Zodiak

DIGITAL PRODUCTION SWITCHER

Release Notes

SOFTWARE VERSION 6.0

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NOVEMBER 2005

the most watched worldwide

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Grass Valley Web Site

The www.thomsongrassvalley.com web site offers the following:

Online User Documentation — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

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

Software Downloads — Software updates, drivers, and patches can be downloaded.

Contents

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Zodiak Release Notes

Introduction

This document describes installation and other information specific to Zodiak Digital Production Switcher Release 6.0 software. See for specific Zodiak system update instructions.

CAUTION   The recommended Zodiak software update procedure has been changed for increased reliability. Zodiak system files must be saved, NV Memory cleared, and the system files then must be reloaded. Carefully read the revised installation instructions and follow the procedures precisely.

WARNING   **Make sure that required heat sinks have been added to the Mix Effects module(s) in the Zodiak Video Frame before you install this version of Zodiak software. Your hardware must be modified before software installation or the Mix Effects module(s) will overheat.**

CAUTION   Zodiak 3.x and higher software requires an SBC1000 Frame Processor upgrade for optimum performance on 3 M/E systems. The SBC1000 sub-module requires 2.2 or later software. You must install compatible software BEFORE you install the SBC1000.

CAUTION   Five amp replacement fuses must be installed in the Zodiak Dual Mix Effects module 671634700 before you install the 3.x or higher software.

New Features in Release 6.0

- Timeline Recall/Run Menu (see)
- Menu Register Operations (see)
- Effect Duration (see)
- File Operations Enhancements (see)
- Re-Entry Preferences (see)
- Still Store Enhancements, including thumbnails and selection by number (see)

- Newton Modular Control Menu (see page 34)

- Device Control for Routed Sources (see page 38)

- AMP Ethernet Machine Control and Clip Directory (Option) (see page 43)

Changes in Release 6.0

- The NV Memory file name suffixes for Macro files have been changed from .gvg to .nva. This does not affect the Macro user files that are saved or loaded by the operator, which retain their .gvg suffix. This change may cause the loss of access to Macro files if the Zodiak system is backed down to a software version earlier than 6.0 if the user failed to save his Macro user files in either software version. Always save your system and user files before updating to new or backing down to earlier Zodiak system software.

Timeline - Recall/Run Menu

The Timeline - Recall Run menu brings E-MEM functions previously available only on the Main panel to the Menu panel. Recall, Run, Learn, Clear, and other related functions are accessible.

Figure 1. Timeline Menu - Recall Run

Register Status

The upper left pane shows the status of the current register. The number of the current register is shown, and whether the register is Locked or involved in an Effects Dissolve or Sequence.

Mode

The Mode pane selects which function will be performed with the other buttons on the menu (Recall, Learn, Learn Sequence).

Enable Groups

Like the Enable buttons on the Master E-MEM subpanel, the buttons in the Enable Groups pane determines what levels will be affected by the function activated (Get, Put, etc.).

Select All selects the remaining unselected buttons or deselects all the Enable buttons in the pane.

Bank and Register Selection

The Bank and Register buttons act similar to the Master E-MEM keypad, permitting the immediate selection of any of the 100 E-MEM registers. Press a Bank button, if necessary, to change the bank, then press the Register number button to select that register.

Effects Run Controls

The **Stop Next**, **Rev**, **Rew**, and **Run** buttons perform the same effect run functions as the similarly labeled buttons on the Effects Run subpanel.

Other E-MEM Buttons and Knobs

The **Auto Recall**, **Auto Run**, **Seq**, and **Effect Dissolve** buttons on the Timeline - Recall Run menu perform the same functions as the similarly labeled buttons on the Master E-MEM subpanel.

The **Go to KF** and **Jog Effect** knobs are used to navigate through the effect, same as the **Go to KF** button and the Run Lever Arm on the Main panel.

Access to Other Menus

The **Source Select** and **Register Ops** buttons take you immediately to these other menus, and are included here for convenience. After accessing these menus, pressing the Last Menu button will return you to the Timeline - Recall Run menu.

Menu Register Operations

The E-MEM Register Ops menu provides register operations and E-MEM level enabling from the menu.

E-MEM - Register Ops Menu

The Register Ops Menu has a status pane on the upper left, a Function pane on the left, an Enable Group pane center left, and a Number Keypad on the right(Figure 2).

Figure 2. E-MEM Register Operations Menu, Get Selected

An Input Mode pane also appears for some functions (Figure 3 on page 11)

Register Status

The upper left pane shows the status of the current register. The current register number and next available register are shown, and whether the register is Locked or involved in an Effects Dissolve or Sequence is reported.

Function Pane

The buttons in the Function pane select which actions are enacted with the keypad. These functions are the same as those available on the Main panel.

The **Get** button copies the contents of the enabled levels of the specified register to the current effect register.

The **Put** button copies the contents of the enabled levels of the current effect register to the specified register.

The **Lock** button locks the enabled levels of the specified register(s) or bank(s) of registers, preventing them from being changed unless the lock is removed.

The **Unlock** button unlocks the enabled levels of the specified register(s) or bank(s) of registers.

The **Clear** button clears the data from the enabled levels of the specified register(s) or bank(s).

The **Clear Seq** button clears the sequence link from the enabled levels of the specified register(s) or bank(s).

Input Mode Pane

When a **Lock**, **Unlock**, **Clear**, or **Clear Seq** button is selected, the Input Mode Pane is displayed (Figure 3).

Figure 3. E-MEM Register Operations Menu, Lock Selected

The Input Mode pane is used to specify the scope of the action to be performed.

All - The action will be applied to all registers.

Bank(s) – The action will be applied to the bank or range of banks entered.

Reg(s) - The action will be applied to the register or range of registers entered.

Enable Groups

Like the Enable buttons on the Master E-MEM subpanel, the buttons in the Enable Groups pane determine what levels will be affected by the function activated (Get, Put, etc.).

Select All selects or deselects all the Enable buttons in the pane.

Number Keypad

The number keypad is used to enter register or bank numbers for an action, which is completed by touching the **Enter** button. Specific instructions are displayed at the top of the keypad. The dot (.) character is used to clear the current register, specify a range of registers or banks, or specify the next available register when doing a Put operation.

Effect Duration

The Effect Duration feature allows you to change the duration of a multi-keyframe E-MEM effect without having to individually change the durations of each keyframe.

When an effect is first created it has a "natural duration", which is the time indicated by the last keyframe. With Effect Duration you can make the overall length of the effect longer or shorter with a single command. Each keyframe duration in the effect will be increased or decreased proportionately to match the new duration. You can also restore the effect to its original, natural duration if desired.

Timeline - Time Adjust Menu

The **Effect Dur** button resides at the lower left corer of the Timeline - Time Adjust menu (Figure 4).

Figure 4. Timeline - Time Adjust Menu

Touching this button opens a numeric keypad you use to enter the new duration of the effect (Figure 5).

Figure 5. Effect Duration Numeric Keypad
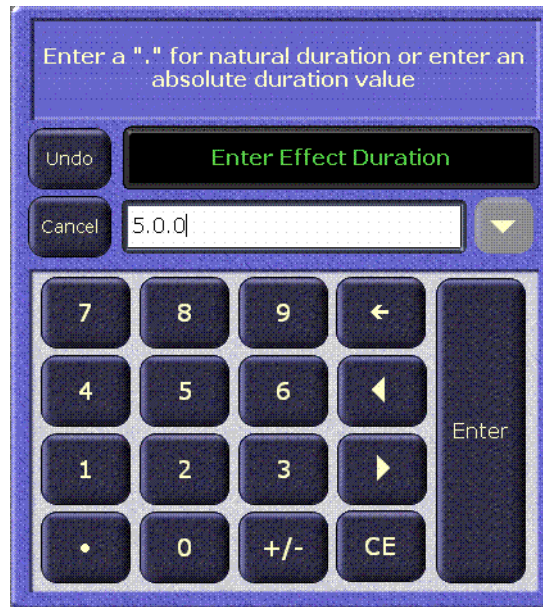
Changing Effect Duration from the Menu Panel

1. Select the effect whose duration you wish to change.

2. Go to the Timeline - Time Adjust menu and touch the **Effect Dur** button.

3. Type a new duration in Seconds • Frames • Field format and touch **Enter**. Entering a single value defaults to frames, and the third Field value is optional. Entering a **1** for the Field value specifies odd field. For example, **1.0.1** indicates 1 second, 0 frames, 1 field.

  • Entering only a • restores the natural duration of the effect.

4. Touch the **Effect Dur** button again to turn off the function.

Figure 6. Timeline - Time Adjust Menu, Forced Duration

The new Forced Duration of the event is shown in the white box at the upper right-hand corner of the menu screen (Figure 6).

It is possible to apply Forced Duration to individual levels by selecting only those levels for modification.

Figure 7. Timeline - Time Adjust Menu, Forced Duration of Individual Levels

In the example shown here (Figure 7) the first three levels have been set to a Forced Duration of 5 seconds and the other levels remain at the Natural Duration of 4 seconds. The Natural and Forced Duration values are reported in the menu on the right-hand side of the screen. The Natural Duration values are indicated with the letter "N" to the right of the time display.

File Operations Menu Enhancements

The Zodiak File Operations menu system has been enhanced for ease of use, and now includes a Show feature that permits the convenient saving and loading of a collection of files for a specific show.

The existing Save Load menus for Daily Setup, Eng Setup, Macros, R-MEM, and E-MEM remain available from their separate menu locations. These menus are now also accessible via subcategory buttons on the File Ops menu.

Still Store files are not included in a Show, and their file operations are handled separately. Save and Load times for Still Store files (especially animations) can potentially be very long, and are best handled independently. Still Store files can be copied to and from the Still Store using the Still Store/File Ops menu, or the File Ops/All Files menu.

All Files Menu

The File Operations All Files menu provides access to all Zodiak files (Figure 8).

Figure 8. File Operations All Files Menu

Dest Pane Button

Pressing the **Dest Pane** button opens a destination pane for Paste operations. The lower **Up**, **Top**, and **Open** buttons are used to navigate through the file hierarchy for this destination directory (Figure 9).

Figure 9. File Operations Source and Destination Panes

Set Directories Button

Pressing the **Set directories on all File Op Menus** button sets the currently selected source and destination directories (shown when the Copy or Split Panes buttons are active) for all the other File Operations sub-menus. The destination directory is set even if both panes are not visible.

Show Menu

The File Ops Show menu is used to create, save, and load Shows. A Show is a special collection of Zodiak files that can be managed as a group. The standard navigation, copy, and other file and folder controls are located at the upper right of this menu. Show related controls are located on the lower right in the Show Load and Save pane (Figure 10).

Figure 10. File Operations Show Menu
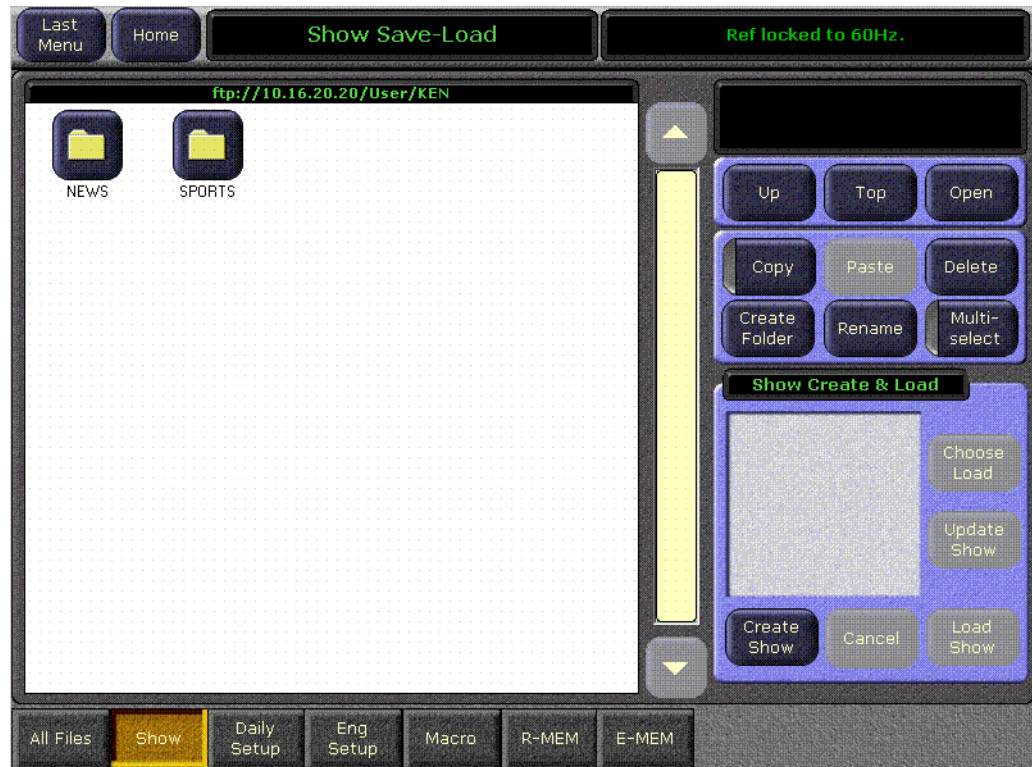
Create Show

Pressing the **Create Show** button opens a create show pane (Figure 11).

Figure 11. File Operations Show Create Menu

In this pane you enter the name of the Show (touch the Show Name data pad) and you can select which file types and which range of files will be included in the Show.

The **Select All** and **Deselect All** buttons select or deselect all the available file types. Touching on a file type button selects or deselects that individual type of file for loading. Touching on a lower data pad allows you to enter a range of files of that type to include in the show.

Pressing **Create** saves the show into the currently selected directory. The status of the operations are reported as they progress.

Load Show

Pressing the **Load Show** button immediately loads all the files in the currently selected show into the Zodiak system. This operation will overwrite the existing settings that are currently being used. While the current work buffer and video outputs will not be affected, other aspects of system operation (source mapping, source name displays, available effects, etc.) will change depending on what files are being loaded.

CAUTION Be sure the Show contains appropriate files before you load a Show, especially if the system is currently on-air. Choose Load can be used to inspect the Show and select files before loading.

Choose Load

Pressing **Choose Load** brings up a pane that allows you to see what files are contained in the Show, and select which files to load. Buttons for files not present are grayed out. By default all the files in the Show are selected for load.

Figure 12. File Operations Choose Load Menu
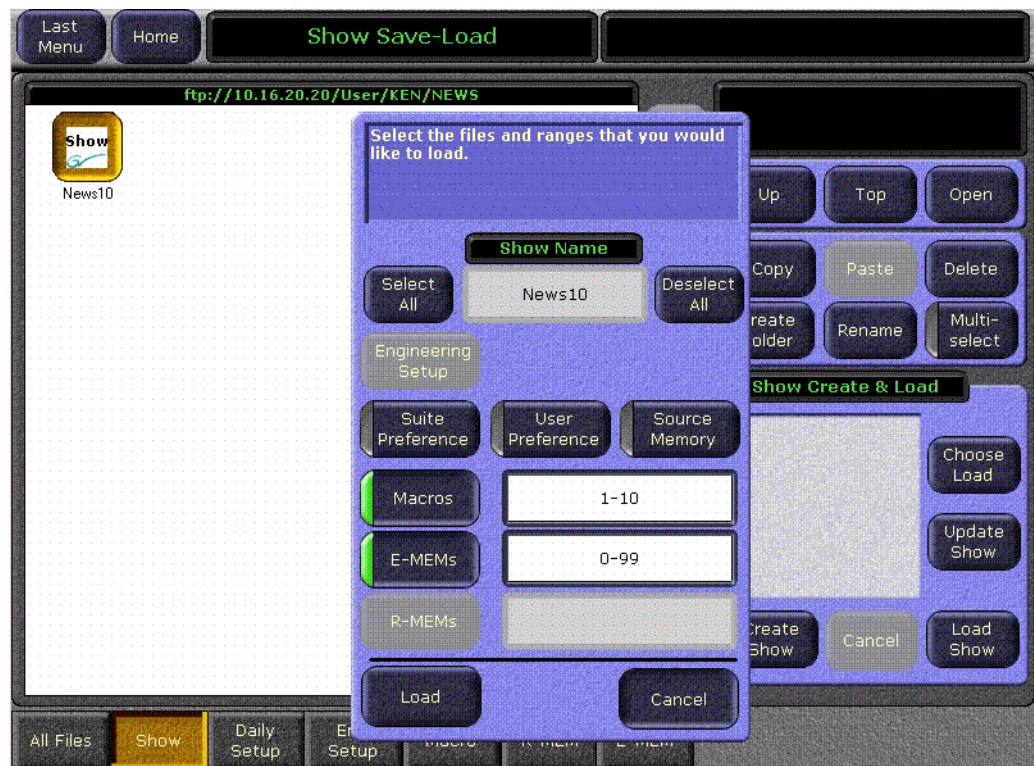
The controls in this pane operate the same as the Create Show, except the **Load** button replaces the Create button.

Specify the file types and ranges of files you wish to load, then touch the **Load** button.

Access to Other File Ops Menus

Touching the labeled category selection buttons on the bottom of the File Ops menus takes you to the existing menus for that file type. Only files of that type can be accessed for saving or loading from these individual menus, as before.

Once you select one of the Macro, R-MEM, and E-MEM menus there are three entry modes available for each menu (Figure 13):

- All

- Enter Range

- Select Range

Figure 13. File Operations E-MEM Entry Modes Menu

All Button

Selecting the **All** button (as shown in Figure 13):

- Disables the Multiselect function (if enabled)

- Disables the **Register(s)** text entry box and by default displays the entire range of registers (0-99 for EMEM and RMEM, 1-100 for Macro)

- Disables and turns off the Start Reg Button (below the Register(s) text entry box)

- Enables the Save and Load buttons

Clicking Save or Load after selecting **All** saves or loads all registers displayed in the Register(s) text box to the **Target Location** specified (either the Current Directory or the selected Folder or Show).

Enter Range Button

Selecting the **Enter Range** button (Figure 14):

- Disables the Multiselect function (if enabled).
- Retains the current state of the **Start Reg** button.
- Enables the **Register(s)** text entry box.
- Enables the **Load** button if a range is specified in the Register(s) text entry box.
- Enables the **Save** button if the **Start Reg** button is off.

Clicking Save or Load after selecting **Enter Range** saves or loads the range entered in the Register(s) text entry box to the **Target Location** specified (either the Current Directory or the selected Folder or Show).

Note Changing directories does not clear the range entered in the Register(s) text entry box.

Figure 14. File Operations E-MEM Enter Range Button

Clicking on the **Register(s)** text entry box displays the Register Entry window as shown in Figure 15.

Figure 15. File Operations Register Entry Window

In the lower left part of the Register Entry window is an Entry Mode panel with **Register** and **Bank** selection buttons. In Figure 15 clicking on the Enter key enters Registers 1-3,9. If the **Bank** button were selected clicking on the Enter key enters Registers 10-39, 90-99.

Select Range Button

Selecting the **Select Range** button (Figure 16):

- Enables the Multiselect function.

- Retains the current state of the **Start Reg** button.

- Disables and clears the **Register(s)** text entry box.

- Enables the **Load** button if a range is specified in the Register(s) text entry box.

- Enables the **Save** button if the **Start Reg** button is off.

To enter a range you must select a file or a set of files. The Select Range function does not allow you to select a folder or a Show. Selecting a proper file or set of files enables both the **Save** and **Load** buttons.

Clicking Save or Load after selecting **Select Range** saves or loads the range entered in the Register(s) text entry box to the **Target Location** which is *always* the Current Directory.

Note   Changing directories or turning Multiselect off clears the range entered in the Register(s) text entry box.

Figure 16. File Operations E-MEM Select Range Button

Start Reg Button

Selecting the **Start Reg** button (Figure 17):

- Disables the **Save** button. (**Save** is not available with the **Start Reg** option.)

- Displays the **Register(s)** and **Load To** text entry boxes. The **Load To** box is enabled for text entry.

Figure 17. File Operations E-MEM Start Reg Button

Clicking in the **Load To** text entry box displays the Load To window as shown in Figure 18. Enter the number for a single register to which you would like to begin loading registers.

Figure 18. File Operations Load To Window

The system takes the Registers you enter and inserts them starting at the Register number specified in the **Load To** text entry box.

In Figure 19 clicking **Load** would load E-MEM files 1-3,9 into Registers 60-62, 68. Because the **Load To** box is set to 60, the system takes the original E-MEM files and loads them to the new location, restarting the numbering from "60." The first three files are numbered 60, 61, and 62. The system

then skips the same number of digits between the number "3" and the number "9" (6 digits) to number the next Register at 68 (skipping 6 digits ahead from the last Register of "62").

Figure 19. File Operations Register(s) and Load To Text Entry Boxes

CAUTION You cannot use a number that would cause the system to try and write to a number beyond the boundary of the last Register. For example, if you specify a register range of 1-10 and use 99 as a Load To register the system displays an error because 99 is the last Register. Likewise, if you try to write Registers 1-50 with a Load To number of 52, the system would return an error because the combination of Register numbers would exceed 99.

Multiselect Button

The **Multiselect** button (Figure 20) is useful for copying, pasting, loading, or saving multiple files from within the **Select Reg(s)** mode. When you select the **Multiselect** mode:

- The double-click function is disabled.

- You cannot change directories until you deselect the **Multiselect** button.

If you are not in Multiselect mode, selecting a single file causes the button to be selected. This means you can simply click to select a file and then click the **Load** button to load it.

Figure 20. Multiselect Button Allows Selection of Multiple Files

Access to Configuration Files Saved as Profiles

The Profiles menu is not available in Zodiak Release 6.0. Configuration files that were previously saved using the Profiles menu are still accessible, however. Simply navigate to the Profiles directory from the Daily Setups Save-Load menu.

Re-Entry Preferences

The Zodiak system normally restricts the re-entry of the outputs of an M/E back into the same M/E. This prevents the timing related one line downward shift of the video, and also prevents video feedback. However, this restricts some useful modes of operation. It is now possible to remove this restriction, by touching **Daily Setups**, **Suite Prefs**, **Re-Entry Prefs**, then turning off the **Enabled** button.

Note   If a re-entry is active when the restriction is imposed, the current re-entry path remains, but will not be permitted if deselected and then reselected.

Figure 21. Re-entry Prefs Menu

Still Store Enhancements

Thumbnails

Low resolution thumbnail views of Still Store images can be displayed on the Still Store menu (Figure 22). For animations, you can choose which frame to use as the Thumbnail image for that clip.

Figure 22. Still Store Menu, Thumbnails View

To Activate Thumbnail View:

1. Go to either the Still Store Playback or Create Edit menu.

2. Touch the **Legend and Options** button.

3. Touch the **Thumbnail** View Style button (Figure 23).

Figure 23. Still Store Legends and Options Menu
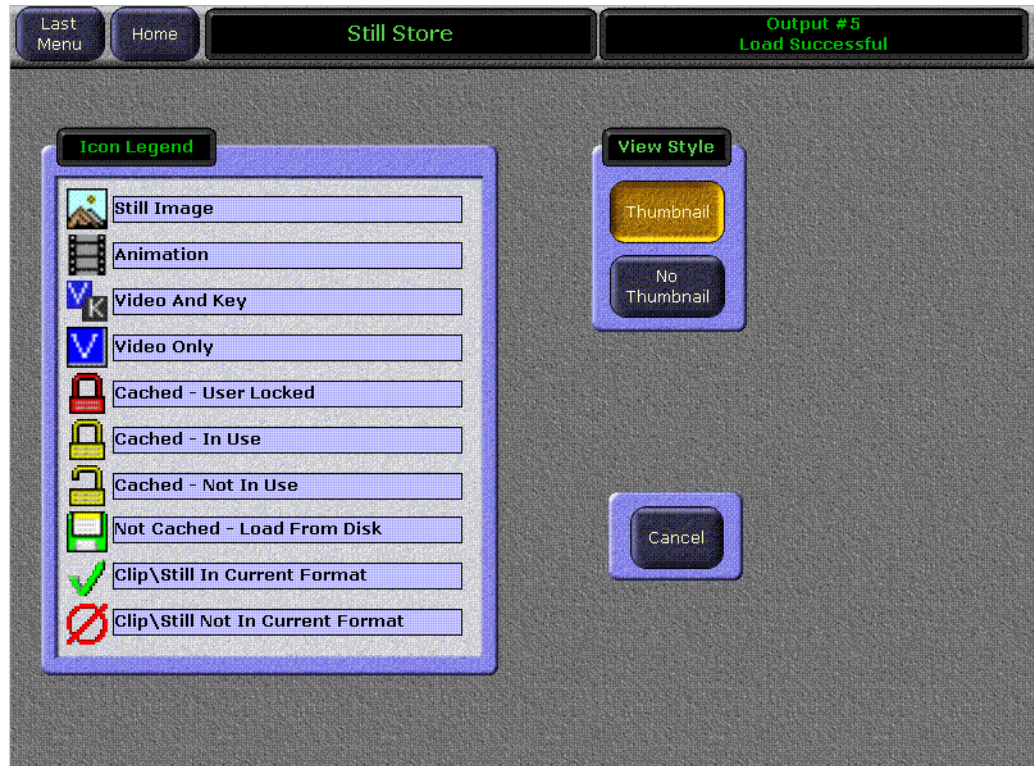
4. After selecting a view style you are returned to your last Still Store operating menu (either Playback or Create Edit).

To Select a Thumbnail Image for a Clip:

1. Go to the Still Store Create Edit menu.

2. Load a clip to an output.

3. Select **Show Details**.

4. Play or jog the clip to the desired frame.

> **5.** Touch **Mark Thumb**. A red line on the Still Store menu timeline graph indicates the location of the current thumbnail frame (Figure 24).

Figure 24. Still Store Menu, Clip Thumbnail Frame Selected
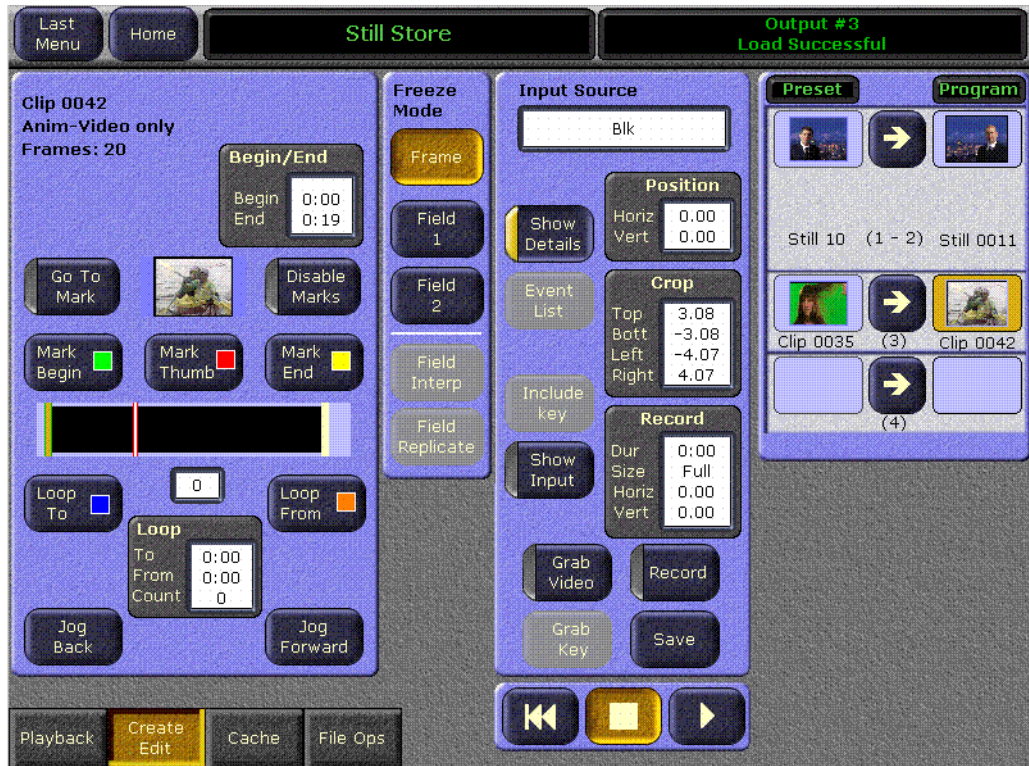

Go To Item Number

Stills and clips can be quickly accessed by their number.

> **1.** Touch the **Go To** button on the Playback or Create Edit Still Store menu. A numeric keypad will be displayed.

> **2.** Type in the number of the desired item and touch **Enter**. Leading zeros may be omitted.

> **3.** If an item with that number exists, the selection pane will scroll to display that item on the top line. If that item number does not exist, the item with the next higher number will be brought to the top line.

> **4.** With the item visible on the screen, you can now select it by touching its icon.

Change Directory Restriction

While a Still Store file is being saved you cannot change the Still Store directory. This restriction prevents the possibility of corrupting a file during a save.

Newton Modular Control Menu

Introduction

The Newton modular control system provides comprehensive and consolidated real-time control of Grass Valley modular products. Some Newton functionality has been incorporated into the Zodiak Menu application. This makes it possible to control Grass Valley Gecko and Kameleon frame modular products from a Zodiak Menu panel or Menu on PC. The modular frames must reside on the same subnet as the Zodiak system (Figure 25).

Figure 25. Newton Modular Control Diagram
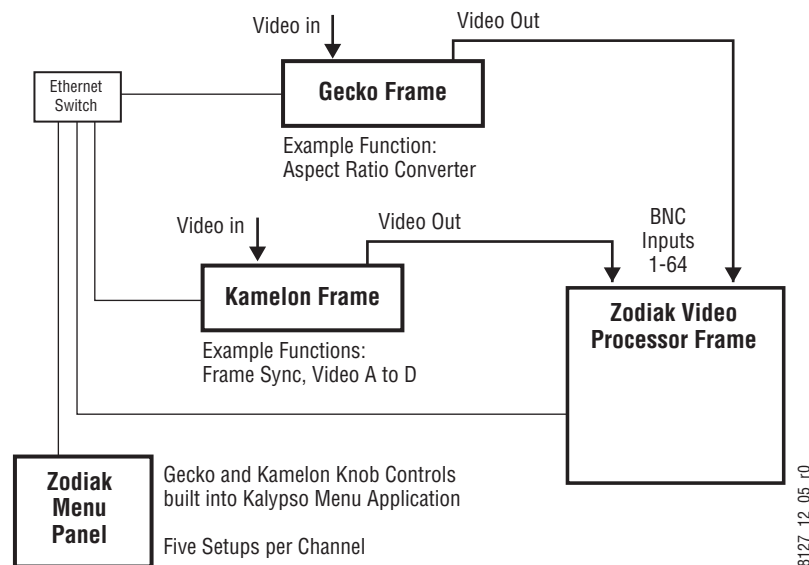
Installation on Zodiak

Zodiak's Newton interface is installed during the standard Zodiak installation procedure. The Newton menu (Figure 27 on page 36) is available on all Zodiak systems running 6.0 or newer software. However, a Newton system must be available on the Zodiak network, and configuration steps will be required before this menu becomes functional.

Newton Controls Configuration

Newton functionality within Zodiak can be configured with any PC on the Zodiak network. You use the Zodiak Software CD to install the necessary configuration tools by selecting the **NetConfig with Newton Configurator** option (see page 50).

During this process, the NetConfig network configuration application and a Newton Configurator plug-in are installed. The tool is accessed by launching NetConfig and touching the Newton tab on the top menu bar (Figure 26).

Figure 26. NetConfig Newton Configurator Plug-in
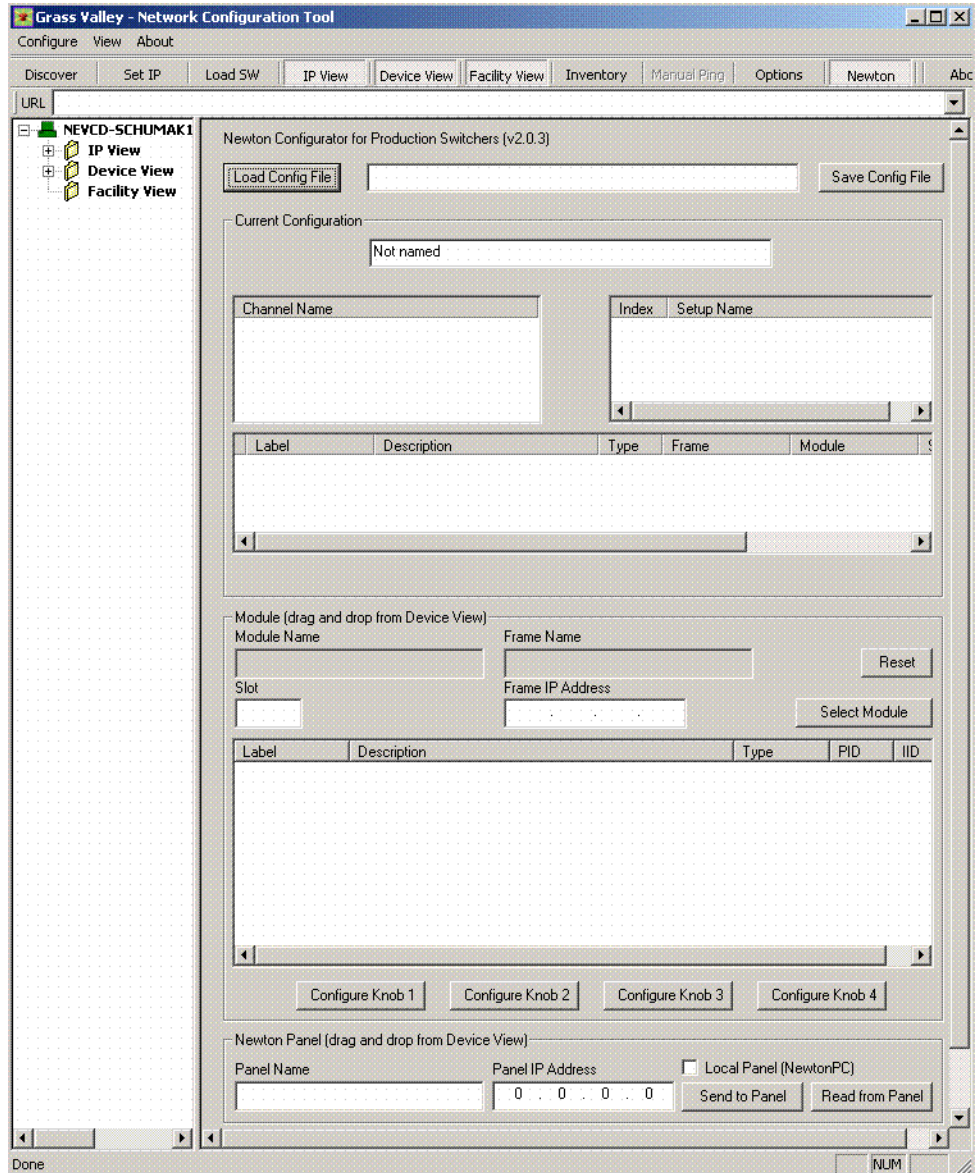
The Configurator tool is used to define the functionality of Newton controls by creating a Newton configuration file. The Newton configuration establishes a one-to-one relationship of Newton channels to Zodiak physical inputs (BNC connectors on the Video Processor frame). Each Zodiak input/Newton channel can have up to five different setups defined. A default Newton configuration file with 96 channels (inputs) is provided with five empty setups for each channel. On Zodiak systems the first 64 channels can be used. Using the configurator, controllable parameters in

modules which are in the video path for each switcher input can be assigned to Zodiak Menu panel knobs. The user is then able to control those modules directly from the Zodiak system.

Refer to the separate *Newton Instruction Manual* and *NetConfig Instruction Manual* for specific information about how to configure the Newton controls. These manuals are included on the Zodiak Documentation CD, and are available for download from the Thomson Grass Valley website.

External Device Newton Menu Description

Once configured, module parameters can be adjusted on the Zodiak External Device Newton menu, which is accessed by touching **Extern Device**, **Newton** (Figure 27).

Figure 27. External Device Newton Menu

Selection of a module parameter to control is mediated though the Zodiak source selection mechanism. By selecting a source on the currently delegated Preview bus of the Zodiak's Main panel, the source's physical input, and that input's associated Newton channel controls are activated on the Zodiak's External Device menu.

Delegation Pvw Bus

The Delegation Pvw Bus pane is used to select which Preview bus will be used to select the Newton channel to be controlled.

Input Selector

When a video/key source is selected, you choose to control either the video input or the key input with the **Video** and **Key** buttons.

Setup Selector

The Setup buttons are used to select the desired set of controls from the setups defined for that channel. The menu displays asterisks for setups that have no parameters assigned.

Newton Channel Information

Channel – The number of the Zodiak input BNC used to select the current Newton channel is displayed.

Setup Name – The currently selected setup (1-5) is displayed in this pane.

Additional information identifying the currently selected channel module's name, frame, etc. is displayed below.

If multiple modules are daisy chained together in a Newton channel, the information displayed will be for the module with a parameter assigned to the top knob.

Newton Controls

On the right side of the menu the active control functions are identified. Direct knob control and datapad numeric entry are available. The menu displays asterisks for unconfigured controls. The status of the function for each control is also reported, with green indicating a connection exists and the data is valid, and red indicating no connection.

Accelerate Knobs – Selecting this button accelerates knob adjustments by a factor of 10, providing coarse and fine knob control.

Refer to the separate *Newton Instruction Manual* for specific information about Newton controls.

Device Control for Routed Sources

Introduction

The Zodiak system has machine control capabilities that permit, for example, cueing and playing DDRs and VTRs. The Zodiak system can also be configured with an external routing system. By connecting router destinations (router output signals) to Zodiak source inputs (called routed switcher sources), different router sources (router inputs) can be directed to these Zodiak inputs. The Zodiak operator can send take commands to the router from the Zodiak user interface to switch router sources that feed the Zodiak source inputs. The Zodiak system also receives the names of router sources and destinations from the external routing system for display on the Zodiak user interface.

Zodiak machine control and external routing capabilities can now be combined to permit Zodiak control of external devices that feed routed Zodiak sources. When a router source associated with an external device feeds a Zodiak routed source, that device can be controlled directly from the Zodiak system. Existing machine control and router control Zodiak system capabilities also remain available separately (Figure 28).

Figure 28. Combined Machine Control and Router Control
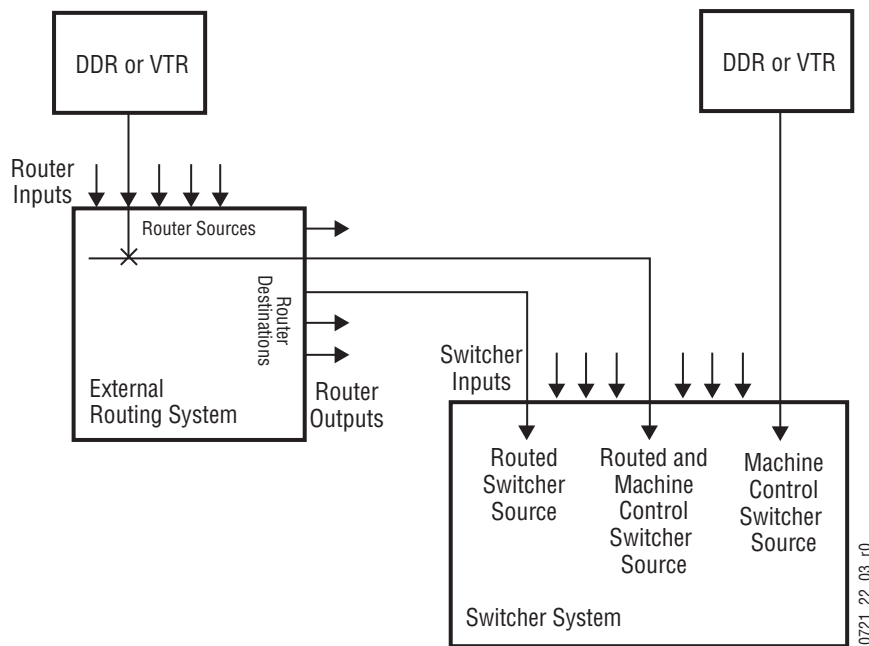
The combination of these features has one limitation. The Zodiak system can perform ganged or linked operations on external devices connected as routed sources, but it is important to understand that the ganging is based on *devices* rather than sources. When a router source linked to an external

device is changed, the ganging for that source no longer works. If you change the router source, the rules for ganging no longer apply, and the ganging no longer works.

Configuration Overview

To make these features work together, in addition to the configuration required for their independent operation, the external devices configured for control by the Zodiak system must be mapped to the router sources they are connected to. This information is stored in mapping table that is saved and loaded with the Engineering Setup files.

Zodiak machine control and external router configuration procedures are explained in detail in the separate *Zodiak Installation and Service Manual*.

In summary, the entire configuration process involves the following steps:

1. Configure machine control by creating, naming, and setting up devices via the Zodiak Eng Setup, Ports & Devices menu.

2. Establish communications between the Zodiak system and the external router, via the Eng Setup, Router menu, and by configuring the router itself to allow external control of it by the Zodiak system.

3. Identify the routed Zodiak sources by selecting **Router** for each of these source inputs in the Eng Setup, Source Definition menu.

4. Map each Router Source to each Device. This new step ties the two features together. The menu used for this is described below, and can be accessed from the Router Interface Setup screen in the Eng Setup, Router menu.

5. You will now be able to change router sources using the Zodiak R-MEM menus and control a device that is mapped to that router source.

As you can see, several different menus are used to combine router and machine control. Each sets up a specific link in the chain. Should one link not be configured correctly combined capabilities will not be realized, but portions of the chain that are configured correctly will continue to operate.

Router Interface Setup Menu

The Router Interface Setup menu is accessed via **Eng Setup**, **Router** (Figure 29).

Figure 29. Router Interface Setup Menu
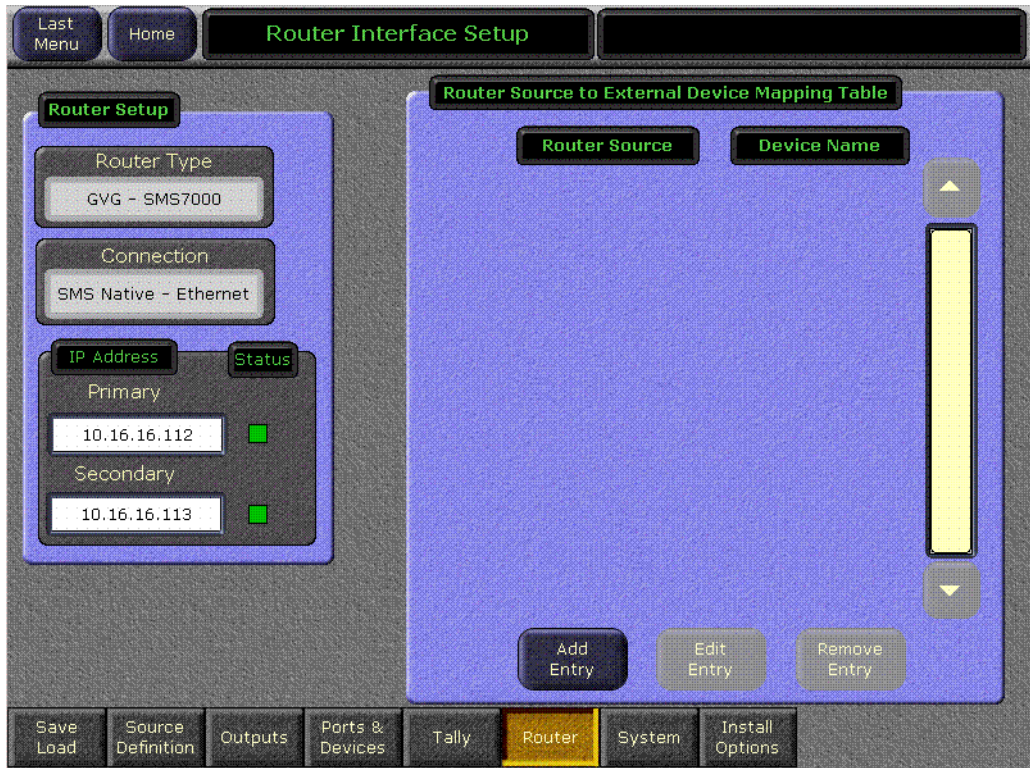
The IP address of the router is entered in the pane on the lower left. When communications is established the status indicator will be green.

Touching the **Add Entry** button opens a menu with two selection panes. The left pane displays the names of router sources if the router is connected and properly configured to operate with the Zodiak system. Currently configured external devices are displayed in the pane on the right (Figure 30).

Figure 30. Router Source and External Device Mapping Menu
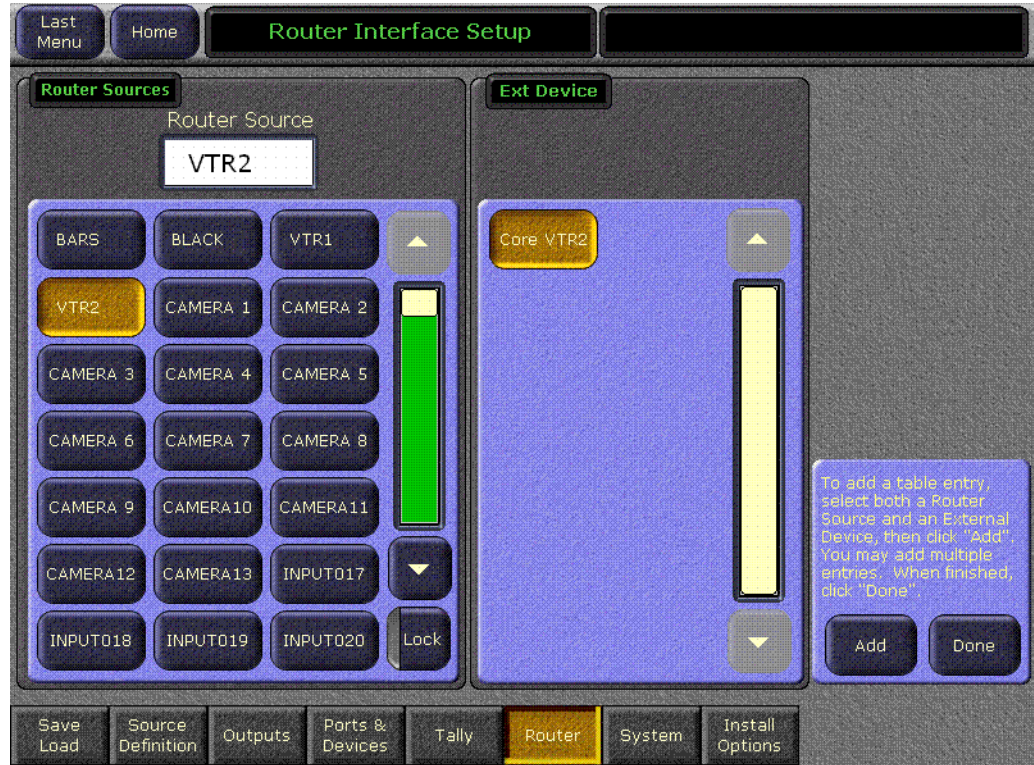
Select a router source from the scrolling list on the left and a device in the list on the right and touch **Add** to ma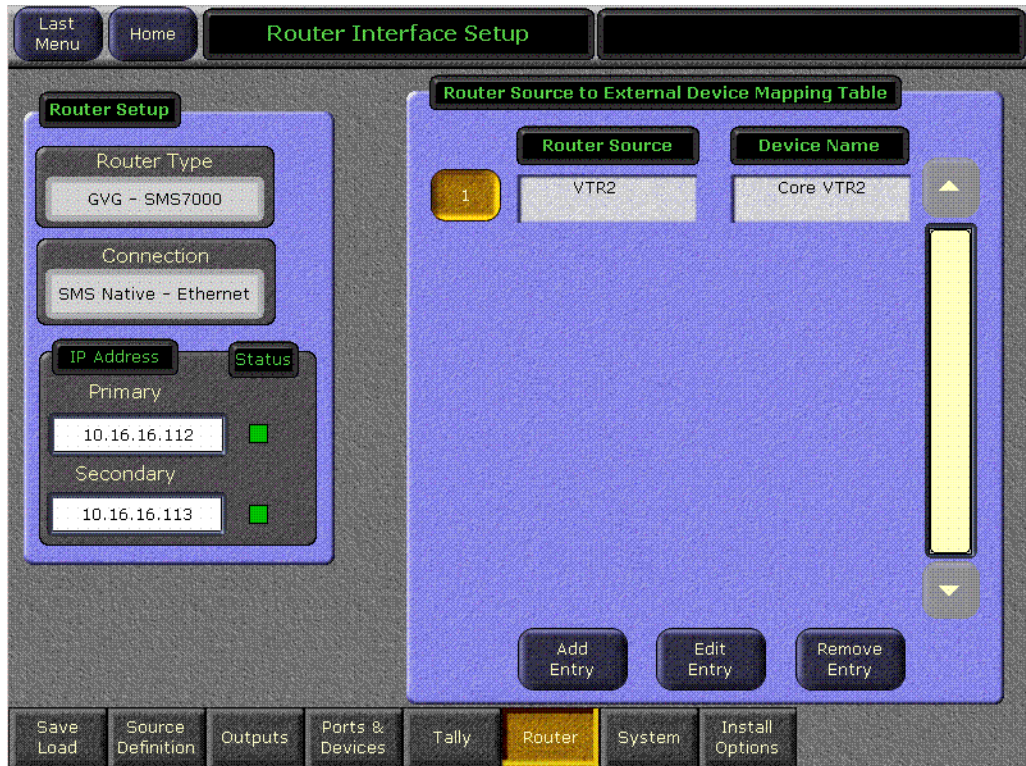p them together. You can select additional router source/external device pairs and map each of them by pressing the **Add** button. When finished with the mapping, touch the **Done** button. You are returned to the previous menu and the current mappings will be displayed (Figure 31).

Figure 31. Router Interface Setup Menu

Entries can be edited by selecting the numbered button and touching the **Edit Entry** button. You can then remap that relationship.

Touching the **Remove Entry** button removes the selected mapped pair from the mapping table.

With the mappings established, you will now be able to change router sources with the Zodiak R-MEM menus, and if that router source is an external device (a correctly configured DDR, for example), you will be able to cue and play that device from the Zodiak Machine Control menu.

AMP Ethernet Protocol Support

AMP protocol machine control is available for some model DDRs. This protocol supports multiple clip directories and clip file names of up to 80 characters. The BVW protocol does not support clips, and the Odetics protocol supports only the default folder and DOS style eight character plus extension file names. AMP protocol is a software enabled option. AMP Serial support was introduced in Zodiak 5.0. AMP Ethernet protocol support is available in Zodiak 6.0.

Profile Model Support

Profile XP PVS 1000, 2000 and 3000 series devices, M series devices, Turbo devices, and K2 devices support control via the AMP protocol. Older PDR series Profile models do not support AMP protocol.

Profile Amp Ethernet Configuration

Some configuration may be required on your Profile DDR to make Amp Ethernet control from the Kalypso system operate.

- For Profile XP PVS models, you will need to start AMP Ethernet Server manually, which is an executable called AMPEthernetServer.exe.

- For Turbo, M-Series, K2 models, the AMP Ethernet Server is a service and will start automatically on reboot. To verify, go to **Start** > **Settings** > **Control Panel** and select **Administrative Tools** > **Services** and confirm that a Grass Valley AMP TCP Service exists.

- For all models, the switcher IP address must be listed as an authorized client to establish communication. The client protocol must also be set to Remote AMP for remote access.

Refer to the separate *Profile System Guide* and/or *Profile User Manual* of the Profile model you will be controlling for more detailed device specific configuration instructions.

Zodiak AMP Ethernet Configuration

On the Zodiak system you use the **AMP Ethernet** button on the Port & Devices menu to create this type of Zodiak external device (Figure 32).

Note   For AMP Ethernet: If the Profile is reset after the Frame has booted up, the connection to the Frame is not automatically re-established. To establish the connection go to the **Extern Devices: Enable** menu, disable the device, and then re-enable it to establish communication.

Figure 32. Eng Setup Port & Device Menu, Amp Ethernet
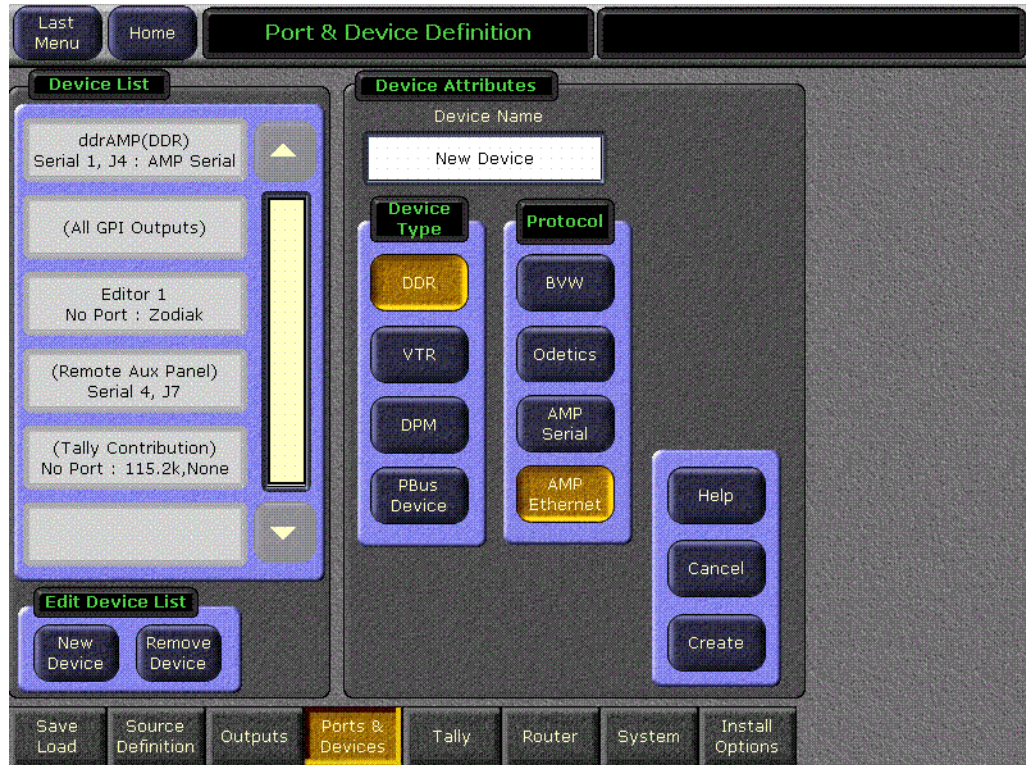
Touching the **Create** button brings up a menu where you enter the name of the external device and its IP address.

Clip Directory

On the External Device Control menu (Figure 33), touching a **Preset Clip** or **Program Clip** data pad brings up a menu from which you can select the desired folder and then choose a clip in that folder to load for playback (Figure 34). A similar menu is used with the Clip Browser on the External Device Event List menu, and for loading clips in the Timeline Events menu.

If you change a clip locally on the Profile DDR, that clip name will be updated on the Zodiak External Device menus. If the folder list or clip list are incomplete, re-enabling the device will fetch the entire folder and clip list.

**Note**   Do not create file or folder names that have the pound character (#) along with either the dash (-) or underscore (_) character, and avoid blank spaces (for example, use "DeadEnd" not "Dead End". This can inhibit clip access.

Note   A maximum of 20 folders is recommended along with a maximum of 20 clips per folder.

Figure 33. External Device Control Menu

Figure 34. Folder and Clip Selection Menu
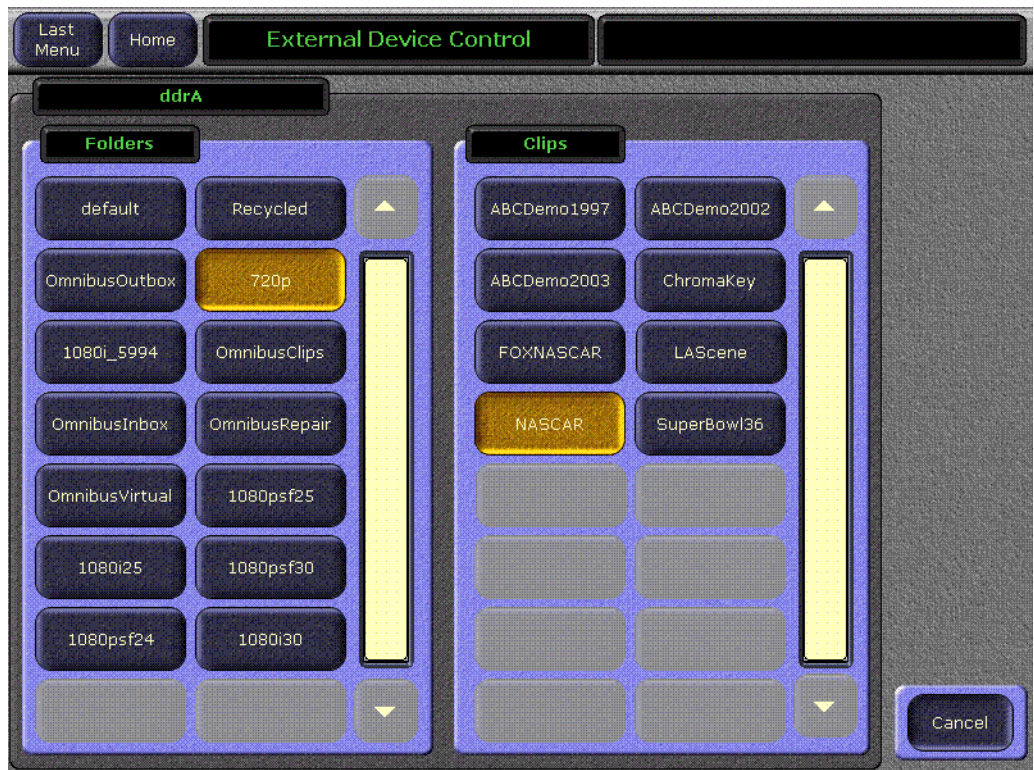
Zodiak 6.0 Update

Hardware Notes and Requirements

Mix Effect Module Heat Sinks

Before installing this version of Zodiak software, make sure that required heat sinks were added to the Mix Effects module(s) in the Zodiak Video Frame. The heat sinks and instructions were provided with each version 2.1 software CD shipped.

In a 2.5-M/E Zodiak system, there is one Dual Mix Effects module in slot 2 of the Video Frame requiring 8 heat sinks. In a 3-M/E system there is a Dual Mix Effects module in slot 2 (8 heat sinks) and a single Mix Effects module in slot 3 (4 heat sinks). Each FMN kit will include enough heat sinks for a 3-M/E system.

WARNING **Your hardware must be modified before software installation or the Mix Effects module(s) will overheat. The ICs on this module may be quite hot when the module is first removed from the frame. Let the module cool before proceeding.**

Refer to Field Modification Note (FMN) 075-0693-00 for specific heat sink installation instructions.

Control Processor SBC1000 Submodule

A new SBC1000 (single board computer) submodule is now installed on Zodiak Frame Control Processor modules shipping from the factory (part number 671-6346-02).

CAUTION Zodiak 3.0 software requires an SBC1000 Frame Processor upgrade for optimum performance on 3 M/E systems. The SBC1000 submodule requires 2.2 or later software, for proper boot kernal file. You must install compatible software BEFORE you install the SBC1000. Once installed, if you wish to back down to 2.1 or earlier software you will need to reinstall the earlier Frame processor before you load the older software.

Zodiak 3 M/E systems need additional computing power to support some advanced features. While 6.0 software will run on the earlier slower frame processors, some complex effects may not run smoothly. The processing time required for complicated effects may exceed the time available within a frame, and so frames could occasionally be skipped. Installing the

SBC1000 processor upgrade will prevent this from occurring. Note that Zodiak systems running at 50 Hz have longer field times, and so are less likely to be adversely affected if they use an earlier Frame processor.

1. If you have not already received an SBC1000 processor for your 3 M/E system by prior arrangement, contact Grass Valley Customer Service for ordering information.

2. After the 6.0 software has been installed, remove the existing Video Processor frame Control Processor submodule and replace it with the SBC1000 submodule. Refer to the Field Modification Note (FMN) document supplied with your SBC1000 processor for specific hardware installation procedures.

Check Zodiak System Operation

After the processor upgrade, confirm that the Zodiak system operates properly before you continue.

Dual Mix Effects Module Fuse Upgrade

Additional power consumption by newer software can cause the 3 amp fuses on the Dual Mix Effects module 671634700 to blow. A Field Modification Kit should have been sent to all Zodiak users that contains 5 amp replacement fuses. These fuses must be installed before you upgrade the Zodiak software. Contact Customer Service if you did not receive the FMN kit. Refer to FMN 075075800 for specific instructions.

Installing Zodiak System Software

CAUTION The recommended Zodiak software update procedure has been changed for increased reliability. Zodiak system files must be saved, NV Memory cleared, and the system files then must be reloaded. Carefully read the revised installation instructions and follow the procedures precisely.

Zodiak System Update Checklist

The following checklist is an overview of the steps involved in updating a system running recent Zodiak software to version 6.0. These actions should be performed in the listed order. Detailed instructions for all the procedures are provided later in this document.

❑ Verify heat sinks are installed on the Mix Effects module(s), an SBC1000 is installed, and the Mix Effects Module fuses have been upgraded.

❑ **REQUIRED** – Backup Eng Setups, Suite Profile, User Prefs, Source Memory, Macros, E-MEM, and R-MEM files.

Note   You will need these backup files to restore system data after the update, and if you reinstall older software.

❑ Update Zodiak system software with the Software Update Tool.

Note   If updating from earlier software, prompts for updating the frame kernel will appear.

❑ **REQUIRED**– Clear NV Memory:

- Close the Zodiak Menu application and any other running programs.

- Set the Video Processor frame boot dial switch to **1**.

- Reset the frame and wait at least 30 seconds for reboot.

- Run the Zodiak Install program and select Clear NV Memory

- Set the Video Processor frame boot dial switch back to zero (0) and reboot the frame.

❑ **REQUIRED** – Reload saved configuration files.

❑ Verify correct switcher operation after update. If this is an upgrade from a version earlier than 2.2, reconfigure existing Serial and CPL ports and devices with new Ports & Devices menu.

❑ Save the current Eng Setups, Suite Prefs, User Prefs, Source Memory, Macros, E-MEM, and R-MEM files to a NEW backup

❑ Verify date and time settings on the Menu panel, Video Frame, and Main panel.

❑ Perform Lever Arm and Joystick Calibration.

❑ OPTIONAL – Install Still Store Loader application with Software Update Tool (see).

❑ Consult Release Notes for new features and config changes.

Update Software with Zodiak Software Update Tool

The Zodiak Software Update Tool installs various software elements to Zodiak system devices. The Update Tool and all the associated software is provided on the Zodiak Software CD. The Update Tool installs on the Menu panel and creates backup copies of the current and previous versions of software.

A mouse and PC computer keyboard are useful for a standard software installation. However, if IP addresses are to be changed from their defaults, mouse and keyboard are required.

Install Zodiak System Software

1. If you have not already done so, save your system configuration files and E-MEM registers to Zip disk and store it in a safe place. You will need these files if you decide to return to the earlier software version or if you perform the Drain NV RAM procedure.

2. Check that the rotary Boot switches on both the Video frame (Figure 41 on page 54) and the Main panel (Figure 42 on page 54) are set to **0** (the normal operating position).

3. Exit the currently running Zodiak Menu by touching the **Home** button, then the **Exit Menu** button on the Home menu. Exit any other running applications on the Windows Toolbar.

4. Insert the Zodiak Software CD into the CD-ROM drive on the right side of the Zodiak Menu panel. The Zodiak installation program will automatically launch.

5. A license agreement screen will appear (Figure 35).

*Figure 35. Grass Valley License Agreement*
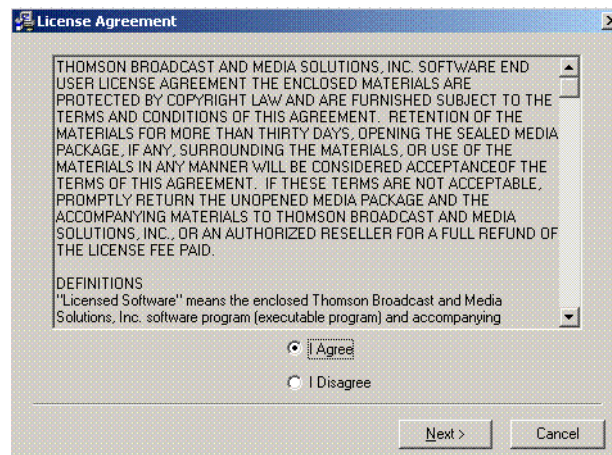
6. Agree to the terms and touch **Next >**.

Note   If a Internet Explorer Installation box appears, touch **OK**. The upgrade of Explorer is not necessary for the Software Update but is recommended. Internet Explorer is available from Microsoft.

7. The Zodiak Installation screen appears (Figure 36) with the following options.

Figure 36. Zodiak Application Software Selected
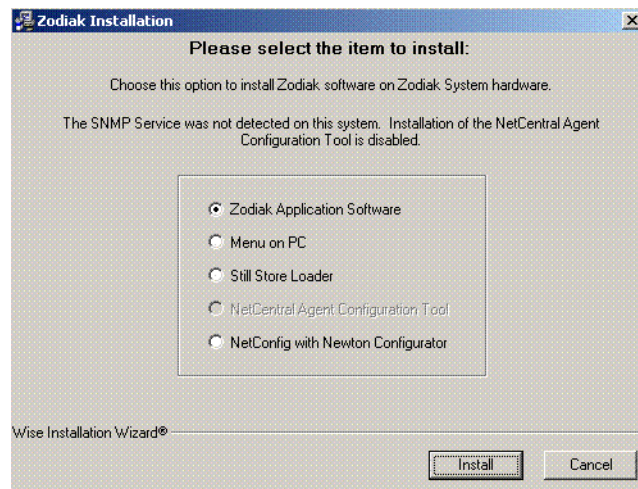
- **Zodiak Application Software** — Used for installing software on actual Zodiak system hardware.

- **Menu on PC** — Installs only the Zodiak Menu application on a PC or an additional Menu panel, which when networked with the Zodiak system provides an additional control point.

- **Still Store Loader** — Installs the Still Store Loader utility program on the system where the CD is currently mounted, either a PC or the Zodiak Menu panel.

- **NetCentral Agent Configuration Tool** — Used to install the NetCentral Agent, required for the NetCentral option, on a Zodiak system. Available only when SNMP is configured.

- **NetConfig with Newton Configurator** — Installs NetConfig, a network configuration tool originally created for Grass Valley Modular products. Newton Configurator is a NetConfig software plug-in that allows the user to configure the Newton controls in the Zodiak Menu application.

Only one option can be selected at a time.

8. Select the **Zodiak Application Software** button and then touch the **Install** button.

9. The following screen appears with the available options listed. Only one can be selected at a time.

Figure 37. Install New Version of Software Selected
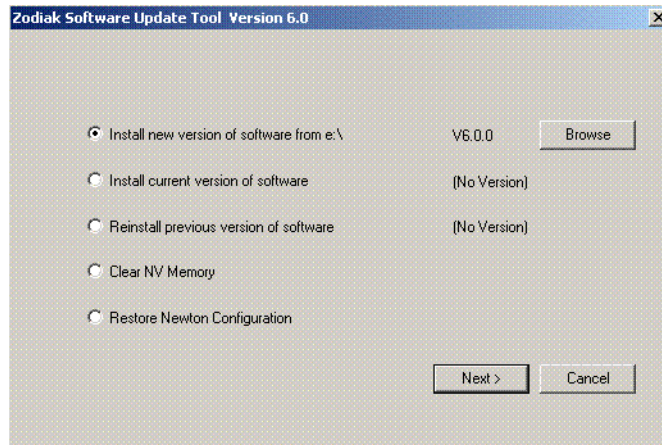
- **Install new version of software** — Select this option if you are updating your system software. It installs new software from the inserted CD. The **Browse** button is intended for software installation over the network, if the CD disk is not available.

- **Install current version of software** — Re-installs the currently loaded version of software from Menu Panel hard drive. This is generally used to install the current software on new Zodiak hardware attached to the system.

- **Reinstall previous version of software** — Installs the previously loaded software from the Menu Panel hard drive.

- **Clear NV Memory** — Used to drain Zodiak system non-volatile memory.

- **Restore Newton Configuration** — Used to set Newton configuration information back to factory defaults.

10. Select **Install new version of software** option then touch the **Next>** button.

11. The following screen appears listing the Zodiak system component installation options available. Only the software of the selected targets will be affected.

Figure 38. Zodiak Software Install Screen 2
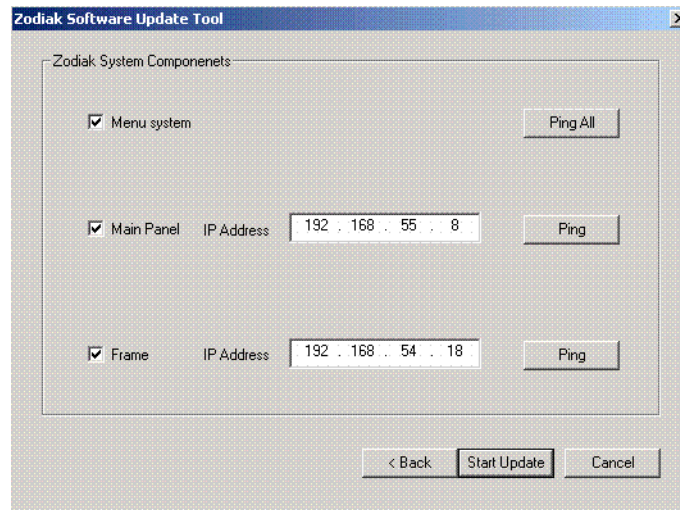
- **Menu System** — Installs the Zodiak menu application software onto the Menu panel hard disk.

- **Main Panel** — Installs software to the Zodiak Main panel.

- **Frame** — Installs software to the Video Frame.

**Note**   Typically check all boxes when installing a new software version.

12. Touch the **Ping All** button on the upper right, after checking the boxes of all the devices you wish to install. Valid IP addresses are required.The previously used IP addresses are displayed by default.

   - If communications succeeds, an **All selected targets Pinged ok** message will appear.

   - If a device fails to respond, that device will be identified with a **No reply to Ping** message. The device might be disconnected from the network, be unpowered, or the IP address may be incorrect. If necessary, change the IP addresses on the screen using a standard computer keyboard and mouse connected to the ports on the rear of the Menu panel as described in Section 3 – Configuration of the Zodiak Installation and Service manual. You can test whether a single device is communicating with its individual **Ping** button.

Note   All selected devices should Ping successfully before proceeding. If Ping for a selected device fails, continuing installation will make the Update Tool exit.

13. When the installation option selections and IP addresses are correct, touch the **Start Update** button.

14. If you are updating from a version earlier than 2.2 a kernel update screen will display informing you that the kernel must be replaced.

   a. Press **OK** to continue.

b. Once the new software kernel is downloaded successfully, a screen similar to Figure 39 will prompt you to reset the frame at 60 second intervals.

Figure 39. Kernel Update Reset Message
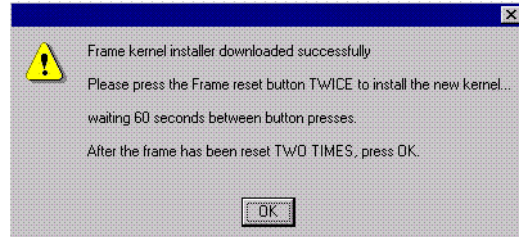
CAUTION Follow the instructions to reset the Frame Control Processor twice, waiting the specified time (60 seconds) between resets (see Figure 41 on page 54 for Reset button location). When done, touch **OK** on the Reset screen.

c. The installer will return to the Zodiak Software Install screen (Figure 38 on page 52). The kernal is now updated but the software has NOT been loaded. Select the **Start Update** button to complete the update.

15. During software installation, a Zodiak Download Status screen appears and installation begins. A progress bar is displayed and the components being loaded are identified.

Note   If a **Locked .dll** error message appears select **ignore**.

16. When the file transfers are complete, a screen similar to Figure 40 appears. Touch **OK**. The Menu panel automatically resets itself, but you must manually reset the other hardware components you updated (Figure 41 and Figure 42).
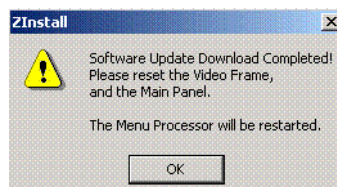
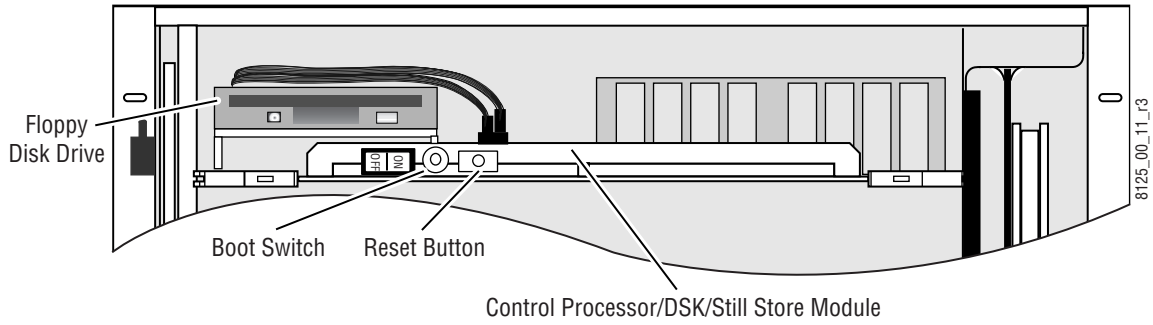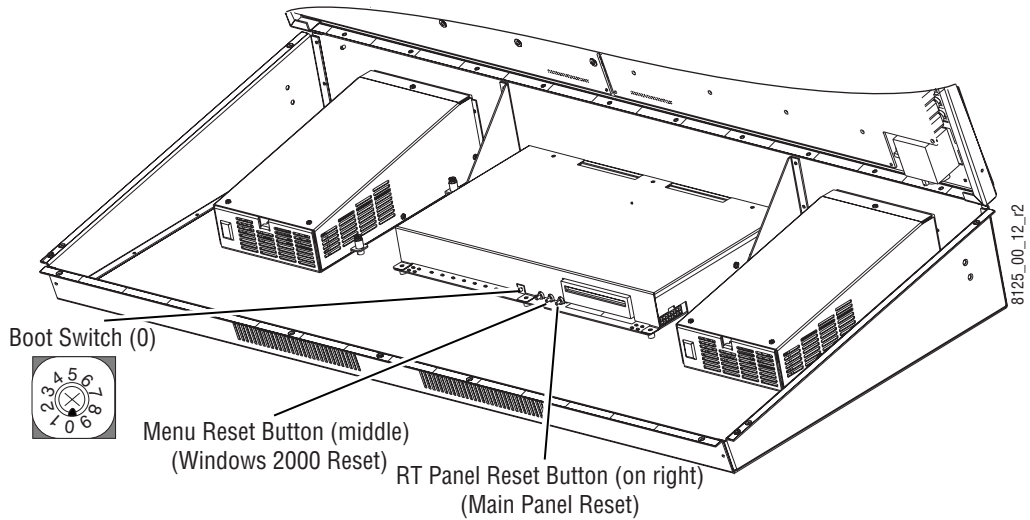*Figure 40. Zodiak Hardware Install Reset Prompt*

Figure 41. Frame Reset Button

Floppy
Disk Drive

Boot Switch   Reset Button

Control Processor/DSK/Still Store Module

8125_00_11_r3

Figure 42. Main Panel Reset Button

Boot Switch (0)

Menu Reset Button (middle)
(Windows 2000 Reset)   RT Panel Reset Button (on right)
(Main Panel Reset)

8125_00_12_r2

17. When Menu panel initialization completes (which may occur before
the Video Processor initializes) a Windows logon window appears.
You do not have to enter a user name or password. Just touch **OK**.

18. The Zodiak Menu application will then load, run, and display its
startup screen. Touch the **Home** button, then the **Status & Diag** button to
verify the correct software version has been installed (Figure 43).

Drain NV Memory

**Note**   Make sure you have backed up the Zodiak configuration, E-MEM, R-MEM, and Macro data to a Zip drive.

Zodiak system non-volatile memory contains Engineering, Suite, and User configuration data, and also has data for all the E-MEM,R-MEM, and Macro registers. This data is stored as files on the Video Processor Frame hard disk, and is loaded on bootup. Errors in this data could cause Zodiak system problems, which may be overcome, perhaps only temporarily, by draining the NV Memory using this procedure.

You should always maintain current backup copies of your configuration E-MEM, and Macro files compatible with your current software version, so that they can easily be restored after the NV Memory is drained. Draining NV Memory reverts the system back to default values. Installing backup files immediately returns your system to its fully operation state. Without backup files you will need to re-enter all the Engineering, Suite, and User settings and rebuild all your effects. and macros

To Drain the Zodiak NV Memory:

19. Reset the Video Frame using the engineering boot dial setting **1** (one).

    a. Turn the Control Processor/Still Store/DSK module **S2** boot dial dial switch to position **1**. Position 1 boots the control processor operating system without launching the Zodiak application, to permit software update if the application hangs.

    b. Press the **Reset** button and allow at least 30 seconds for the system to reboot. The frame must be reset after changing the boot switch position. Simply moving the switch does not affect a running system.

20. Drain NV Memory.

    a. Run the Zodiak Install program from the Menu panel desktop or from the Zodiak Software CD (the CD is not required).

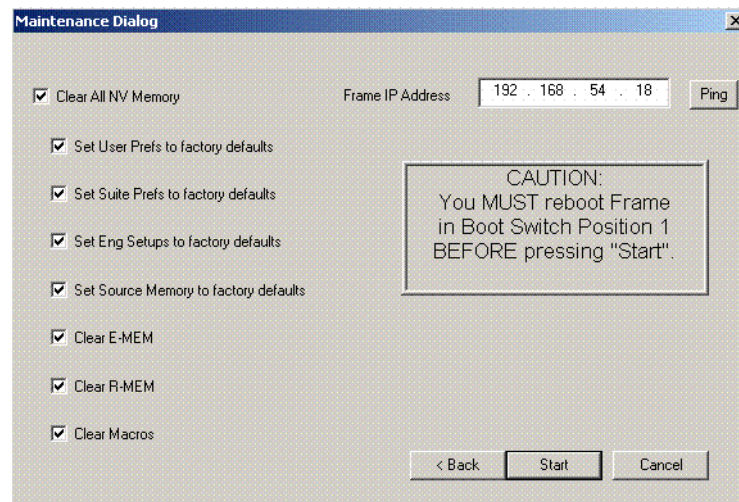   b. Select the **Clear NV Memory** button and then touch the **Next** button.

Figure 44. Zodiak Application Software Selected
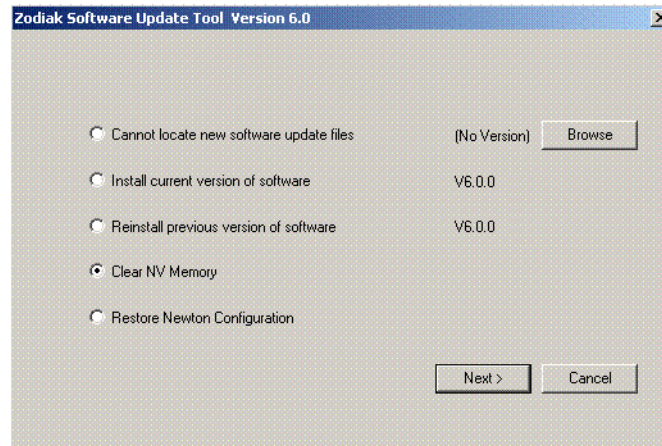
The following screen will appear (Figure 45 on page 57).

Figure 45. Drain NV Memory Screen

c. Communications must exist between the Menu panel and the Video Frame, where NV Memory resides. Make sure the Frame IP Address is correct, then touch **Ping** to test the connection. If unsuccessful, the communications problem must be corrected before proceeding (it could be an incorrect IP address).

d. After a successful Ping, select the **Clear All NV Memory** check box so all the categories are selected, then and touch **Start**, and confirm the dialog box by touching **OK**.

e. A progress bar will be displayed. When done, touch **OK**.

21. Reset the Video Frame again, using the operation boot dial setting.

a. Turn the Frame Control Processor/Still Store/DSK module **S2** boot dial switch to position **0**.

b. Press the **Reset** button and allow at least 30 seconds for the system to reboot.

Restore Backup Files

22. Restore your backup files in the following order:

a. Reload your backup Engineering Setup file and make sure it is correct by, for example, checking that the proper source names appear in the Eng Setups Sources menu.

b. Load a Suite Profile, and check that the Suite Preferences settings are correct.

c. Load a User Profile and check that the User Preferences settings are correct.

    d. Load a bin of E-MEMs and run them to check that they operate correctly.

    e. Reload your Macros and test their operation.

    f. Load Source Memory and test their defaults.

23. If there are any problems with any of the restored files, they may have become corrupted and need to be deleted and rebuilt. If a problem file locks the system, you may need to drain NV Memory again to restore system operation, but you will know what file is responsible. Contact Grass Valley Group Customer Service if you need troubleshooting assistance.

Note   After NV Memory files are removed, the Still Store will not be prepared for use until NV Memory File Saves are enabled. This may take 2 minutes. If you are using the Still Store or viewing the Stillstore menus at the time of system reset, a **Still store disconnected** message will appear. Once the files have been saved, the Stillstore menu bar will report **Still store – connected**. You will then need to refresh the Stillstore menu manually by making a menu change on the Menu panel.

Verify Switcher Operation

After software installation is complete, verify switcher operation by performing the following checks:

24. Check overall switcher operations. Make sure panel and frame communication is working by checking crosspoint selection from the Main panel and Menu panel DPOPs.

25. Check that your Eng Setup and Daily Setup configuration settings are correct. Older settings should be the same as before, but the new software may have additional settings that will need to be defined.

Note   This includes the new Ports & Devices menu in Eng Setup. This menu modifies serial and CPL port configuration. Existing serial and CPL ports in use will need to be reconfigured with this new menu.

26. Check that your effects run properly. Older effects should work with the new software. If there are differences, however, you will need to edit or rebuild the effect with the new software version.

If you experience system errors or unusual switcher behavior, perform the *Drain NV Memory* on page 55.

If all system operational checks are correct, save the new configuration file and effects to a new Zip disk and store in a safe place. Do not overwrite the files previously saved from the old software. New configuration and effect files will not work with older software.

Backup New Configuration and Effects Files

27. When you are satisfied the configuration works properly, save the new configuration file and effects to a new Zip disk.

CAUTION   Do not overwrite the files previously saved from the old software. Newer software files do not work with older software.

28. Label the disk with the version and date and store it in a safe place.

29. Reactivate any virus protection on the Menu panel that may have been disabled at the start of this procedure.

30. The software installation process is complete. System time checks and hardware calibration should be done next.

Verify or Set Date and Time of System Components

After software installation is complete and switcher operation has been verified, verify that your system components (Menu panel, Video Frame, and Main panel) are all set to the correct date and time. Incorrect date and time settings can interfere with the use of Temporary Authorization codes issued for enabling switcher options.

Note   These procedures use a keyboard and mouse connected to the Menu panel.

Verify or Set Menu Panel Date and Time

To verify or set the date, time, and time zone on the Menu panel, do the following:

1. Minimize the Zodiak Menu panel application by selecting the **Home** button, then the **Minimize Menu** button in the Home menu to view the Windows 2000 desktop.

2. Under the Windows **Start** button, select **Settings/Control Panel/Date/Time**.

3. This will bring up the Date/Time Properties screen (Figure 46). In the Date & Time tab verify or set the correct time and date.

Figure 46. Verify or Set Windows 2000 Date and Time
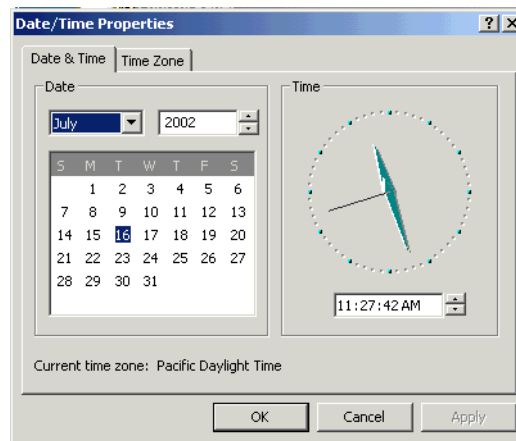
4. Under the Time Zone tab, verify or set the correct time zone.

5. Select **OK** and close the window.

Verify or Set Video Processor Date and Time

To verify or set the date and time on the Video Frame, do the following:

1. With the Zodiak Menu panel application minimized, open Windows Internet Explorer on the Menu panel.

2. In the web browser's address field, type the Video Processor's frame IP address, 192.168.54.18 (the factory default), for example.

3. This will bring up the main Zodiak Web Access screen (not shown). Select the link on the left labeled **Frame Date and Time**.

4. In the Frame Date and Time screen (Figure 47), enter the current date and time to match that of the Menu panel

Figure 47. Video Frame Date and Time Screen

5. When finished, select the **Save New Settings** button.

6. Select the RT Panel link in the Frame Date and Time screen.

Verify or Set Main Panel Date and Time

To verify or set the date and time on the Main (RT) panel, do the following:

1. From the Frame Date and Time screen, select the **RT Panel** link (Figure 47 on page 61).

Note   The Main panel (RT) Web Access screens may also be reached by entering the Main panel IP address in the address line of the web browser.

2. This will bring up the main web access screen for the Main panel (not shown). Select the Main Panel Date and Time link.

3. In the Main Panel Date and Time screen (Figure 48), verify or set the correct date and time to match that of the Video Frame and the Menu panel.

4. Select the **Save New Settings** button to finish.

5. Close the web browser.

Figure 48. Verify or Set Date and Time on Main Panel

Calibrate Lever Arms and Joystick

The Main panel must be booted to a calibration mode to calibrate the Lever Arms and Joystick. If the Main panel hardware is not behaving properly, open the Main panel, set the boot switch to position **9**, then reset the Main panel. After about 30 seconds the panel comes up in calibration mode. Use the M/E 2 E-MEM display and buttons to step through the calibration process. Refer to the *Zodiak Installation and Service Manual* for specific instructions.

Other Zodiak Update Information

Zodiak System Default IP Addresses

The default IP addresses shipped from the factory have been chosen to make Zodiak configuration easy. Numbers were chosen to work with other Grass Valley Group devices in a default standalone network configuration.

Table 1. Default IP Addresses

Device	IP Address	Address Set/Viewed In:
Video Processor Frame	IP Address: 192.168.54.18 (Menu or Facility LAN)	Web browser
	IP Address: 192.168.55.18 (Panel LAN)	
	Gateway IP: 192.168.54.1 (External Gateway)	
Main Panel	Panel IP Address: 192.168.55.8 (Panel LAN)	Web browser or Main Panel Configuration procedure
	Panel Gateway IP: 192.168.55.18 (To Menu Panel)	
	Frame IP Address: 192.168.55.18 (Panel LAN)	
	Menu IP Address: 192.168.54.8	
Menu Panel	IP Address: 192.168.54.8 (Menu LAN)	Windows 2000 Network and Dial Up Connections
	Default Gateway: 192.168.54.1 (External Gateway)	
	Frame IP: 192.168.54.18	Eng Setup – System – Config Menu
	RT Panel IP: 192.168.55.8	
32 Crosspoint Remote Aux panels (when hard reset with the front panel buttons)	V0.0.2a Software: IP Address: 192.168.0.250 Frame IP: 192.168.0.251 Gateway IP: 192.168.0.1 Subnet Mask 255.0.0.0,	Web browser Note that 32-Crosspoint Remote Aux panel default IP addresses must be changed to operate with a Zodiak system whose other components are configured with default IP addresses.
	V1.6.5 Software: IP Address: 192.168.1.2 Frame IP: 192.168.1.1 Gateway IP: 192.168.1.1 Subnet Mask 255.255.255.0,	