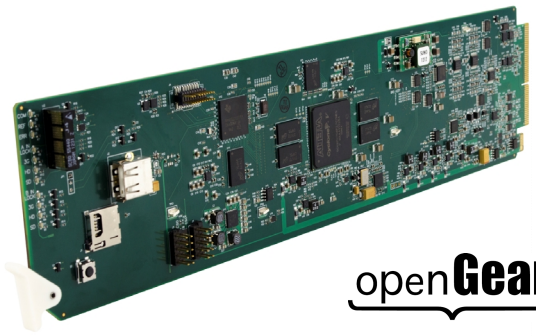
Option



- **Logo Insertion Option (+LOGO)**
- **Trouble Slate Insertion Option (+T-SLATE)**

— Manual Supplement —

COBALT

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Manual No.:	OPT-SW-PHXLTS-MS
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Description/reason for supplement change:	Describes new functionality of logo/trouble slate insertion where graphic file names are displayed in DashBoard. Wherever graphic status for Logo and/or Slate 1 thru 3 is displayed, the associated filename of the graphic is also displayed. This can provide more direct user correlation of the graphic to be inserted with its contextual function.

Option

Overview

Note: This supplement covers both Trouble Slate Import Option **+T-SLATE** and Logo Insertion Option **+LOGO**. The procedures for setting up logo and/or trouble slate insertion are similar, even though function/usage of these options is entirely independent of each other, and your card/device may be equipped with either or both options as ordered. Refer to the applicable sections in this supplement for the option(s) to be used with your card/device.

This manual supplement provides descriptions and operating instruction for **+T-SLATE** and **+LOGO** options available on various new Cobalt® cards and BBG-1000 standalone units, and as purchased field-installed licensable feature uploads for the same models. Availability of these options for various card and device models is indicated on the web page for the card or device.

+T-SLATE and +LOGO Option Functional Description

(See Figure 1.) Options **+T-SLATE** and **+LOGO** both provide for graphic insertion onto the SDI processed output raster of the host card/device. The options allow for uploading your .png image graphic file to the card/device memory. (png files are converted to a special format using a web tool before uploading to the host card/device; this is described in the setup/operating instructions later in this supplement.)

When the image file(s) is uploaded to the card/device, its insertion can be enabled via DashBoard Event Setup controls that enable the graphic insertion only under certain conditions as desired. (For example, a trouble slate graphic can be set to insert upon detected input Loss of Signal (LOS). A logo graphic can be set to insert upon receiving an hourly station ID GPI, and then disable using the same GPI.)

Both **+T-SLATE** and **+LOGO** functions allow for positioning the image within the active video using DashBoard controls (which are described in the setup/ operating instructions later in this supplement).

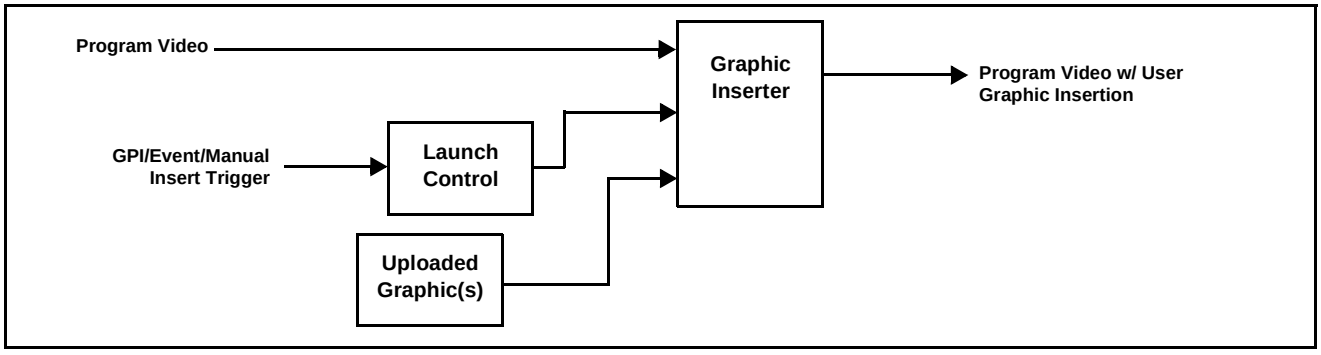


Figure 1 Graphic Insertion Simplified Functional Diagram

Uploading Option Feature (Field Upgrade Only)

Note:
- If your card/device was purchased with the option(s) covered here, this procedure is not required for your card/device. If you have purchased this feature to be field-installed on an existing card/device, perform the upload procedure here to upload the feature key file sent by Cobalt, and to activate the feature on your card.
- To order features and obtain a license key, contact Cobalt® sales at sales@cobaltdigital.com or at the contact information on the cover of this supplement. Please provide the Serial Number of your card (displayed in the Card Info pane) when contacting us for your feature key. A key is tied to the card's serial number and will only work with that card. Please indicate if upgrades are needed for more than one card.

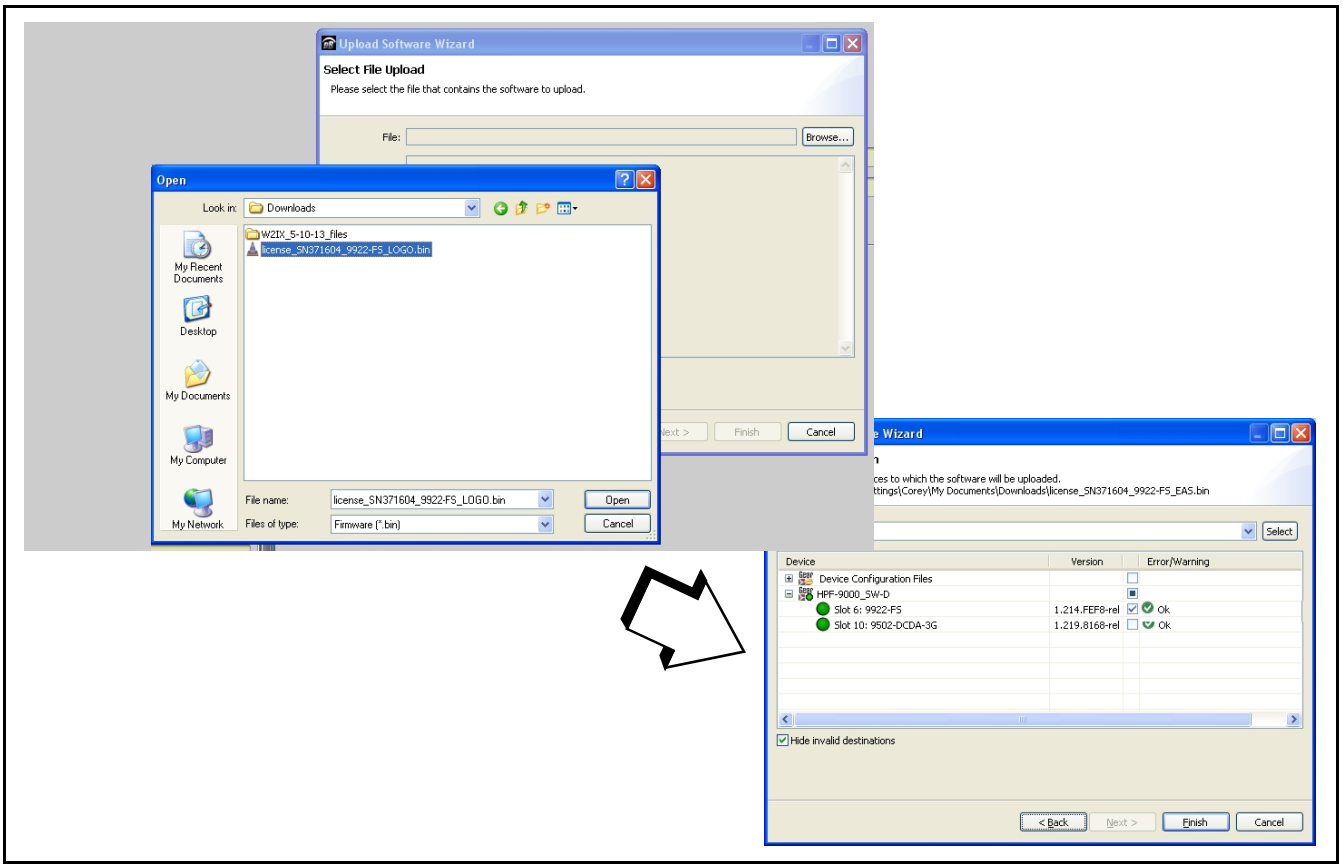
Note: For option **+T-SLATE** to function with models 9932-EMDE or BBG-1032-EMDE, these models **must** also have Add Frame Sync option **+FS** installed and activated on the card/device. This is required to insert a raster to support the trouble slate insertion should a loss of video occur.

Activate licensable feature as described below.

1. Cobalt typically supplies a .bin file (by e-mail; file size < 10kB) that activates the licensable feature. Download this file to a convenient location on a computer connected to the card's frame (or BBG standalone network).

Note: During this procedure, the card will go offline while the feature is installed. Make certain card is not carrying OTA signal.

2. In DashBoard for the card being upgraded click the **Upload** button and browse to the feature license file (in the example below, *license_SN371604_9922-FS_LOGO.bin*).



3. Select the file, click **Open** and then follow the prompts. With intended card selected ("Slot 6 9922-FS" in example above), click **Finish** and wait for completion and click **Close**. When the card comes back online, the feature appears in the DashBoard controls and is ready for use.

Note:
- Applying the licensable feature has no effect on prior settings. All control settings and drop-down selections are retained.
- Added features, when first appearing after installation, are set to their factory default states. For features having a direct impact on the output signal, all controls are initially set to disabled or null.

+T-SLATE/+LOGO Controls and Examples

Table 1 individually lists and describes the **+T-SLATE** and **+LOGO** controls available using DashBoard™ for cards/devices equipped with the **+T-SLATE** and/or **+LOGO** options.

Note: Where a sub-section applies to **only** the **+T-SLATE** or **+LOGO** option, this is indicated. Unless so indicated, the sub-section applies for **either** option.

Table 1 +T-SLATE/+LOGO Option Control List and Descriptions

	Provides controls for uploading user graphics to the card and correlating the graphics to user functions that will be called to insert the graphic(s) for various conditions. All uploaded graphic insertions can be correlated to triggers such as GPI or events in conjunction with the Event Setup controls.

Note: If card/device is licensed for both +LOGO and +T-SLATE, both the **Logo Insertion** and **Trouble Slate** tabs will appear. Either can be used for +LOGO and/or +T-SLATE options to upload your graphic files to the card/device.

Uploading Your Logo or Trouble Slate Graphic Images to Cobalt Card or BBG-1000 Device

A user memory area for images is reserved in the card/device (these are called “holders” in this supplement). A standard .png file is converted to a .bin file which is uploaded to the card/device, where the .bin then provides the logo and/or trouble slate graphic used by the card/device. The conversion consists of an online tool that takes in a .png and outputs the image .bin file which is then uploaded to the card/device as described in the steps below.

Note: • Your file **must** be a **.png** file with a .png extension. The filename should not contain spaces.

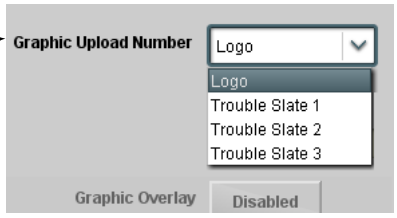
- It is recommended to name each file using a name that is associated with its function (for example, “KXYZ_logo_upRHS.png” for a logo insertion graphic file).
- No scaling is applied or available using the generator tool. (For example, if a 100 x 100 pixel image is uploaded to the tool, the image overlay will also be 100 x 100 pixel regardless of program video format or raster dimensions.)
- Transparency aspects in your native file are preserved in the generator conversion.

Use the conversion tool as described below.

1. With your .png sized as desired for insertion, go to **http://a.cdi-eng.com:55080/cgi-bin/image_upload.py**

2. Using **Graphic Upload Number** drop-down on **Logo Insertion** tab, select the DashBoard graphic ID where you want the image to be available (i.e., **Logo** or **Trouble Slate** *n* choice).

This drop-down selects under which DashBoard name (**Logo** thru **Trouble Slate 3**) the uploaded graphic will be associated with.



3. Browse to your file. A prompt will appear to save the generated .bin file. Select Save (or Save As) to store the generated file in your desired folder. Close the tool when done.

4. In DashBoard on the card/device page, click **Upload** to upload the image file to the card/device. Follow the prompts to browse to and upload the file. The image is now ready to be used by the card/device.

5. Repeat steps 1 thru 4 for any other images (logo or trouble slate) to be uploaded to other holder location numbers on the card/device.

Table 1 +T-SLATE/+LOGO Option Control List and Descriptions — continued

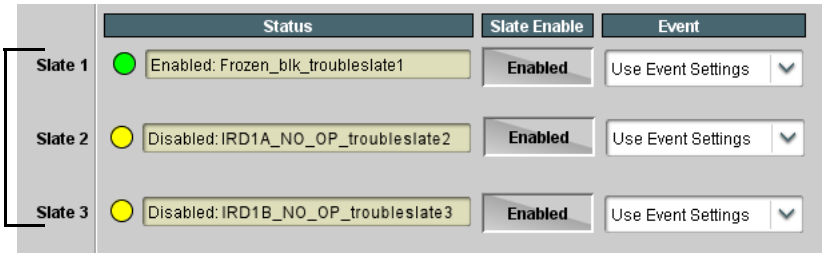
Logo Insertion **Trouble Slate**	**(continued)**

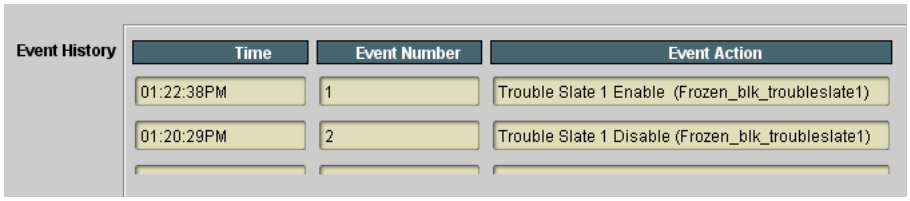
Using Graphic Filenames To Provide Graphic Function Correlation

DashBoard and device UI will display the associated, respective filename for uploaded files in Logo and Trouble Slate 1 thru 3 holders wherever **Logo** and/or **Slate 1** thru **Slate 3** is displayed. This can provide more direct user correlation of the graphic to be inserted with its contextual function (for example, "KXYZ_logo_upRHS.png" for a logo insertion graphic file).

In this example, Trouble Slate holder numbers 1 thru 3 have received upload files named for the contextual function of each upload (black-frozen, IRD1A no op, and IRD1B no op, respectively). In DashBoard, wherever these slate statuses are displayed, the user filename is also displayed, thereby readily establishing an association to what the slates (and the error detected) represent.

Each Trouble Slate holder position (1 thru 3) use filenames (which are in turn displayed) in the respective status displays. This helps show what activity of a particular slate is indicating. In this example, the user-defined error associated with **Trouble Slate 1** and its file "*Frozen_blk_troubleslate1*" is presently active.





In cases where automation is used to detect an event (in this example, frozen frame being detected by option +QC), the invoked Event Action is displayed in the card Event History. Note that the user-assigned name of the Trouble Slate is also displayed in this event history (in this example, "*Frozen_blk_troubleslate1*" graphic which the user has assigned to be used in frozen/black detected events).

- **Logo Overlay Test Control**

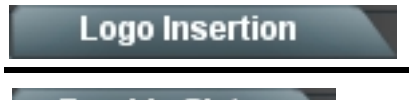
(**+LOGO** only.) Use these controls to test the insertion and set positioning.

- **Graphic Overlay (Disable/Enable)** allows the selected graphic to be manually test inserted to assess aesthetics and positioning.
- **Graphic Overlay Status** shows the filename loaded into the Logo holder and therefore associated with logo insertion. Presence of the expected filename (whether enabled or disabled) verifies the file is indeed loaded into the Logo holder.

Note: Make certain control is set to Disabled after assessing manual insertion. The graphic can then be inserted using automation as described further in this section.

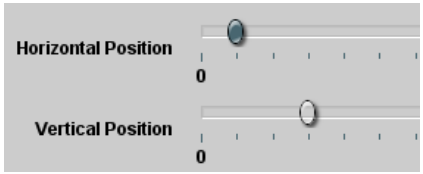
Even with **Graphic Overlay** set to **Disabled**, logo insertion will occur when directed by defined action set up using the **Event Setup** tab (typically a GPI used to externally enable or disable logo insertion).

Table 1 +T-SLATE/+LOGO Option Control List and Descriptions — continued



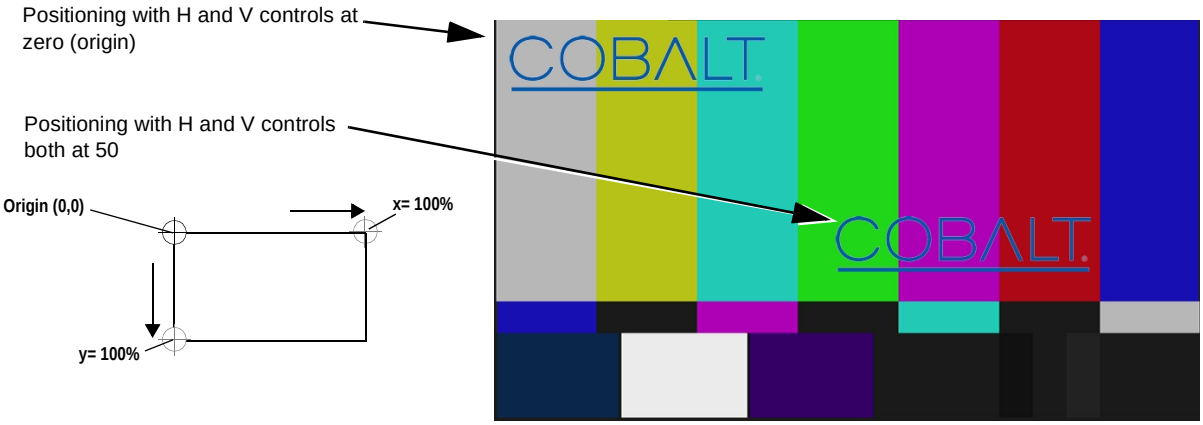
(continued)

• **Graphic Positioning Controls**



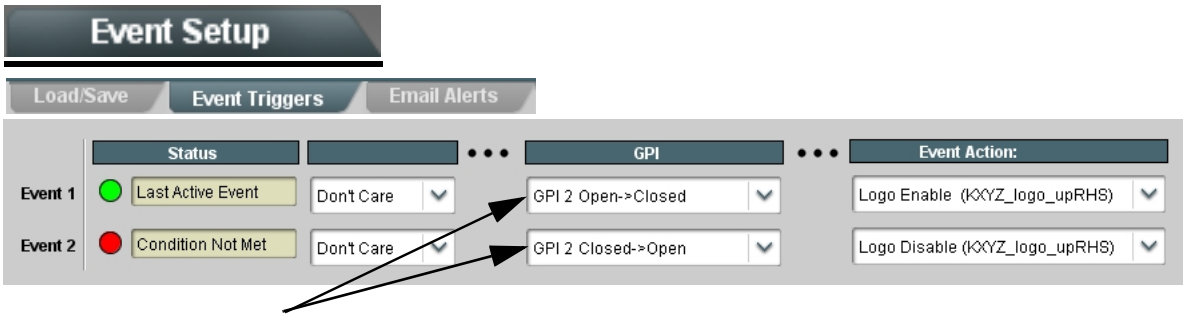
Sets graphic insertion position as follows:

- **Horizontal Position** sets horizontal position (in percentage of offset from left of image area, left justified). (Range is 0 thru 100)
- **Vertical Position** sets vertical position (in percentage of offset from top of image area, top justified). (Range is 0 thru 100)



Station ID Logo Insertion Setup Example

A card/device GPI is ideally suited as the trigger to enable and disable station ID “bug” insertion. The example below shows the setup using the Logo Insertion tab along with **Event Setup** tab to use a GPI to perform this function.



In this example, GPI 2 is set to use its falling-edge and rising-edge to correspondingly enable and disable Logo using the **GPI** and **Event Action** columns. (All other columns are set to Don’t Care for the function in this example.)

Table 1 +T-SLATE/+LOGO Option Control List and Descriptions — continued

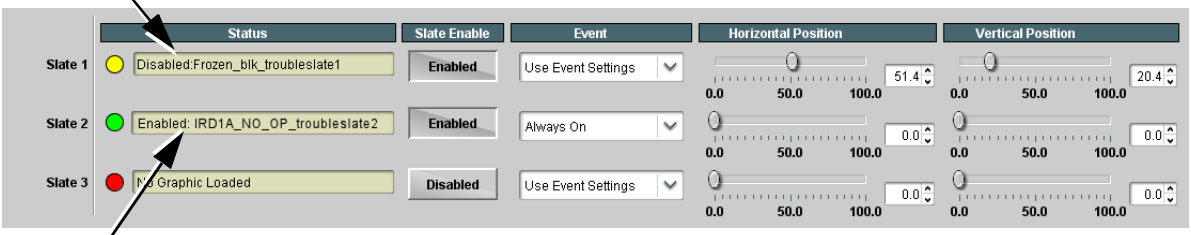
Trouble Slate	(**+T-SLATE** only.) Provides controls for correlating the uploaded trouble slate graphic(s) to event actions that, in turn, will be used to force automated insertion of the slate(s). All uploaded graphic insertions can be correlated to triggers such as GPI or events in conjunction with the Event Setup controls.

Trouble Slate Insertion Setup Controls and Example

In the example here, graphics for Slate 1 and Slate 2 are already uploaded to the card (as described in Uploading Your Logo or Trouble Slate Graphic Images, p. 4).

- For **Slate 1**, the **Event** drop-down setting of **Use Event Settings** along with **Slate Enable** set to **Enable** will result in insertion when the Event Settings condition(s) are true (for example, a frozen frame detected).
- For **Slate 2**, the **Event** drop-down setting of **Always On** along with **Slate Enable** set to **Enable** will result in immediate unconditional insertion (for example, to test insertion and adjust position). (Typically, this Event drop-down would be set to Use Event Settings once this test insertion is no longer needed.)
- For **Slate 3**, since a graphic is not loaded, its enable settings are immaterial. For any slate where usage is to be expected, the "LED" indicators should show green or yellow indicating that a graphic is indeed loaded in the card/device.

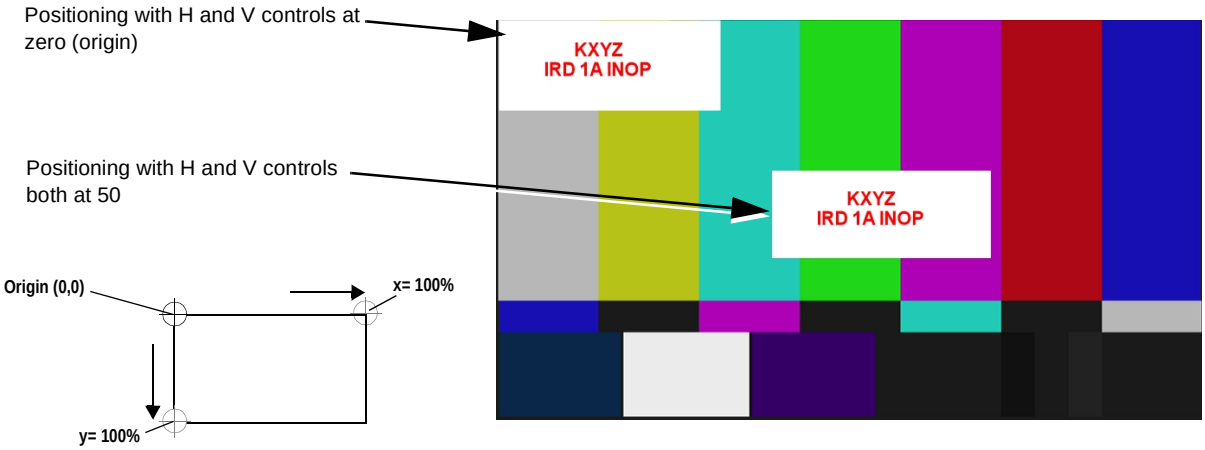
Slate 1 enabled and set for insertion upon a detected event (such as input LOS). Yellow state shows insertion is ready upon receiving further event action(s).



Slate 2 enabled and set for immediate insertion. Green state shows insertion is currently active.

Table 1 +T-SLATE/+LOGO Option Control List and Descriptions — continued

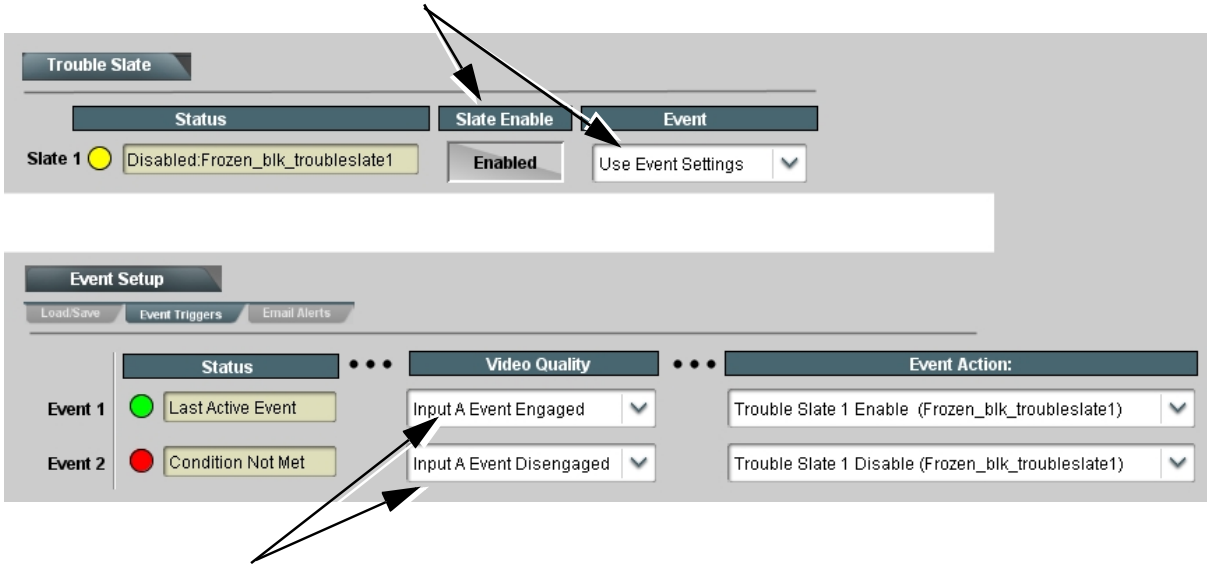
Trouble Slate	(continued)



Trouble Slate Insertion Setup Example

The **Event Setup** tab controls can be used to screen for expected input presence conditions (expected video format or errors such as black, frozen, or no input) and in turn insert a trouble slate. The example below shows the setup using the **Trouble Slate** Insertion tab along with **Event Setup** tab to use input signal status to perform this function.

In this example, Trouble Slate 1 is enabled but set to look for an Event Action to execute insertion ("Use Event Settings")



A Video Quality Event is set up to engage upon input loss of signal, black, or frozen states. If the Video Quality event becomes true, the settings here trigger Trouble Slate 1 insertion enable graphic file *Frozen_blk_troubleslate1*, and conversely disable the insertion should the video again become present. (All other columns are set to Don't Care for the function in this example.)

Troubleshooting

This section provides troubleshooting information specific to the **+LOGO** and **+T-SLATE** option functions (for general troubleshooting information, please refer to the Product Manual for the card or device). If any error indication (as described in this section) occurs, use this section to correct the condition.

Table 2 Troubleshooting Processing Errors by Symptom

Symptom	Error/Condition	Corrective Action
Trouble slate is not inserted as expected for input LOS trouble slate	Card/device hosting +T-SLATE option is not set for frame sync to insert a raster upon input LOS.	To support a trouble slate insertion, a raster must be present on the card/device output. On card/device hosting +T-SLATE, make certain **Framesync > On Loss Of Video** is set to insert a pattern or freeze (and not disable output).
Automated logo or trouble slate graphic insertion does not work	• Insertion **Enable** control not enabled in DashBoard	• Default insertion controls set insertion to disabled. Trouble Slate must be set to Enabled, and have event rules set to enable insertion upon desired event state(s).
	• Event triggered **Use Event Settings** not properly set up for expected insertion conditions	• Check event setup settings and log on **Events Setup** DashBoard tab to make sure setting are expected to trigger on the desired condition. If setup is correct, you should see an entry in the log corresponding to the event occurring. (Refer to Event Setup in Chapter 3 of the related Product Manual for more information.)
	• Graphic for desired insertion not uploaded to card	• The Status field on either the **Logo Insertion** or **Trouble Slate** tabs will show the graphic filename where a file is indeed loaded and correlated to the insertion item (Logo thru Trouble Slate 3). If “No Graphic Loaded” appears, then insertion will not be performed. See Uploading Your Logo or Trouble Slate Graphic Images, p. 4 for more information.
Automated insertion won’t turn off after event ceases	Event condition not defined/set up to disable insertion	When an event (such as black/frozen frame) ceases, on the **Event Setup** tab, conditions need to be set up to disable the insertion (for example, “Trouble Slate 1 Disable” used as an event action tied to Video Quality Event of “Input A Event Disengaged”). Loss of true conditions does not disengage an event-based triggering. A new set of true conditions must be defined and then occur to transition from one event-based trigger to another.
Log indicates insertion performed, but insertion is not visible in output raster	Insertion positioned too low or too high in raster for format being carried	On the insertion positioning controls, if the Vertical Position control is set too low or high, the graphic insertion may not be visible in the active image area.
Closed captioning on SD output raster shows errors or visible corruption during graphic insertion	Insertion vertical position impinging on line 21 closed captioning space	For SD usage, insertions positioned near the top of the active image will impinge on and corrupt line 21 closed-captioning waveform. Make certain insertion is not positioned in this area. (Position control set greater than 1.0 avoids this issue.)

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