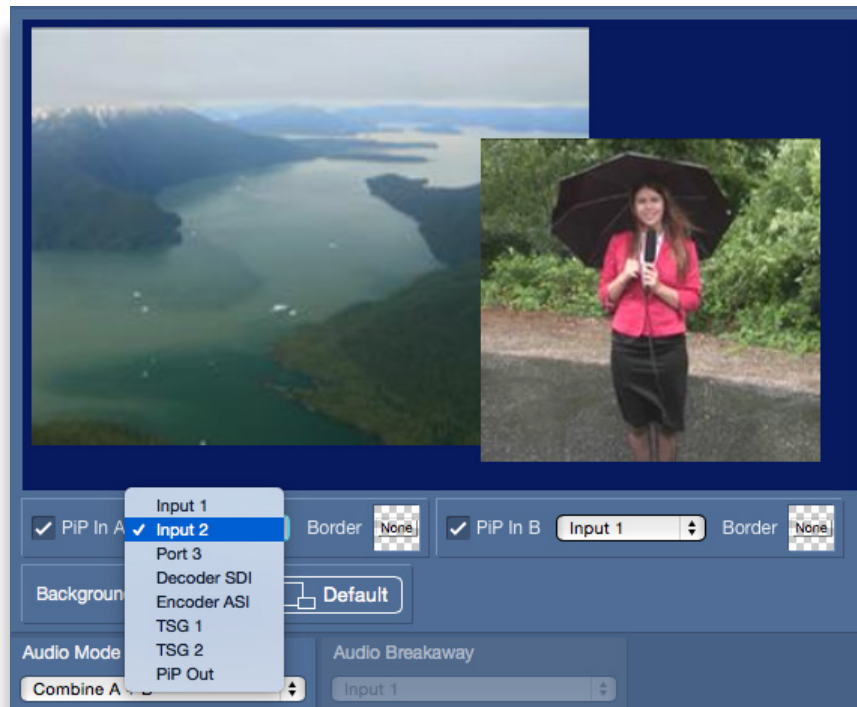Select the output standard from the Standard pulldown menu.

Note: PiP-Efx allows signals of different formats and frame rates to be combined together simply by setting the PiP-Efx output standard. The input signals (PiP In A and PiP In B) can be any combination of formats. They will be automatically converted to your chosen output standard, regardless of their incoming formats.

Now for the Fun Part! – Authoring PiP-Efx

The rest of this quick start guide covers the PiP-Efx authoring process. Authoring PiP-Efx consists of selecting sources for the two pictures, adjusting their position and size, crop and zoom controls, adding borders of varying color and thickness, selecting the background color, and choosing the audio source. The complete configuration of the PiP-Efx output can be captured in a preset. Presets can be recalled from the web interface, through GPI inputs, and from the 5835 Action Control Panel.

Selecting Sources for the Two Pictures

Select sources for **PiP In A** and **PiP In B** with the pulldown menus. Authoring is immediate to the output and sources can be changed at anytime.
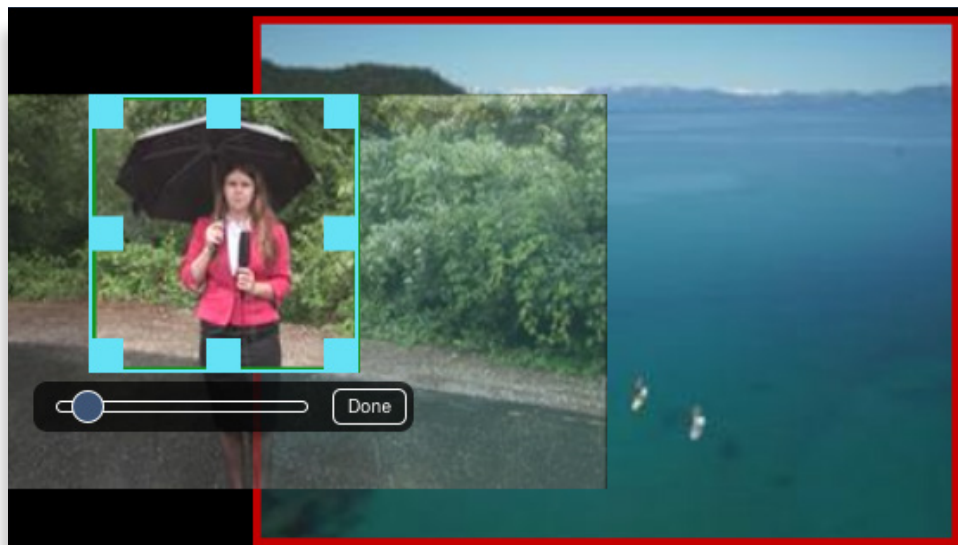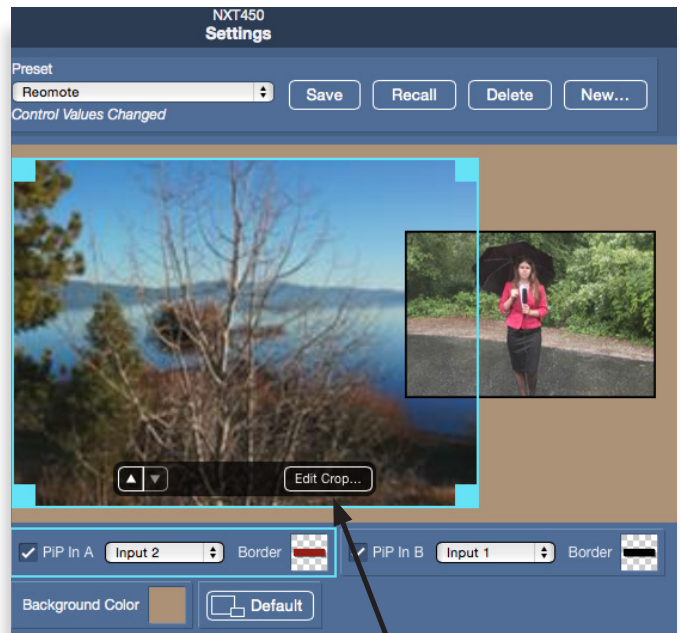
Position and Size Controls

To move or re-size an image, simply click on it. A turquoise border with corner tabs will appear around the image. Click anywhere on the image and drag to move it. Use the corner tabs to re-size the image.

To change the relative stacking of the two images, use the Up/Down arrows in the control bar.
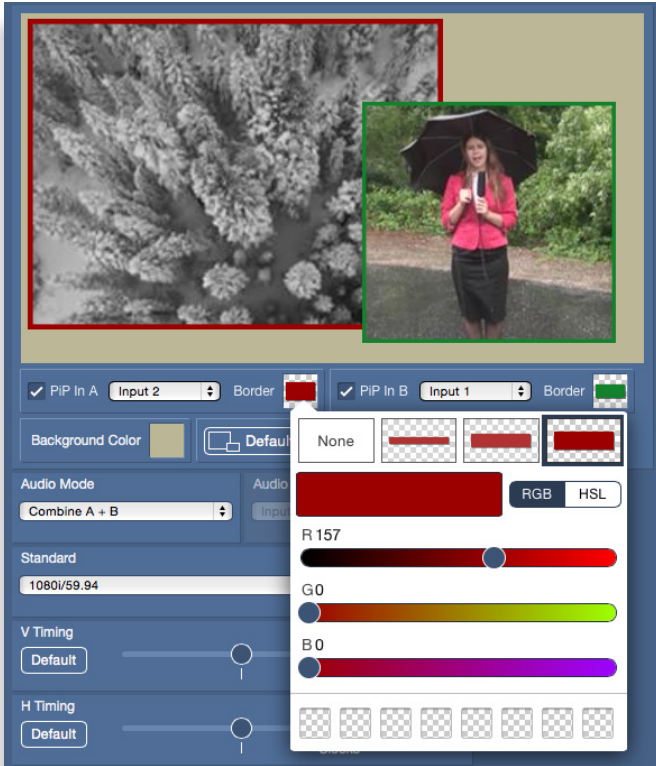
Crop and Zoom Controls

Click the **Edit Crop** button in the control bar to crop the image and to zoom in and out. In this mode the turquoise border will have corner and side tabs, and the zoom slider will be in the control bar. Use the corner and side tabs to define the crop area, and the slider bar to zoom the image in and out. Click Done when finished. When you return to the Position and Size controls, the crop will be maintained when you change the size of the image window.

Superior scaling means that you can zoom in on a small portion of the input signal and the re-sized image will look great. PiP-Efx always maintains correct aspect ratio when images are re-sized.
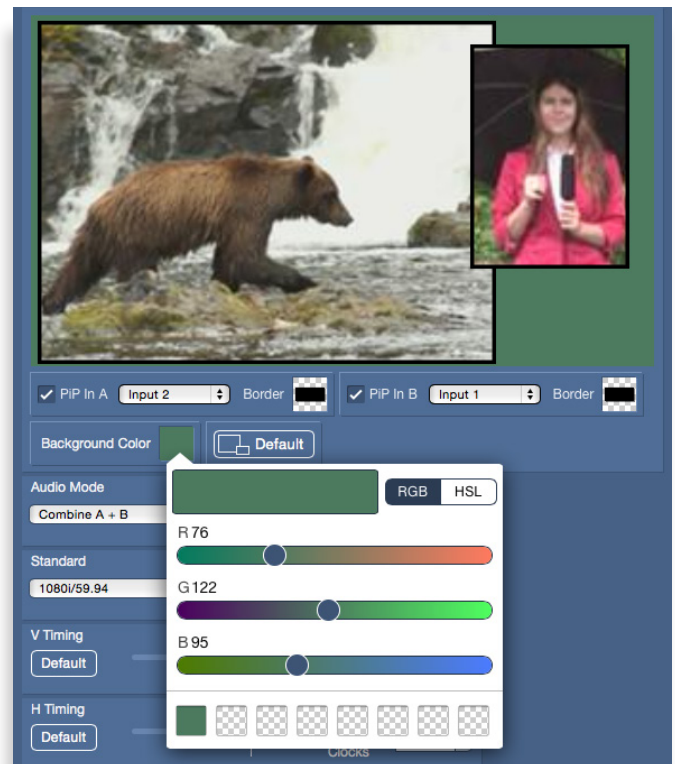
Adding Borders

Use the **Border** control for each input to add a thick, medium or thin boarder, and to select the border color. Select the color in RGB or in hue, saturation and luminance. Save favorite colors in the palette squares for easy recall.
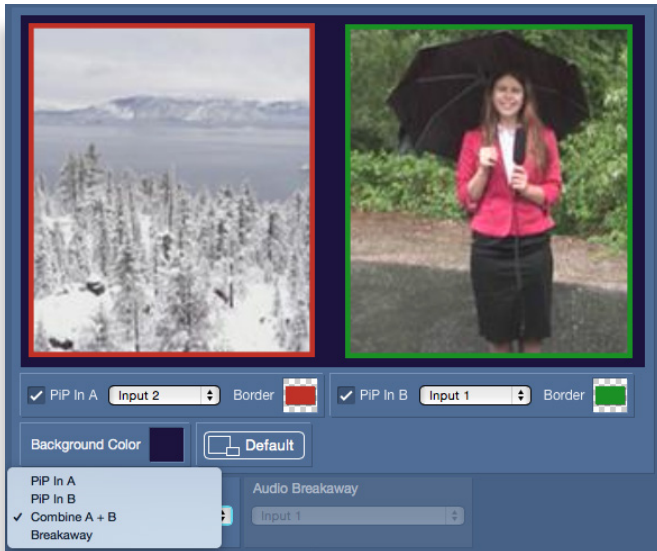

Selecting the Background Color

Create the background color with the **Background Color** control. Select the color in RGB or in hue, saturation and luminance. Save favorite colors in the palette squares for easy recall.
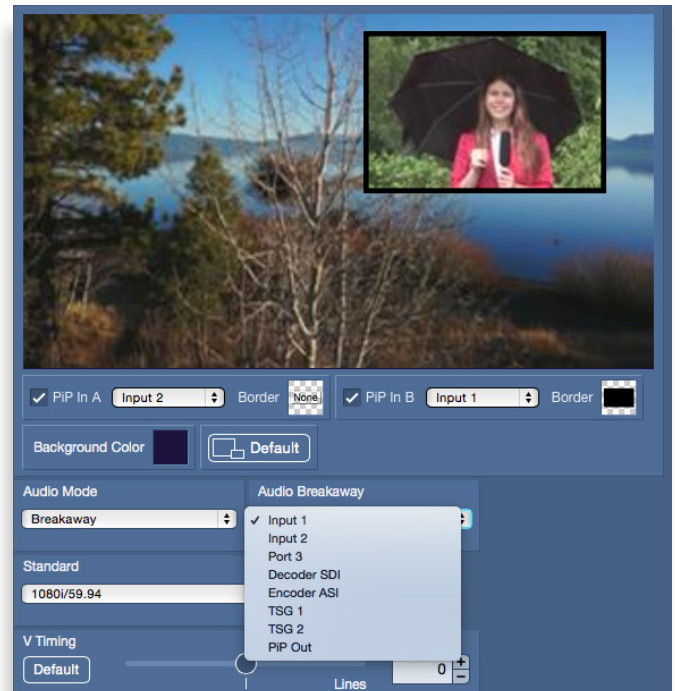
Selecting the Audio Source

Select the audio source for the PiP output with the **Audio Mode** control. Select from PiP In A input, PiP In B Input, Combine A + B, or Breakaway.

Using Audio Breakaway

To route audio from another video source to the PiP output, select Breakaway from the Audio Mode control. The available sources will show in the pulldown menu for **Audio Breakaway**. Select the desired source.
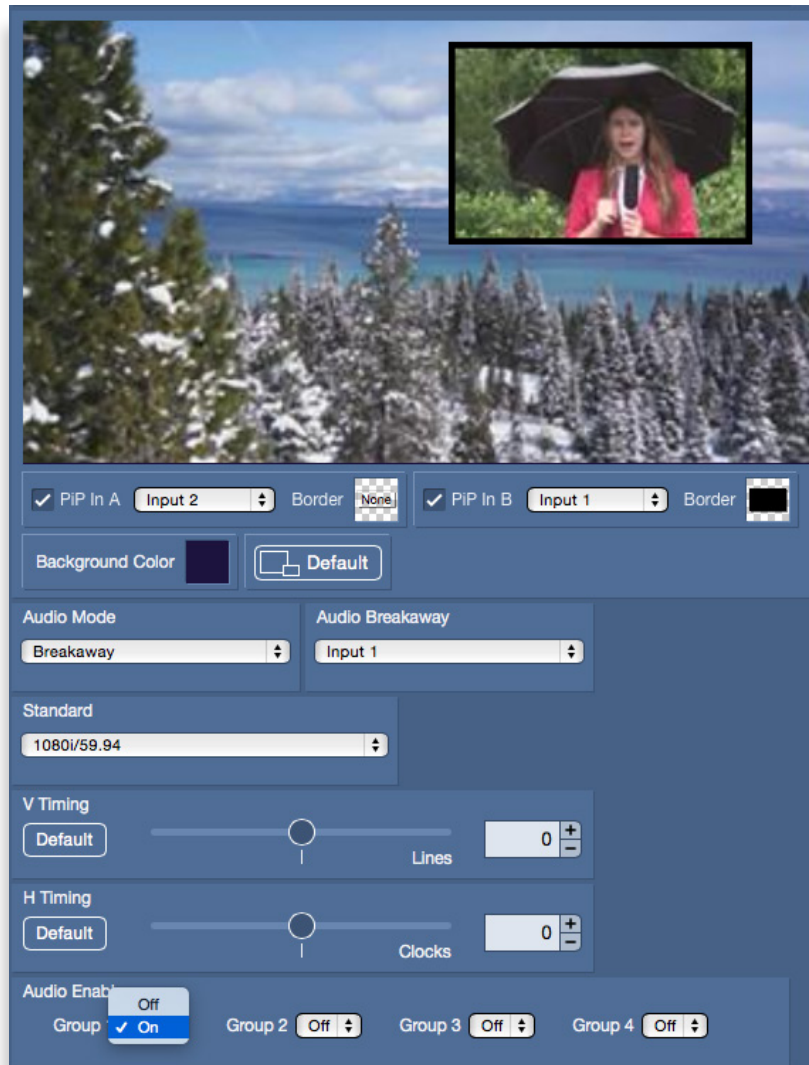
Timing Adjustments and Audio Pass Through

Use the **V Timing** control to adjust the vertical timing with respect to the reference. Click the Default button to reset to the default value of 0 lines.

Use the **H Timing** control to adjust the horizontal timing with respect to the reference. Click the Default button to reset to the default value of 0 clocks.

Select which audio groups pass through to the output with the **Audio Enables** controls. Turn the groups On that you want to pass through.
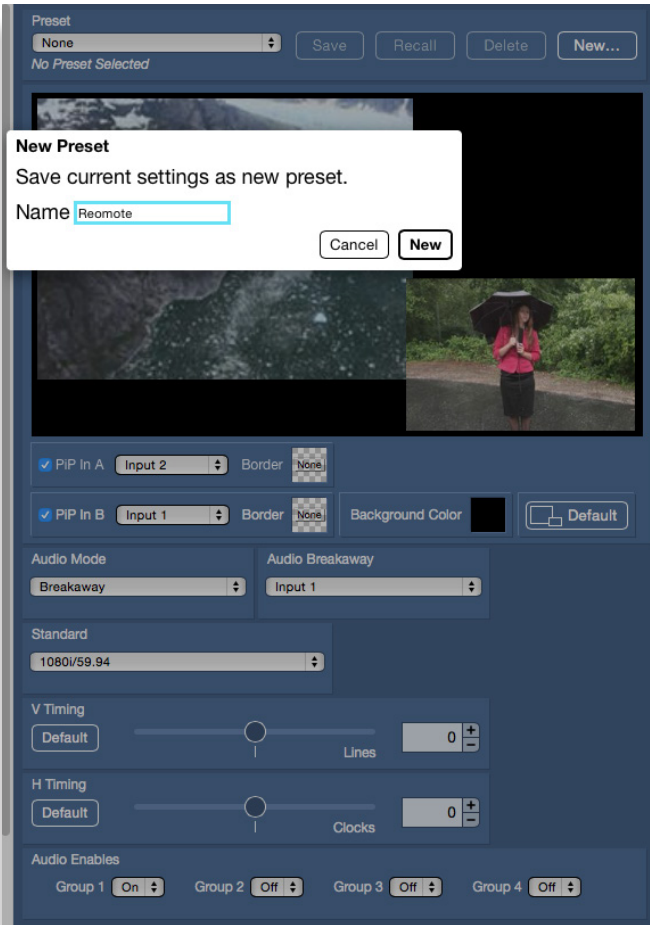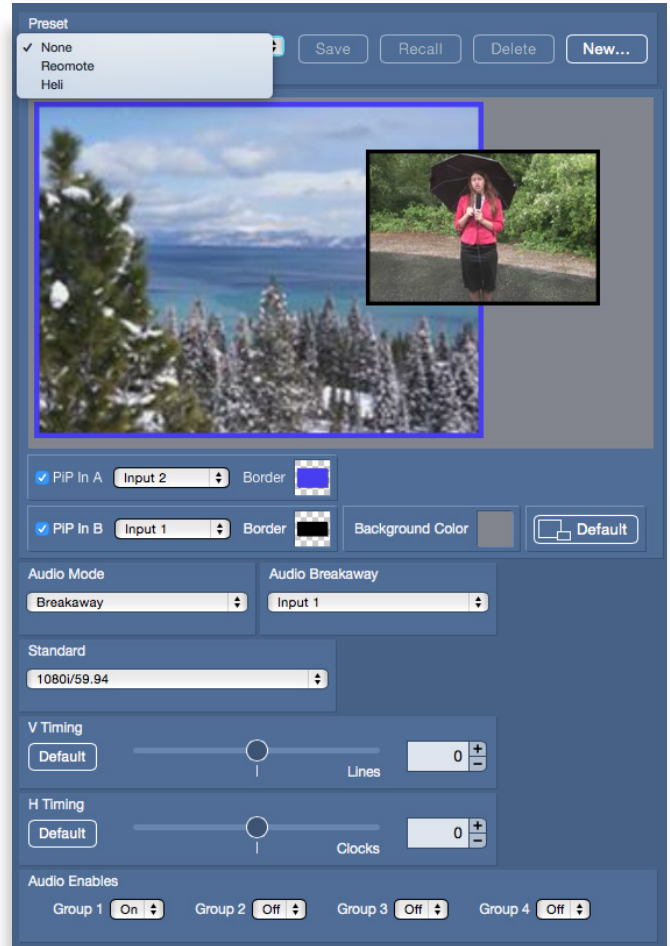
Saving Presets

Save custom presets for easy recall with the **Preset** control.

The complete configuration of the PiP-Efx output can be captured in a preset. Presets can be recalled from the web interface, through GPI inputs, and from the 5835 Action Control Panel.

To save the current settings as a new Preset, click **New**, then enter the Preset name into the Name field.

To recall a Preset, select the Preset from the pulldown menu. PiP presets created here will also be available for recall through configured Actions.

For additional assistance, see the complete manual available through our website, or contact us at +1 530.478.1830 or service@ensembledesigns.com. All Ensemble Designs products have a 5-year warranty. Avenue and BrightEye products are designed and built in California at Ensemble Designs.