

# Kayak

DIGITAL PRODUCTION SWITCHER

## Release Notes

SOFTWARE VERSION 6.8.8

071844605  
SEPTEMBER 2006



Affiliate with the N.V. KEMA in The Netherlands

# CERTIFICATE

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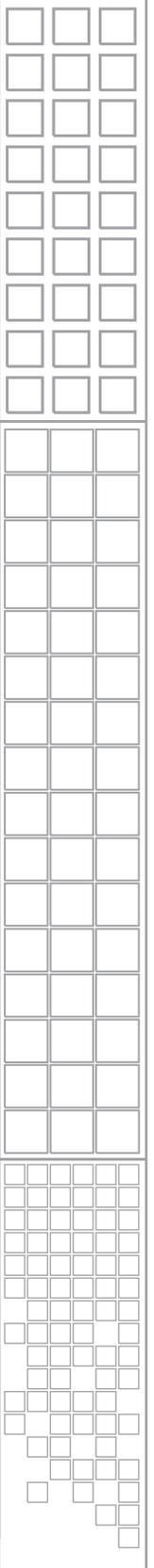
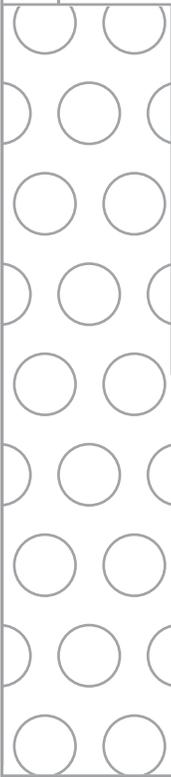
DIGITAL PRODUCTION SWITCHER

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**FAQ Database** — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

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# *Kayak Release Notes*

## **Introduction**

This document includes notes for software installation, licenses, new features and changes, and other information specific to Kayak Release 6.8.8 software.

## **Kayak HD New Features**

- RAMREC basic function with Crops & PB-Positioning (excludes LAN file transfer) (Option)
- Spektra: Lighting—Four, positional, colored light sources (Option)
- MatchDEF: Enhanced Scalar functionality— (Option)
  - scalar down-conversion and
  - additional scaler inputs 93, 94, 95, and 96 on M/E 3 (requires installed ME3 board)
- Support of 96 inputs in 8 RU frame (previously 90)
- Support of 48 AUX buses in 8 RU frame (previously 38)

## **Changes in this Release**

- The “Turbo” button on the Kayak joystick was not functioning—button now increases joystick speed as designed.
- The **Dropshadow** button has been moved from the **DPM Misc.** menu to the **DPM Special Effects** menu.
- **M/E E-Mem** button added. Previously available on Sidepanel only.

## Compatibility

The software for Kayak DD and Kayak HD frames and Kayak Control Panels (1 M/E through 3 M/E) is compatible if installed from the same release CD.

Scaling of Key Gain, ClipHi, and ClipLo has changed starting with software version 6.8.3. Recalling E-MEM effects created with previous software versions will show different key adjustments.

**CAUTION** Do not install software versions lower than 6.8.6 in control panels and main-frame units with WDT serial number **200** and higher (new RoHS compliant switcher). See type label on the rear of the units.

## Options and Configuration Licenses

The following operation features are options or configurations available only if the corresponding license is activated.

- Switcher Type
- Number of Inputs
- Number of Outputs
- Chroma Key (Static)
- Number of Flexible Chroma Keys
- RGB Color Correction
- DPM Channels (includes Kurl in KayakDD)
- Kurl (Kayak HD/SD only, not KayakDD)
- Spektra (Kayak HD/SD only, not KayakDD)
- DSK/Half M/E (Kayak HD/SD only, not KayakDD)
- RAM Recorder and KlipCache
- NetCentral
- HD Operation (HD/SD only)

**Note** For basic operation, licenses are required for **Switcher Type**, **Number of Inputs**, and **Number of Outputs**.

# HD RAM Recorder

**Note** To use the RAM Recorder, a new 6910000xx Controller Board in the Main-frame is required. The new 6910000xx Controller Board does not support software later than 6.8.8.

The HD RAM Recorder is a solid state video server with 6 input/output channels. All stills and clips are stored within a common data pool and may be accessed by all 6 output channels. The HD RAM Recorder supports video standards: 525, 625, 720, and 1080i.

Total HD RAM Recorder storage size is based on line rate units and the installed memory size of 4GB or 8GB, as shown in the following table.

Table 1. HD RAM Recorder Storage Sizes

Line Rate Units	4GB		8GB	
	Frames	Seconds	Frames	Seconds
525i59.9	4911	163	9822	326
625i50	4161	165	8336	332
1080i50/sf25	863	33	1726	68
1080i60/59.9/sf30/29.9	863	28	1726	57
1080sf24/23.9	863	35	1726	71
720p50	1941	38	3883	77
720p60/59.9	1941	32	3883	64

## HD RAM Recorder Field Upgrade Procedure

In addition to the 6.8.8 software, for a field upgrade of HD RAM Recorder on the Kayak HD, a new controller board (with DIMMs) and a software license must be installed.

### Field Upgrade Parts List

To upgrade from an earlier version of software/hardware to install HD RAM Recorder, the following are required:

- New 6910000xx Controller Board.
- USB Memory Stick with the HD RAM Recorder license and current software
- One or Two 4GB DIMMS
  - One 4GB DIMM for HD RAM Recorder
  - One 4GB DIMM for KlipCache (optional)
- These release notes

## Installing HD RAM Recorder Upgrade

**CAUTION** Use antistatic procedures to prevent electrical damage to sensitive electronic components.

To install the HD RAM Recorder upgrade on the Kayak HD, complete the following steps.

1. Back up all current applications and environmental data from the existing controller board to a USB stick or Sidepanel hard drive.
2. Install 6.8.8 software to the control panel and Sidepanel, see [Software Installation on page 45](#), and verify the installation.
3. Install the RAMREC license from the USB memory stick provided.
4. Save a copy of the RAMREC license on an external drive.
5. Carefully inspect the new controller board.
  - a. Verify that no damage occurred during shipping.
  - b. Verify that there are no bent connector pins.
6. Remove the battery isolation material from BT1 and verify that the battery ON/OFF switch is in the On position.

**Note** If the new controller board DIMM(s) are pre-installed from the factory, proceed to **Step 8**.

7. Install the DIMM(s) onto the new controller board.

**Note** When only using one 4GB DIMM, it must be in slot U11.

- a. Insert the 4GB DIMM into slot U11.
  - b. If installing a second 4GB DIMM, insert it into slot U12.
8. Power down the Kayak HD frame by turning the power switch Off on the existing controller board.
9. Pull out the old controller board.

**CAUTION** Make sure the ON/OFF switch on the new controller board is in the **OFF** position.

10. Insert the new controller board in the frame slot from which the old board was removed.
11. Verify the software and license installation.
  - a. From the **Home** menu, select the **RAM Recorder** button.
  - b. The HD RAM Recorder license is displayed.

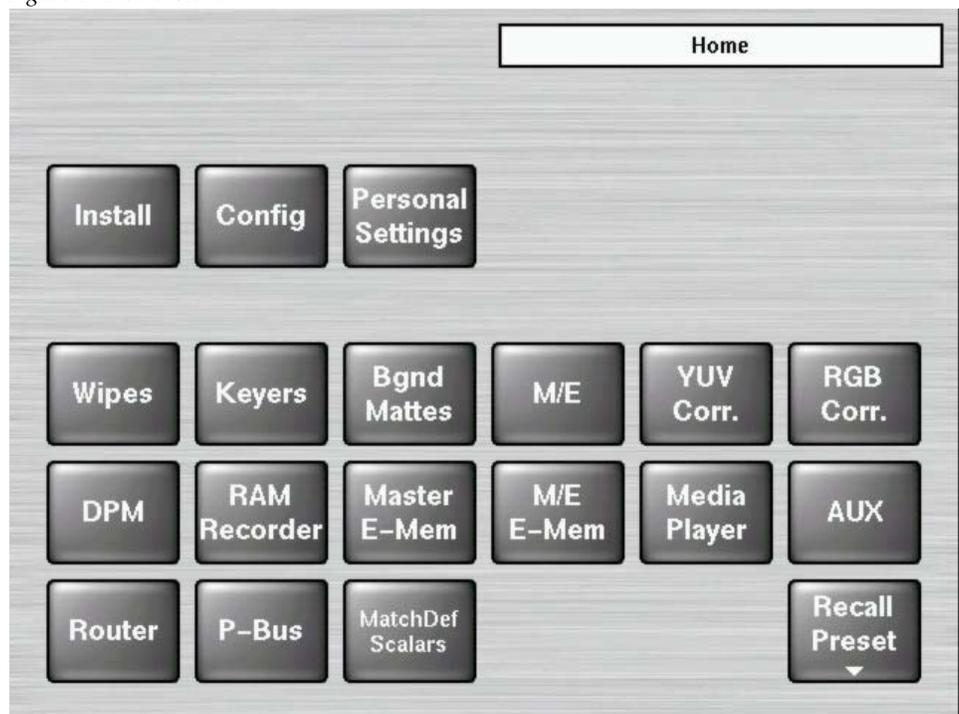
- c. The HD RAM Recorder memory size should also be visible, 4GB or 8GB.
12. Restore all applications and environmental settings.
  13. Verify/set date and time
  14. Verify Genlock settings.

The HD RAM Recorder upgrade is complete.

## HD RAM Recorder Menus

The HD RAM Recorder menu is accessed via the Home Menu.

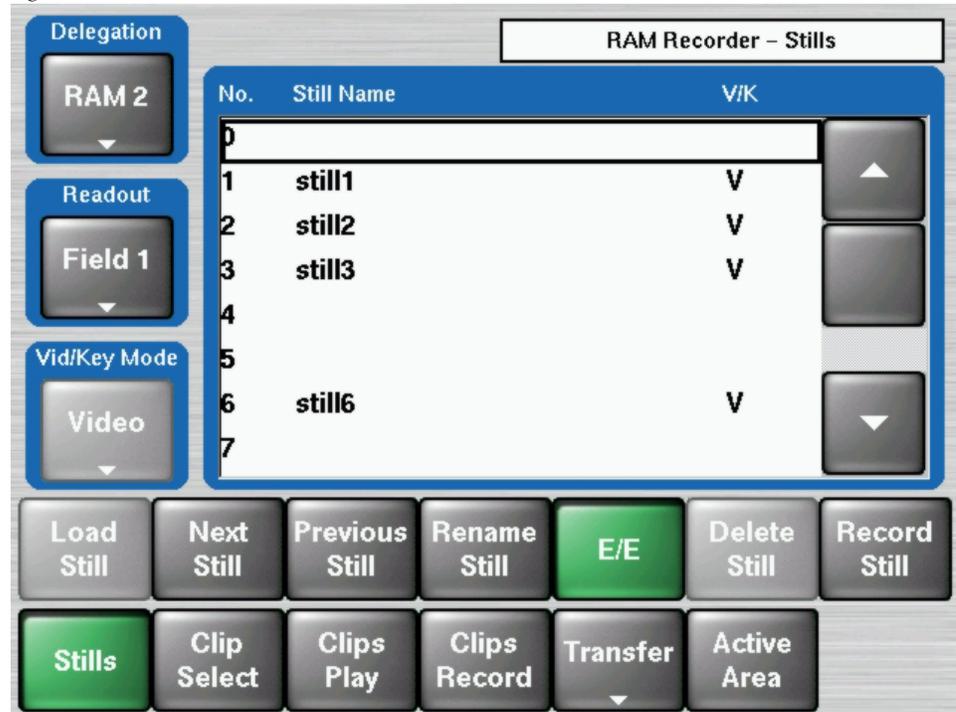
Figure 1. Home Menu



## Stills Menu

The Stills menu allows the user to load or store stills using the delegated channels.

Figure 2. RAM Recorder Stills Menu



**Note** The *Transfer* button, shown in the figure above (and subsequent figures), will appear grayed-out as this feature will be available in a future release.

### Delegation Pane

Select the desired channel (1 to 6) with the **Delegation** button. The menu shows the values of the selected channel.

### Readout Pane

**Field1/2** — Field 1 or field 2 is replicated to make frame and Previous Still/Next Still advances to the next field. This results in single-stepping in the field resolution.

**Field1** — Field 1 is replicated to make frame and Previous Still/Next Still advances to field 1 of the next still.

**Field 2** — Field 2 is replicated to make frame and Previous Still/Next Still advances to field 1 of the next still.

**Frame** — Fields 1 & 2 are displayed in the normal order to show frame and Previous Still/Next Still advances to field 1/2 of the next still.

## Clip Select Menu

Clips can be selected with the Clip Select Menu.

Figure 3. RAM Recorder Clip Select Menu



**Load Clip** — Selects the clip to the output of the delegated channel.

**Rename Clip** — Renames the selected clip and makes automatic name changes for associated key signals. The software will prevent changes in key signal names only and the **Rename** button will go gray when a key signal is highlighted.

**Delete Clip** — Deletes the clip at the selected position

## Clip Play Menu

The Clips Play menu provides the control for playing a clip.

Figure 4. Clip Play Menu



## Tape Motion Commands (TMC)

**Begin** — Moves clip to the beginning

**End** — Moves clip to the end

**< (Play Reverse)** — Play the clip reverse

**> (Play Forward)** — Play the clip forward

**Step + / Step -** — Advances one field or frame

**Still** — Goes to stop, displaying the current image

**E/E (E to E)** — Goes to stop, showing the input signal of the delegated channel. The signal is one frame delayed.

**Var** — Play the clip in variable speed, depending on **Variable** setting: 1 = normal speed, 2 = double speed, 0.5 = half speed

## Modify

**Modify** allows you to modify the values displayed in the main display area. After pressing the button a dialog appears to modify the play parameters.

Figure 5. Clips Play Modify Dialog



**Go to timecode** — Go to a timecode specified by the numeric popup panel

**Mark In** — Set a Mark In point via numeric popup panel

**Mark Out** — Set a Mark Out point via numeric popup panel

**After Play** — Not supported yet

**Mode** — VTR

Behaves like a tape machine; moves clip to the beginning

**Mode** — Clip

Mark In and Mark Out limit the accessible timecode range. When you press play the clip is always played from Mark In to Mark Out.

### Readout Still

**Field 1:** Field 1 is replicated to make a frame and **Step-/Step+** advances to field 1 of the next frame

**Field 2:** Field 2 is replicated to make a frame and **Step-/Step+** advances to field 1 of the next frame

**Frame:** Field 1 and field 2 is displayed to make a full frame. **Step-/Step+** advances to field 1/2 of the next frame

**Field1/2:** Field 1 and field 2 are displayed as a full frame. **Step-/Step+** advances to the next fields, which results in single stepping in field resolution.

### **Readout Play**

**Field 1:** Only field 1 is played out resulting in "Film look" (only 25/30 motion updates per second)

**Field 2:** Only field 2 is played out resulting in "Film look" (only 25/30 motion updates per second)

**Frame:** Standard play out mode

**Field1/2:** This mode is useful when a still or clip is made from a graphic source that has generated motion and is not in the expected field dominance.

## **Clip Record Menu**

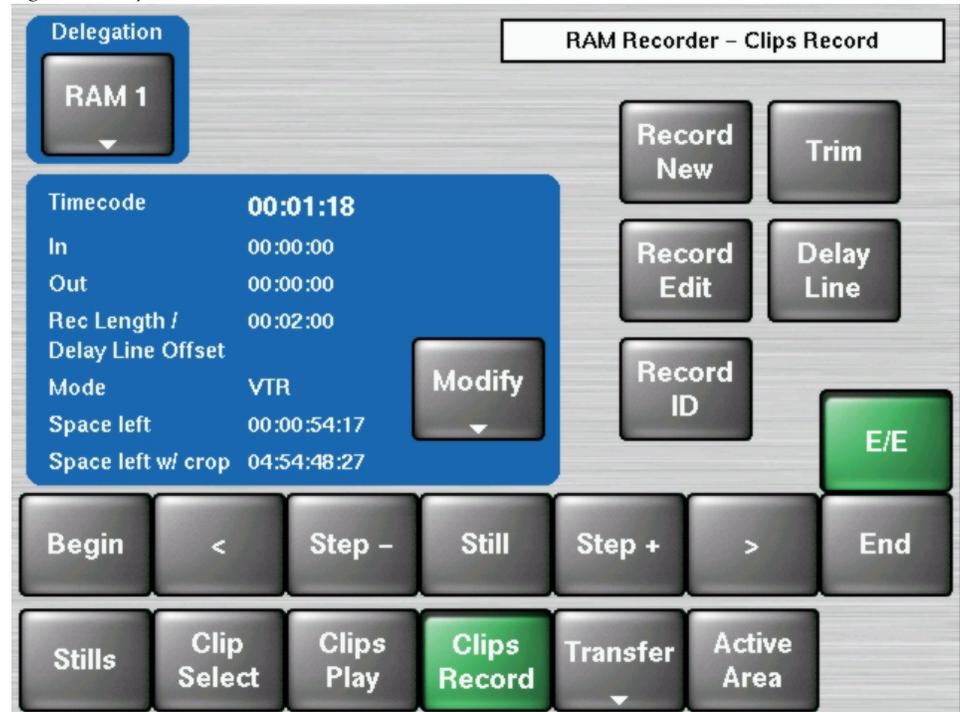
The Clips Record menu allows the user to create or re-record clips.

To create a new clip, press the **Record New** button. Recording starts immediately and the clip name is set to a default name. If record length is set to 00:00, the clip will record until the space left is 00:00. Press Still or **E/E** to stop recording. If a record length is set, then a new clip of that length will be recorded.

The parameters of the recorded clips are shown in the display pane.

**Space left** shows the free storage space for full frame clips in hours: min: sec: frames. **Space left w/crop** shows the maximum duration of the current cropped clip based on the free storage space in hours:min:sec:frames dependent of the selected channel.

Figure 6. Clip Record Menu



**Record New**—Starts recording a new clip. Clip position and clip name will be created automatically.

**Record Edit**—Starts recording in an existing clip at the current position. The system allows recording over the end of the current clip, which results in appending to the current clip.

**Delay Line**—When switched on, the delegated channel behaves like a delay line, the desired delay can be specified via **Modify/Record Length**.

**Note** When you change the Record Length value while you are in Delay Line mode, the new value is not accepted unless you exit and re-enter this mode.

**Record ID**—Starts recording. Clip position can be selected. If this position is already taken a warning dialog appears: You tried to record a clip to an existing clip! Would you like to overwrite the clip?

## Tape Motion Commands (TMC)

**Begin** — Moves clip to the beginning

**End** — Moves clip to the end

**< (Play Reverse)** — Play the clip reverse

**> (Play Forward)** — Play the clip forward

**Step + / Step -** — Advances one field or frame

**Still** — Goes to stop, displaying the current image

**E/E (E to E)** — Goes to stop, showing the input signal of the delegated channel. The signal is one frame delayed.

**Var** — Play the clip in variable speed, depending on **Variable** setting:  
1 = normal speed, 2 = double speed, 0.5 = half speed

## Clip/Still Transfer with Internet Explorer

Transfer of clips and stills with Internet Explorer. To start this web access, use the IP address of the RAM Recorder.

Operations for Clips and Stills:

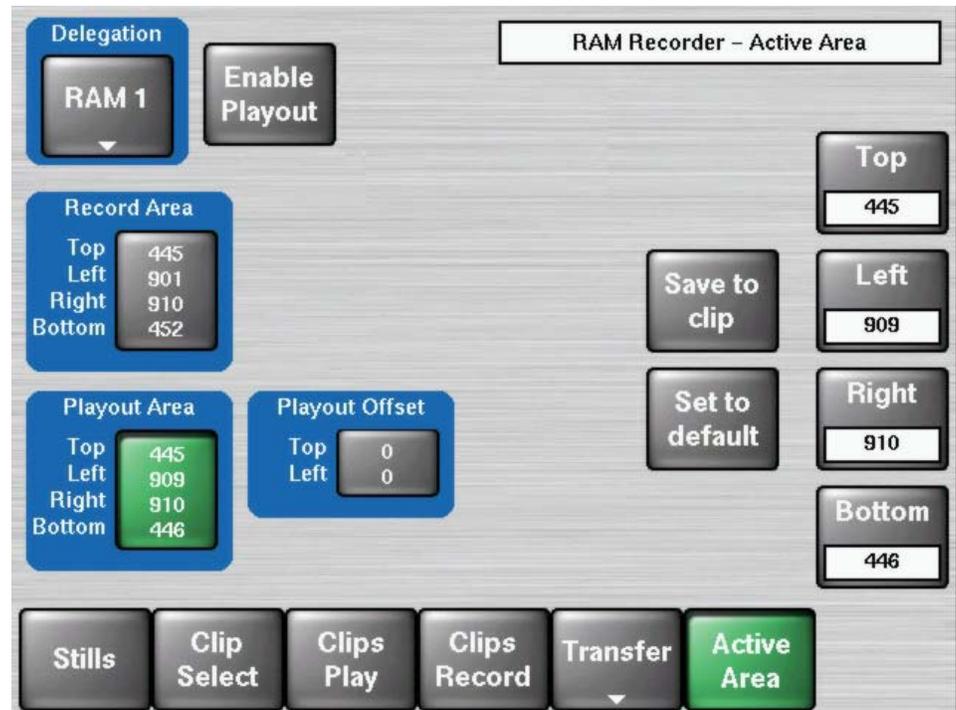
- Upload
- Download
- Delete
- Rename

## Active Area Menu

With the Active Area function the storage space of special clips (e.g. logos) can be reduced to the active picture size.

The idea of the Payout Area/Payout Offset is that you could resize and reposition a recorded clip.

Figure 7. RAM Recorder Active Area Menu



**Enable Playout** — Position and crop the a stored clip on the screen

**Record Area** — Crop the area to record

**Playout Area** — Crop a portion of recorded clip to playback

**Playout Offset** — Move the cropped clip

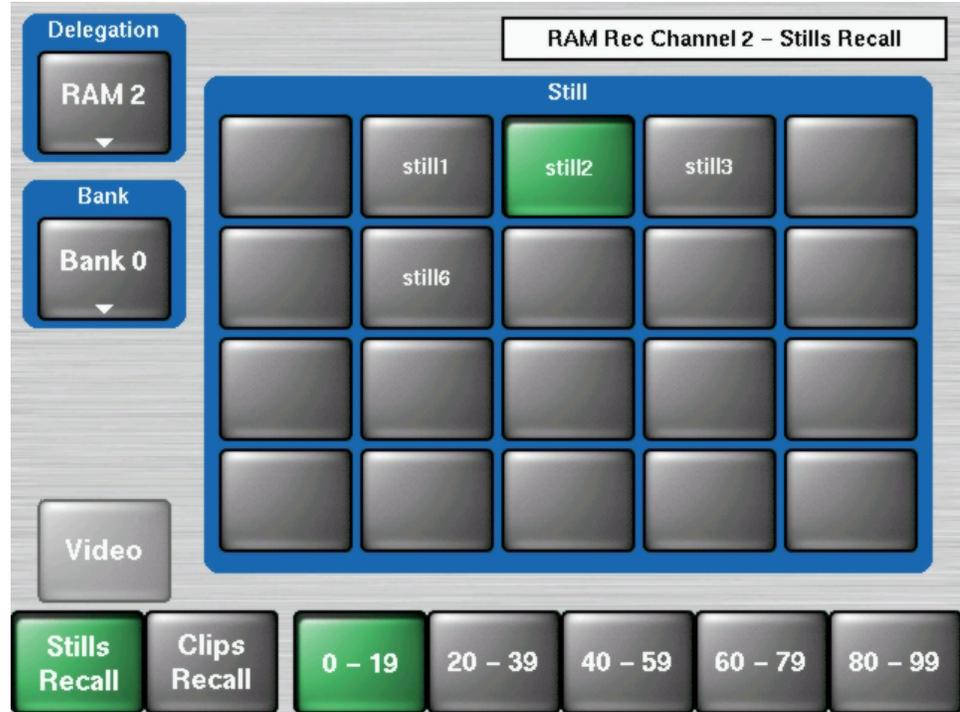
**Save to Clip** — The parameters of the playout clip will be stored in the meta data storage.

**Set to default** — Recalls default parameters; if Record Area is active, pressing the button sets the parameter to full frame. If Playout Area is active, pressing the button sets the Playout Area to the Record Area values and resets the Playout Offest values to zero.

## HD RAM Recorder Live Mode Menu

Selecting the **Live Mode** button (left of the display) reduces the number of parameter adjustments to the most essential ones, allowing faster control with less selection steps. A keypad with direct access to the stored stills and clips appears.

Figure 8. Live Mode Stills Recall



## Stills Recall / Clips Recall

1. Select the delegated RAM channel via the **Delegation** button
2. Select the delegated bank 0 to 23 via the **Bank** button
3. Select the group of stills, e.g. 0-19

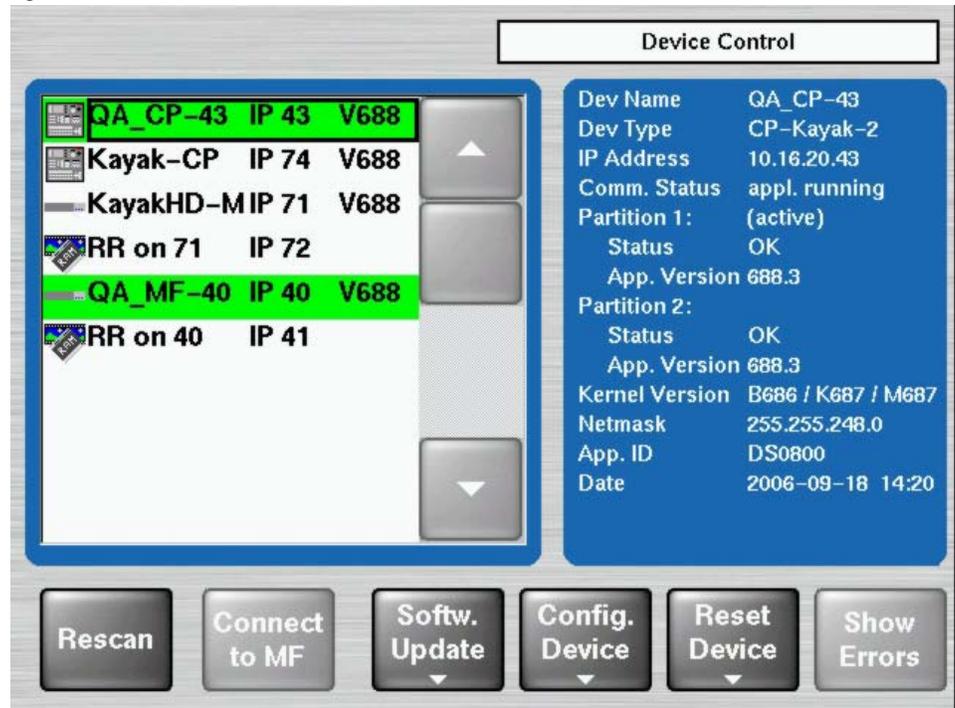
## Setting the HD RAM Recorder IP Address

The IP address of the RAM Recorder will be set automatically by the system during installation.

IP Address = Mainframe IP address + 1

The IP address can be set manually by using the Device Control menu.

Figure 9. Device Control Menu



Press **Config. Device** to change the IP address.

# Lighting

The Transform Engine Spektra Effects option includes Glow, Defocus, and the new Lighting functions. Glow adds a soft edged variable opacity border around keys, leaving the original keyed image unmodified. Defocus blurs the actual keyed image. The new Lighting provides four oppositional colored light sources that apply a specular appearance to the transformed picture.

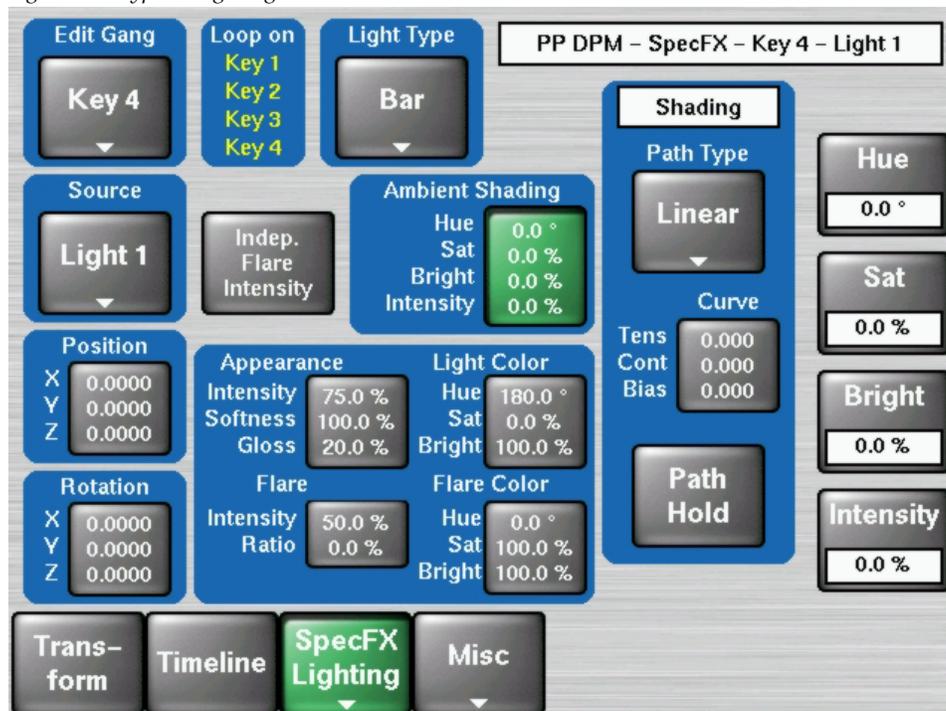
## Lighting Menu

The Lighting menu has four colored light sources, positional in 3D space for each delegated keyer. Each light source can be a Point, Bar, or Plane. The apparent reflection of the light source simulates the physics of incident light falling on a surface, including specular effects and light falloff due to distance and geometry. The lighting parameters interact with one another, permitting the creation of subtle effects, and are key-frameable.

Some extremely low lighting values (particularly Light Softness) when used in combination with other lighting values, can create visible artifacts (stair-step aliasing). Due to the intricate lighting parameter interactions, if these values were restricted to prevent all potential artifacts, other useful lighting effects would be impossible. For this reason, values that might cause aliasing are allowed. If a lighting effect creates unwanted results, settings can be adjusted.

The Lighting menu is accessed via **DPM, SpecFX, Lighting**.

Figure 10. Typical Lighting Menu



## Source Pane

The buttons in the Source pane delegate the menu to a particular light source 1 to 4.

## Ambient Shading Pane

The color of the ambient lighting, and the amount of shadow falloff for the light sources can be controlled by the right handed soft knobs. Soft knobs for **Hue** (degrees), and **Sat**, **Bright**, and **Shadow** (percentage) are available when the Ambient Shading pane is selected.

## Light Type Pane

The Light Type pane is used to turn on or off the delegated light source and provides various other controls of that light source. Soft knobs are activated when appropriate to control the various lighting parameters.

**OFF** — Turns off the light source.

**Point** — simulates a spotlight type of lighting effect that radiates light evenly in all directions.

**Bar** — simulates lighting from a bar-shaped long, thin lighting source.

**Plane** — simulates the glare that would be reflected from an image if a bright light were shined on it from infinity.

## Position

Used with **Point** and **Bar** light sources to control the position of the point light, or the position of some point along the bar light, with respect to the X, Y and Z axes in 3D space.

## Rotation

Used with **Bar** and **Plane** light sources to control the direction of the bar light, or the direction that the plane light faces along the X, Y and Z axes. Setting Rotation to 0 places the Plane light directly behind the viewer's head.

## Appearance

**Light Intensity** — Provides soft knob control of the overall reflectivity of the surface of the picture.

**Light Softness** — Control of softness of the edge of the light. 100% creates maximum softness, 0% gives a hard edge. At extremely small values some aliasing artifacts may appear.

**Surface Gloss** — Provides soft knob control of how much light is scattered as it is reflected off the surface of the picture. At 100% the lighting acts like it is reflecting off of a mirror. At 0% the light acts like it is reflecting off of a frosted piece of glass.

## Flare

When light reflects off a surface two lighting components result, the primary reflected light and a glare (flared halo) of scattered light. The Flare controls provide soft knobs to adjust this lighting component.

**Flare Intensity** — Controls the amount of the flare light scattered off the surface.

**Flare Ratio** — Controls the ratio between the primary light and the flare light. 100% is all primary light, 0% all flare light.

## Independent Flare Intensity

This button allows independent control of the primary and flare components of the light. When Off, changing the value of one control will alter the appearance of the other component of the light. The actual values reported on the menu will not be different, but the changes will interact automatically to create the resulting image. When On, changing the values for one lighting component will not alter the appearance of the other component.

## Light Color / Flare Color

Provides soft knob controls of the Hue, Saturation, and Brightness of the Light or Flare lighting.

## Shading

The path control pane provides **S Linear**, **Linear**, and **Curve** interpolation touch buttons. When **Curve** is selected, soft knob controls for **Tension**, **Continuity**, and **Bias** soft knob become available. You can also turn off transform interpolation and hold each keyframe's values with the **Path Hold** touch button.

When **Curve** is selected, use the soft knobs to enter values for tension, continuity, and bias.

## Lighting with Page Turn/Roll Effects

To use Lighting with Page Turn/Roll, you need to use one keyer for the Front side of the Page Turn and another keyer for the Back side. The same effect then needs to be loaded on both keyers, with one having only the Front selected in the Page Turn menu and the other having only the Back selected. The keyer priority will also need to be set appropriately to support fold over or under.

**Note** Use Page Turn/Roll Effects only if the desire is to have different video on the fold, as opposed to different video on the front. Each channel has separate lighting and must be adjusted separately.

# Scalars

The MatchDef dual video input scalars allow you to match SD sources into an HD production or HD sources into an SD production. You can cross match different HD formats as well, without sacrificing critical production elements such as keyers. Scalars also let you match video sources using different aspect ratios to the native production format.

## Supported Scalar Conversions

Software release version 6.8.8 supports the use of up to four scalars per M/E that can be used for up-conversion of SD sources to HD formats, down-conversion of HD sources to SD formats, and cross-conversion of HD sources to other HD formats.

**Note** Versions prior to 6.8.8 supported SD to HD only.

Table 2. Supported Scalar Conversions

Inputs	Outputs					
	525 4x3	525 16x9	625 4x3	625 16x9	720p	1080i
525 4x3	X				X	X
525 16x9		X			X	X
625 4x3					X	X
625 16x9				X	X	X
720p	X	X	X	X	X	X
1080i	X	X	X	X	X	X

**Note** The inputs need to be the same vertical frequency as the switcher. The inputs do not need to be locked to reference, the scalars will act as a frame sync if needed.

## Scalar Inputs

Software release version 6.8.8 supports scalar inputs 93, 94, 95, and 96. If you have purchased the scalar software license, plug a video source into one of the scalar BNC connectors on the back of the frame. Enabled scalar inputs start at the lowest number of BNC connectors for the inputs as shown in the following table.

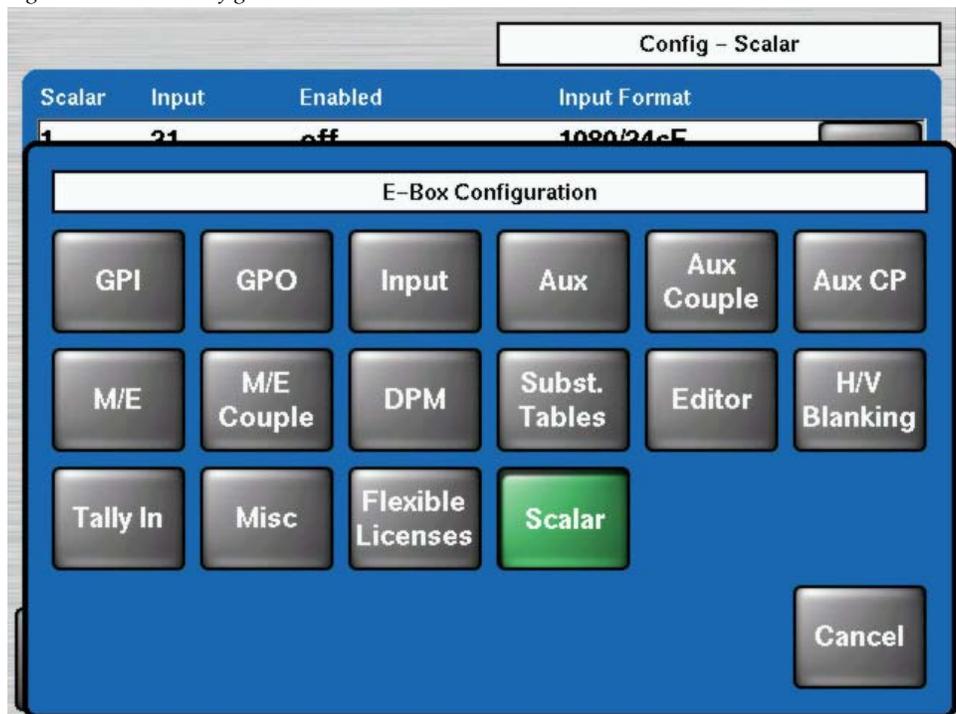
Table 3. *Scalar input Connections/Requirements*

Scalar Inputs		
ME	Enabled Scalar Input	Installed ME Board
M/E 0	21, 22, 23, 24	PP board
M/E 1	45, 46, 47, 48	ME1 board
M/E 2	69, 70, 71, 72	ME2 board
M/E3	93, 94, 95, 96	ME3 board

## Scalar Configuration

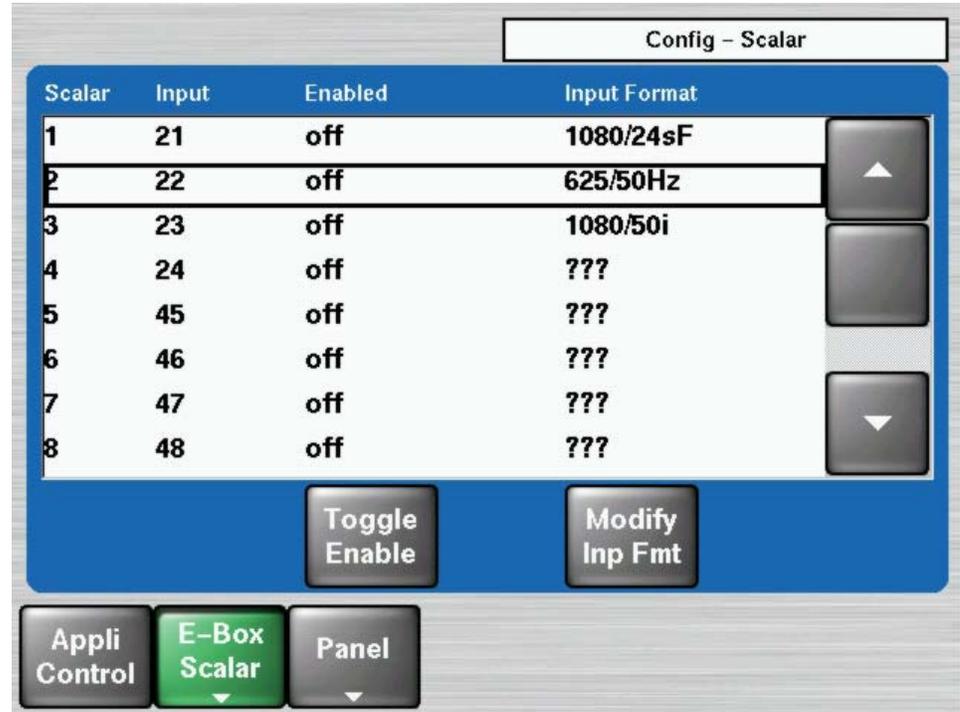
1. From the **Config - E-Box** menu press the **Scalar** button in the lower row.

Figure 11. *E-Box Configuration Menu*



2. This menu is for configuring each Scalar channel.

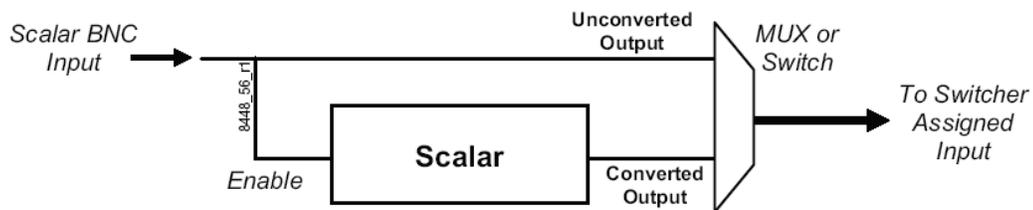
Figure 12. Config Scalar Menu



- **Modify Input Format** (Line Rate) —This sets the type of format to be used with the video signal coming in from the Input you selected.
- **Toggle Enable**—Tells the switcher to use the Scalar inputs (two to four per M/E) so the signals can be converted up or down to the Input Format selected.

As shown in Figure 13 the video signal comes into the scalar BNC input. If the **Toggle Enable** button has been selected the signal then goes through the Scalar to be scaled up or down.

Figure 13. Scalar Option Signal Routing



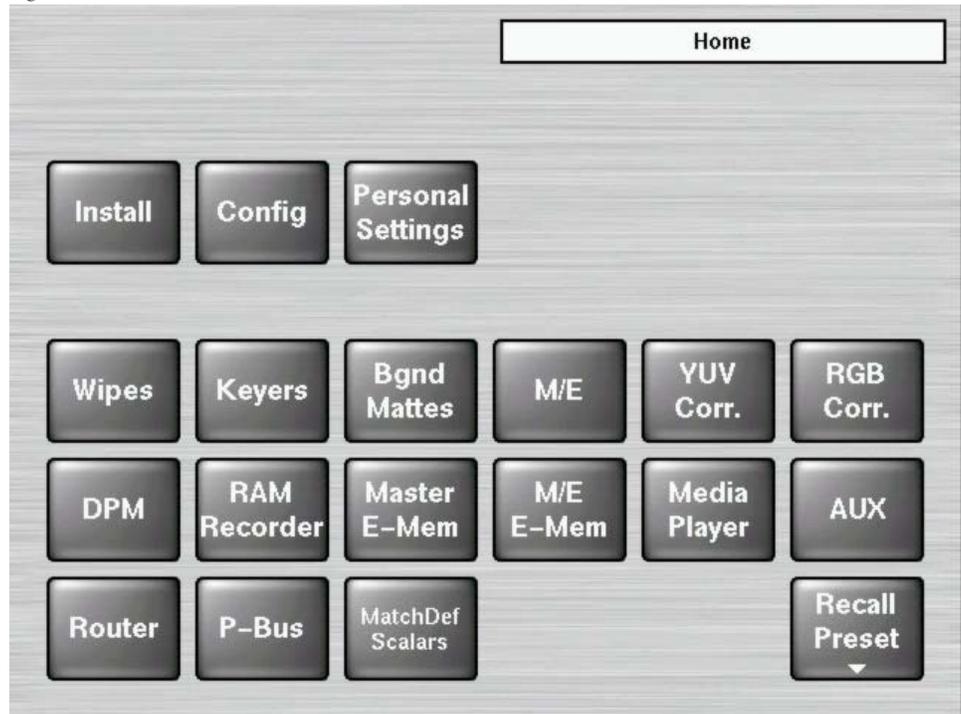
Deselecting causes video inputs from the Scalar BNC connectors remain just as they come in from the video source.

## Selecting Scalar Menu

**Note** Scalars cannot be saved as E-MEMs. Scalars are saved within an application.

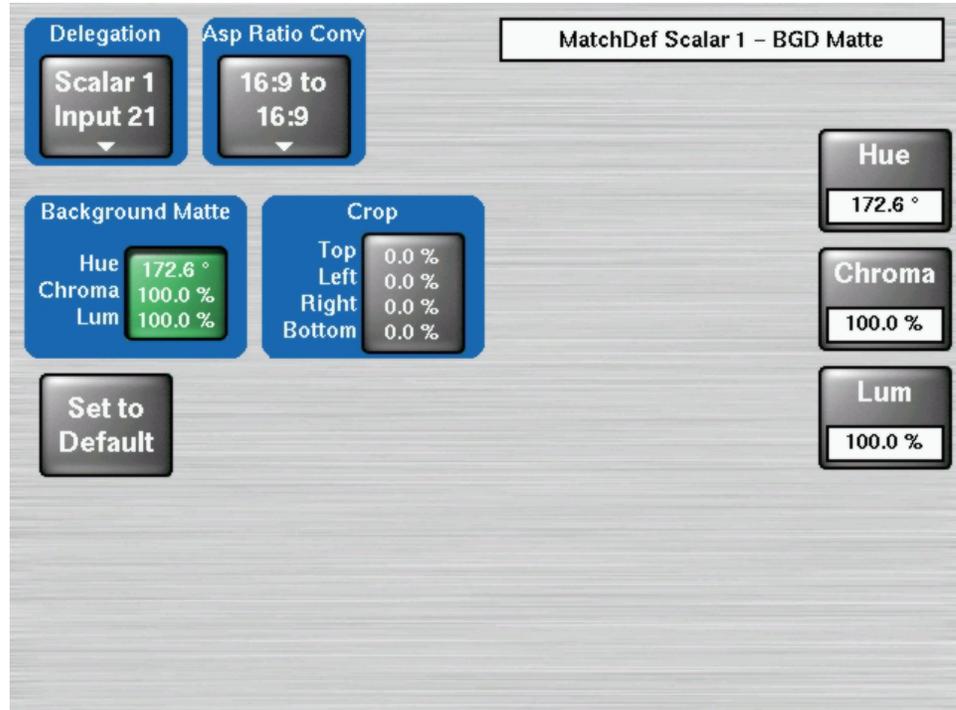
The Scalars menu is accessed via the Home Menu.

Figure 14. Home Menu



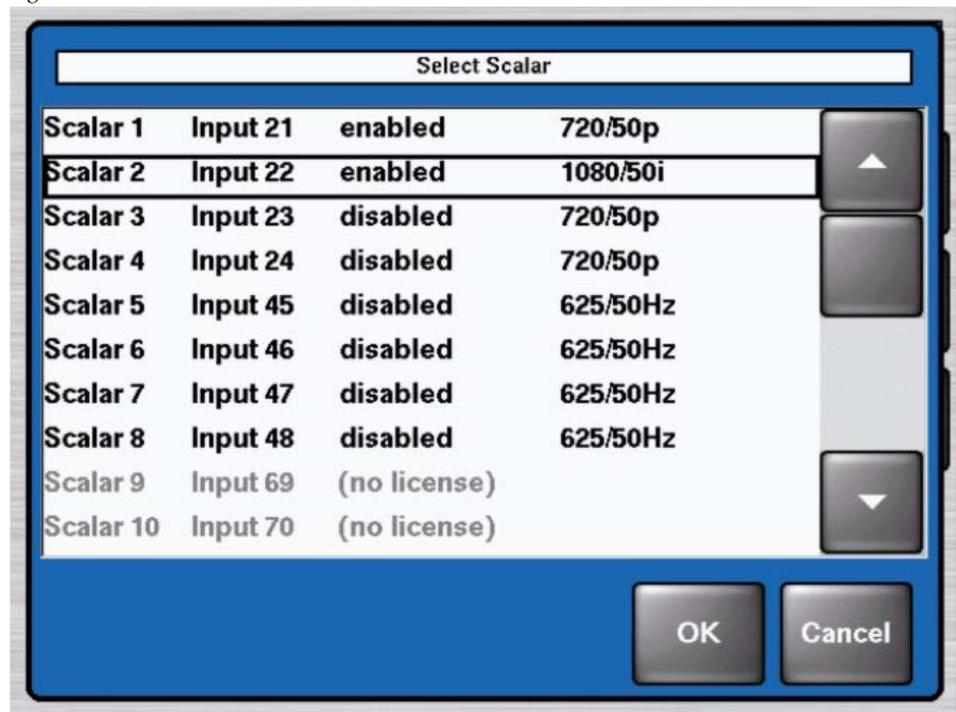
1. From the Home menu press the **MatchDef Scalars** button in the lower row. The Scalar Menu screen displays

Figure 15. Scaler Menu



2. Press the **Delegation** button in the upper left corner of the Scaler menu to open a window that allows you to select an Input / Scalar

Figure 16. Select Scalar Menu



3. Select a Scalar and press the **OK** button to select or deselect the Scalar video path.
4. For the Input/Scalar you selected using the **Delegation** button you can configure these settings:
  - **Aspect Ratio**—Aspect Ratios can be set as **16:9 to 16:9** or **Pillarbox** (vertical matte boxes on the sides of the video window).
  - **Background Matte**—Insert a matte color to replace black in the cropped/letter boxed/pillared region.
    - a. Press the **Background Matte** button to adjust the colors used on the edges of the video window.
    - b. Use the control knobs at the right of the control panel menu to adjust the Hue, Chroma, and Lum settings shown on the Scalar menu.
  - **Crop**—Crop the edges to remove/mask any unwanted artifacts that appear around the edges.
  - **Set to Default**—Sets the default background matte to black, the crop values to zero, and the aspect ratio as 16:9 to 16:9.

## Additional Notes

### HD Scalar Characteristics

#### Scalars do not:

- Pass ancillary data
- Frame rate convert, for example 50 to 59.9 Hz

**Note** Frame rate conversion may appear to work but attempting to use it may cause unpredictable results.

- Perform SD 4x3 to SD 16x9 or SD 16x9 to SD 4x3 conversion
- Perform a 16x9 to 4x3 center cut. Only letter box is supported for 16x9 to 4x3
- Perform color space conversion (SD and HD have slightly different color space).

#### Scalars can:

- Function as a frame sync whenever the input is not locked to reference
- Add a frame of delay to the scaled/frame synced inputs
- Be bypassed and the input used as any other input

## Support of 96 Video Inputs

Beginning with software version 6.8.8, the Kayak HD supports 96 video inputs in the 8RU frame (previously 90). Configuration and Installation menus have been expanded accordingly.

## Support of 48 AUX Buses

Beginning with software version 6.8.8, the Kayak HD supports 48 AUX buses in the 8RU frame (previously 38). Configuration and Installation menus have been expanded accordingly.

## P-Bus Menus

Software release version 6.8.8 adds P-Bus (Peripheral Bus) functionality to the Kayak menus. Previously, this was only accessible via the Sidepanel PC.

The P-Bus menu is accessed via the Home Menu.

Figure 17. Home Menu

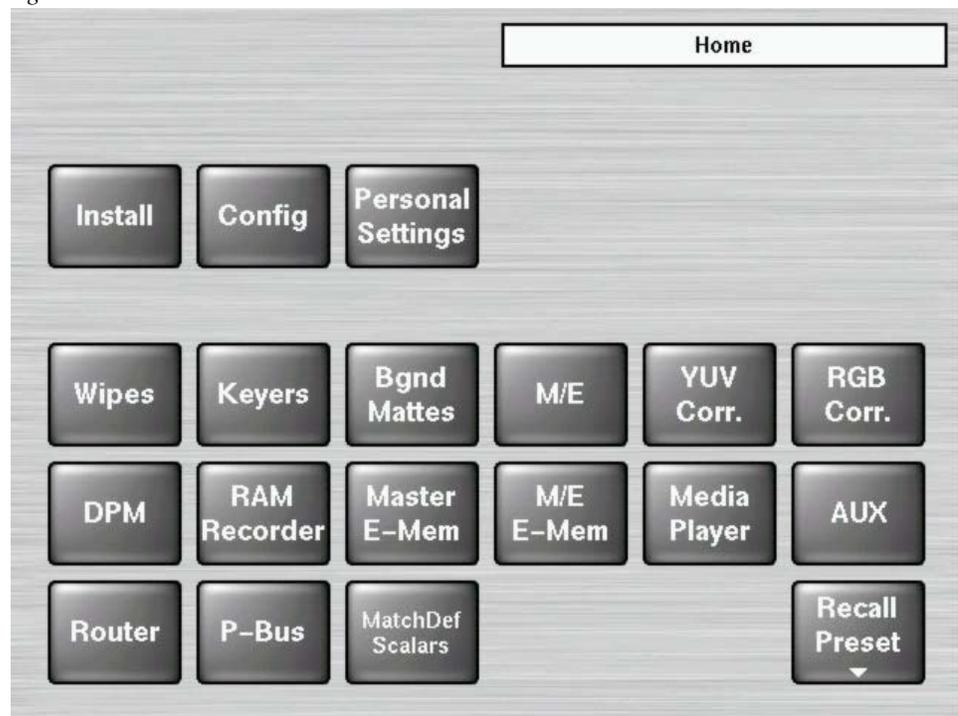
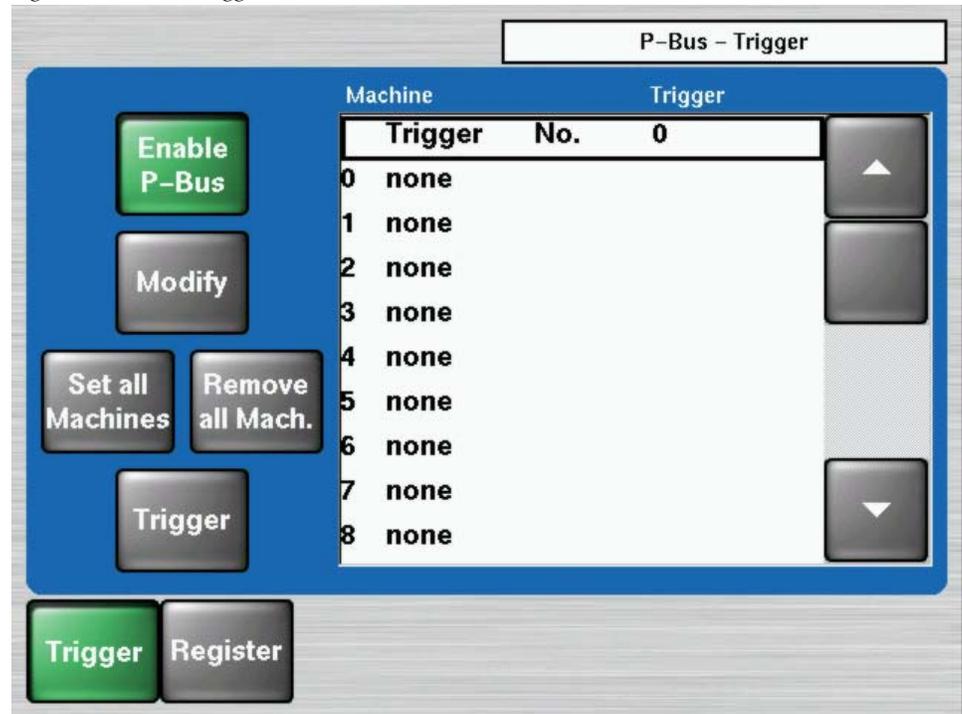


Figure 18. P-Bus -Trigger Menu



The P-Bus enables you to manually trigger machines defined in the **Install/E-Box/P-Bus** menu. At present, only 1 trigger can be output on the P-Bus, that then reaches all machines for which in this case a trigger is adjusted.

In the 1st line of the table, the trigger number is present (can be used, but must not). In the other lines, this trigger number is adjusted for the respective machines.

The popup of each machine provides the following selection possibilities:

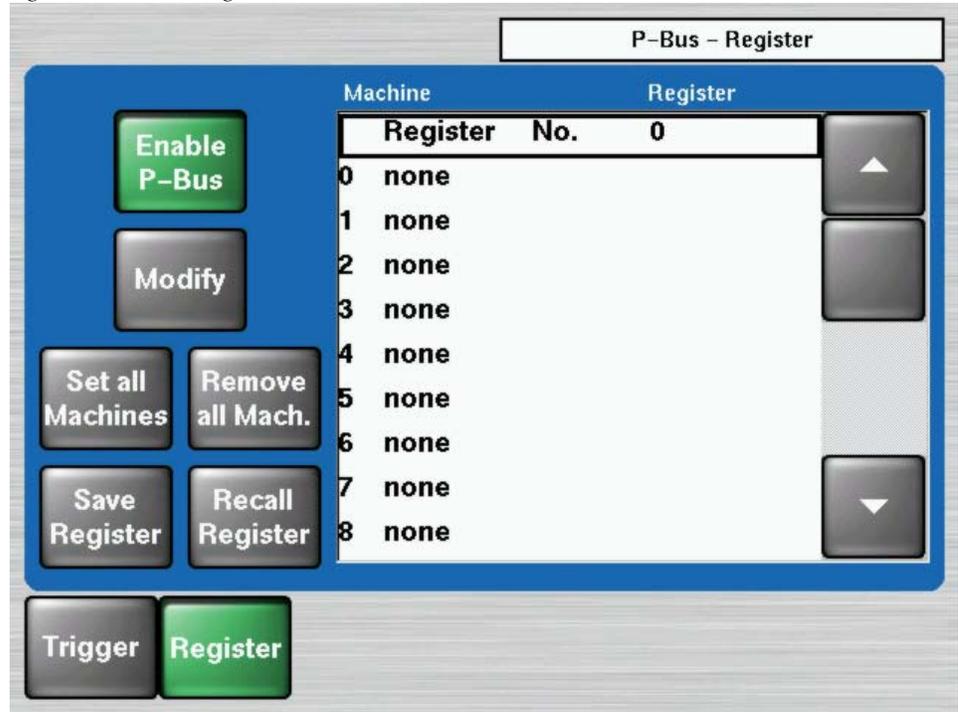
**No Command**—This machine does not get any trigger

**Default Command**—This machine gets the trigger number being in the 1st line

**All other lines**—Here, each trigger is specified with the name being provided for this machine. A selection in this area also changes the general trigger number in the first line, which is then applicable for all machines.

Only those machines that are activated in the **Install/E-Box/P-Bus** menu, will be triggered. The trigger will then be activated by the button with a similar name. It then reaches all machines with the trigger name listed below.

Figure 19. P-Bus - Register Menu



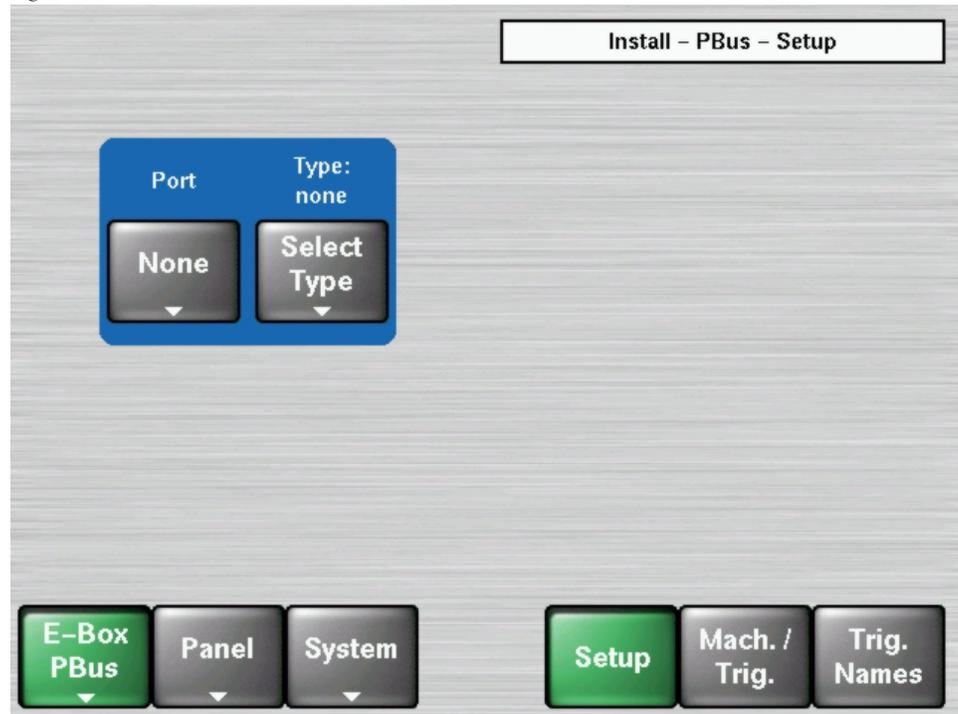
Registers are device-specific states. These registers can be read out or written in just as the trigger is for a defined number of machines. The defined machines are indicated in the field Trigger/ Register where only **Recall/No Recall** can be selected.

Storing or recalling is performed with the buttons **Save Register** and **Recall Register**.

## P-Bus Installation

The **Install/E-Box/P-Bus** menu defines the machines that can be controlled via an RS422 bus. The machines in the left list box of the P-Bus menu, can be given a name and activated or deactivated.

Figure 20. P-Bus Installation Menu



Select the serial port parameters using the **Port** and **Type** buttons.

**Machine Trigger**—The right list box displays the trigger events with function names for each machine (e.g. PLAY, SHUTTLE). There are 16 triggers (from 0-15), for each machine that can be assigned to each function. The function names can be selected from a list of default names, specific to this application.

**Trigger Names**—The list of trigger names consist of a fixed-programmed part and a freely definable part. The freely definable part – 16 names – can be adjusted in the sub-dialog.

## Configuration of Input Names

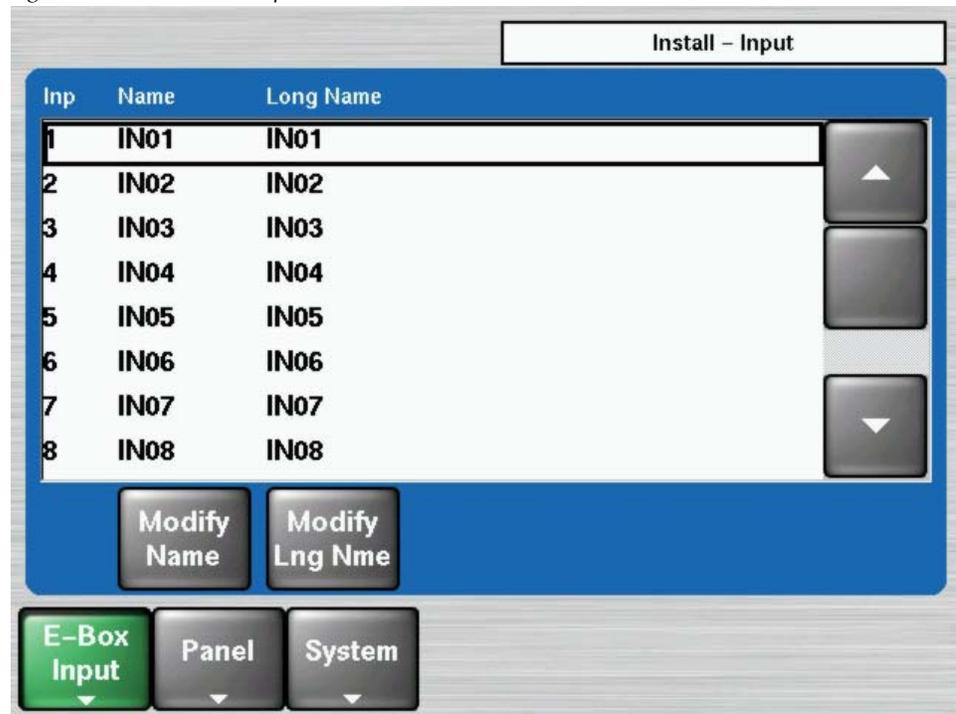
Video input names (4 and 8 character) can additionally be set as installation data in **Install/E-Box/Input** menu. The default names are **IN01, IN02, IN03, ...** The names can be modified by the operator and are stored within the **environment.ini** file.

This new feature allows operators to decide whether or not and how to input names that are copied between switchers.

- with config (application) data or
- with installation (environment) data.

**Note** In the previous software version, the source name could only be configured using the **Config/E-Box/Input** menu.

Figure 21. Install E-Box Input Menu



Use **Modify Name** and **Modify Lng Name** button to configure the desired sources names. After pressing the Modify button, an alphanumeric key pad appears.

## Usage Rules

1. As long as a video input name is defined in the **Config/E-Box/Input** menu, it can be used throughout the system (Panel displays, Sidepanel menus, etc.). This is consistent with previous software releases.
2. If an input name is not defined in **Config/E-Box/Input** menu (the default after software installation) the system uses the input name entered in the **Install/E-Box/Input** menu.
3. The source of the input name is a 'per-input' setting. A mixed operation is possible.

## **Compatibility**

Due to Usage Rule 2, all input names that are stored in applications become active after application load. This ensures system backward compatibility.

If environment input name(s) is used in the system, the related configuration input name(s) have to be cleared.

## Kayak Software CD

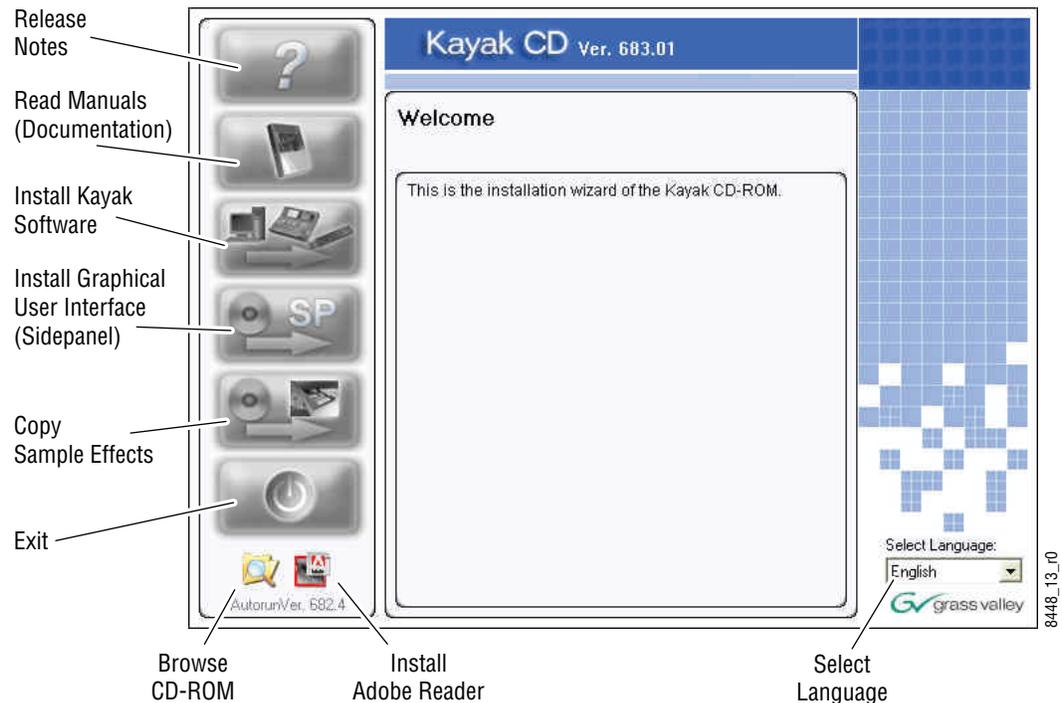
Kayak menu panel software can be installed from the Kayak Software CD over a network connected to the Kayak switcher or to a USB flash drive that can then be used to install software on the control panel.

The Kayak Software CD also lets you read the PDF version of the *Release Notes* and other manuals, copy DPM sample effects into applications, and modify some installation settings. The program is multilingual and self explanatory.

### Autorun Launch

To use the Kayak Software CD, insert the Kayak Software CD into your computer's CD-ROM drive. The **CD Installer Welcome** screen will be displayed (Figure 22).

Figure 22. CD Installer Welcome Screen



**Note** In the figure above, in the lower left-hand corner, the revision number is representative of the 'installer' software not the Kayak software.

You can perform several functions by clicking on the buttons on the left-hand side of the **CD Installer Welcome** screen:

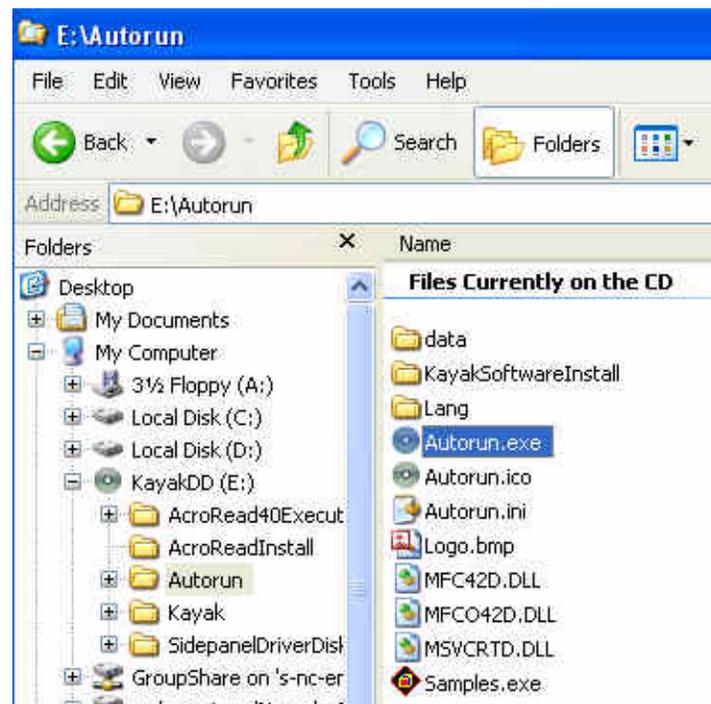
- Read the *Release Notes* and *Release Notes Addendum* for the latest information on this software release. (See [Kayak Release Notes on page 41.](#))

- Read documentation including the User and Installation manuals for both Kayak DD and Kayak HD switchers. (See [Kayak Manuals on page 42.](#))
- Install Kayak software to a USB flash drive or to devices connected to the network. (See [Install Kayak Software on page 45.](#))
- Install the graphical user interface (Kayak PC Sidepanel software) to a PC computer. (See [Install Graphical User Interface \(PC Sidepanel Software\) on page 54.](#))
- Copy sample effects to a USB flash drive for use on the RAM Recorder or into previously-stored applications. (See [Copy Sample Effects on page 56.](#))
- Quit the CD Installer program by clicking the **Exit** button.
- Browse the contents of the CD-ROM. (See [Browse the Contents of the Installer CD-ROM on page 40.](#))
- Install Adobe Reader to read Kayak documentation. (See [Install Adobe Reader on page 40.](#))
- Select a language (English or Deutsch/German).

## Manual Launch

If the autorun feature is disabled on your PC, you can launch the software manually by navigating to the directory `/autorun` on the CD-ROM and double-clicking on the file `autorun.exe` ([Figure 23](#)).

Figure 23. Kayak Software CD-ROM Directory

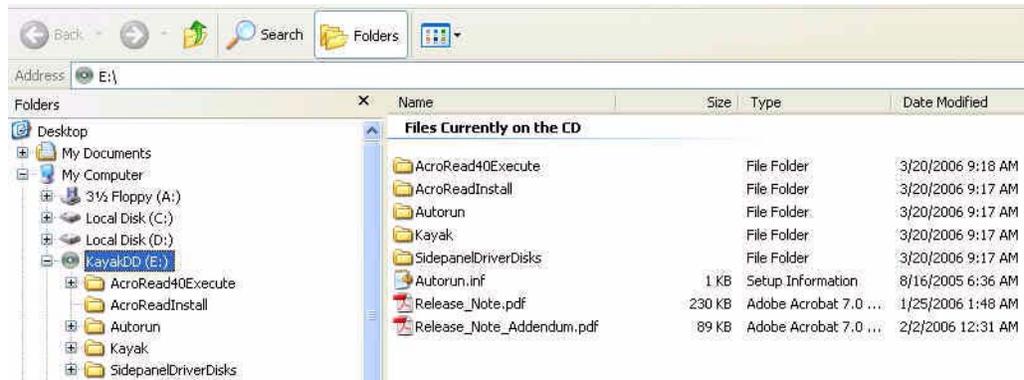


## Browse the Contents of the Installer CD-ROM

To look at the files stored on the Installer CD-ROM, click on the **Browse CD** button (magnifying glass) at the bottom left of the **CD Installer Welcome** screen (Figure 22 on page 38).

A window displays showing all the files and directories contained within the Installer CD-ROM (Figure 24).

Figure 24. Browse the CD-ROM Contents



## Kayak Documentation

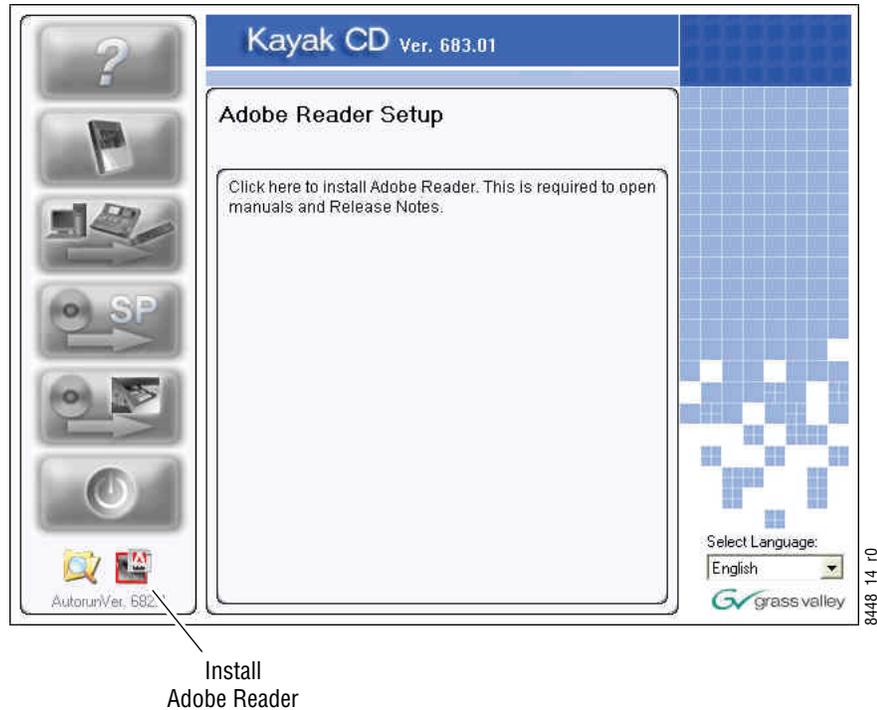
**Note** If you cannot read the Kayak documentation, available in Adobe PDF (Portable Document Format), you may need to install Adobe Reader software.

### Install Adobe Reader

To install Adobe Reader software so you can read the Kayak documentation manuals on this CD-ROM in PDF format:

Click on the **Adobe Reader** icon at the bottom of the **CD Installer Welcome** screen (Figure 25) and then follow the instructions in the installation wizard.

Figure 25. Install Adobe Reader



## Kayak Release Notes

To read the latest *Release Notes* and *Release Notes Addendum* using Adobe Acrobat Reader:

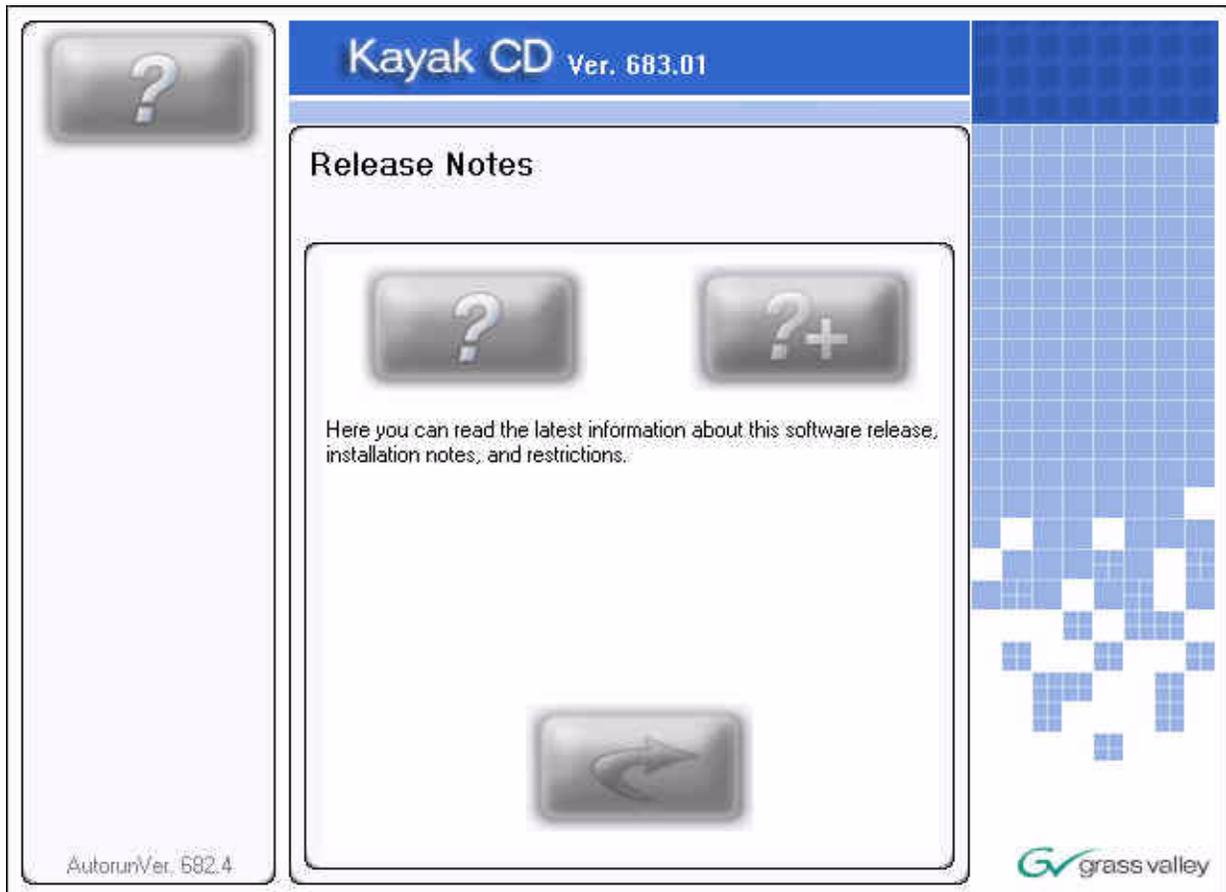
1. From the **CD Installer Welcome** screen click on the **Release Notes** button (red question mark) in the upper left-hand corner (Figure 26)

Figure 26. Release Notes Button on the CD Installer Welcome Screen



2. The **Release Notes Welcome** screen displays (Figure 27).

Figure 27. Release Notes Welcome Screen



3. Click on the **Release Notes** button (question mark) on the left to open the *Release Notes* or click on the **Release Notes Addendum** button (question mark with the plus (+) sign) on the right to open the *Release Notes Addendum*.

Click the **Return** button (arrow) to return to the main installer screen.

## Kayak Manuals

To read the latest documentation manuals for Kayak switchers:

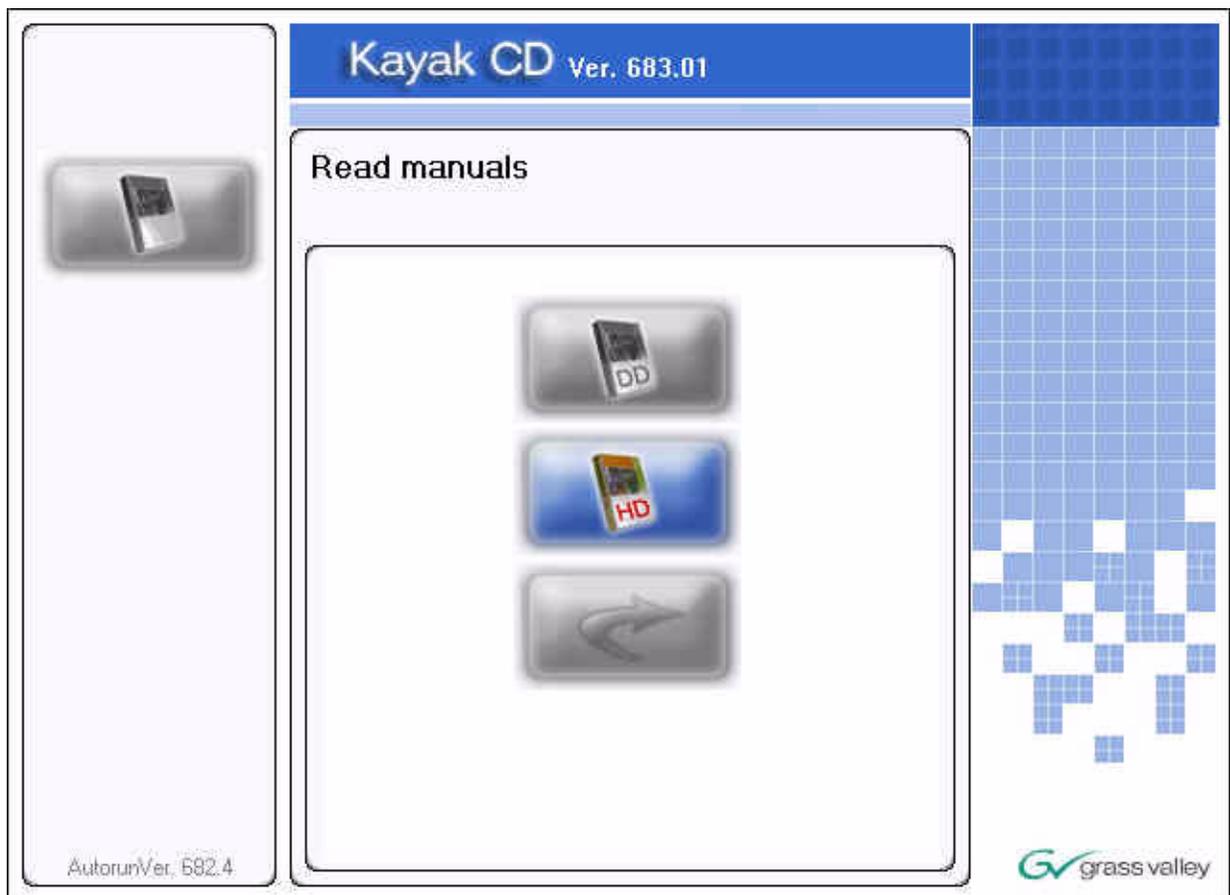
1. From the **CD Installer Welcome** screen click on the **Read Manuals** button (Book icon in Figure 28) in the upper left.

Figure 28. Read Manuals Button on the CD Installer Welcome Screen



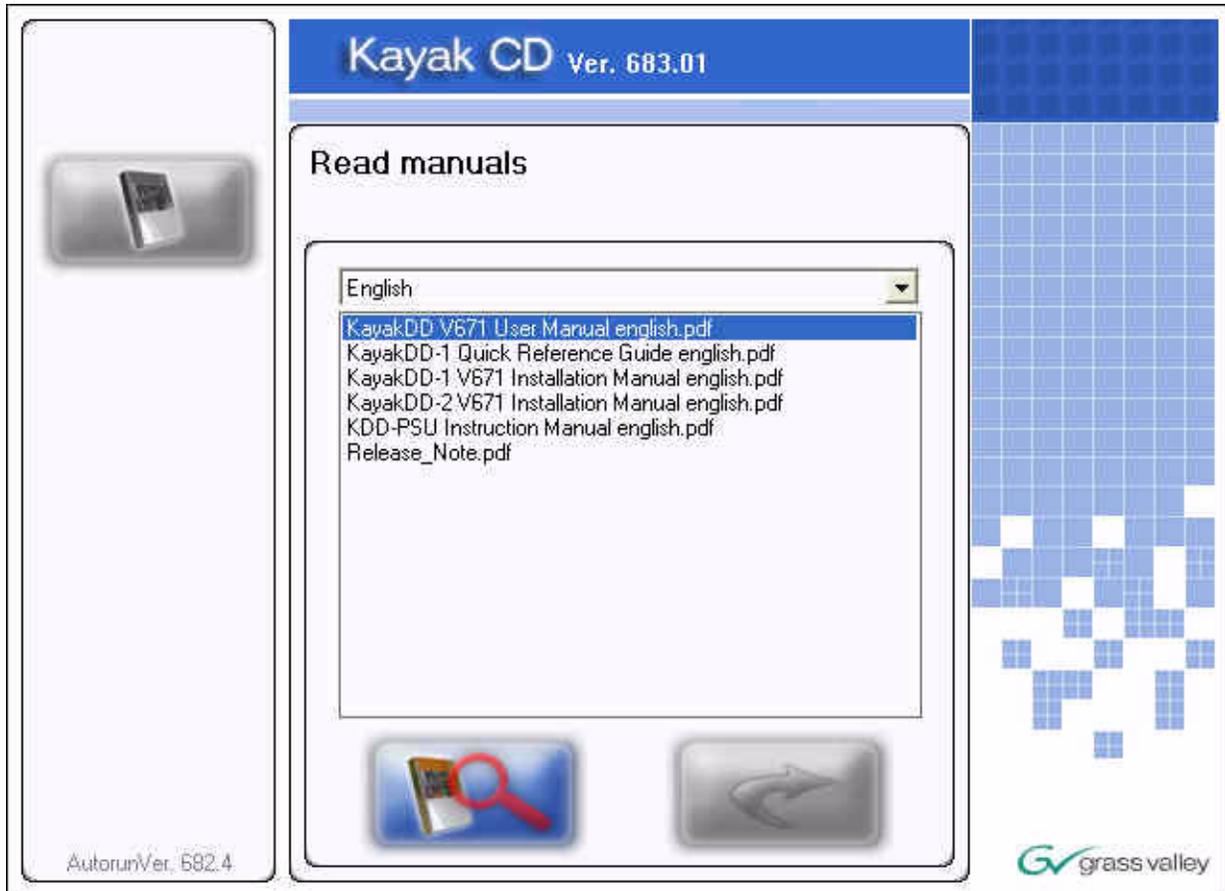
2. The **Kayak Read Manuals Selection** screen displays (Figure 29).

Figure 29. Kayak Read Manuals Selection Screen



3. Click on the **DD Documentation** button to see all Kayak DD manuals or click on the **HD Documentation** button to see all the Kayak HD manuals. A screen listing the appropriate manuals is displayed (Figure 30).

Figure 30. Kayak DD Documentation Screenshot Example



4. If manuals are available in multiple languages, you can select the desired language using the drop down menu at the top of the list.
5. With the list of available manuals displayed, double-click the manual you want to view, or select the manual and then click on the **Read** button (magnifying glass) at the bottom left of the screen. The manual will open in Adobe Reader.

Click on the **Return** button (arrow) to return to the main installer screen.

## Software Installation

Software updates for Kayak are given to our customers on the Kayak Release CD-ROM or can be downloaded from the Thomson Grass Valley web site. Menu panel software updates can be installed into any Kayak device connected to the switcher network or alternatively by transferring the software to a USB flash drive that can be plugged into the switcher control panel.

During this installation procedure the system checks the software update for completeness and to make sure that there have been no changes to the software. If a modification is detected, the installation process stops at 99% and displays a related error message. In this case the previous installation remains active.

A second CPLD update process is appended on system demand (see [Updating the CPLD Firmware on page 66](#)).

### Install Kayak Software

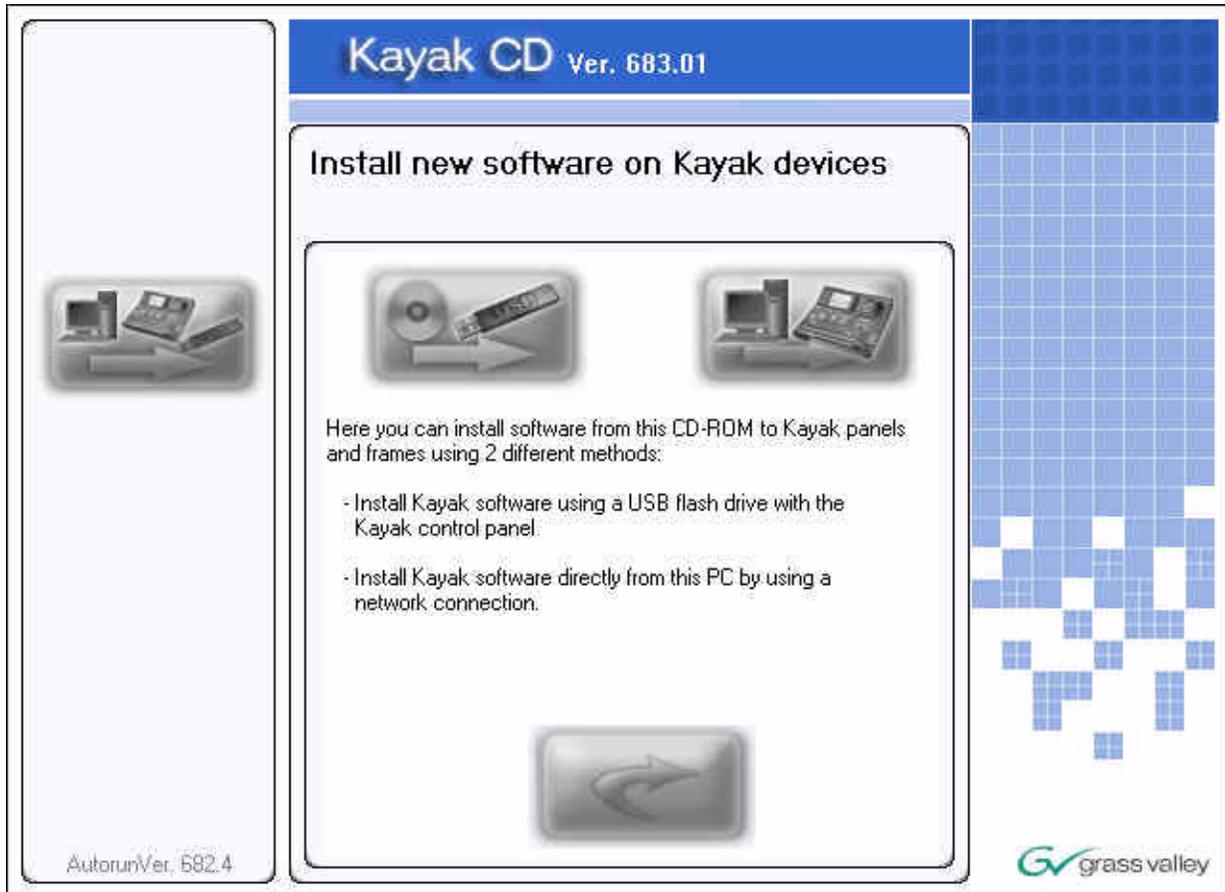
1. From the **CD Installer Welcome** screen click on the **Install Kayak Software** button (third from the top on the left as shown in [Figure 31](#)):

Figure 31. Install Kayak Software Button on the CD Installer Welcome Screen



2. The **Install new software on Kayak devices** selection screen displays (Figure 32).

Figure 32. Install Kayak Software Selection Screen



**Note** Before you click on the **Kayak software** button (top left) to load software onto a flash drive for installation to a local switcher panel you must first connect a supported USB flash drive to your computer. Not all USB flash drives are supported for Kayak installation. A complete list of supported drives and installation instructions can be found in the section [Recommended USB Flash Drives on page 47](#).

## USB Flash Drive Installation

Select this option if you want to load menu panel software from the CD-ROM to a USB flash drive for installation onto the control panel.

### Recommended USB Flash Drives

A 512MB USB flash drive is supplied with your switcher. The following types of USB flash drives are approved for use with the Kayak HD switcher:

Table 4.

Recommended USB Drives	Note
Apacer USB Flash Drive (HandySteno) 256MB (USB1.1)	These first three Apacer USB flash drives require a cable adapter for the Kayak HD USB 4 slot. Normally part of delivery
Apacer USB Flash Drive (HandySteno) 256MB (USB2.0)	
Apacer USB Flash Drive 128MB (USB1.1)	
Apacer Handy Steno HT202 USB 2.0 Flash Drive 128MB	
Buffalo Firestix 1GB (USB2.0)	V6.8.5 or higher required
Corsair Flash Voyager 1GB (USB2.0)	V6.8.5 or higher required
LG XTIC Mirror 1GB (USB2.0)	V6.8.5 or higher required
Memorex Thumb Drive USB 256 MB	
Memorex TravelDrive - Smart U3, 1GB (USB2.0)	V6.8.5 or higher required
PQI Corp. Intelligent Stick 1GB, CoolDrive 512MB, CoolDrive 1GB	
SanDisk Cruzer Mini 256MB	
SanDisk Cruzer Mini 128MB	
SanDisk Cruzer Micro 2GB (USB2.0)	V6.8.5 or higher required
Sony Micro Vault USM 1GB (USB2.0)	V6.8.5 or higher required
Transcend JetFlash Type TS256MJFLASHA (USB2.0)	
TrekStore CS 1GB (USB2.0)	V6.8.5 or higher required
Twinmos Mobile DiskIII 128MB	USB Setup does not detect this device as a removable device.
Verbatim Stor'n'go 1GB (USB2.0)	V6.8.5 or higher required

1. Plug a supported USB flash drive into your computer.
2. From the Kayak Software Selection screen ([Figure 32 on page 46](#)) click on the **Kayak software** button (USB flash drive icon on the left).
3. Follow the instructions in the USB Flash Device Setup Program wizard to transfer the software from the CD to the flash drive.
4. When the software has finished loading onto the USB flash drive remove it from your computer and take it to the Kayak HD control panel.

**Note** USB ports 1 and 3 are not supported on Kayak HD control panel.

5. Plug the USB flash drive into either USB port 2 or 4 on the Kayak HD control panel. If the USB flash drive doesn't fit (mechanically) into the USB 4 slot use the extension cable that comes with your switcher as an adapter.

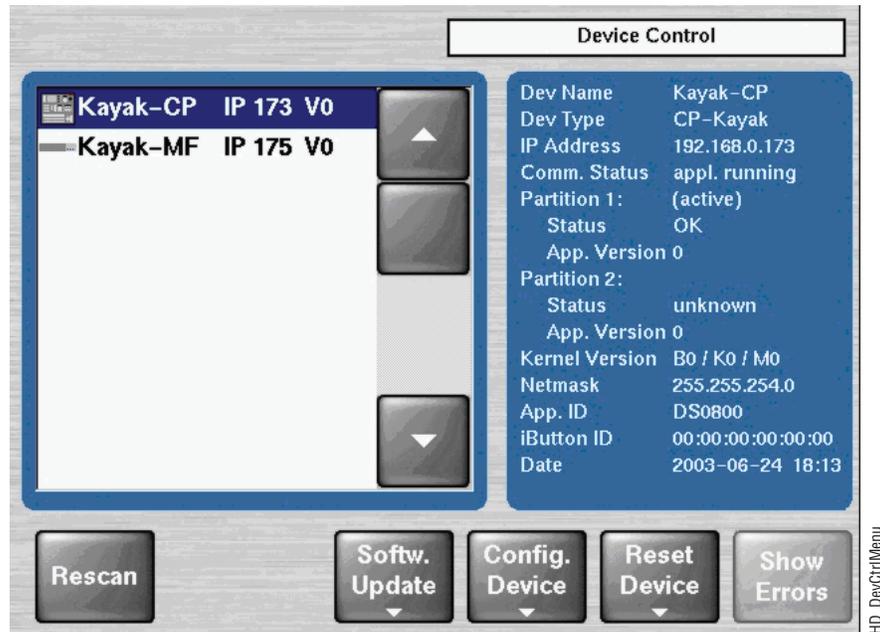
**Note** If the control panel software recognizes a valid Kayak release version on the USB flash drive the **Device Control** menu launches automatically. If the **Device Control** menu does not display when you plug in the USB flash drive, reload the software onto the flash drive using the process described in [USB Flash Drive Installation on page 47](#)

6. The **Device Control** menu displays all connected network devices with the last three digits of the device's IP address and the version of software installed

Kayak-MF=Frame

Kayak-CP=Control Panel.

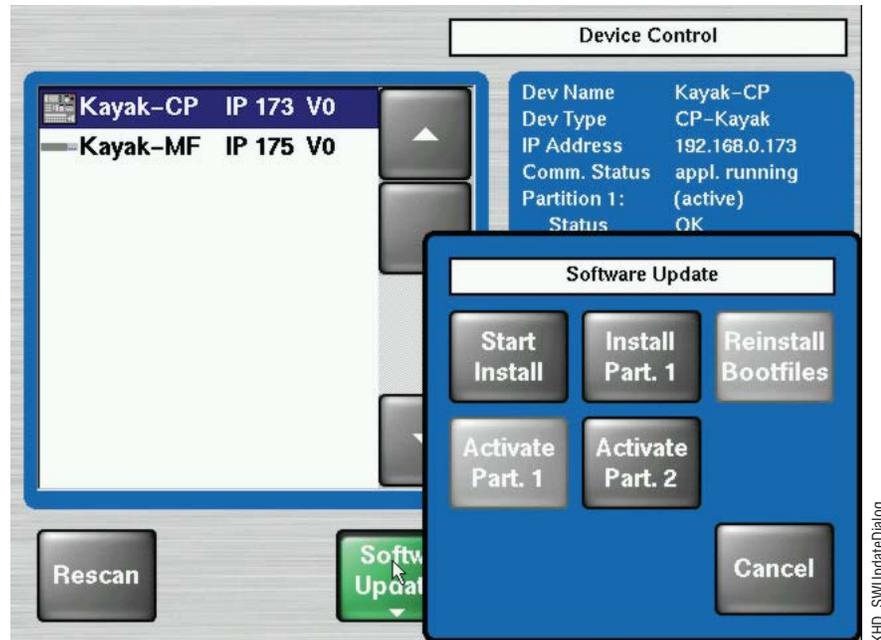
Figure 33. Device Control Menu



7. Select the device for software installation from the scrolling list in the **Device Control** menu.

- Click the **Softw. Update** button (Figure 33 on page 48). The **Software Update** dialog box displays.

Figure 34. Device Control Menu with Software Update Dialog Box



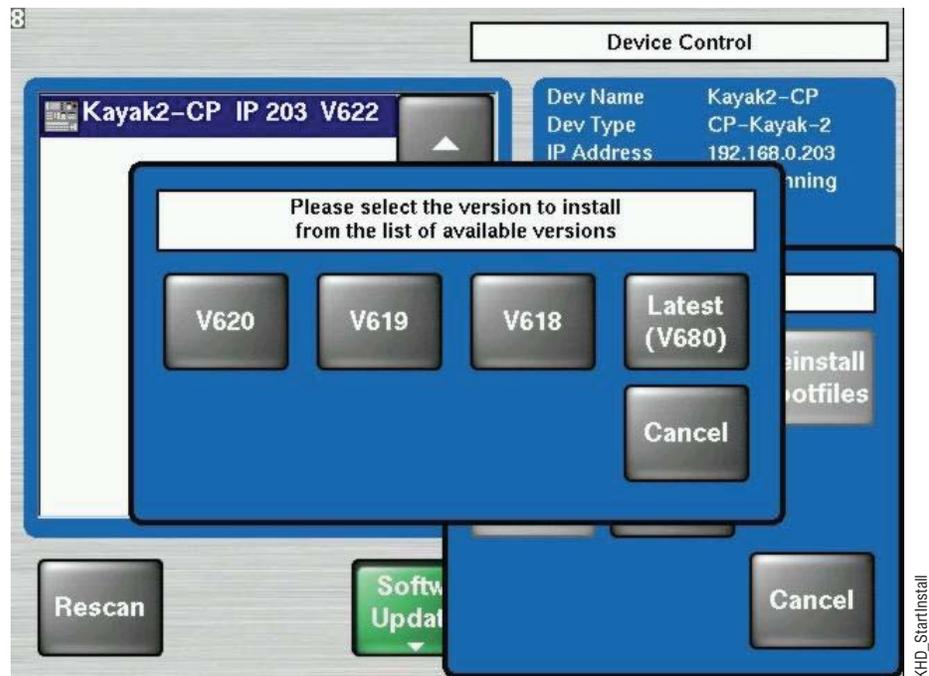
- Click either the **Start Install** or the **Install Part.x** button (Figure 34). The correct software will be installed in the respective device (MF or CP) automatically.

Two partitions are available on the USB flash drive for the application software.

- Clicking **Start Install** installs the software in the non-active partition by default (recommended).
- Clicking **Install Part.x** installs the software in the partition containing the current active software.

After clicking the **Start Install** (or the **Install Part.x**) button a dialog box displays the software versions available for installation.

Figure 35. Start Installation Procedure



## Installation Procedure

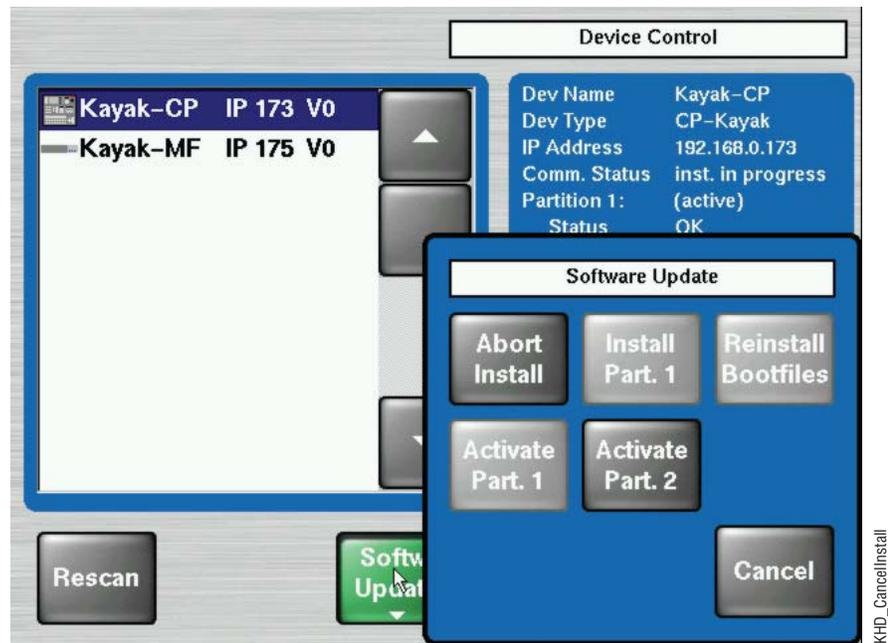
**CAUTION** Do not remove the USB flash drive during installation.

**CAUTION** Do not abort installation while installing on the Active partition! If you stop the installation process on the Active partition the switcher will not function.

- Click to select the software version to install from the dialog box display (Figure 35). Installation begins immediately with progress displayed as a percentage.

If you need to cancel the Installation click the **Abort Install** button in the **Software Update** menu. If you cancel the installation, the system displays the status `inst. failed` as shown in Figure 37 on page 51. The partition used for the cancelled installation is no longer available for use and cannot be activated.

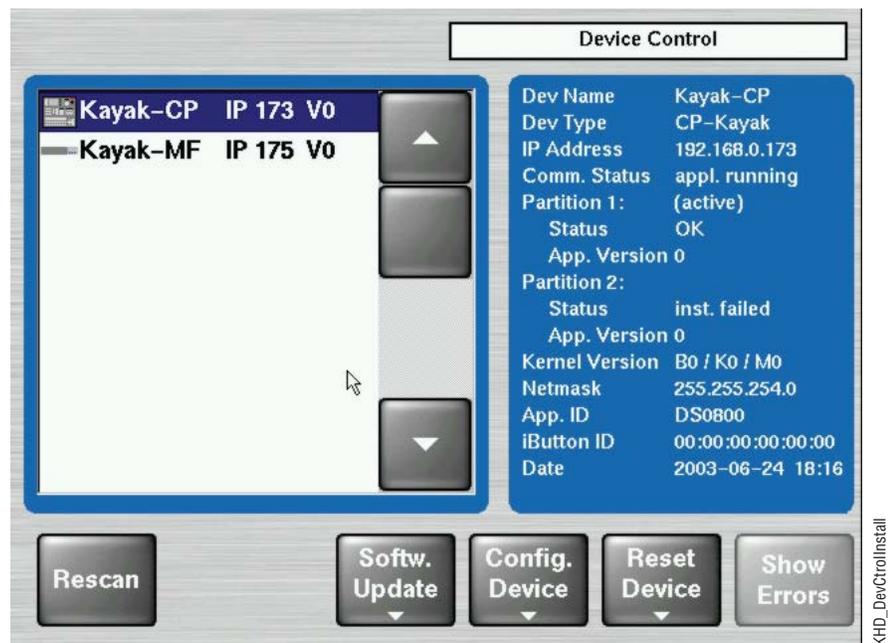
Figure 36. Abort Install Button



**CAUTION** Use only the **Abort Install** button to cancel installation. Do not interrupt the installation using any other method.

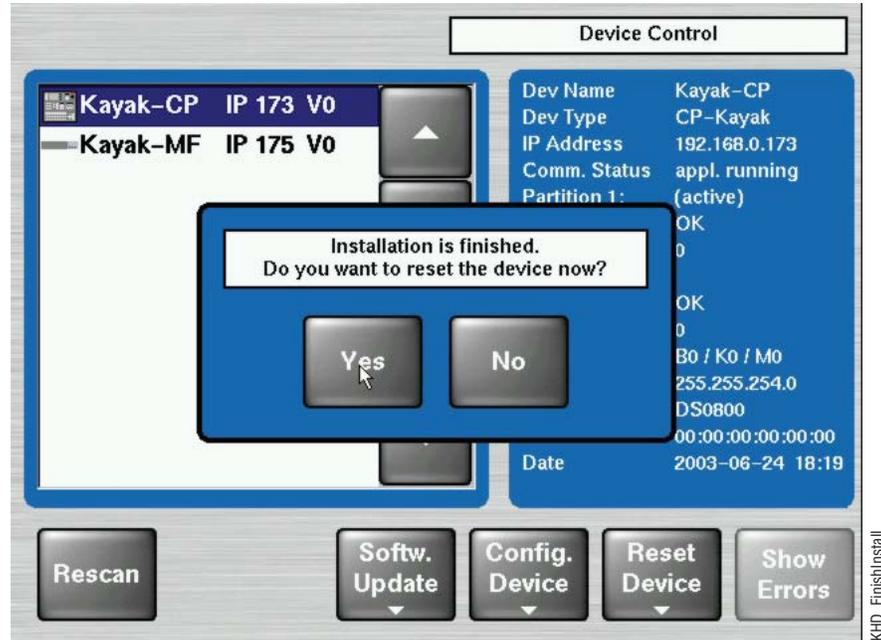
**CAUTION** Do not cancel the installation by turning off power to any device.

Figure 37. Device Control Installation Failure Status on Partition 2



- After finishing the installation procedure, a dialog box displays the question, Do you want to reset the device now?

Figure 38. Finish Installation



**Note** Verify that the active partition shows the new software version you just installed (e.g., 6.8.5) before restarting the device.

- If the active partition shows that the new software was successfully installed click **Yes**. The installed software is available only after you restart the system.

**Note** Always restart each device after upgrading its software.

## Installation over the Network

- From the **Install new software on Kayak devices** screen click on the **Kayak Network Devices** button on the right to install Kayak software to any device visible from the same subnet connected to the PC computer running the CD Installer.

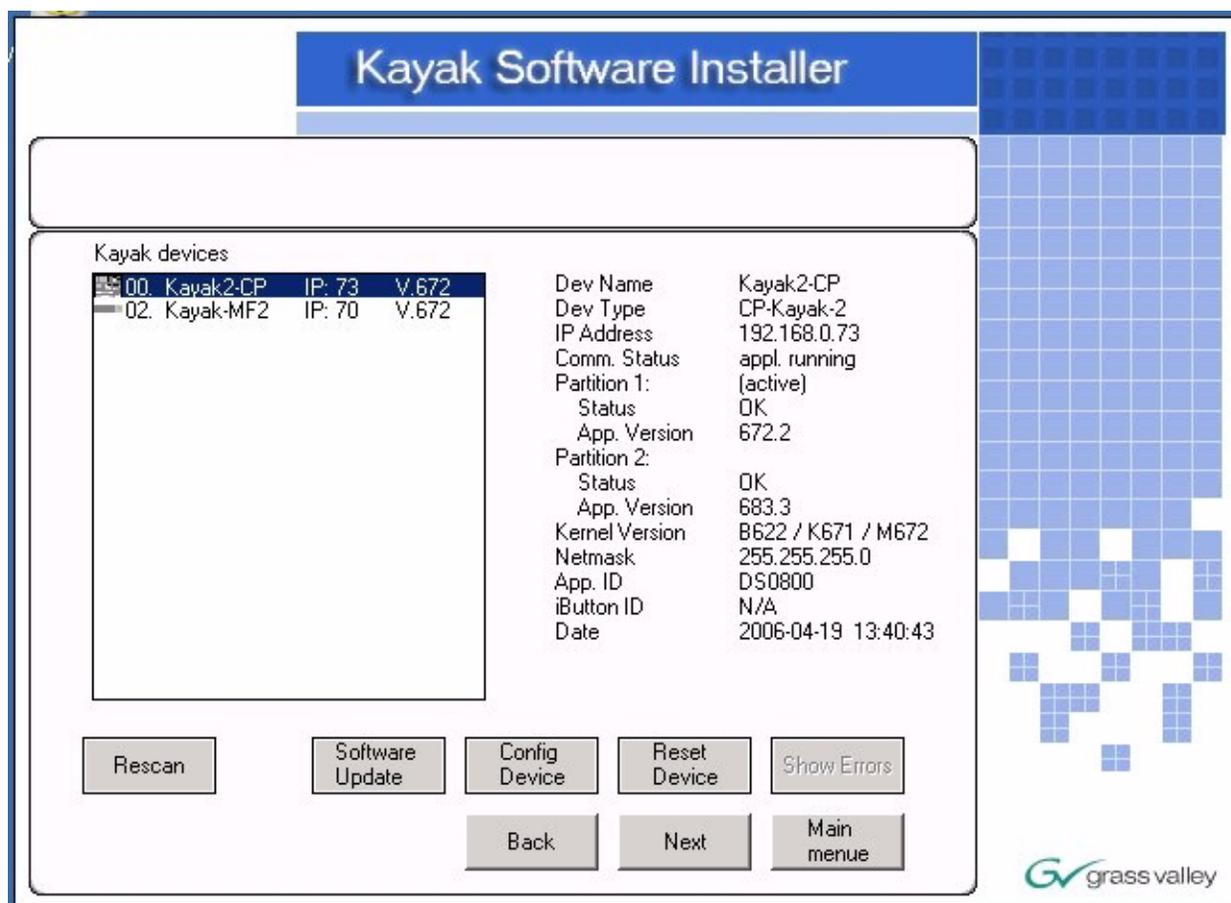
The **Kayak Software Installer** displays.

- Click the **Next** button to continue.

You can also click the **Back** button to return to the **Install new software on Kayak devices** screen.

- Clicking the **Next** button displays the **Kayak Device Selection** screen (Figure 39). Every Kayak device connected to your computer's network is displayed here in the Kayak devices window. Click on a name in the list to select a device for installation.

Figure 39. Kayak Network Device Selection



4. Once you have selected a device click one of the active buttons below the device list (see [Figure 39 on page 53](#)) to choose the action you want to perform:
  - The **Rescan** button will go back to the network to check for any new devices that may have been added.
  - **Software Update** installs Kayak software to the device you selected.
  - **Config Device** lets you configure the selected device over the network.
  - **Reset Device** resets the selected device to its default settings.
  - **Show Errors** displays a list of any errors discovered by the Kayak software.
  - The **Next** button to exit the Kayak Software Installer.
  - The **Back** button returns you to the previous screen.
  - The **Main Menu** button returns to the main **CD Installer Welcome** screen.

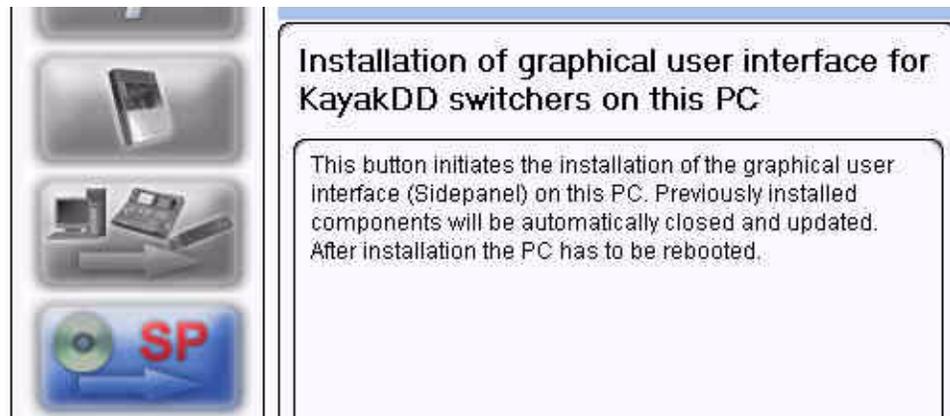
## Install Graphical User Interface (PC Sidepanel Software)

The PC Sidepanel software can be used to configure and control Kayak switchers from a PC computer.

### To Install the Sidepanel Software Onto a PC:

1. From the **CD Installer Welcome** screen click on the **Install Sidepanel Software** button on the left (with the disc and the SP logo as shown in [Figure 40](#)).

Figure 40. Install Sidepanel Software Button on the CD Installer Welcome Screen



2. A software wizard launches. Follow the instructions on the screen to install the Kayak Sidepanel software.
3. During the installation process you need to choose the type of installation you wish to perform:

**CAUTION** Be careful when selecting the type of software installation to use. This setting cannot be changed later.

- Demo:** Demo version, no connection to a panel or a frame.
- GUI PC:** Connection only to a frame, not to a panel.
- MultiPanel:** Connection to frame and panel.
- SinglePanel:** Connection to a specified panel during the installation.

4. When you are done the wizard asks if you wish to reset the computer. You can do this now, or at a later time.

The Sp\_dd35.exe Sidepanel application is installed at:

C:\Programme\DD35\bin.

## Connecting to the Kayak System

For non-Demo installs you need to establish the computer connection to the Kayak HD system after the computer has rebooted:

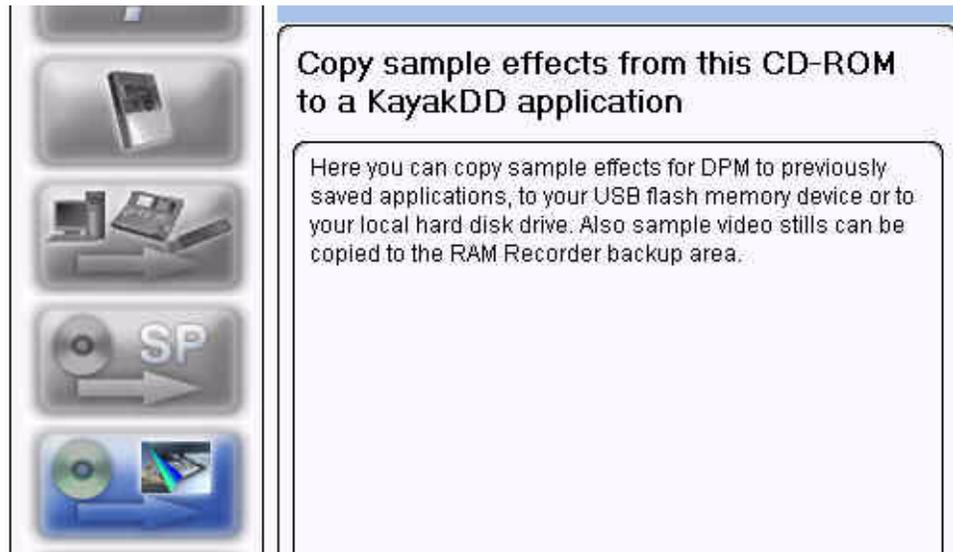
1. Launch the Sidepanel software application.
2. Right-click the **Menu** button and select the **Startup** option.
3. Click to select the box for E-Box at the top of the screen. A blue line displays in the bottom of the box to indicate that it has been selected.
4. Click to select the box for **Panel** (if available) at the top of the screen. (The **Panel** box is active only if you selected to install the Sidepanel software in **MultiPanel** mode.)
5. Click to select the name and IP address for the frame from the scrolling list at the bottom of the screen.
6. If needed, click to select the name and IP address for the panel.
7. Click the **Connect** button to connect the frame to the panel and to the computer Sidepanel software for this session.
8. Click **Attach** to make the connection from the frame to the panel and to the computer Sidepanel software persistent so that it will remain after the computer reboots.

## Copy Sample Effects

**Note** Sample effects are only available on the CD-ROM for the Kayak DD switcher type.

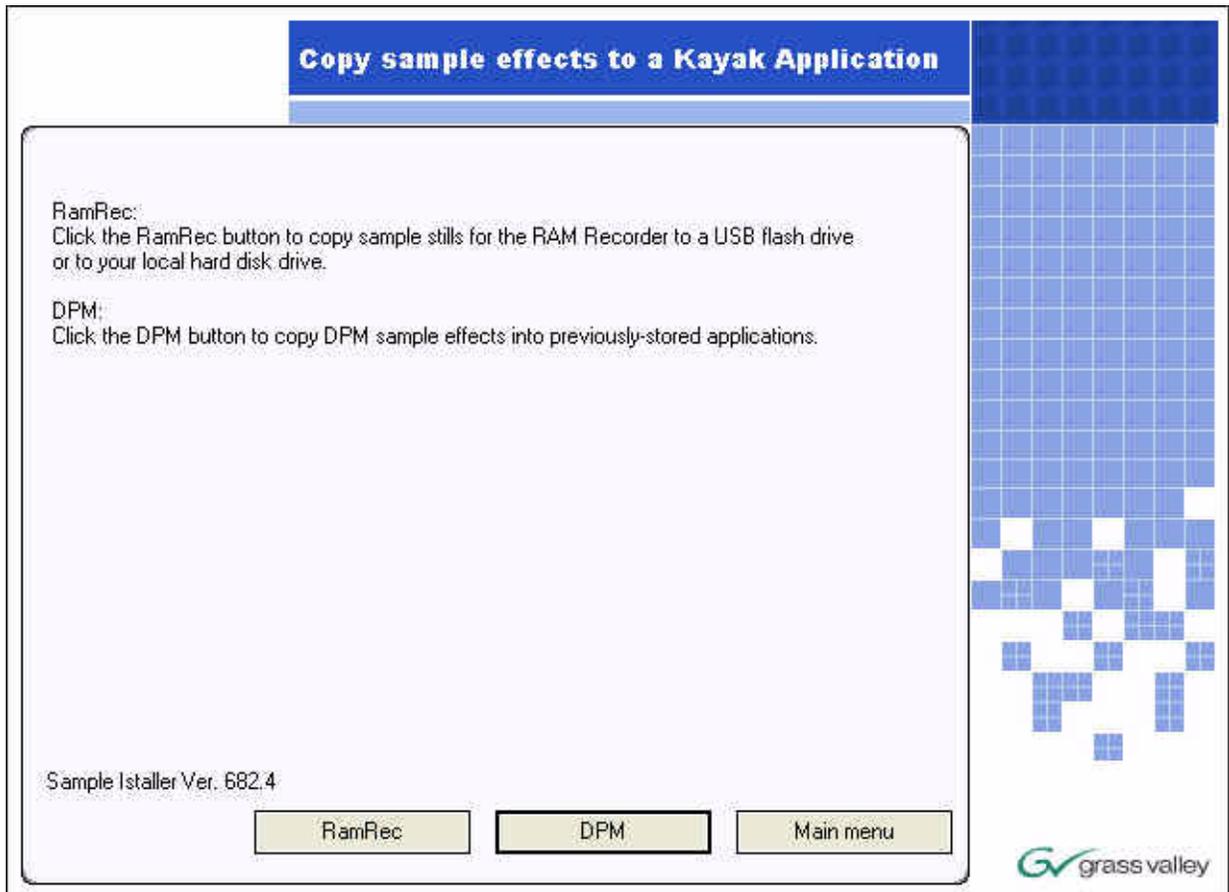
1. From the **CD Installer Welcome** screen click on the **Copy Sample Effects** button (with the disc and the page turn icon as shown in [Figure 41](#)) in the upper left-hand corner to copy sample effects to a USB flash drive for use on the RAM Recorder or to copy DPM sample effects into previously-stored applications.

Figure 41. Copy Sample Effects Software Button on the CD Installer Welcome Screen



The **Copy Sample Effects to a Kayak Application** screen displays (Figure 42).

Figure 42. Copy Sample Effects to a Kayak Application Screen

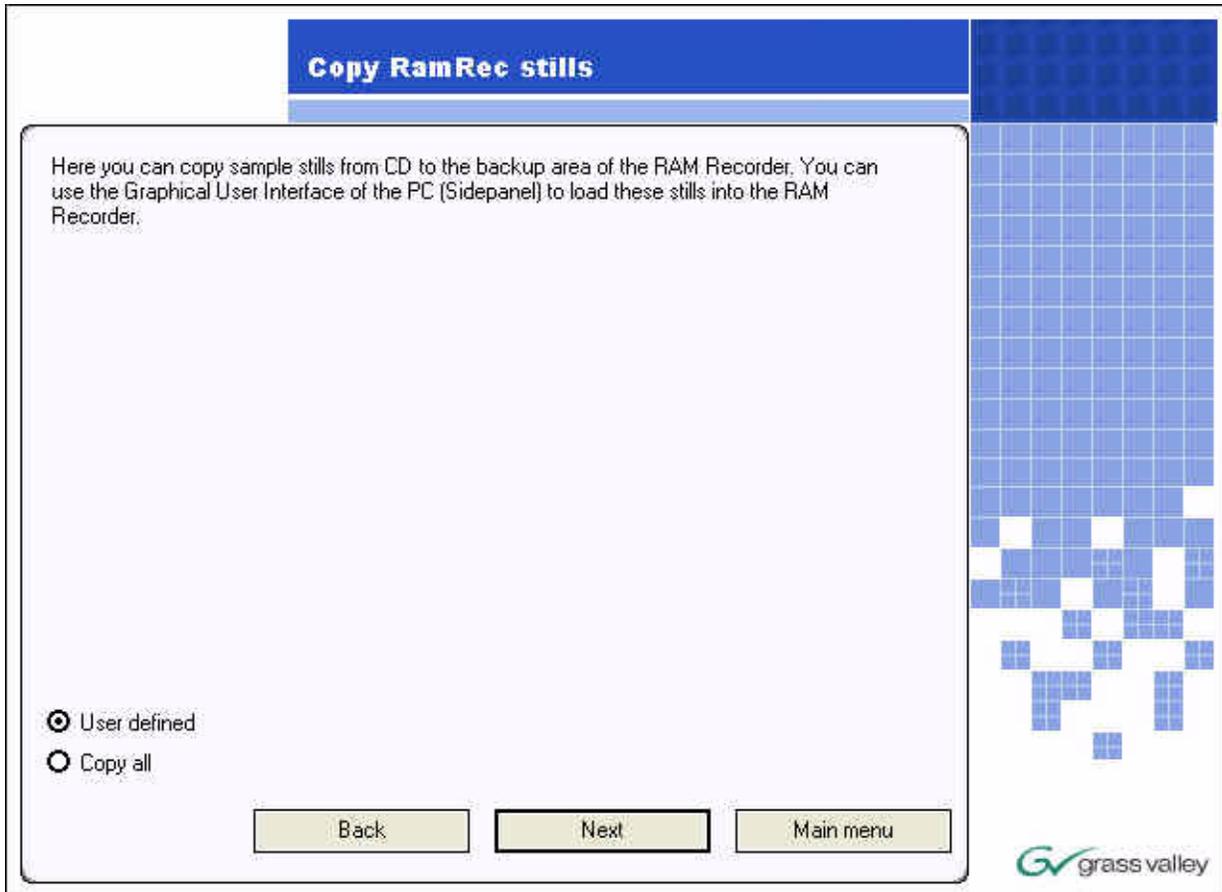


2. From this screen you can:

- Click on the **RamRec** button to copy sample still images from the CD-ROM to a USB flash drive (or your computer hard disk) to use for the Kayak RAM Recorder.
- Click on the **DPM** button at the bottom of the screen to copy DPM sample effects into applications that have been previously stored on your Kayak system.
- Click on the **Main menu** button to return to the **CD Installer Welcome** screen.

3. When you click on the **RamRec** button the **Copy RamRec Stills** screen displays.

Figure 43. Copy Sample Effects to a Kayak Application Screen



You can click the **Back** button to return to the previous screen or click the **Main menu** button to return to the **CD Installer Welcome** screen.

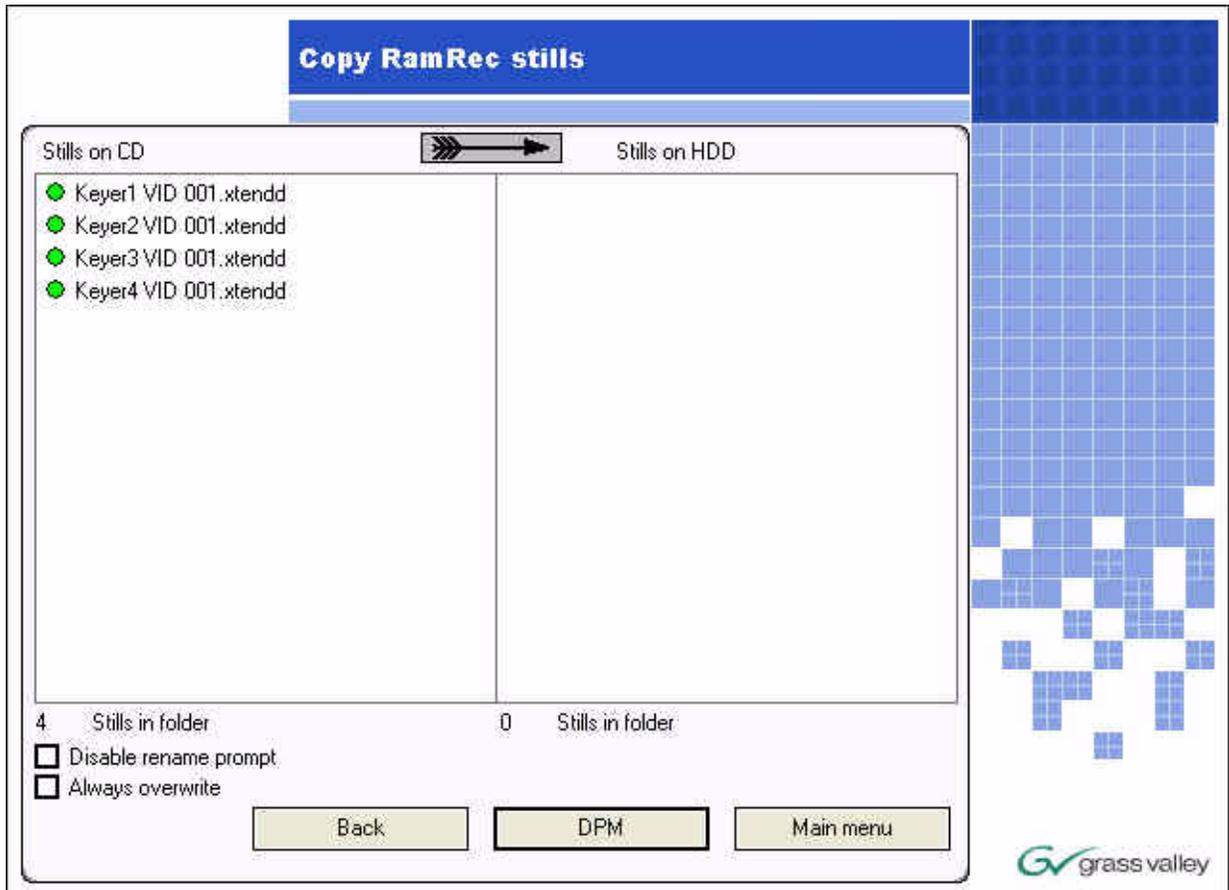
4. Click on the **User defined** radio button at the bottom left to copy only those still images that were created by the user, or select the **Copy all** radio button to copy all still images, and then click the **Next** button to begin the copy process.

If you selected the **Copy all** radio button, clicking the **Next** button copies all files to your local hard disk drive in the directory:

C:\Programme\DD35\ramrecStills

- If you selected the **User defined** radio button clicking the **Next** button displays a menu showing the stills stored on the CD-ROM and a list of stills stored on your computer's local hard disk drive as shown in [Figure 44](#).

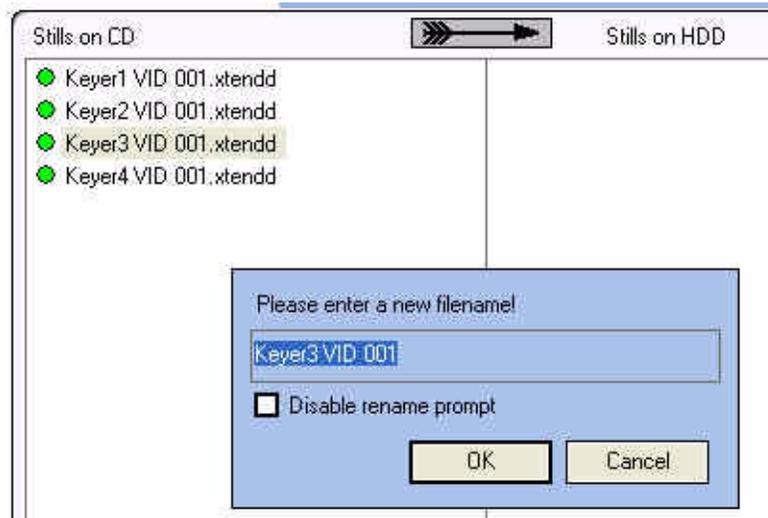
Figure 44. Copy User Defined Stills



- Select the **Disable rename prompt** check-box if you want to accept the still names from the CD-ROM, or leave it unchecked if you want to rename the files.
  - Select the **Always overwrite** check-box to let the copy program overwrite any existing files you have with the same name.
- Select the names of the files you want to copy by clicking on them. You can select multiple files by holding down the **Control (Ctrl)** key while you click. To transfer the files to your hard disk drive click on the **Arrow** button at the top of the window.

- Clicking on the **Arrow** button displays a dialog box asking you to enter a new filename (Figure 45). You can accept the existing default filename or type in a new one and then click **OK**. If you select the check-box to **Disable rename prompt** in the dialog box you will not be asked to change the filename during the next file transfer.

Figure 45. Rename File Dialog Box



If you try to copy a still image file that already exists on your hard disk drive a dialog box displays asking if you want to **Rename** or **Overwrite** the file (Figure 46).

Figure 46. Rename or Overwrite Dialog Box



You also have the option to select the check-box to **Always overwrite** files in the future.

- Select the radio button to **rename** the file or to **overwrite** it and then click **OK**.

9. From the **Copy Sample Effects to a Kayak Application** screen (Figure 42 on page 57) click on the **DPM** button to display the **Copy DPM effects** screen (Figure 47).

Figure 47. Copy DPM Effects

10. From this screen click on a radio button on the left-hand side to select a location where you want to copy the DPM effects from the CD-ROM:
- Storage device (HD-drive or USB Drive)
  - Saved applications
  - Target M/E (PP or one of the available M/Es)
  - DPM License per M/E (1-CH or 4-CH, may vary with your system)

Click on the **User defined** radio button at the bottom left to copy only those DPM effects that were created by the user, or select the **Copy all** radio button to copy all still images, then click the **Next** button to begin the copy process.

# Licenses

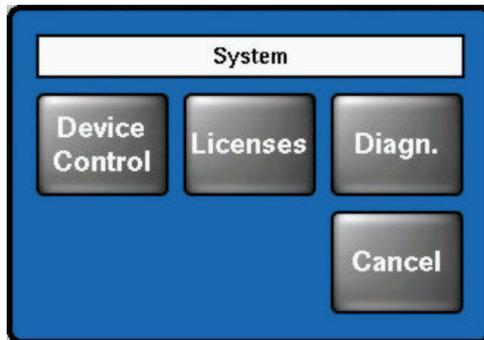
## Basics

Kayak HD has a software option licensing system. You can see the number and type of possible licenses for your system by going to the **Licenses** menu under **Home | Install | System | Licenses**. This menu is also used to add licenses to a system. The licenses are stored in 2 EEPROMs (Electrically Erasable Programmable Read Only Memory chips) located in the backplane of the frame. Licenses cannot be moved between different Kayak HD frames. (See the *Kayak HD Installation and Service Manual* for more details.)

## Licenses Menu

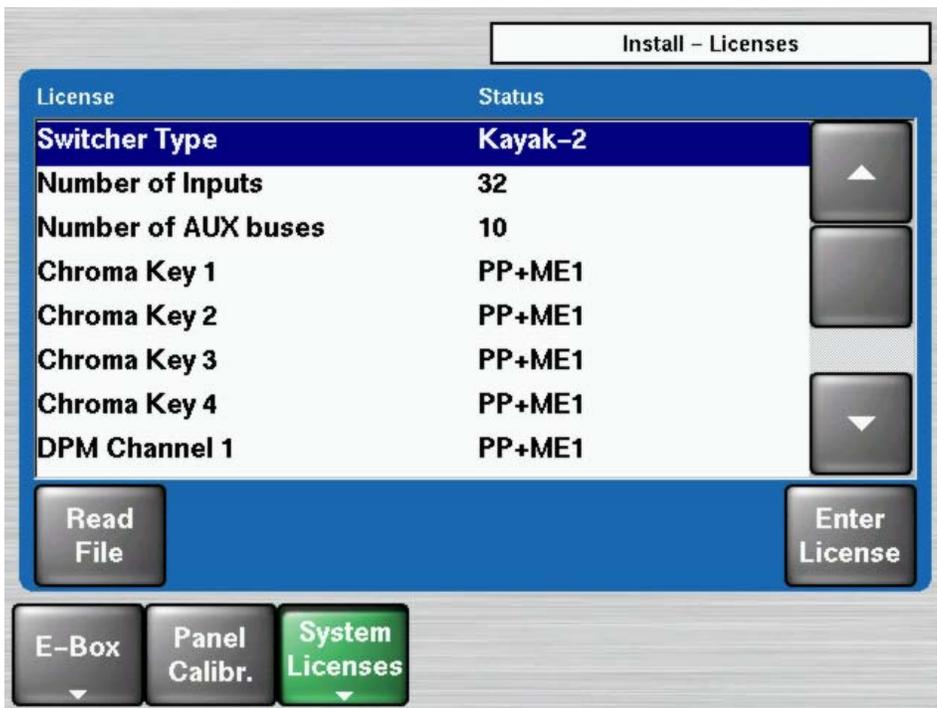
The Licenses menu is available from the control panel by pressing **Home – Install – System**.

Figure 48. System Setup Dialog Box



Press the **Licenses** button to display the **Install - Licenses** menu.

Figure 49. Install Licenses Menu



## How to Install Licenses

A license is a line of text expressed in a format similar to this chroma key license key:

```
key="LIC_CHROMA_KEY1", "1", "0000:00:00", "9999:12:31", "34567", "8-xyz", "2005:12:06", "3489c00db5b1c548e9daf7fbe0ed67eb21"
```

The license key contains the:

<b>License name</b>	LIC_CHROMA_KEY1
<b>License value:</b>	1
<b>Start date:</b>	0000:00:00
<b>End date:</b>	9999:12:31
<b>Serial no:</b>	34567
<b>wksID:</b>	5-xyz
<b>License creation date:</b>	2005:12:06
<b>LicenseKey:</b>	3489c00db5b1c548e9daf7fbe0ed67eb21

After installing the software version you can add licenses to the system. There are two ways to do this:

### With a USB Flash Drive (recommended):

1. Copy the file `sp_license.txt` (contains all your licenses) to the root directory of your USB flash drive.
2. Connect the Kayak control panel (CP) to the frame.
3. Insert the USB flash drive into the control panel USB port 2 or 4 (just as you would for software installation) and enter the **Home | Install | System | Licenses** menu
4. Push the button **ReadFile** and follow the instructions. After installation you must reset the frame.

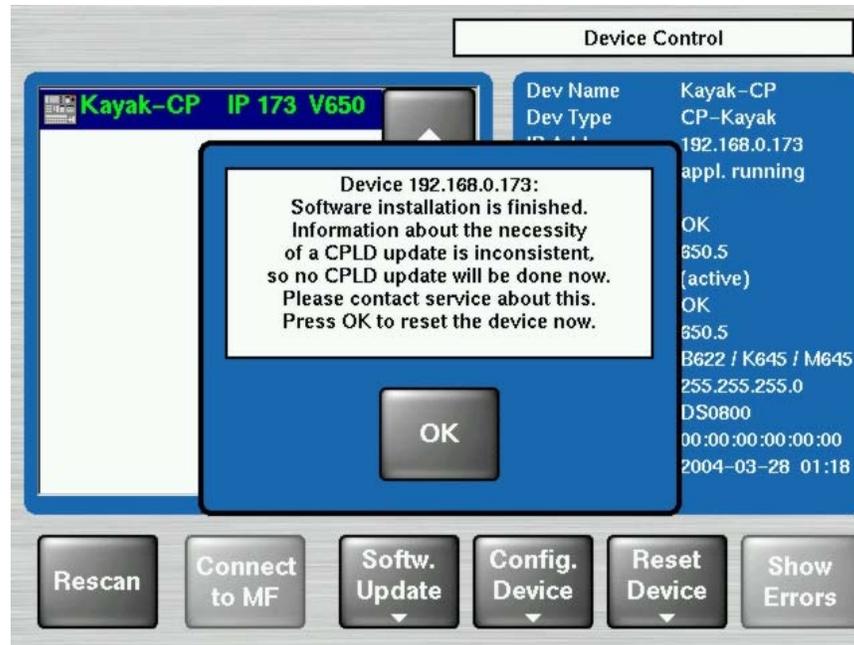
## Manual Entry with Internal GUI Keyboard

1. Connect the Kayak control panel to the frame.
2. Go to the CP menu **Home | Install | System | Licenses**.
3. Select the option **LIC\_CHROMA\_KEY1** with the menu cursor
4. Press the **Enter License** button. This starts a keyboard dialog. A window displays reading `Enter value for Chroma Key 1`.
  - a. Enter the value `1` and press **OK**. The next window displays reading `Enter start date for Chroma Key 1`.
  - b. Enter the value `0000:00:00` (without quotation marks) and press **OK**. (Normally this value is already entered for you.) The next window displays reading `Enter end date for Chroma Key 1`.
  - c. Enter the value `9999:12:31` and press **OK**. (Normally this is the default value.) The next window displays reading `Enter iButton ID for Chroma Key 1`.
  - d. Enter the value `34567` and press **OK**. (Normally this is the default value.) The next window displays reading `Enter wks ID for Chroma Key 1`.
  - e. Enter the value `8-xyz` and press **OK**. The next window displays reading `Enter license creation date`.
  - f. Enter the value `2005:12:06` and press **OK**. The next window displays reading `Enter license key for Chroma Key 1`.
  - g. Enter the value `3489c00db5b1c548e9daf7fbe0ed67eb21` and press **OK**.
5. If all values are correct the license will be installed successfully.
6. Enter all the remaining licenses in the same way and reboot the frame afterwards.

## Updating the CPLD Firmware

At the end of each installation process the system checks to determine if a CPLD (Complex Programmable Logic Device) update is necessary. This is done by comparing the versions of the installed CPLD firmware files in flash memory with the current CPLD version tags stored within an EEPROM of each hardware board. If the version of at least one file is newer an update of the CPLD is necessary and the user is notified.

Figure 50. CPLD Update



To skip the CPLD update press **No**, to confirm the update press the **Yes** button (recommended). After the user has confirmed the update, the device will be restarted. During this sequence the CPLD will be updated. The progress of the update procedure is displayed in percent within the Device Control menu. The currently installed file (file name) is shown as well.

**CAUTION** Do not change to a menu other than the Device Control menu after initiating a CPLD update on a Kayak frame. If you change menus you cannot monitor the update process.

**CAUTION** Do not switch off the device while the CPLD update is running, as evidenced by a red progress indicator. If you turn off the device it will be permanently damaged.

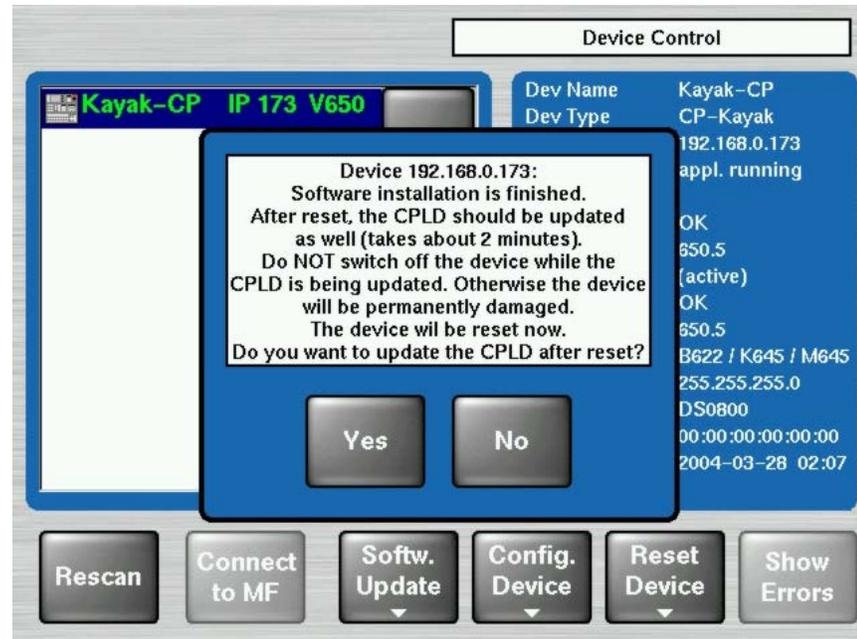
After the CPLD update is finished the system must be restarted. This brings the device to normal operation mode. If the installation process is terminated from the system, refer to [CPLD Update Troubleshooting](#).

## CPLD Update Troubleshooting

### Inconsistent EEPROM Data

When the software installation process checks whether a CPLD update is necessary or not, it initiates a plausibility check of the EEPROM data of each hardware board. If the EEPROM data is inconsistent or has a problem the user is notified and the update will not be initiated.

Figure 51. Error Message During CPLD Update



The CPLD update can be performed manually at any time.

**CAUTION** An update tries to correct inconsistent EEPROM data. A manual CPLD update should only be performed by qualified service engineers or experienced users.

### Wrong Position of CPLD Program Switch

A switch (ETX. BSCAN) on each hardware board controls external or internal programming of the CPLD. If this switch is set to **On** the CPLD cannot be updated by the software installation process. In this case the user is informed by an error message (CPLD update failed: validating chain failed, check test switch (EXT. BSCAN)) and the update process will be terminated. If this happens contact your Grass Valley service representative. (See *Contacting Grass Valley* on the rear of the title page). To bring the system back to normal operation mode, perform a reset.

