RUSHWORKS

ROBOTICS

VDESK™ Robotic Camera Production

USER GUIDE 2020

(beta release)

- **Studio & Remote Switching**
- **PTZ & PTX Camera Control**
- **Programmable Motion Presets**
- **Integrated RUSHDOLLY Control**
- **Recording & Streaming**

RUSHWORKS

cool technology for

- **PRODUCTION**
- **PLAYBACK**
- **STREAMING**

VDESK Touch Screen Camera Control Production Systems
USER GUIDE Version 7.0 (2020)

Features and functions are being added continually, and this Guide will be updated frequently.
As a result, the content herein may not reflect the current feature set and behavior of the application

Your ***VDESK Integrated Television Production System*** is designed specifically to enable a single operator to produce highly professional, multi-camera shows … with NO CAMERA OPERATORS REQUIRED! Name and save PTZ presets; create and display graphics and playlists; use multiple layers of crawls, logos and animation; use Chroma-key for virtual sets and backgrounds; encode to internal storage, stream LIVE, and much more. This Guide covers all the components and controls included with your ***VDESK*** system.

VDESK Hardware Overview

Your ***VDESK*** Touch Screen Production System is available in FOUR CHASSIS CONFIGURATIONS:

	Chassis	Specs	Input / Output
	COMPACT	Dell 3240 **Compact** Form Factor 256 NVMe + 1TB SSD i9-10900 CPU / 16GB RAM Windows 10 PRO 15.6" 1920 Touch Screen **1 PCIe Low Profile Slot**	Network connections only, including NDI and streaming. SDI & HDMI outputs
	LTD	Dell 7080 **Small Form Factor** NVMe 256 SSD + 1TB SSD i9-10900 CPU / 16GB RAM Windows 10 PRO 24" 1920 Touch Screen **2 PCIe Low Profile Slots**	Network connections, including NDI and streaming 4 x SDI or 2 x HDMI inputs SDI/HDMI outputs
	MAX	Dell 7080 **Tower** NVMe 256 SSD + 1TB SSD i9-10900 CPU / 16GB RAM Windows 10 PRO 24" 1920 Touch Screen **4 PCIe Full Height Slots**	Network connections, including NDI and streaming. 8 x SDI inputs or 8 x HDMI inputs or 4 x SDI + 4 x HDMI inputs SDI/HDMI outputs
	PRO 4/8/12	Dell 5820 Precision Workstation 2 x 2TB RAID 1 (4/8/12TB options) XEON W-2225 CPU / 16GB RAM Windows 10 PRO **6 PCIe Full Height Slots**	Network connections, including NDI and streaming up to 12 SDI and/or HDMI inputs SDI/HDMI outputs

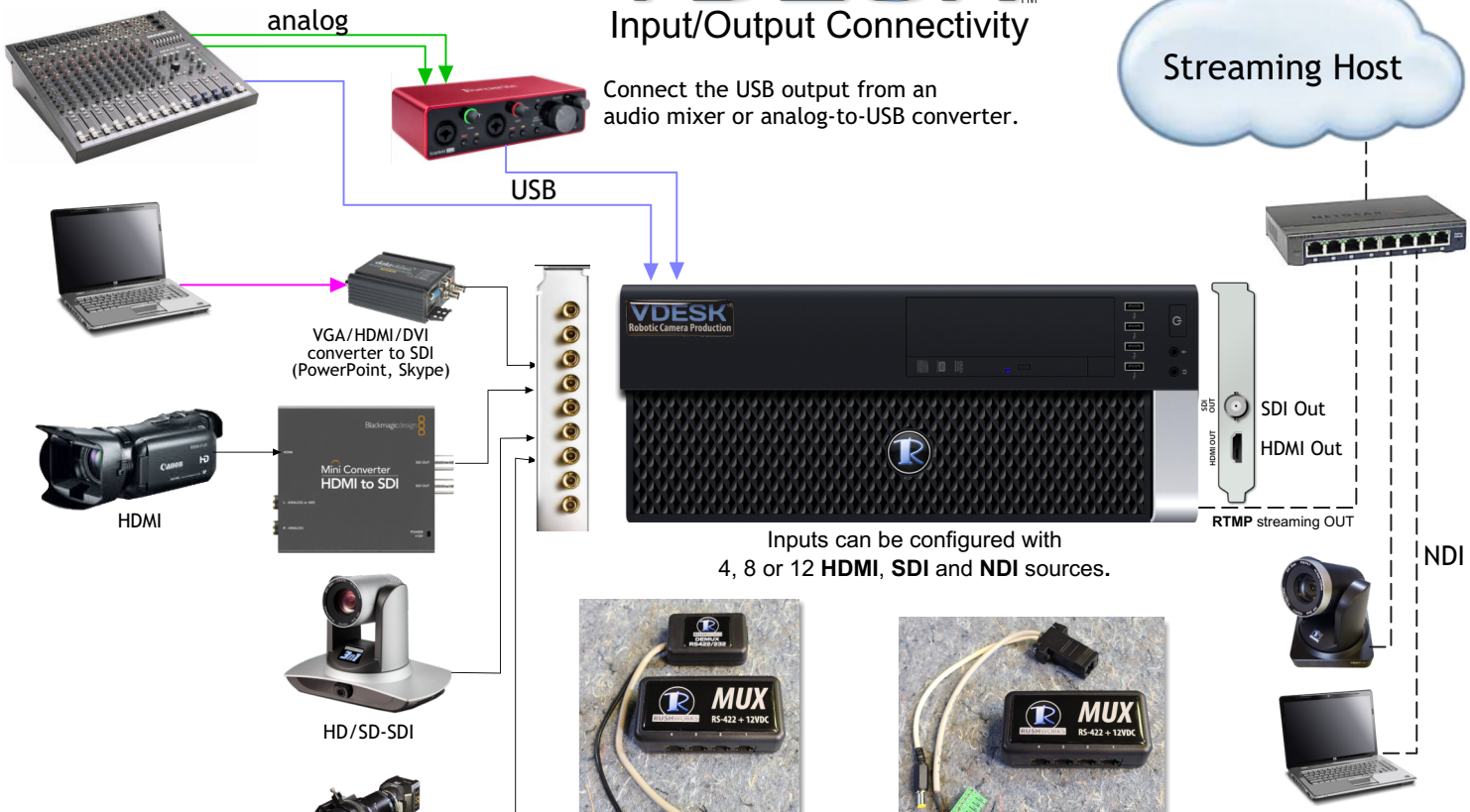
ALL configurations include a custom keyboard with shortcut keys & mouse and a 6 button Hall effect joystick.

If you specify serial control for your VDESK configuration you'll also receive one or more 4-port MUX units which provide (RS422+12VDC) to the cameras, and a DEMUX for splitting power and serial at each destination.

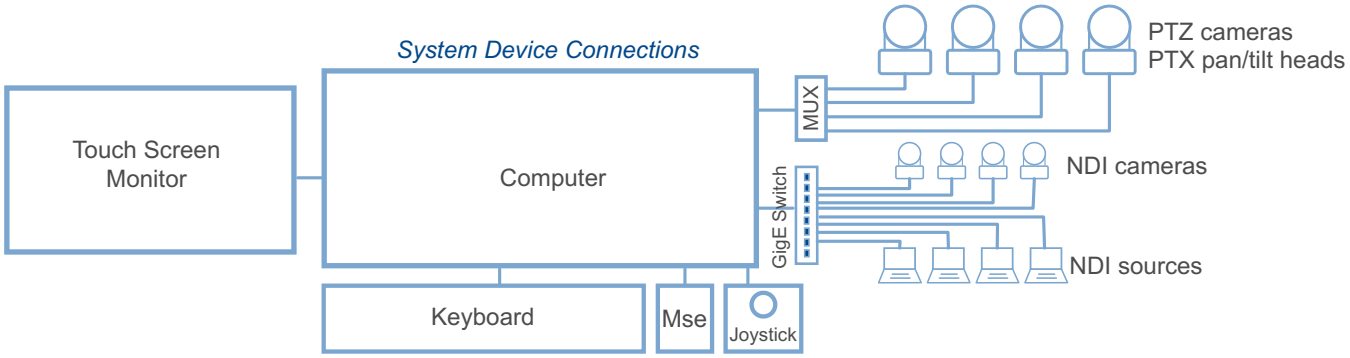
Using Multiple Monitors

You can connect a second monitor to display additional camera controls or for working with parallel applications like **Adobe Photoshop Elements and Premiere Elements** *(included with VDESK PRO)* for immediate creation or editing of on-screen graphics and for editing your productions after they're encoded.

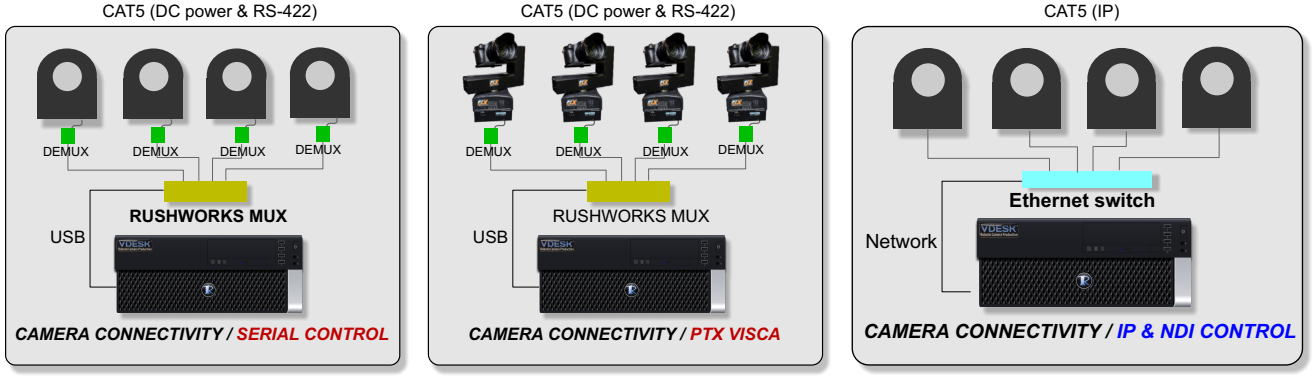
VDESK™
Input/Output Connectivity



PTZ cameras and PTZ heads are controlled using either RS422 or RS232 serial protocol, or with IP protocol. The RUSHWORKS 4-port **MUX** connects to a USB port on the VDESK computer and sends 12VDC and 422 on four CAT5 cables. Power and serial are separated at each device with a DEMUX.



***VDESK PRO** systems are available with*
4 inputs**, **8 inputs,** or **12 inputs** (SDI or HDMI), **NDI inputs and output**, and **HDMI / SDI outputs.



Custom Keyboard Shortcuts

A **custom keyboard** with color-coded shortcuts is provided with your VDESK and REMO system. For an overview we'll start at the top left and move down the main keyboard, then over to the arrow keys and number pad.

KEYBOARD

RED PGM1 – PGM12: Click these to select the corresponding switcher input to the PROGRAM window/output

GREEN PVW1 – PVW12: Click these to select the corresponding switcher input to the PREVIEW window

RED PROGRAM TAKE: Cuts to the current selection on the Preview panel. This action reverses the PGM/PVW selections on the switcher

GREEN SELECT CAM 5-8 on KEYPAD: Hold the Shift key and click any of the four green camera selection buttons on the keypad to select Cameras 5-8 instead of 1-4.

ORANGE TILT UP (Home): Tilt PTZ/PTX camera UP

ORANGE TILT DN (End): Tilt PTZ/PTX camera DOWN

ORANGE PAN L (Delete): Pan PTZ/PTX camera LEFT

ORANGE PAN R (PgDn): Pan PTZ/PTX camera RIGHT

ORANGE ZOOM IN (PgUp): Zoom PTZ/PTX camera IN **(+)**

ORANGE ZOOM OUT (Insert): Zoom PTZ/PTX camera OUT **(-)**

KEYPAD

GREEN CAM 1/5 – 4/8: Click once to select inputs 104 on the Preview panel. Hold Shift and press keys to select inputs 5-8

ORANGE Number Pad (1-9): Select the corresponding Preset for the currently selected Preview camera

RED PGM AUTO (+): Dissolves from the PGM input to the PVW input

RED PGM TAKE (Enter): Cuts from the PGM input to the PVW input

BLUE File Brower (Insert): Selects File Browser window

BLUE Playlist (Insert): Selects Playlist window

KEYBOARD CAMERA PRESET SELECTIONS

Q = Preset 1
W = Preset 2
E = Preset 3
R = Preset 4
A = Preset 5
S = Preset 6
D = Preset 7
F = Preset 8

BLUE LIST (Up arrow): Select previous item (Playlist or File Browser)

BLUE LIST (Down arrow): Select next item (Playlist or File Browser)

BLUE DSK AUTO (Left arrow): DSK AUTO (fade ON or OFF)

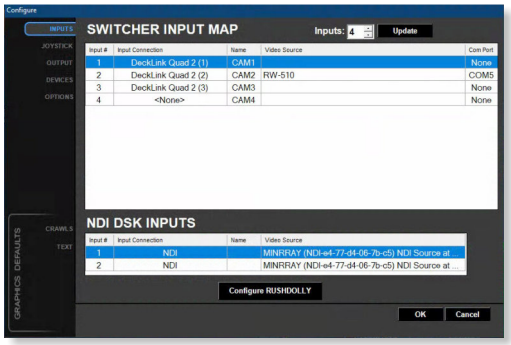
BLUE DSK TAKE (Right arrow): DSK TAKE (cut ON or OFF)

Software Overview – the User Interface

After powering up the system, run the VDESK software by clicking on the VDESK launch icon on the desktop. After a few seconds the User Interface will appear.

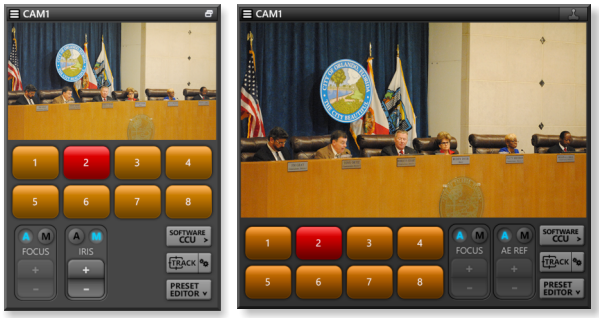
The user interface has different panels and windows for controlling and monitoring most system functions.

Initial Setup:
If it is the first time you have run the application you'll need to open the **Configure** panel to add your PTZ cameras and other input devices. Adding input devices and names will be discussed in detail in the following pages.



1 - Camera & Input Windows

On the left side of the screen you will find **CAMERA CONTROL** windows. The default number of camera windows displayed is four (4), but can be customized by an entry in the Config panel. The maximum number of inputs (PTZ or standalone cameras or other devices) supported by the system is **twelve** (12). The camera inputs can be configured for **SDI**, **HDMI** and **NDI**. Non-camera inputs are used for network sources such as NDI, Facebook, YouTube, etc. TWO window display sizes are available.



All camera windows function the same, but each controls a different camera. The camera output image displays in the window above the presets. There are eight (8) presets available per camera when using the CLASSIC interface. *(The PRODUCER interface supports unlimited presets.)* A larger camera panel can also be displayed by clicking the expand icon on the top right.

2 - Preview Window

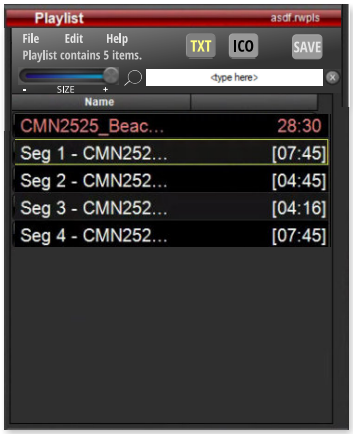
Beneath the PROGRAM window is the **PREVIEW** window. This displays which camera, clip or picture is currently on the Preview bus of the switcher. Use the motion controls and scrub bar to preview and cue up clips.

3 - DSK Window

To the left of the **Preview** window is the **DSK** window, which displays and controls images with transparency – usually **PNG** files. TWO window display sizes are available. A larger camera panel can also be displayed by clicking the expand icon on the top right.

This window has two sections, the **DSK PREVIEW** and **DSK PROGRAM**. This allows you to preview images while displaying another image keyed over the Program window. When the DSK Program is illuminated ("**ON AIR**") the image in that monitor will display on the main **Program** output monitor.

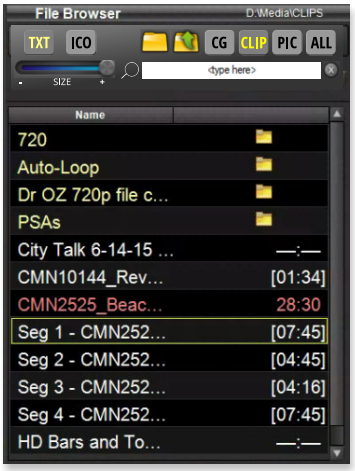
4 - Playlist Window



To the left of the PROGRAM window is the **PLAYLIST** window. This is where you save an ordered list of files for playback. Just drag and drop files from the **File Browser** to create and Save as many lists as you wish. Select and drag any item anywhere within a list to reorder the contents. Buttons are provided to change from **Text View (TXT)** to **Icon View (ICO).**

This window can be sized vertically and horizontally, and moved anywhere on the primary (or secondary) screen to accommodate your preferences.

5 - File Browser Window



Below the Playlist window is the **File Browser** window. This window allows you to browse for media on your system and select it for display. Quick access shortcuts are included for preset folders - **CGs, CLIPS, PICS,** and **ALL-** to help keep your media organized. CLIPS and PICS display in the PREVIEW window. CGs (typically 'lower thirds' with transparency, i.e. PNG files) display in the DSK window. It can also be sized vertically and horizontally.

You can locate files using the **Find** entry field.

6 - Program Window

On the upper right of the screen is the **Program** window. This displays the main video output content of your system. On the left side of the video display is an icon bar with up to eight touch/toggle buttons.

- BUG (branding logo)
- CRAWL 1
- CRAWL 2
- SNIPE (animated graphic)
- TXT (text overlay)
- PIP (easy on/off)
- NDI DSK 1
- NDI DSK 2

At the top is an **AUDIO MONITOR** button that toggles RED when monitoring PROGRAM audio and GREEN when monitoring PREVEW audio from the computer's audio output jack. Click the speaker icon to turn audio off and on.

Other functions on the Program Window include:

- CONFIGURE button
- RECORD setup and On/Off
- STREAM setup and On/Off
- HOT AUTO toggle rocker
- HOT TAKE toggle rocker
- HOT KEY toggle rocker
- PLAY/STOP clip controls
- Current SRC file name/status
- Current CLIP location and duration

7- Clock and Audio Windows

To the right of the Program window are the CLOCK and AUDIO windows. They display the current time, a counter, and the level of the system's audio output. The slider is used to adjust the master volume. There is also a mute button which will completely silence any audio output.

Click the **SHOW AUDIO MIXER** to open the full mixer panel overlay. Click again to **HIDE** the mixer panel.

***Note**: Since all the windows can be positioned and many of them sized, it's often useful to have a second monitor to support overlay windows and keep your primary workspace uncluttered. **You can name and save any number of these screen 'layouts' and recall them at any time**.*

8 - Switcher Panel

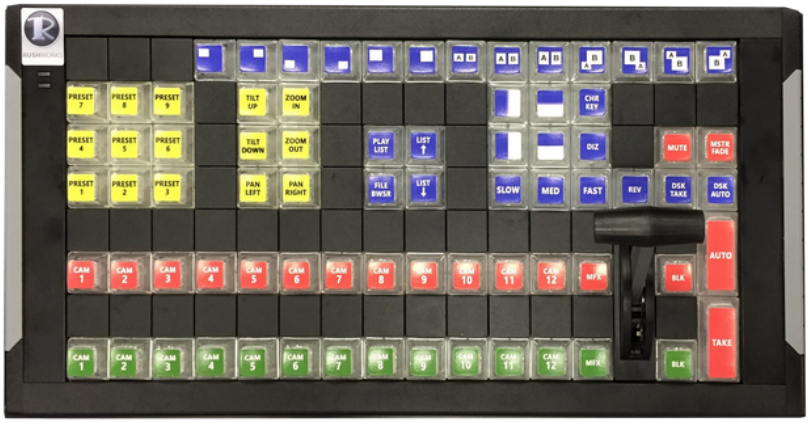
Below the PREVIEW Monitor and DSK windows is the **Switcher** panel, displaying up to twelve inputs based on your system configuration. This controls which INPUT source is viewed on the Preview monitor, and/or sent to the Program OUTPUT.

The inputs can be a combination of PTZ cameras, NDI sources, etc., and can be named/renamed by right-clicking the button and entering the text.

The panel also has menu selections for **Transitions** and **Effects**. There are two file/clip players used to display video clips and graphics files. When active, the internal player number and status are displayed on the PGM (red) and PVW (green) buses.

Click the **AUTO** button to make a transition between the PREVIEW and PROGRAM bus. Choose from three transition speeds: **S**low = ½ second; **M**edium = 1 second; **F**ast = 2 seconds. Use the **T-Bar** for manual transition control.

The optional **VDX T-Bar Control Surface** provides many of the integrated production functions in one versatile USB hardware companion.

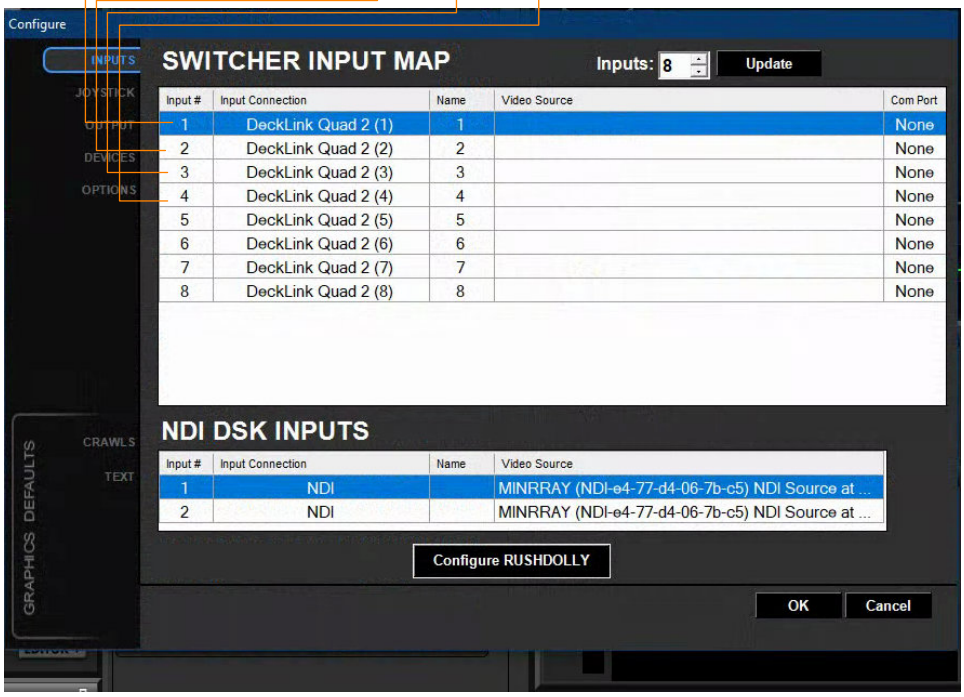


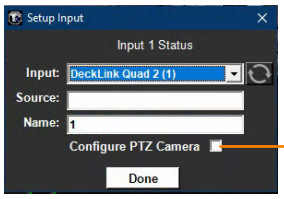
- PTZ Camera & Preset Selection
- Pan, Tilt and Zoom Keys
- 13 PiP and Double-Box Preset Selections
- Wipe Transition Selections
- Chroma-key Selection
- Audio Mute Button
- Master Fade Button
- TAKE/AUTO Buttons
- T-Bar Transition Control

Configuring Your INPUTS, OUTPUT and OPTIONS

This is the first thing you MUST do when you receive your system!

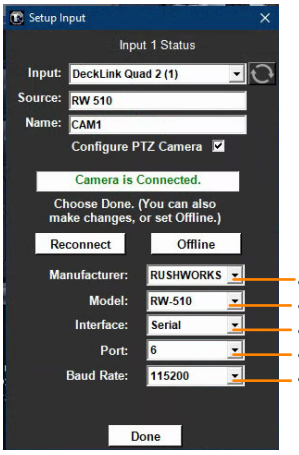
These procedures identify all the devices and connections you'll be using in your productions, so setting it up correctly in the beginning is very important.





To Configure a PTZ Camera

- Describe Video Source
- Name the Input
- Check this box

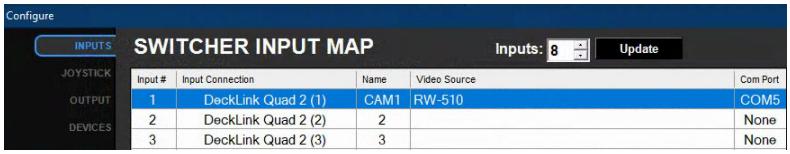


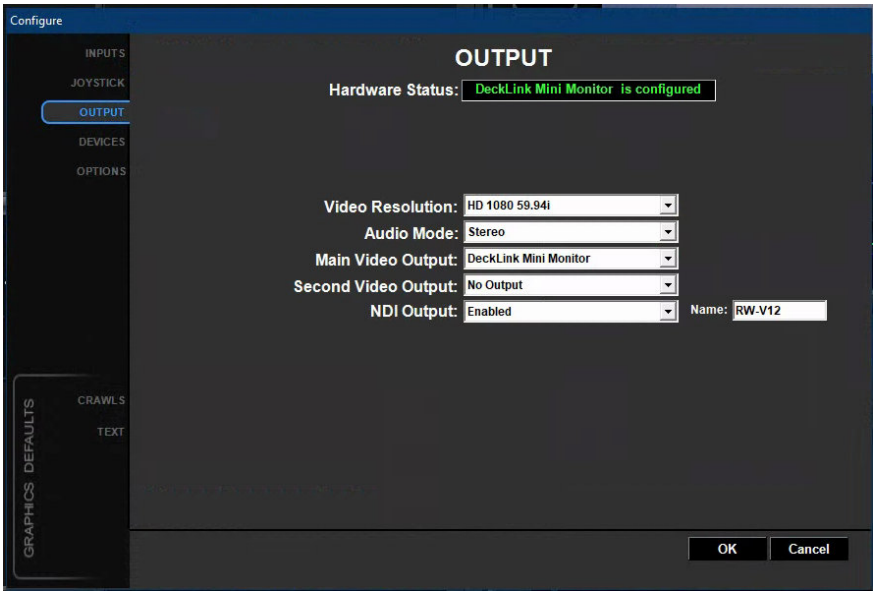
- Select Manufacturer
- Select Model
- Select Interface
- Select Port (if serial)
- Select Baud Rate

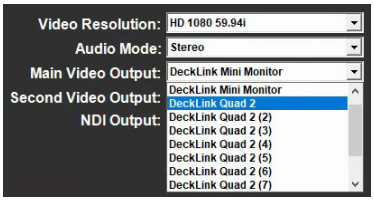
Your VDESK system will likely have Blackmagic SDI and/or Magewell HDMI input/output cards. Depending on your configuration you can identify up to 14 input video sources, which can be a combination of PTZ or non-PTZ cameras, NDI-connected sources (cameras, computers or other devices) or streaming URLs.

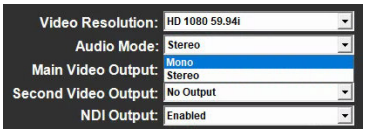
Your system hardware configuration is preconfigured at RUSHWORKS prior to shipping. When you open the **Configure** window you'll see the number of hardware card inputs available in your system. For example, if it's a Decklink DUO2 you'll see FOUR inputs. If it's a QUAD2 you'll see EIGHT inputs. If its a DUO2 and a Magewell 4-port HDMI card you'll see EIGHT QUAD2 inputs and FOUR Magewell inputs.

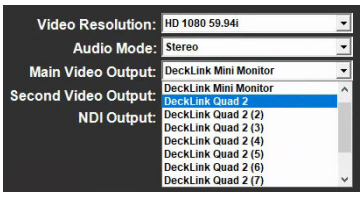
The **Input#** matches the input displayed on your switcher panel, left to right. The Input Connections default to Blackmagic cards and inputs first, followed by Magewell. The Name for each is sequential, defaulting to the same as the Input#. However, you can left-click (or right-click) any Input line and the Setup Input window will appear. Here you can select your desired **Input Connection** from the dropdown of available choices, enter a **Video Source** description, and create a **Name** that will replace the input number and display on your switcher panel.

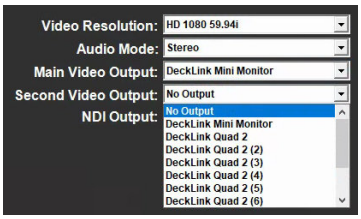


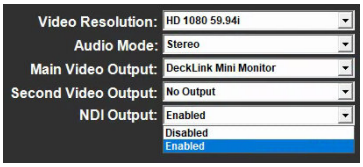












Click on the **OUTPUT** tab of the Configure menu. Here you'll select your desired output parameters from the drop-down lists in each field:

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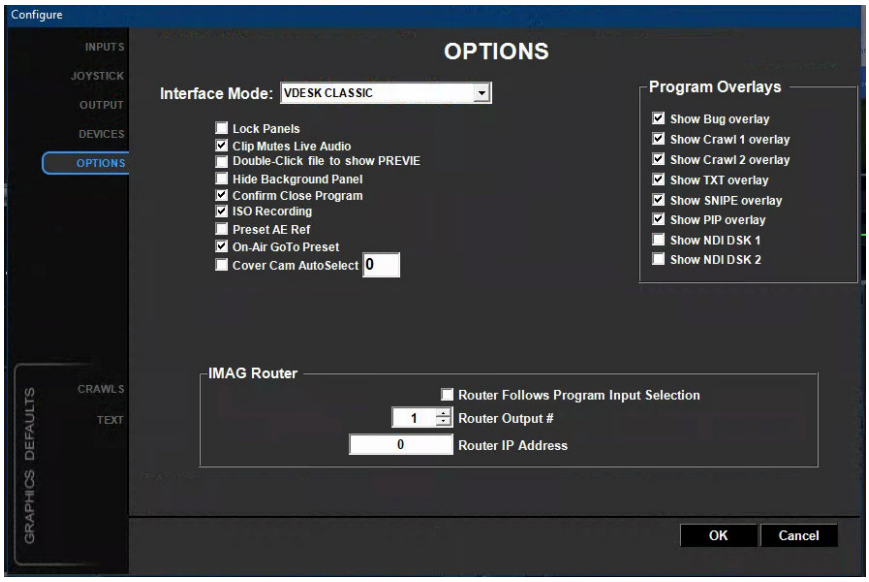
- Video Resolution
- Audio Mode
- Main Video Output
- Second Video Output
- NDI Output



Click on the **OPTIONS** tab of the Configure menu. Check the boxes you'd like active for your VDESK production sessions.

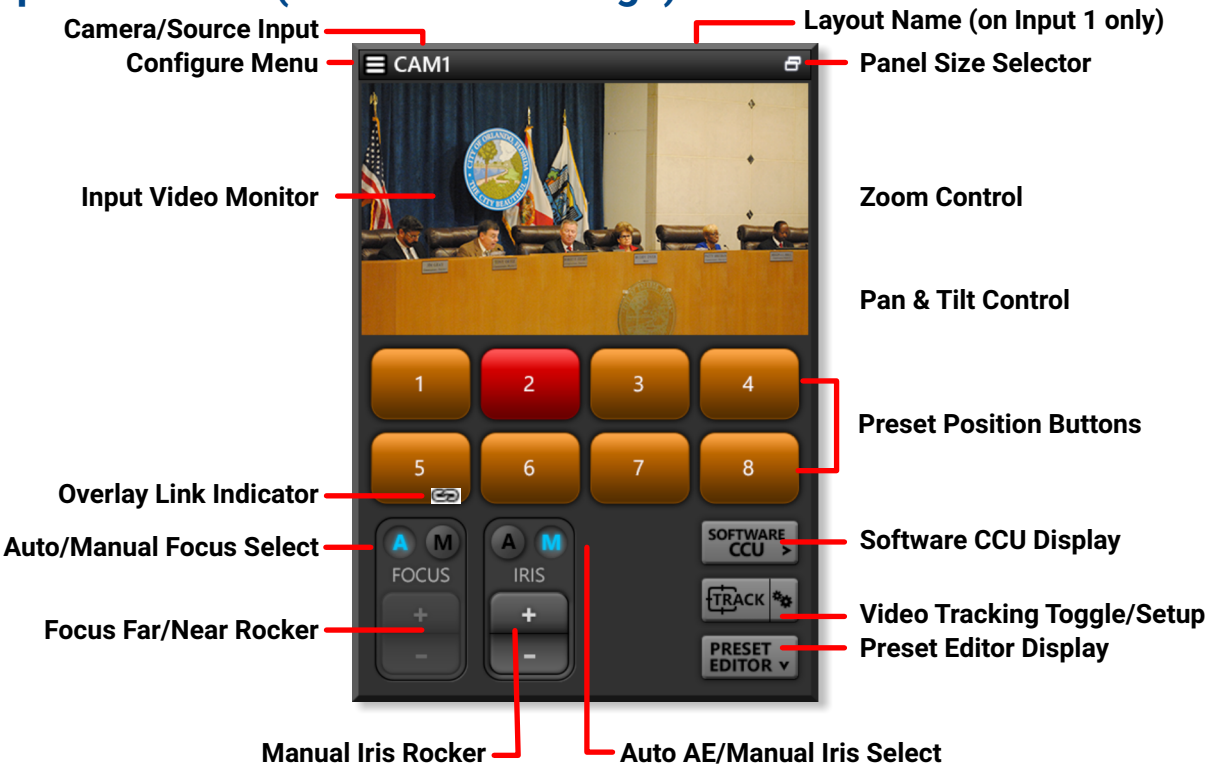
- Check **Router Follows Program**
- Select the **Router Output #**
- Enter the **Router IP Address**

IMAG OUTPUT with Reduced Latency

All digital production systems have latency in the program output signal. VDESK is no different, typically with an 8-10ms delay. This is enough to make in-room display uncomfortable for audience viewing. With VDESK you can control an external video routing switcher with minimal latency, automatically mirroring the VDESK Program input selection on the switcher using IP commands. The output of that switcher feeds the IMAG screen with only a couple of frames of delay. You lose any graphics overlays or transition effects, but the primary camera selection is always displayed on the IMAG screen.

Blackmagic Cleanswitch 12x12

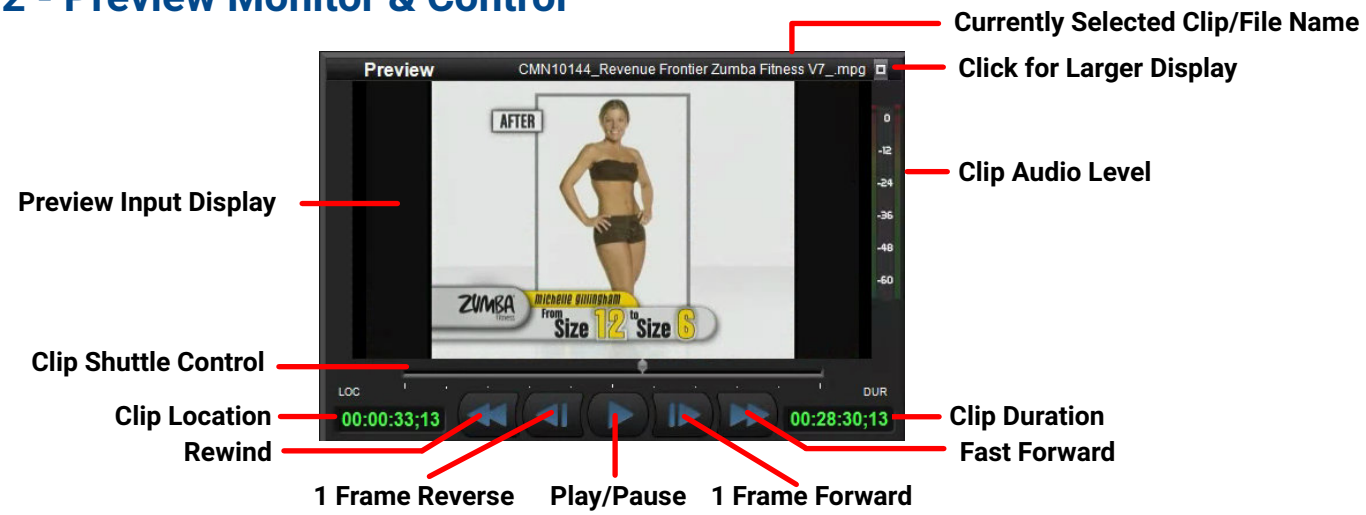
1 - Input Windows (Standard and Large)



Toggle the button in the upper right to switch between STANDARD and LARGE Input Display windows. You can position these windows anywhere on one or multiple monitors, then customize, name and save multiple layouts if you wish.

With TWO monitors configured you can size and position windows to maximize your efficiency and productivity in a session. Experiment with your Layouts to see what works best for you.

2 - Preview Monitor & Control

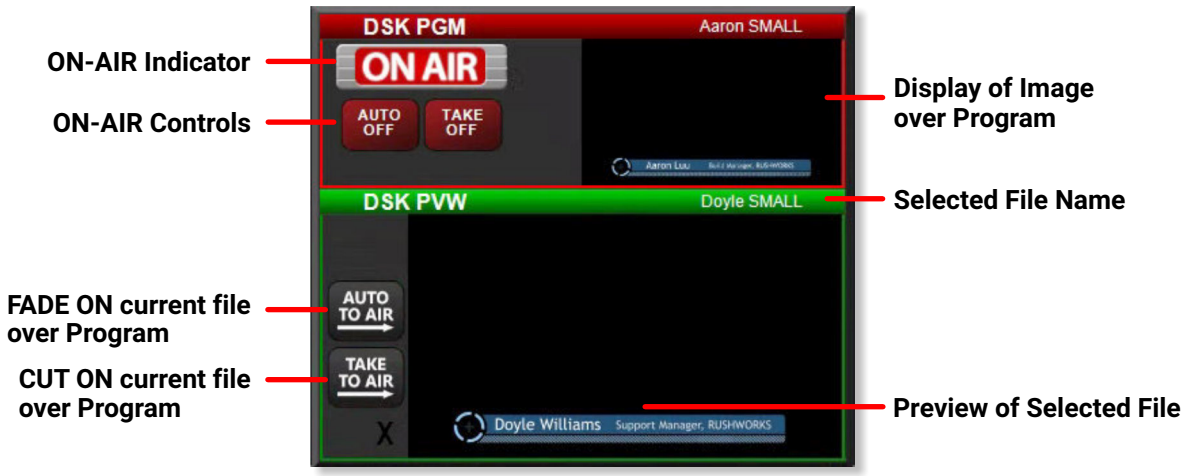


The **Switcher Preview** window shows a video preview of the source selected on the **Preview** output of the switcher. This may be one of the PTZ cameras, another video input, or a preview of your clip playback or selected still graphic, if that graphic has no transparency. Typically **BMP** and **JPG** files do not support transparency. **PNG** files are most commonly used with transparency for 'lower third' titles and other instances where graphics are superimposed over a video source. These files display in the DSK window only, and are used for graphic overlays on the Program output.

When a clip is selected in the Playlist or File Browser it automatically appears in the Preview window and the appropriate **transport controls** will become active.

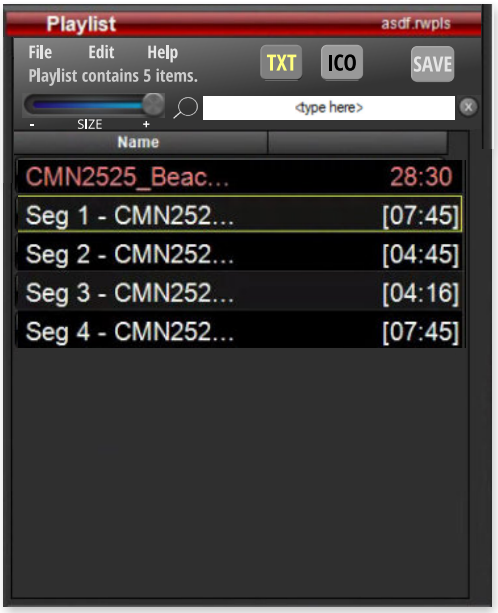
The transport controls allow you to preview the clip, or cue the desired spot from which to start playback when the clip is selected for display on the PROGRAM output. When a "LIVE" input or graphic file is selected the motion controls are disabled.

3 - DSK Control Window



The DSK window has controls for putting your graphics and video files on air. The monitor lets you preview graphics, and then fade or cut them over the PROGRAM video. When you click a graphic to display it in the DSK PROGRAM section, you can preview other graphics while the original is still on-the-air. Clicking "**AUTO TO AIR**" or "**TAKE TO AIR**" will fade out the graphic from the PROGRAM window then fade in the second graphic from PREVIEW. Whenever a graphic is being displayed in the ON AIR DSK PGM window, or you can **FADE** it off or **TAKE** it off using the respective buttons below the ON AIR light in the PROGRAM section.

4 - Playlist Window



The **Playlist window** is used to create an ordered list of files for playback during your production. You can add files to the Playlist by dragging them from the File Browser.

When you select a CLIP it will load into the **Preview Window.** Click **TAKE** or **AUTO** on the switcher panel to load and play the clip in the Program window.

When you select a PIC it will also load into the **Preview Window**. Click **TAKE** or **AUTO** on the switcher panel to load and display the static the clip in the Program window.

When you select a CG it will load into the **DSK Preview Window**, which is where files with transparency are previewed (PNG). Click **TAKE TO AIR** or **AUTO TO AIR** in the DSK Preview panel to load and display the overlay on the Program window.

As in the File Browser window, files can be displayed as a simple text list (click the **TXT** button) or as thumbnails (click the **ICO** button).

5 - File Browser Window

The **File Browser** window can be used for searching your hard drive to locate files to add to your playlist. There are four category buttons to take you to the default file types: **CG, CLIP, PIC,** and **ALL**, which shows all files at the root of your D: drive.

You can play and display files (CLIP, PIC, CG) directly from the File Browser simply by clicking on them and then clicking the TAKE or AUTO buttons on the Program switcher (for CLIP and PIC files) or **TAKE TO AIR** or **AUTO TO AIR** buttons in the DSK Preview window..

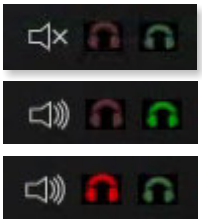
Files can be displayed as a simple text list (click the **TXT** button) or as thumbnails (click the **ICO** button).

6 - Program Window

When clicked, the RECORD and STREAM buttons wil highlight, RED and YELLOW respectively, to indicate the processes are active. The titles will change to RECORDING and STREAMING. Click to STOP either function.

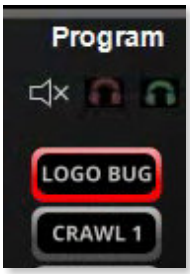
The **Program** Window shows the video output of the system. It is the final composited video signal that the system is producing. This is also what will be captured when you activate the RECORD and/or STREAM functions.

Audio Monitoring On/Off (Program or Preview)



Click the speaker icon to allow or mute the audio you're monitoring. Click the **GREEN** headphone icon to monitor **PREVIEW** through the computer audio jack output … and click the **RED** headphone icon to monitor **PROGRAM** audio output – the same that is being output on the HDMI and SDI connectors of your system.

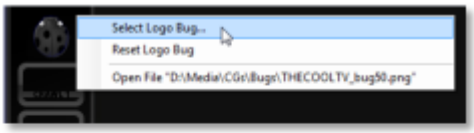
Bug On/Off

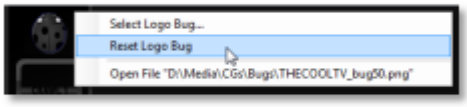


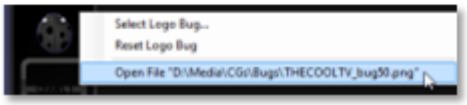
You can display a LOGO BUG (usually a 'branding graphic') at any time by left-clicking once on the button. It will illuminate and the currently selected graphic, usually a PNG file, will fade on. Click again to turn off the LOGO BUG. The icon will be grayed out, and the currently displayed graphic will fade off.

Bug Selection

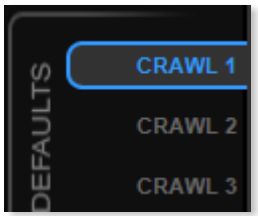
To select the graphic associated with the LOGO BUG, right-click on the LOGO BUG icon. Choose **Select Logo Bug** … A browser window will open, revealing the contents of the **CG** folder. Select the desired graphic and click OK. When you next left-click the Bug icon to activate it, the attached graphic will fade on.





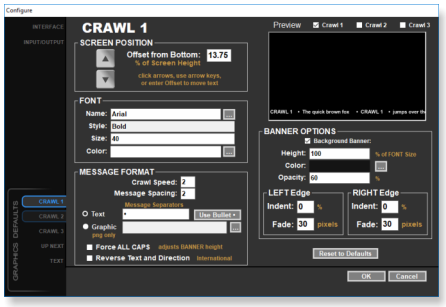


Reset Logo Bug … removes the current bug file association, so nothing will be displayed with you click the Bug icon.
Open File … opens the currently associated Bug graphic for verification



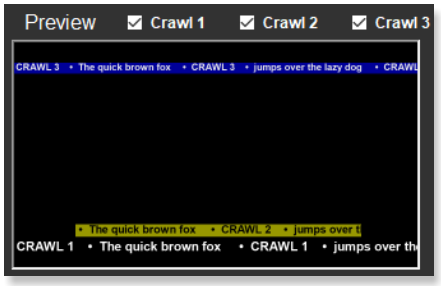
CRAWL Tabs

A-LIST supports three independent crawls: **Crawl 1**, **Crawl 2** and **Crawl 3.** Click the associated tab to review/change your preferences for each.



Streamster ships with default parameters for all three crawls. But you can change those at any time by clicking any of the three CRAWLS tabs on the Configuration page. Since there are a lot of display options to consider, the following descriptions focus on the four sections you'll work with: **SCREEN POSITION, FONT**, **MESSAGE FORMAT**, and **BANNER OPTIONS**.

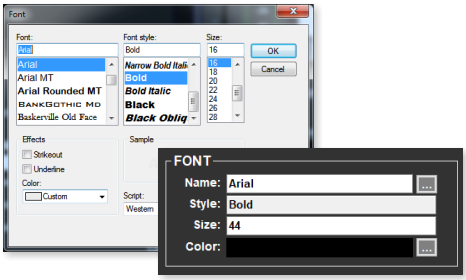
The currently selected Crawl tab displays the associated Configuration page. As a design aid when creating and positioning the three crawls, you can check the preview boxes above the Crawl Preview screen to confirm all the crawl properties.



Note: There is an Emergency Crawl (white text on a red banner) that appears only when you enter and save text in the **EmergencyCrawl.txt** file.

SCREEN POSITION

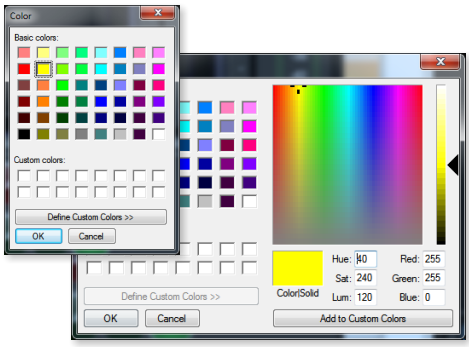
These controls are used to position the crawl (text and banner) vertically on the screen. You can enter/modify the **Offset from Bottom** (default for Crawl 1 is 15%), or you can click the **Up and Down arrows** to move the position. You'll see the result in the Crawl Preview window. You can also use the keyboard Up and Down arrow keys to change the crawl position.



FONT SELECTION

Click the menu button to the right of the Name field. It will open the Windows Font selection panel.

Choose the **Font**, **Font style, Size** and **Color** using this menu. When you click OK, you'll see the values appear in the respective fields in the Streamster FONT section.

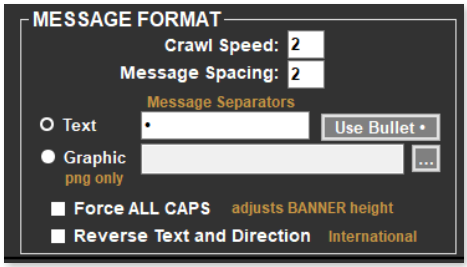


Custom Color Selection

If you want to work with a wider range of color choices, click the menu to the right of the Color field in the FONT section. This window will appear, and you can pick from these Basic colors or click the Define Custom Colors button.

That expands the window to provide thousands of color choices, or let you enter RGB or HSL values to select a color.

You can Save that color by clicking the Add to Custom Colors button.

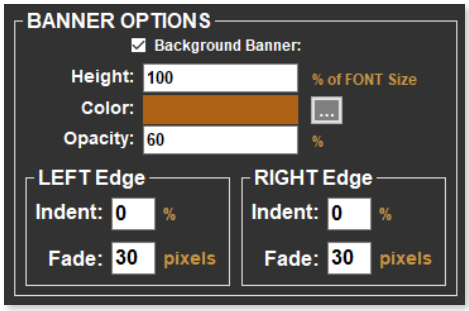


MESSAGE FORMAT

Set the **Crawl Speed** according to your preference. **Message Spacing** is the number of blank characters that appear between each line of text you enter in the Text Box when creating a crawl.

You can also add **Text** as a separator. To add a "Bullet" in addition to or instead of the Message Spacing value, click the **Use Bullet •** button to add it to the Text Message Separator. You can also enter any text or character value in that field.

To use a **Graphic** (usually a small branding logo) as a separator, click the Graphic radio button, then click the browse button to the right. Locate and select the PNG file you wish to use. **Force ALL CAPS**, when checked, changes mixed upper/lower case to all uppercase for your crawls. This automatically adjusts the banner height. **REVERSE Text & Direction,** when checked, changes the crawl to Left To Right for use with several international character sets.



BANNER OPTIONS

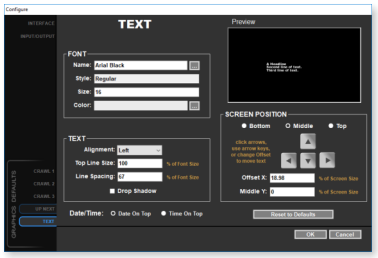
Click the Background Banner checkbox to make it visible.

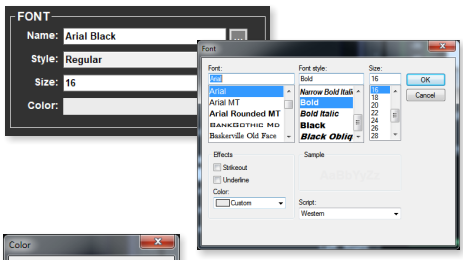
Select the **Height** of the banner, which defaults to the same size as the font you've selected (in percentage). To make the banner larger than the font, just enter a value greater than 100.

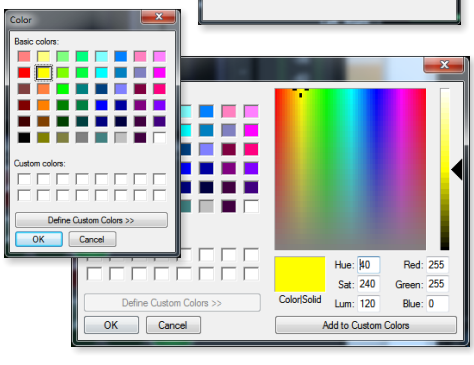
Click the browse button to the right of the Color display box to open the same Color picker used for the font, and make your selection.

Enter a value for the Opacity of the banner in percent. The higher the value, the less you can see the video behind the banner.

You can **Indent** the Left and Right Edges of the banner by entering a value representing a percent of the total screen width. You can also 'soften' the Left and Right Edges of the banner by entering a **Fade** value in pixels.







TEXT Tab

The TEXT tab is where you configure the text and position properties of text messages.

FONT SELECTION

Click the menu button to the right of the Name field. It will open the Windows Font selection panel.

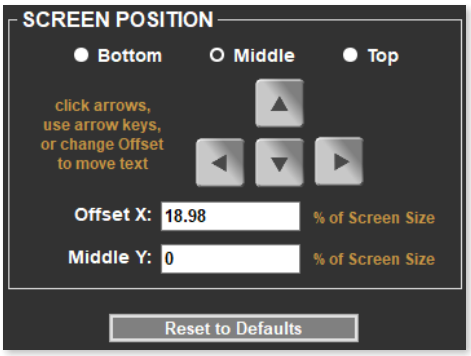
Choose the **Font**, **Font style, Size** and **Color** using this menu. When you click OK, you'll see the values appear in the respective fields in the Streamster FONT section. Check the **Drop Shadow** box if you prefer.

Custom Color Selection

If you want to work with a wider range of color choices, click the menu to the right of the Color field in the FONT section. This window will appear, and you can pick from these Basic colors or click the Define Custom Colors button.

That expands the window to provide thousands of color choices, or let you enter RGB or HSL values to select a color.

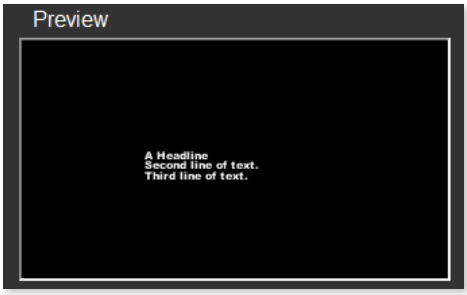
You can Save that color by clicking the Add to Custom Colors button.



SCREEN POSITION

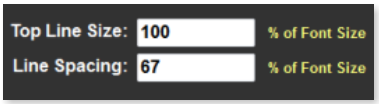
These controls are used to position the text on the screen. Use the top three radio buttons to position the text vertically (**Bottom**, **Middle**, **Top**), and the second row of radio buttons to position the text horizontally (**Left**, **Center**, **Right**).

Or click the **Custom** radio button and move the text anywhere on the screen using the **Up and Down arrows**. You'll see the result in the Crawl Preview window. You can also use the **keyboard** Up, Down, Left and Right arrow keys to change the text position.



TEXT PREVIEW

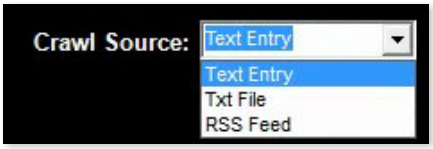
When you select the TEXT tab it automatically shows a preview of your text preferences for that layer in the Text Preview window.



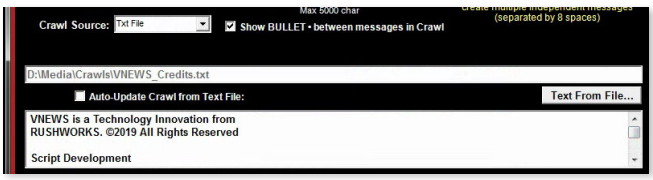
Top Line Size and Line Spacing

It's possible to automatically display the first line (top line) of multi-line text in a different size. This can be used, for example, to show the title of a music video larger than the artist name, which would be on the second line of text. The default is 100%.

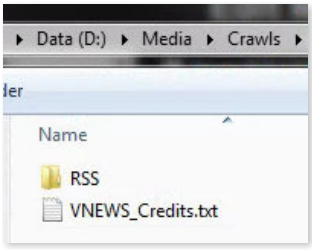
Line spacing, often called 'leading', can be adjusted by changing the value in the entry field. Both numbers are based on a percentage of the Font Size selected in the text layer configuration.

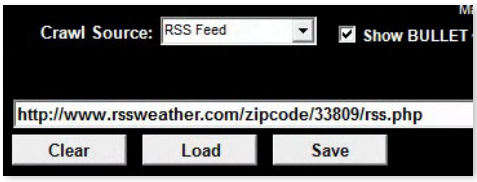


You can also select a **Text File** or an **RSS Feed** for the Crawl Source. Use the drop down arrow to open the list selection window and click on the source you wish to use.

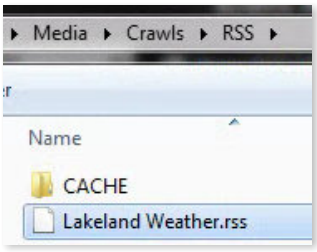


Select **Txt File** then click the **Load** button to open a browser window to the D:\Media\Crawls folder where the .txt files are kept, then click on the file you want to use and click OK.



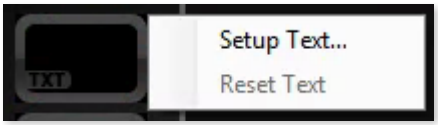


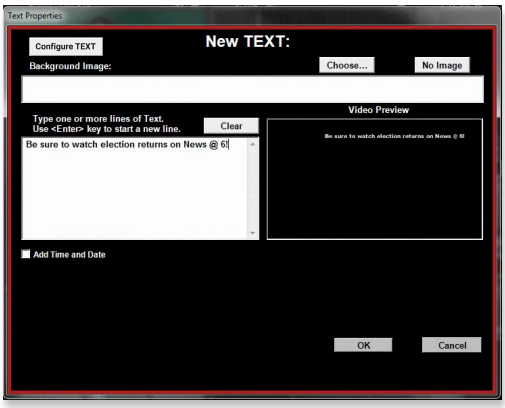
Select **RSS Feed** then click the **Load** button to open a browser window to the D:\Media\Crawls folder where the .rss files are kept, then click on the file you want to use and click OK.



Displaying Text

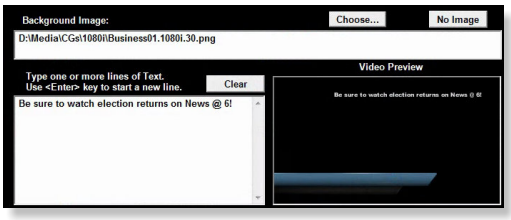
You can enter a text message directly for display. In the Text Setup you can specify font, size, color, screen position and more. Start by right-clicking the TXT icon when NOT active, and choose **Setup Text…**



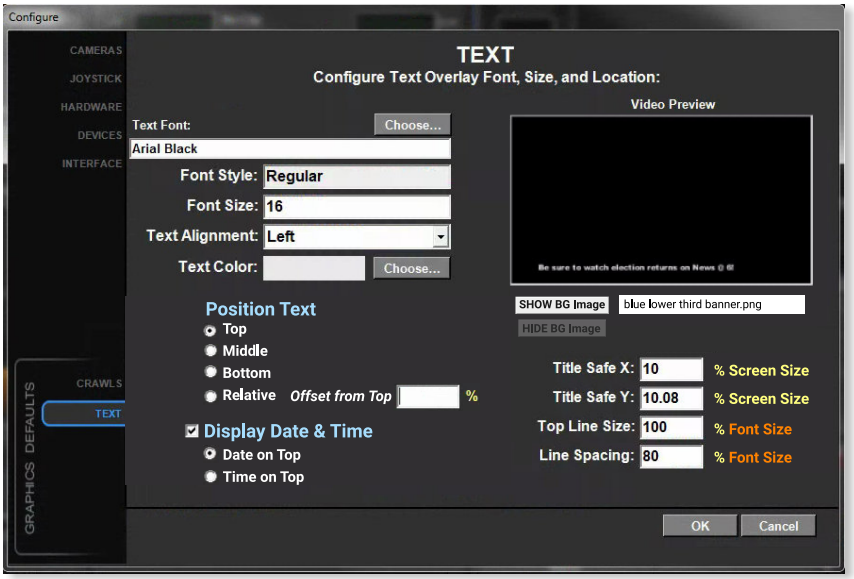


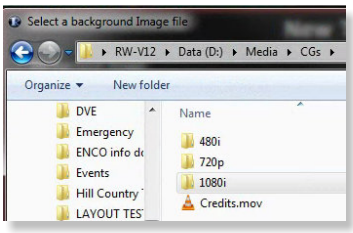
The **New TEXT** Properties window will open. You can enter text directly in the text box, with your input displayed in real-time in the Video Preview window. The text wraps automatically, based on the Title Safe margins defined under the Video Preview window.

You can also select a Background Image to use as reference behind the text. If the image supports transparency (PNG), the text will be composited over the background, revealing the portions of the PGM image.



To align the text over the Background Image click the **SHOW BG Image** button. The browser opens to the D:\Media\CGs folder. Select the file you want to use and click OK. The file name displays beside the button. Click **HIDE BG Image** to remove the reference.



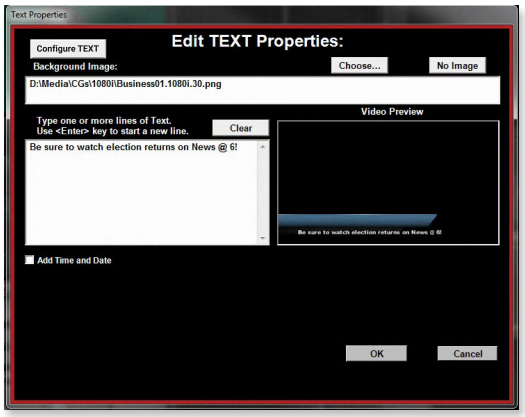


Another common use of the Text display is to put a Time and Date identifier on the screen. Just check the Add Time and Date checkbox and that information will automatically display on the PGM output.

Editing Text

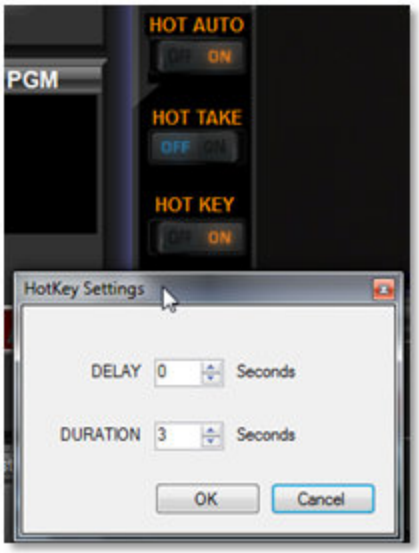
If you have created a text overlay and want to change the content, right-click the TXT icon (active or not), and choose **Edit Text…**

This opens the **Edit TEXT Properties** window where you can make any changes to the current text setup. If you need to change the font or style or any other parameters, click the **Configure TEXT** button at the top left of the window.



Using HOT AUTO, HOT TAKE and HOT KEY buttons

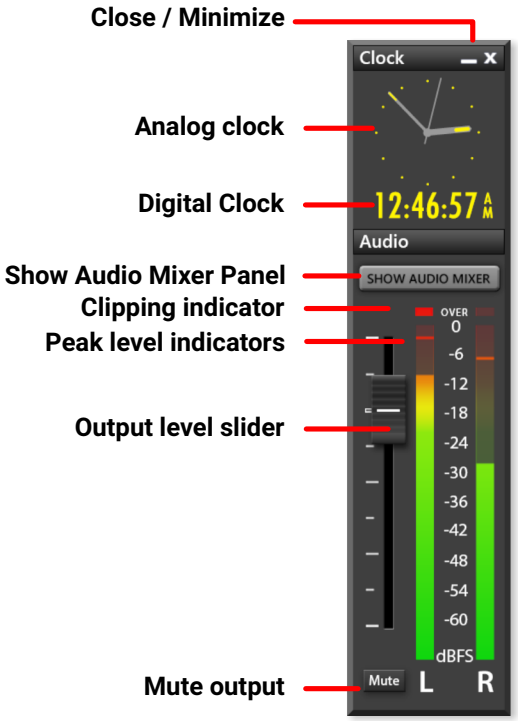
The three HOT buttons provide enhanced automation of putting your selected preset shots on the Program output … as well as fading on any graphics associated with PTZ camera preset selection. HOT KEY only applies if you have created l**inks to graphics** for any of your presets (*see "Linking a Graphic to a Camera Preset" on page 15).*



Toggle on/off either the **AUTO** or **TAKE** buttons. They will 'illuminate' when active/on. Whenever you select a "linked" camera preset, the system will automatically switch to that shot as soon as the camera reaches the preset destination, "**cutting**" to the shot if **TAKE** is On/illuminated … or **dissolving** to the shot if **AUTO** is on/illuminated.

With HOT KEY **OFF**, the system will automatically load the associated graphic into the DSK PVW window, where you can manually use the **TAKE TO AIR** or **AUTO TO AIR** to fade on that graphic over the PROGRAM video.

With HOT KEY **ON**, the associated graphic will automatically fade on after the HOT AUTO or HOT TAKE is executed. Right-click the HOT KEY toggle to display user-defined settings for how many seconds it's delayed before it fades on … and for how long it displays before it fades out.

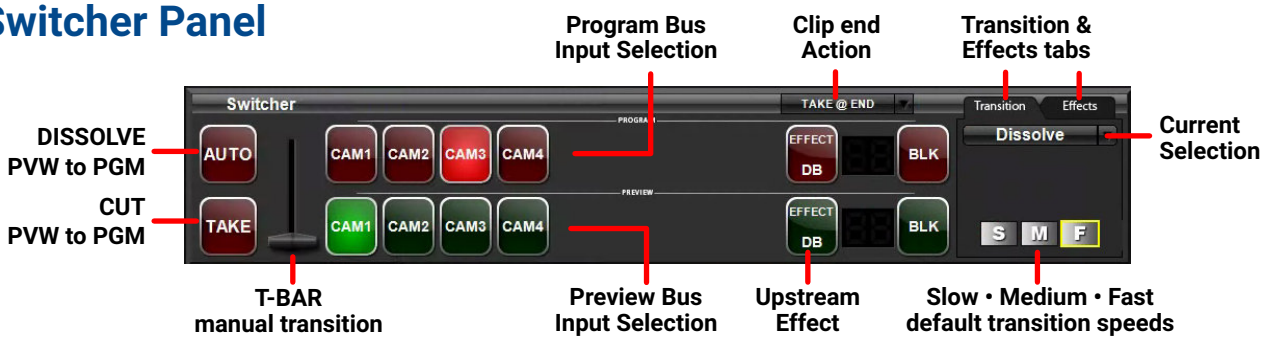


7 - Clocks & Audio Windows

The clock window has an analog clock showing the current time. It also includes a **digital clock and timer.** To start the timer, simply click the button labeled "Click for Timer" and it will start counting up seconds. To stop the timer, touch the display. To start again, touch the display again. The "Reset" button will reset the display to zero.

The Audio Window shows the real time master levels of your ***VDESK*** system. These levels reflect what the system is outputting on the master audio output as well as what is being captured by the encode function. The **Slider** will adjust the mixed output of all the audio sources. The **Mute** button will mute the audio output of the system. The **Close** and **Minimize** controls on the clock panel affect the entire program. You can also exit ***VDESK*** by right-clicking any of the camera window title bars and choosing "Exit"

8 - Switcher Panel



The Switcher Panel displays the configured inputs on the Preview and Program bus. You can change inputs one of 3 ways:

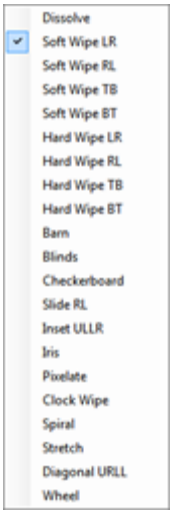
1. Use the **AUTO** button - this will change between the Program input and the Preview input using currently selected transition and duration.
2. Use the **TAKE** button - This will cut from the Program input to the Preview input.
3. Direct selection - Click any of the input buttons on either bus to switch the corresponding bus to that input.

Clip End Actions:

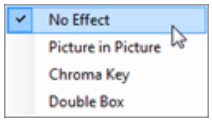
These allow you to control what happens when a clip on program reaches the end. The control is located above the CLIP1 and CLIP2 buttons on the switcher. When you click on the text it will cycle though the four choices, and when you click on the down arrow it will display a menu:

Black at Clip End - Once the clip runs out you will see black until you choose another input on the switcher.
Take at Clip End - Upon reaching the end of the clip the system will perform a TAKE command, switching to the preview input.
Auto at Clip End - At the end of the clip the system will perform a dip to black transition.
Repeat at Clip End - The clip will repeat until another input is selected. This option lights up RED as a reminder - the clip will keep looping endlessly unless you stop it!

Transitions and Effects tabs:



dropdown list of Transitions

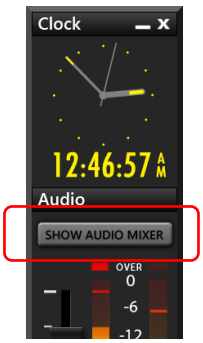


dropdown list of Effects

The Transitions and Effects tabs are where you select the type of transition, duration of that transition, and effect options. Not all effects and transitions have the same options so each selection will look different.

For more information on how to use these, jump ahead to **Choosing Transitions & Effects.**

9 - Audio Mixer Panel

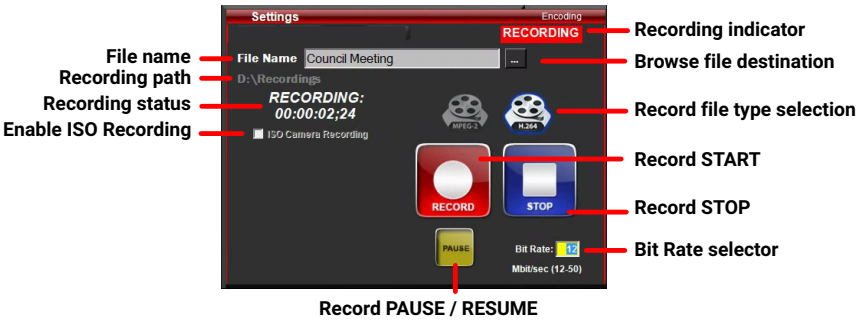


Click the **SHOW AUDIO MIXER** button above the Program Audio Monitors to open the **Audio Mixer Panel**. This provides individual level monitoring and adjustment of the INPUT sources you've defined in the Configuration setup. The button label changes to HIDE AUDIO MIXER when the panel is open.

10 - Recording Settings

Click the Configure button to the right of the RECORD button and the **Encode** panel opens. It shows the encoding path which where your files will be stored, which by default is **D:\Recordings**. If you wish to change this use the **Browse** button to select the desired folder. Below that is the optional **File Name** which will be used as the prefix to your file name. The file name will always be created in this format: **filename yyyy_mmss hhmmss**

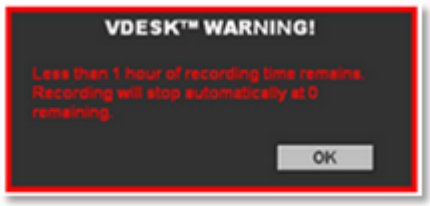
You can encode either of two (2) independent file formats, **H.264 (mp4)** and **MPEG-2**. When you click the RECORD button, you'll see the status of the recording on the left, displaying the format and the amount of time it has been encoding.



You can click the **PAUSE** button at any time. The RECORD button will indicate the encoding is paused. Click the yellow **RESUME** button whenever you're ready to resume encoding. The resulting files will be contiguous, with seamless splicing at the pause/resume point(s).

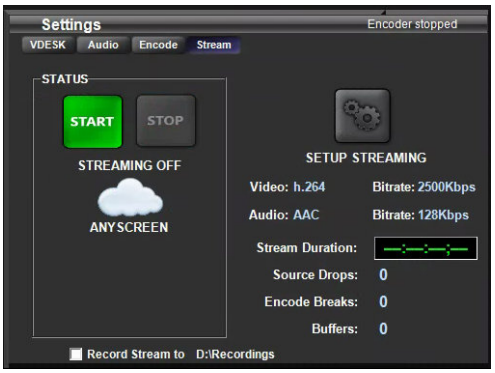
The RECORDING button above the PGM monitor also turns RED and displays the word RECORDING while active. The name of the file being recorded is displayed above the button. Click the red button and the recording is stopped, with the button text reverting to RECORD in black.

If recording space drops below one hour you will see a box pop up alerting you. A warning will show again at 5 minutes remaining. **Recording will STOP AUTOMATICALLY** when no more space is available. Please keep this in mind when starting a recording.



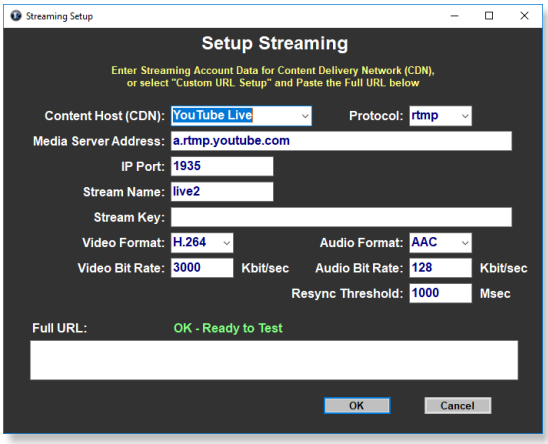
11 - Streaming Settings

Click the **STREAM Settings icon** to open the Settings page.

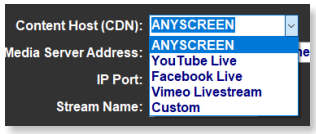


This page displays all the information associated with your streaming setup and output parameters, as well as the status of your current stream when active.

Click the **SETUP STREAMING** button to enter the necessary information to configure your desired stream output.



Although there are several parameters to enter on the Streaming Setup window, they are absolutely required when you're setting up your streaming output. Since you'll likely be delivering your signal to a Content Delivery Network (CDN), first select your provider by clicking the arrow for the dropdown. Your choices are **ANYSCREEN**™, RUSHWORKS' subscription hosting service, **YouTube Live**, **Facebook Live**, **Vimeo Livestream** and **Custom**.



Copy each field from your CDN's detailed settings page and paste into the matching field on the CONFIGURE STREAM window. If Video Bitrate and Audio Bitrate suggestions are not provided, then use the default values. Click **OK** when done.

Click the green **START** button to activate **STREAMING**. The STOP button will turn RED when streaming is in progress.

You can monitor the current **Stream Duration**, as well as a report of how many **Source Drops** and **Encode Breaks** have occurred during the session. The **Buffers** indicate the 'health' of your bandwidth connection. The lower the number the better your performance will be.

Click the STREAM button to activate **STREAMING**. It will turn RED when streaming is in progress.

Preparing for a Production

Now that you have had a brief overview of each window that makes up the user interface, we'll show you how to set up for production

The "How To" steps we will cover are:

1. **Configure the system components**
2. **Create, name and save your camera presets**
3. **Create graphics for your production**
4. **Link a camera preset to a graphic**
5. **Create a playlist**
6. **Set up a recording**

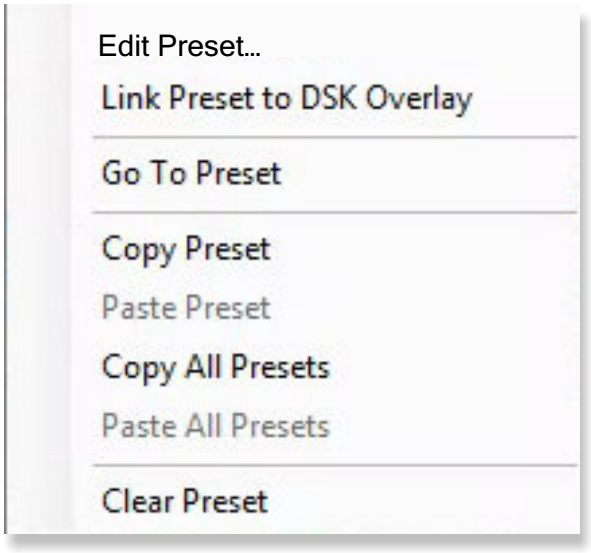
Once these things are done you are ready to start your production.

Setting, Naming and Saving PTZ Camera Presets

There are a few different ways to control the PTZ cameras. The joystick and touch pads are the most common, but you can also use these keys to adjust camera positions. The joystick and keyboard controls will always apply to the camera currently selected on **PREVIEW**. This allows you to move the camera to the position or preset you desire without a rapid on-air move.

- **Zoom Out**
- **Zoom In**
- **Tilt Up**
- **Tilt Down**
- **Pan Left**
- **Pan Right**

Use the joystick to position the shot using Pan, Tilt and Zoom - then right-click the desired preset button on the corresponding camera window. This will open a context menu for managing presets



Edit Preset…
Opens the Preset Editor window below the camera panel

Link Preset to DSK Overlay
Opens a dialog that allows you to select a graphic (PNG file) to link with the preset. Each time you go to the preset the linked file will be loaded in the DSK window.

Go To Preset
Move the camera quickly to that preset

Copy Preset
Saves all the associated positioning and camera data.

Paste Preset
Pastes the copied positioning and camera data

Copy All Presets
Saves all positioning and camera data for all presets.

Paste All Presets
Pastes all the positioning and camera data to prests on another camera

Clear Preset
Clears all data from the selected preset.

Creating Graphics & Animations using Adobe Elements

For your convenience, **VDESK** and **REMO** systems include Adobe **Photoshop and Premiere Elements**. For extensive guides please refer to each product's manual or to Adobe's website. There are many useful video tutorials to help you through all the different features of each program.

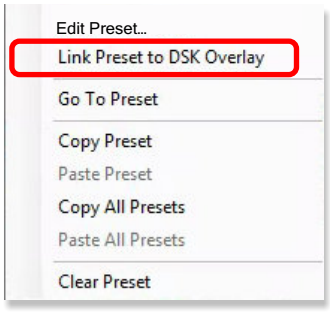
These programs are great for creating graphics of all kinds, including lower-third titles with transparency (PNG). You can also edit your productions, or any other production footage … so this added functionality provides you with enhanced capabilities on your VDESK/REMO system.

Premiere Elements **Photoshop Elements**

Note: if you choose to create your own graphics they must be on pages corresponding to your selected output format (480i, 720p, 1080i or 1080p). These are, respectively, ***720x480, 1280x720, and 1920x1080.***

Linking a Graphic to a Camera Preset

Once you have a camera position saved to a preset button you have the option to link an overlay to it. These can be created in Photoshop Elements or another graphics program you may have. Once these files are saved as **PNGs** you can link them. All you have to do is **DRAG** your **PNG** from the **File Browser** onto the preset you want it linked to and then **DROP** it. It's that easy! If you want to do it the hard way, you can right-click the desired preset and select **Link Preset to DSK Overlay** from the list.



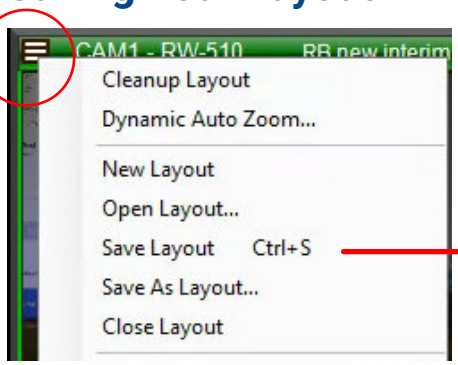
Check the box next to **Link Preset to DSK Overlay** and then the **Link...** button and browse to the graphic. Select it and click **Open** (or double-click), then click **OK** on the previous window. You will see the **Chain Link** icon. There are 3 states of this icon:

This link icon means that the preset is linked to a PNG and it is enabled. It will be loaded every time the shot is selected.

This link icon means that the preset is linked to a PNG and it is disabled. It will NOT be loaded when the shot is selected.

This link icon means that the preset is linked to a PNG but the PNG can't be found.

Saving Your Layout



Once you have linked everything you want be sure to **save the layout.** To do this, click on the 'hamburger' menu at the left of the camera title bar, or right-click on the camera title bar and select **Save Layout** (Ctrl+S) from the list.

Creating a Playlist

Creating a playlist for use during a production is *drag and drop* simple!

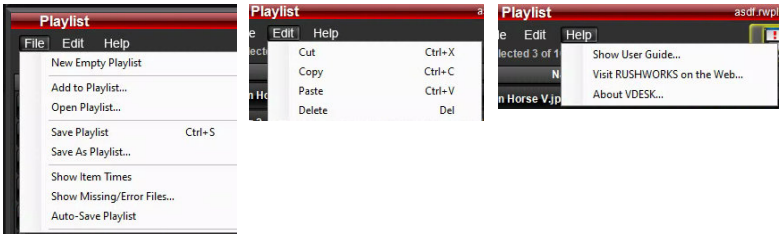
Search for the desired files using the File Browser window and drag them to the Playlist window. You can select then drag and drop one or more files to change the order. If you want to save the playlist for later use, click the **Save As** button at the bottom. Playlists can also be created by importing an agenda from ***AgendaPrep.***

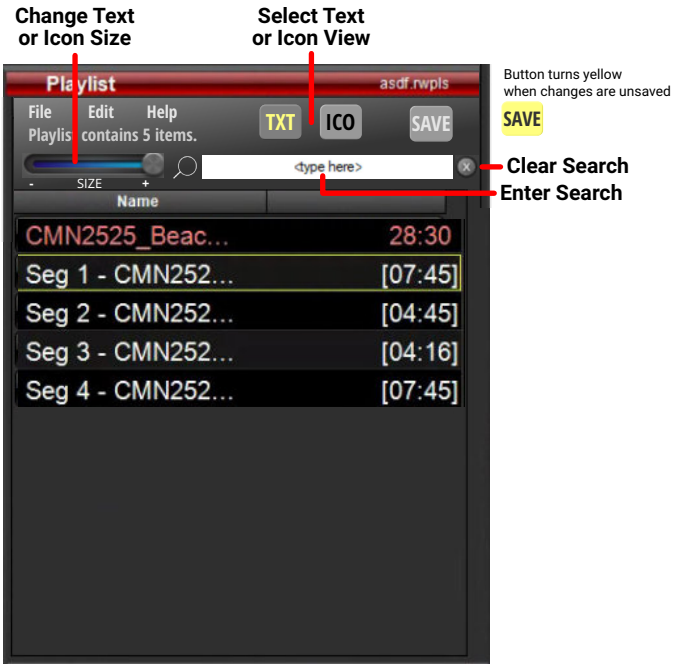
Selecting One or More Files in the File Browser or Playlist

• Select a single file by **left-clicking on the file.**

• Select multiple **non-contiguous** files by **holding down the Option key while clicking on each.**

• Select multiple **contiguous** files by clicking one file then **holding down the Shift key while clicking the last file in the desired selection**.



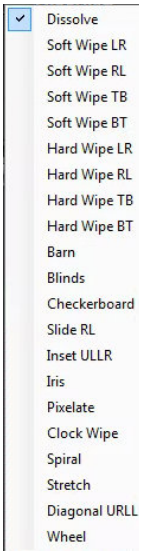


To Play a Selected File or Files, click the **TAKE** or **AUTO** button on the switcher.

To Play All Files, click the **Select All** button and click the **TAKE** or **AUTO** button on the switcher.

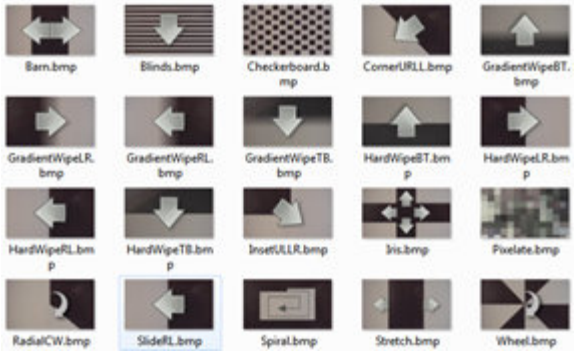
You can create and save as many Playlists as you wish. Examples include City Council (date), P&Z (date), 7AM Service (date), 11AM Service (date), etc.

Selecting Transitions



A video **transition** occurs between the inputs currently selected on the **Preview** and **Program** busses. When you click the **TAKE** or **AUTO** button the image on Preview replaces the one currently on the Program output

To view the available transitions, click the **Transition** tab and click the down arrow to display the dropdown list. There are 21 transition options to choose from. Dissolve is the default, and is typically the most often used transition effect along with Cuts – which are accomplished using the TAKE button or by selecting various inputs on the virtual screen Program bus or using the keyboard shortcuts.

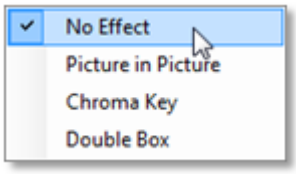


The transition icons represent the type and direction of entry of the selected transition.

You can also repeatedly click on the transition name button and it will select and display the next transition in the order displayed on the dropdown list.

Selecting and Using EFFECTS

Because the switcher has only a Program and Preview Bus … plus a DSK (Down Stream Keyer) … the two busses are used to set up and display effects as well.

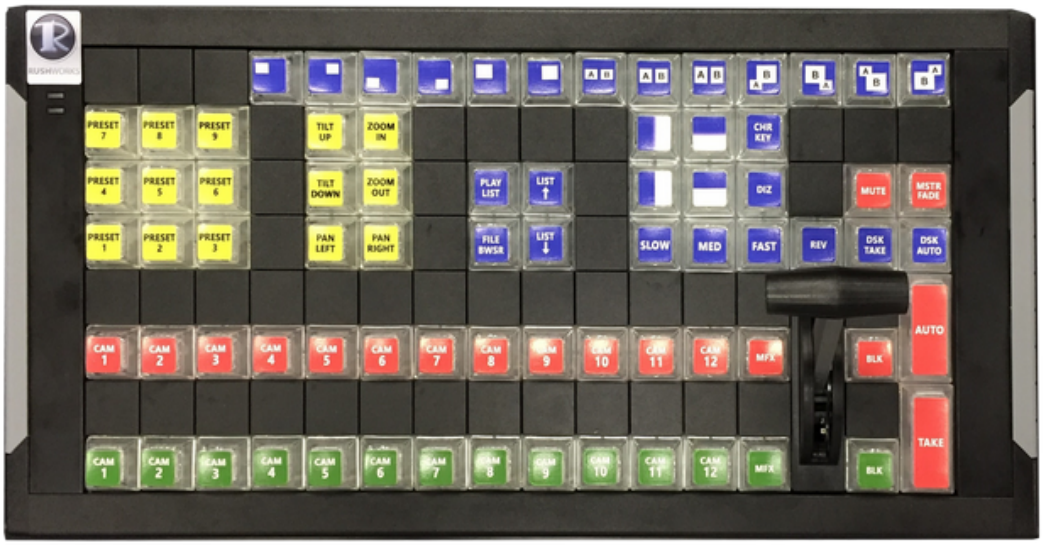


An "effect" is often called a "DVE" … or Digital Video Effect. This usually suggests the placement and/or manipulation of smaller video windows inside the 'main' video window. These types of DVE placements are referred to as "squeeze backs", "PiP" (Picture-in-Picture), "double box shots", etc.

Click the **Effects** tab and click the down arrow to display the dropdown list with the three available choices.

The VDX T-BAR Control Surface

The optional **VDX Control Surface** consolidates switcher Program and Preview selection, camera and preset selection, Playlist and File Browser manipulation, TAKE and AUTO Transitions, Effects and T-BAR transitions in one USB device. It's a great way to provide one-button selection of almost any function without the need for a mouse.

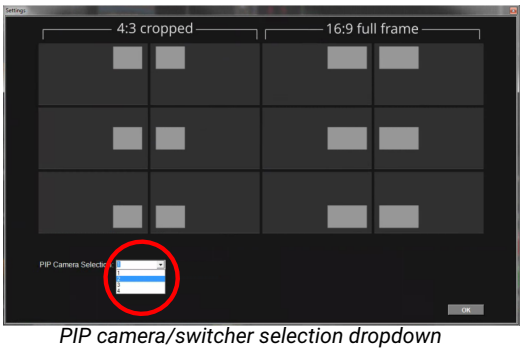


Toggle On/Off a Picture in Picture (PiP) from the Program Window

For simple one-touch PiP display of any input over any other input as background, this is a convenient way to operate.

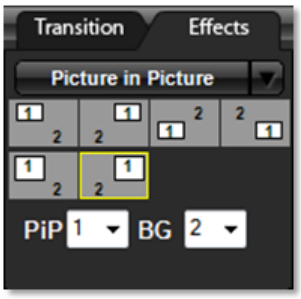
When you open VDESK you'll see NINE selection buttons for real-time activation and display. Right-click the PIP icon and you'll see the **Configure PIP** flyout.

This PIP Settings screen appears, providing 12 size, position and crop choices for the PIP. Click the image you want to use, then select the camera/switcher Input to display in the PIP window and **click OK**. When you click the PIP button it activates (RED = On) and the switcher panel shows a lock on the PIP input source. You can select any other source from the Preview bus and click AUTO or TAKE to display it behind the PIP, or just click an input on the Program bus.



PIP camera/switcher selection dropdown

Display a Picture in Picture (PiP) using the Effects Tab



1) Select **Picture in Picture in the dropdown list.**

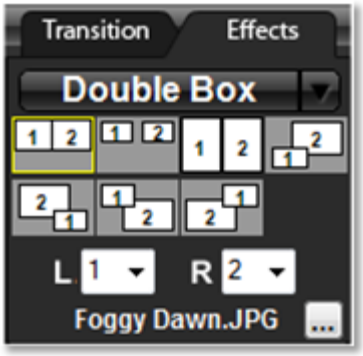
2) Click the desired size and position from the six available choices. You will see the **inputs** currently assigned to the PiP window and the background it's displayed over.

3) To check or change the current input assignments, use the PIP and BG dropdowns to select available inputs for each. You'll see your changes happen in the Preview window in real-time.

***Note**: Each of the six PiP positions stores its own Foreground and Background input settings. Because all transitions and effects are confined to what can be accomplished using inputs on the PGM and PVW buss … plus the DSK … it's important to learn how to manage the setup required for optimizing your results when using Effects in VDESK.*

4) Click **AUTO** or **TAKE** to display the **PiP** effect on the Program screen.

Display a Double Box PiP …



1) Select Double Box in the dropdown list.

2) Click the desired size and position from the seven available choices.

You will see the currently assigned inputs in the respective box position icons. To change the current input assignments, use the L and R dropdowns.

4) Select the L (Left) input, the R (Right) input, and use the ellipsis button to search for a Background Picture if you want to use one. You'll see your changes happen in the Preview window in real-time.

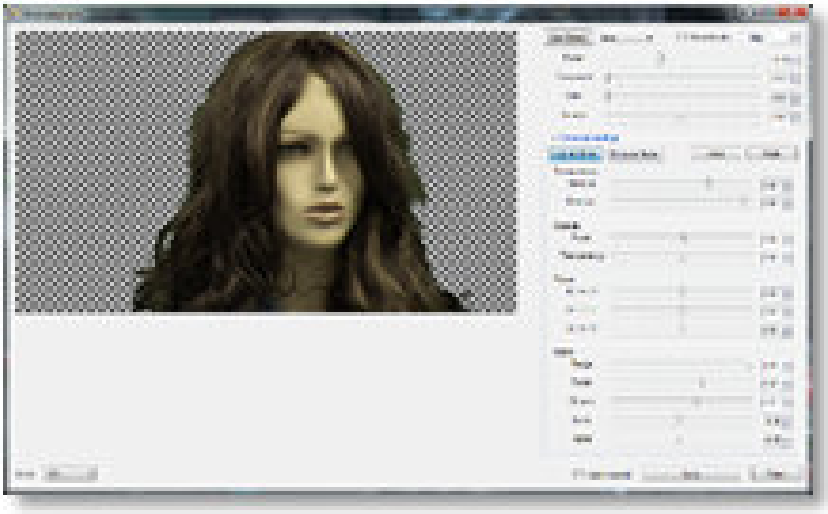
Note: Each of the seven Double Box positions stores its own Box L and Box R input settings. Because all transitions and effects are confined to what can be accomplished using inputs on the PGM and PVW buss … plus the DSK … it's important to learn how to manage the setup required for optimizing your results when using Effects in VDESK.

5) Click AUTO or TAKE to display the Double Box effect on the Program screen

Working with Chroma Key

Creating a good, “clean” Chroma Key depends a lot on the lighting. You should provide “flat” lighting across your green/blue screen, and good fill and back/rim light on your subject for optimal results. But the Chroma Key function in VDESK is extremely ‘forgiving’, meaning you can generally create high quality green screen keying without a lot of lighting … in some cases getting good results with simple overhead fluorescent lights!

Under the Effects tab select Chroma Key from the Effects dropdown list. The input numbers currently assigned for the background (BG) key subject (CK) are displayed on the icon. Change those in the dropdown lists to use the desired inputs. You can also select a File to use as the background by clicking on the File: icon and locating an image. You’ll see the changes in the Preview window in real-time. If you want to refine the key, click the Setup button.



Setting up a Chroma Key follows the same procedures as PIP/DVE effects. Choose your Foreground Input (the object in front of the Chroma Key screen) … and your **Background Input,** which can be a video input or a selected graphic file.

Then click the Adjust Chroma Key button. This setup window will appear, with the Foreground Input displayed. These faders control the most important values in creating a good key: Power, Transparent, Color and Smooth.

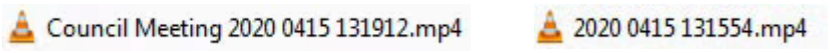
Press the Auto Detect button and the current settings for these controls will be applied to the key, with the crosshatch pattern representing what the selected Background input or graphic will fill. If you check the Apply Instantly box, the adjustments you make will appear on this screen AND in the PREVIEW window of VDESK/REMO.

Click the Advanced settings plus sign to extend the number and levels of control for creating the best key. Click the Apply button to see your changes, or check the Apply instantly checkbox to see the changes as you make adjustments. When you’re satisfied with your key, close this window, and click the TAKE or AUTO button to display the Chroma Key on the Program output.

Setting up a Recording

When you click the RECORD Setup icon at the top of the Program Monitor the Record Settings panel will appear.

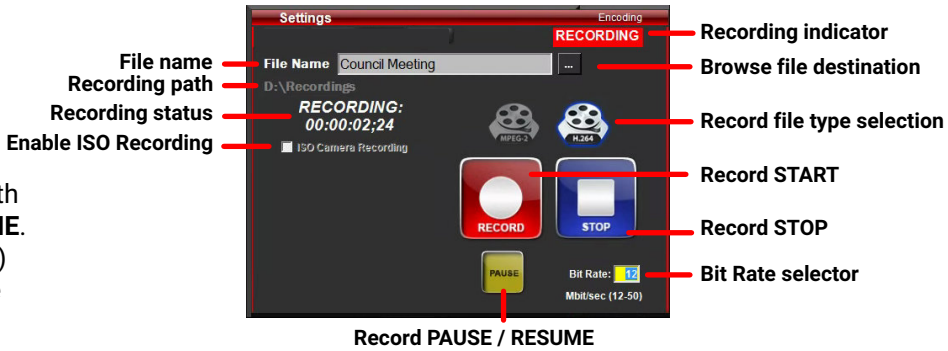
The file path defaults to the "**Recordings**" folder on the **D** drive. If you enter a File Name (*optional*), that name will be included at the beginning of the file name. If not, the file name will be a timestamp as shown.



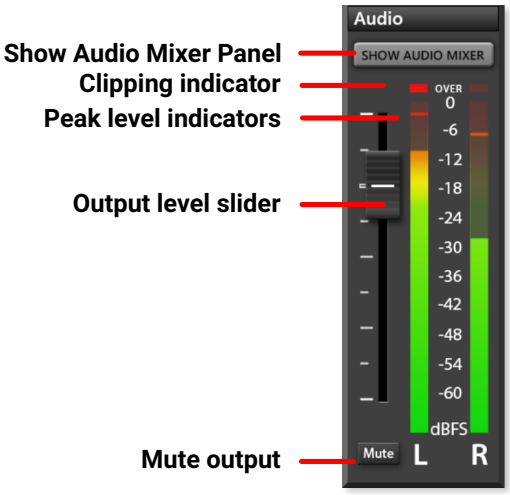
Below the File Name field, select (*click to highlight)* the format you want to encode. **MPG** is MPEG-2 CBR. **H.264** is mp4. Select the Bit Rate you want to use for the recording. **25** is a typical rate for MPEG-2, and **12** is generally appropriate for H.264.

To start recording, click **RECORD**. Whatever you see on the **PROGRAM** display is what you are recording.

You can click the **PAUSE** button at any time, and it will glow bright yellow – with the button label now displaying **RESUME**. Click the RESUME button and the file(s) will resume recording, creating a single seamless data file.



Monitoring & Controlling Audio Levels



To the right of the Program Monitor is a real-time indication of your main audio level which is the level that will be recorded.

Digital systems such as this are designed with -12dBFS as the optimal peak level. You will see the red OVER indicators light up if you go too far over this level. When they light up you will most likely experience audio clipping in your output and recording. If you wish to clear the red indicators simply right-click them.

If your levels are too high or low, all you have to do is move the output slider up or down to compensate. It is a good idea to test your input levels against your CLIP playback levels before your production begins. This can be done on the AUDIO panel after clicking SHOW AUDIO MIXER.

Starting your Production

Once you have prepared your system for the production, review this list to make sure you are ready.

1. Are all your camera presets set for this venue?
2. Are the lower thirds and title screens ready and in your playlist?
3. Are the lower thirds linked to the correct camera presets?
4. Is your playlist saved?
5. Is your layout (which includes camera presets) saved?
6. Did you check your audio levels?
7. Did you specify a file path for your recording?
8. Do you have enough available record time for your program?
9. Did you select the correct recording format?
10. Did you name your file?

Don't forget to start recording!

The first thing to remember when you are ready to start your production is to **CLICK THE RECORD BUTTON!**

The steps you take from this point on can vary greatly, but let's take a look at a typical city council meeting as an example.

1) Enter a File Name for the Event you are recording.

2) Select MPEG-2 or H.264 as the recording format.

3) Verify the Bit Rate you want to use. The default for HD MPEG-2 is 35Mbit/sec. You can select between 12 and 50 Mbit/sec. The default for H.264 is 12 Mbit/sec. You can select between 3 and 15.

4) Click the RECORD button to start recording.

Adobe Elements and VDESK / REMO

For your convenience, **VDESK** and **REMO** systems include Adobe **Photoshop and Premiere Elements**. For extensive guides please refer to each product's manual, or to Adobe's website. There are many useful video tutorials to help you through all the different features of each program.

Premiere Elements

Photoshop Elements

These programs are great for creating graphics of all kinds, including lower-third titles with transparency (PNG). You can also edit your productions, or any other production footage … so this added functionality provides you with enhanced capabilities on your VDESK/REMO system.

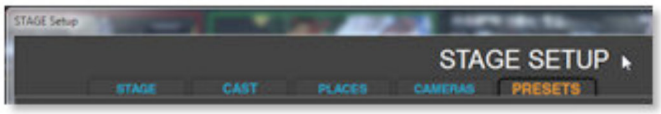
Using the PRODUCER Interface

PRODUCER Overview: Staging an Event

While the CLASSIC user interface is easy to use, the unique design of the PRODUCER touch screen user interface provides the simplest, most intuitive multi-camera production mode available. It's based on creating and producing "Events" using a virtual on-screen 3D simulation of the physical environment where the PTZ cameras are located for each Event.

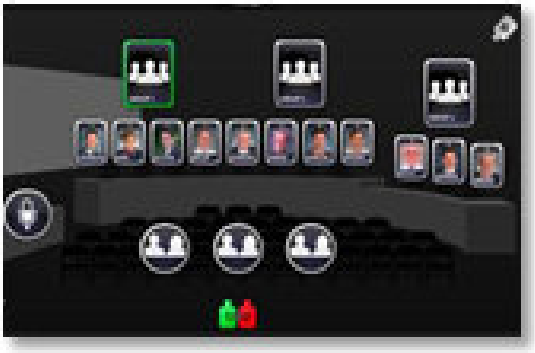
Example locations include a meeting room, house of worship, radio station control room, indoor theatre, outdoor stage, or any other multi-camera production venue.

The exclusive **DoubleTake™** function lets you create an unlimited number of presets using a single PTZ camera, automatically assigning those presets – with lens offsets – to a second camera, and go to any preset with either camera for instant coverage of any venue using just TWO PTZ CAMERAS.



You create the Event layout using five setup tabs:

- **STAGE**
- **CAST**
- **PLACES**
- **CAMERAS**
- **PRESETS**

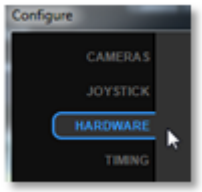


Once the STAGE is set, you select shots by simply touching the picture or icon that represents the person or object at that physical place in the venue

For meetings these are typically pictures of meeting participants (picture icons = picons) in their respective seating positions. For houses of worship and theatrical events these are often a combination of picons and 'musical icons' (musicons™) such as a piano, guitar, drums, singers (tenor, soprano, etc.).

In addition to simple 'touch/take' production, you can display any or all of the NINE effects available for selection on the PROGRAM monitor bezel at any time.

To change from the CLASSIC interface to the PRODUCER interface or the TalkingPoints interface, click the Configuration button, select the HARDWARE tab, and click the radio button for the Interface radio button you wish to use. The program will automatically close, then reopen with the interface you've selected

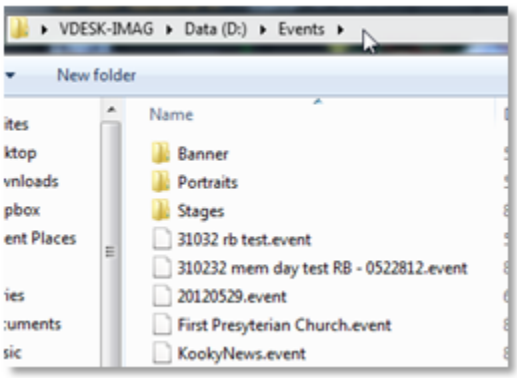


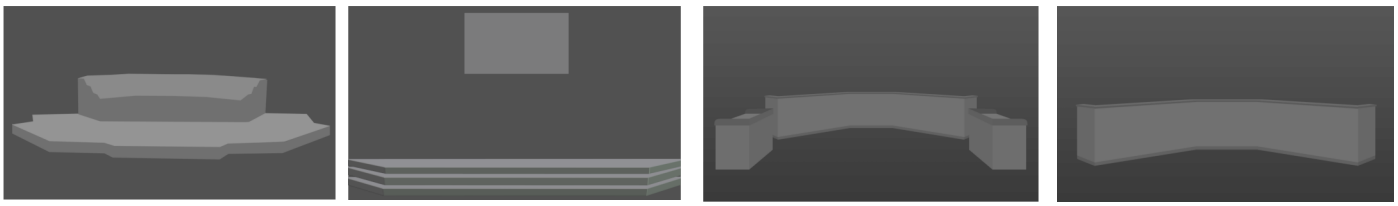
The STAGE tab

Click the File menu and select New Event. This opens a Save dialog where you will name and save the Event into an Event sub-folder.

Click the Stage Setup button … then click the STAGE tab. There are several STAGE background templates to choose from, including the one(s) customized for your venue(s) prior to delivery of your VDESK/REMO system. Select the one that best represents your production environment.

Select your STAGE file by right clicking the browse button to open the STAGES folder. Here you'll see large icon views of the STAGE background templates, organized into sub-folders for DAIS, HOW (House of Worship) NEWS, THEATRICAL and CUSTOM. There is an EMPTY.png you can use if you don't want to use a graphic for the STAGE.





Some of the <u>included</u> Layout templates for Houses of Worship, municipalities, entertainment and news.

Note: i*f you want to create your own custom background, use any graphics program to design it and save it as a JPG, BMP or PNG file and place it in the STAGE LAYOUTS folder. We've included an empty stage to use as a background for custom designs. If you wish to make a completely custom design t****he dimensions MUST be at least 800 x 400 (pixels).***

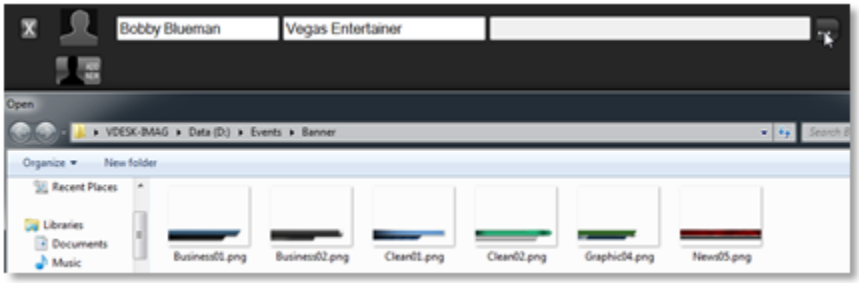
RUSHWORKS prepared this custom Layout for the City of The Colony in Texas.

The CAST tab

Next click the CAST tab. Here you will:

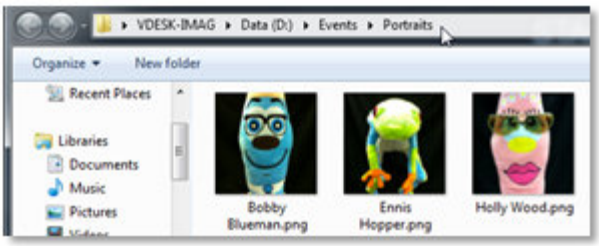
1. Assign a picture icon (picon) for each preset
2. Enter a Name and Title
3. Select a graphic banner background for the name and title
4. Enable "over the shoulder" (OTS) presets for the CAST member. *These are typically used in a news-style presentation where the camera pans slightly left or right to allow for positioning of a graphic on screen with the person in the shot*

Click the **Add New** button … and the associated entry fields will appear. In the **NAME** and **TITLE** fields enter the Name and Title of the CAST member (e.g. **Roger Thomson** and **Council Member** – or **St. Anthony Chancel Choir** and **Sopranos**).



To the right of the BANNER field click the File browse button to open the BANNERS folder. There are several banner templates to choose from. Select the graphic background you want to use behind the Name and Title display. NOTE: these will automatically be composited into files that are linked to each CAST member preset for manual or automatic display when the preset is touched/selected.

Under PORTRAIT, click on the silhouette button of the CAST member. This will open the PORTRAITS folder within your currently open Event where you store pictures of Event participants. Double click on the picture you want to use – or select the picture and click Open. The picture will replace the silhouette. If you work with multiple Events (e.g. COUNCIL, P&Z, etc.) there will be a unique PORTRAITS sub-folder within the saved and named Event sub-folder.

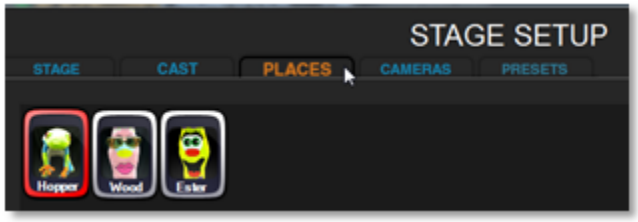


NOTE: The PRODUCER interface allows you to **capture pictures for CAST members** using any of the PTZ cameras configured with the system. If you want to create pictures in that manner, don't click the silhouette under PORTRAITS when you're defining CAST members. When you create your presets on the PRESETS tab you can capture a picture with your PTZ camera that will be associated with the already created CAST member. It will place the capture in the PORTRAITS sub-folder with the appropriate name, and also display it in the CAST tab whenever opened

To add another CAST member, just click the **Add New** button beneath the last added member. Follow the procedures described above until all the CAST members are defined, then click the **SAVE** button to save your information but not close the Stage Setup panel. Click Close button to close the Stage Setup panel if you don't want to do additional entry or modification using the **Stage Setup** tabs.

The PLACES tab

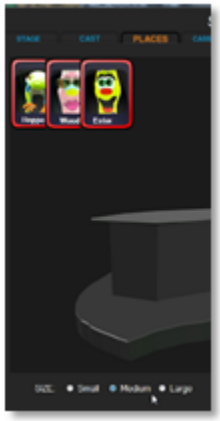
Once all the CAST members have been defined, click the PLACES tab.

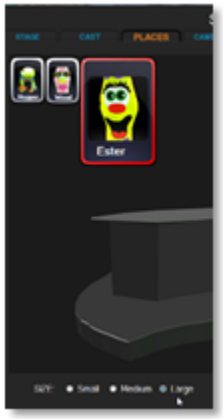


All the defined CAST member picons will be displayed across the top of the STAGE layout in the order in which they were created. Select each picon and drag it to its appropriate place on the STAGE.

Changing the SIZE of display picons

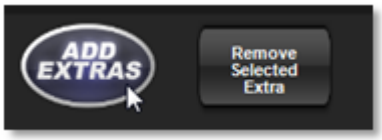
You can choose from three (3) display sizes: Small, Medium and Large. The default size is small. To change the size of ALL the picons on the STAGE: double-click anywhere on the STAGE and they will all be selected, as indicated by a red outline on each picon. Then click another SIZE radio button and they will all display in the selected size.





To change the size of individual picons on the STAGE: click once on any picon to select it, as indicated by a red outline. Then click another SIZE radio button and only that picon will display in the selected size.

Adding EXTRAS to the STAGE layout



"EXTRAS" are defined as presets without unique pictures, names, titles or banners. These are typically used in theatrical and/or musical presentations and for houses of worship.

We've created a folder with dozens of icons that are representative of these types of presets, including musical instrument and performer icons (musicons) as shown here.

In the **PLACES** tab, click the **Add Extras** button. A folder will open, revealing all the Extras picons. Just double-click a picon to place it on the STAGE … or select it and click **Open**. To add multiple EXTRA icons, hold down the CTRL button and right-click on the ones you want to add, then click **Open**.

As you select Extras they will display horizontally across the top of the STAGE layout. You can then drag them to their appropriate position(s) on the STAGE.

To REMOVE an Extra picon, just select it and click the **Remove Selected Extra** button. It will disappear from the STAGE layout.

The CAMERAS tab

The system recognizes how many PTZ cameras are configured (via RS-422 or IP) when the program is started. When you click the CAMERAS tab, you see the STAGE layout with CAST members and extras … and a row of configured PTZ camera icons at the bottom left of the STAGE layout. Drag each camera to its relative position on the STAGE. This establishes the association of the physical camera location relative to the CAST members and Extras.

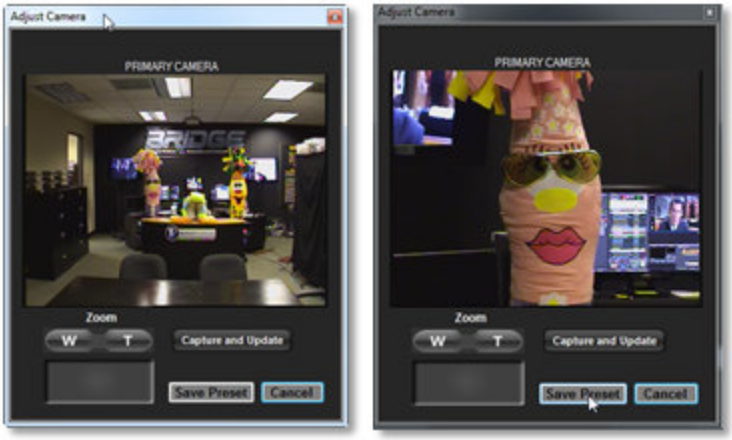
You can mix “manned” cameras (non-PTZ) and PTZ cameras. They will display on video input windows and can be selected on PVW or PGM by using the F keys F1 – F8 (PGM), keyboard number keys 1-8 (PVW) or shortcut keys on the keypad. F9 and key 9 always select BLACK on PGM and PVW, respectively, on the switcher. The joystick will always control a PTZ camera that is currently selected on the PREVIEW bus.

The PRESETS tab

After you’ve selected your STAGE background, defined the CAST members, dragged the picons to their PLACES, and positioned the configured cameras, you’re ready to create PRESETS for each of the CAST members on the stage … as well as for any EXTRAS you may have placed. Additionally, you can create random presets that are associated with the QUICKSHOT buttons at the bottom of the screen.

To create a preset for a CAST member or EXTRA …

Click once on the camera (icon) you want to associate with the shot. That camera will highlight RED. Then click the CAST member or EXTRA on the STAGE. The PRESET camera window will open and the selected camera’s output video will be displayed.



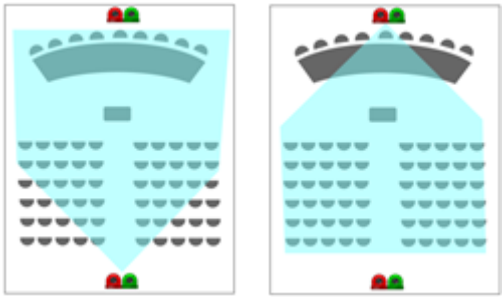
Using the joystick (or the PTZ buttons on the PRESETS camera window), frame the shot the way you want it stored. You can also capture the framed shot as the graphic to use as the Portrait in the CAST tab and for picon screen display.

Click the **Capture and Update** button to save and store the snapshot as the Portrait for that CAST member. Click the **Save Preset** button to store the preset. Click the **Close** button at any time to close the PRESET window.

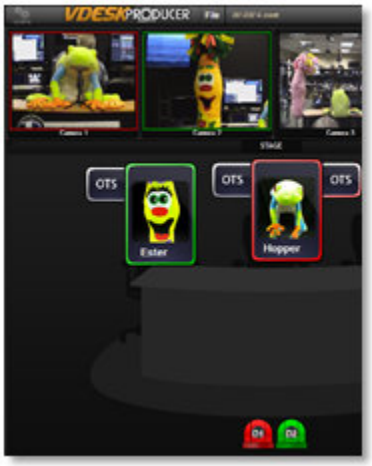
Enabling and Using DoubleTake™

The **DoubleTake** function lets you create an unlimited number of presets that are duplicated between two PTZ cameras which are mounted closely together – either horizontally or vertically mounted – with a minimum of distance between the lenses.

On a 4-input system you can create TWO pairs of DoubleTake cameras (1-2 and 3-4). On an 8-input system you can create FOUR pairs of DoubleTake cameras (5-6 and 7-8).



The example on the right illustrates the type of 'blanket' coverage you can achieve with DoubleTake camera pairs. Typically there would be one pair of DoubleTake cameras at the rear of a room venue, and another pair on the wall behind a dais at the other end of the room for maximum coverage of the venue.

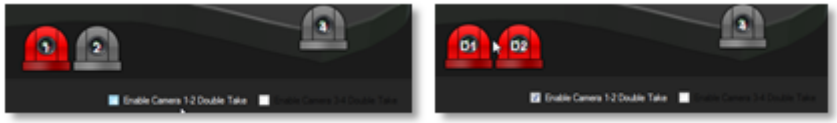


The above image shows the PREVIEW (Green) / PROGRAM (Red) relationship between the DoubleTake camera pair, the camera video monitor windows and the STAGE picons.

For example, using **Camera 1** to create all your presets for a 1-2 DoubleTake pair, the program automatically saves all the defined presets to **Camera 2** as well, calculating the offset in the X and Y (horizontal and vertical) axes between the two cameras. It also stores the same Z (zoom) value, which means that either camera can go to any preset you've created. <u>There is no limitation on the number of presets you can create for any camera.</u>

This mode follows standard Preview/Program switcher protocol, with each of the cameras always displaying on either Preview or Program bus of the software switcher. The camera currently on the Program bus is outlined in RED … while the other camera is outlined in GREEN.

To display the cameras properly and enable this mode, on the CAMERAS tab drag Camera 1 to the position where it and Camera 2 will be located next to each other. Then click the **Enable Camera 1-2 DoubleTake** checkbox. The Camera 2 icon will automatically jump to the immediate right of the Camera 1 icon.



Setting up the DoubleTake™ offset

If you've checked the Enable Camera 1-2 DoubleTake checkbox on the CAMERAS tab, you'll always use the lowest number in the pair to set your presets for the two cameras. With a single pair of DoubleTake cameras, you'll always use Camera 1.

NOTE: *When you click Camera 1 or 2, they will BOTH turn RED, indicating they are a DoubleTake pair. If you enable a second pair of DoubleTake cameras, they will be Camera 3 and 4. So you'll always use Camera 3 to set presets for that pair.*

With the DoubleTake checkbox checked, click on Camera 1, and then click on a CAST member or EXTRA. The PRESET camera window will open and the selected camera will move to its "Home" pan-tilt-zoom position (presuming you have not already created any presets).

***NOTE**: It's best to choose a CAST member or EXTRA in <u>the middle of the STAGE</u> when you're setting up the secondary camera offset. This is generally a one-time-only exercise so you'll want to trim the offset to a single area of the stage. The Horizontal and Vertical offset will be applied to the secondary camera for ALL presets on the STAGE.*

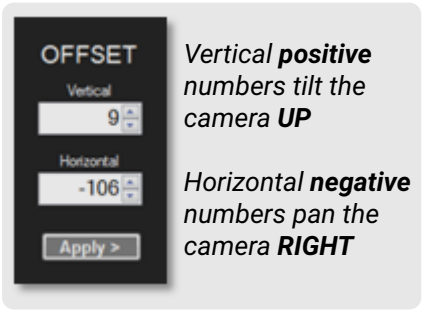
Using the joystick (or the PTZ buttons on the PRESETS camera window), frame your shot then click the ALIGN button on the camera window. The window will expand to reveal a second camera window which displays the DOUBLETAKE Camera.

Between the two camera windows are the **OFFSET** adjustment fields. If the cameras are mounted sided by side, the largest offset will be Horizontal … or Vertical if mounted one above the other.

Entering a **negative value (-)** for the Horizontal results in panning the camera to the **right**. In general, if you start by entering a value of -60 (and click **Apply**) you'll see the DoubleTake camera move to a position similar to that of the PRIMARY camera. You can also use the up/down arrows to the right of the value to create the offset value(s). Whenever you change the value, the Apply button will display YELLOW until it is clicked.

You can monitor the output of both cameras on the PROGRAM OUT of VDESK or REMO to verify the closest trimmed alignment. Just click the 1 and 2 buttons to see the cameras switch on the PROGRAM OUT. That's the best way to verify optimal alignment.

***NOTE**: These **OFFSET** parameters are **Global** … meaning that they apply to ALL presets on the STAGE that were created by a set of DoubleTake cameras. Because of different angles relative to the two cameras, some DoubleTake preset offsets will be more accurate than others. In general, if you frame the tightest shots as Medium Close Ups (MCU), you'll be happy with the results. The wider the shot, the less offset you'll see between the two cameras.*



*Vertical **positive** numbers tilt the camera **UP***

*Horizontal **negative** numbers pan the camera **RIGHT***

Saving PRESETS to the QUICKSHOT Button Bar

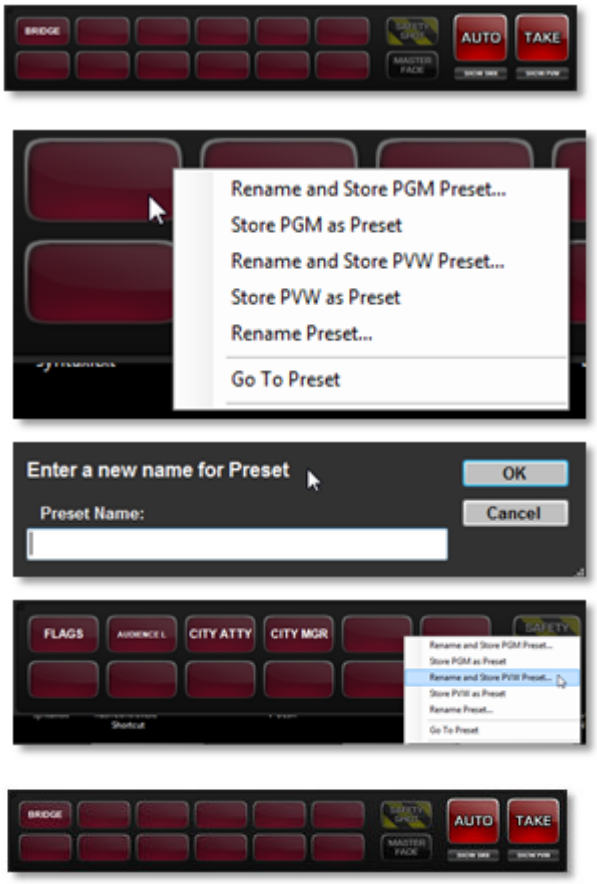
Below the STAGE area are twelve (12) large red buttons. These are used for "general purpose" presets that are often convenient to have, but which don't correspond directly to a CAST member or other picons on the STAGE. These are called QUICKSHOT buttons.

To name and save a PRESET to a QUICKSHOT button … select the PTZ camera you want to use for the shot, then use the joystick to position the camera where you wish.

Right-click a QUICK SHOT button and a drop-down menu will appear. Choose the option that applies to what you want to accomplish. Typically you will Save and Name the shot you currently have framed in either the PREVIEW or PROGRAM window.

When you select either of those options, the **Name and Save** dialog box will open where you can enter a name for the preset. When you click **OK**, the window closes, and you'll see that name displayed on the QUICKSHOT button.

Selecting any of these shots follows the same rules as presets associated with picons. You can switch between and among CAST picons, EXTRAS and QUICK SHOTS whenever you wish.



Switcher Functions on the QUICKSHOT Button Bar

On the right side of the QUICKSHOT button bar are additional buttons for controlling select functions on the PRODUCER interface

Click **AUTO** or **TAKE** to initiate the currently assigned transition between the PREVIEW and PROGRAM busses.

Click **MASTER FADE** to take all current sources, DSK overlay, graphics overlays and audio to BLACK. While in this state, the button will flash once every second to remind you that you need to click it again to resume your PROGRAM output.

Click **SHOW/HIDE SWX and PVW** to display the 'floating' switcher panel and/or PREVIEW windows. just above the button bar. The switcher is necessary for specifying Transitions and Effects

Showing the SWITCHER and PREVIEW Windows

The PRODUCER interface is an alternate to the CLASSIC interface, supporting a unique and simple touch screen production style. But since both interfaces are built on the same programming platform, you have access to most of the same features and functions in the CLASSIC presentation.

To display the SWITCHER panel, just click the **SHOW SWX** button on the QUICKSHOT button bar. To display the PREVIEW monitor, click the **SHOW PVW** button. These buttons toggle to **HIDE SWX** and **HIDE PVW** when pressed. All the display panels are movable, so you can 'float' the SWITCHER and PVW panels and all other visible panels wherever you wish, even making a custom arrangement using a second monitor.

You'll need to display the SWITCHER panel in order to access the Transitions and Effects tabs where you can select different types of transitions, use the T-Bar, and set up DVE and Chroma Key effects.

Showing the AUDIO MIXER

To display and use the AUDIO MIXER, click the **SHOW MIXER** down-arrow beneath the Master Audio Fader. The Mixer window will open, where you can control the levels of the LIVE input, CLIP1 and CLIP2 and the SNIPE audio level (if the Snipe file contains audio). When it is visible, you can place it anywhere on the screen … or on a secondary monitor if one is connected.

To close the AUDIO MIXER, click the **HIDE MIXER** up-arrow.

Using the DSK control

The DSK control in PRODUCER is a simplified version of the one in the CLASSIC interface. In either the File Browser or a Playlist, click on any file with transparency (PNG) … typically a lower-third graphic … and it will load into the DSK window.

To display the file over the current PROGRAM selection, just click the DSK button. The graphic will fade on and the DSK button will glow bright blue, and the ON-AIR sign will illuminate. Click the button again to fade off the image.

When an image is being displayed on the PROGRAM output, you cannot load another graphic until you've faded off the DSK graphic.

The following sections are included on pages in the CLASSIC section of the USER GUIDE:

Selecting Transitions
Selecting and Using Effects
To display a Picture in Picture …
To display a Double Box (PiP …
Working with Chroma Key

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