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KAM-AV/SD
KAMELEON MULTI-FUNCTION MODULES

Release Notes

SOFTWARE VERSION 6.0.2

071817305
OCTOBER 2008

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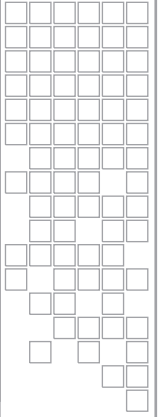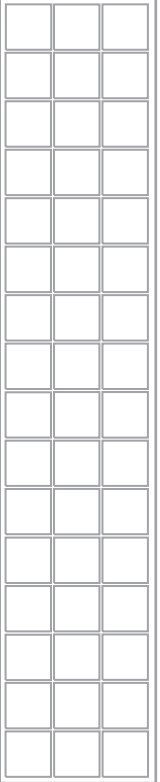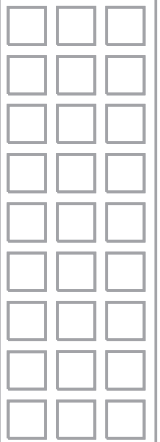
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Grass Valley Web Site

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 — Download software updates, drivers, and patches.

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END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.

For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Canada please call 800-547-8949 or 530-478-4148, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.thomsongrassvalley.com/environment

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Version 6.0.2

OCTOBER 2008

Kameleon Series Multi-Function Modules Release Notes

Introduction

This document provides information on the latest release of the software for use with the Kameleon AV/SD Multi-Function modules. It describes changes from version 5.0.1 to version 6.0.2.

Note   Please read this document completely before attempting to download the latest software.

All Thomson Grass Valley Modular product documentation can be found online in PDF format at this link:

http://www.thomsongrassvalley.com/docs/modular/

This document details:

- Software Update Overview (page 6) including:
    - KAM-AV/SD Requirements,
    - Kameleon Frame 2000NET Requirements.
    - NetConfig Requirements, and
    - Newton Control Panel Requirements.
- Kameleon Version 6.0.2 Software Release (page 11), and
- Updating Software (page 14).

Software Update Overview

Recent releases of the KAM-AV/SD software have increased the number of parameters that the module sends to the Newton Control Panel and Net-Config. This has added enhancements as requested by customers. It has also introduced some operational changes and requirements for system and utility software you should be aware of in order for all components to work together. The software update also requires a certain KAM-AV/SD module circuit board level and software.

Follow the steps in the order below to perform the Kameleon update:

1. Verify your Kameleon module hardware and software versions are at the proper level to update (*KAM-AV/SD Requirements* on page 7).

2. Acquire or update NetConfig if required (*NetConfig Requirements* on page 8).

3. Update the 2000NET module in the frame to version 4.0.2 if required (*Kameleon Frame 2000NET Requirements* on page 8).

4. Update Newton Control Panel software if required (*Newton Control Panel Requirements* on page 9).

5. Perform the KAM-AV/SD software update (*Version 6.0.2 Software Release* on page 11).

KAM-AV/SD Requirements

This version of Kameleon software can only be loaded on modules at the following assembly number and dash and letter version:

- KAM-SD, assembly number 671-6428<u>-00</u>, letter version <u>S</u> or above

- KAM-AV, assembly number 671-6428<u>-20</u>, letter version <u>R</u> or above (including the 671-6428-21 version)

To determine the assembly number and dash and letter version of your module refer to Figure 1. The module type will be checked in the white box next to the module name. The dash and letter version of the module will be inked in the white box to the right of the assembly number.

Kameleon modules that do not meet this requirement cannot be updated due to a different printed circuit board now in use. Contact your Customer Service or Sales representative for information on acquiring new modules.

Kameleon modules must be running Kameleon software version 2.0.2 or later to be upgraded to the next version. Any KAM-AV/SD modules that are running the current 4.1.0 release can be updated to this latest release. The current Kameleon software version is reported on the module Status web page.

Figure 1. Locating Assembly Number and Revision Letter
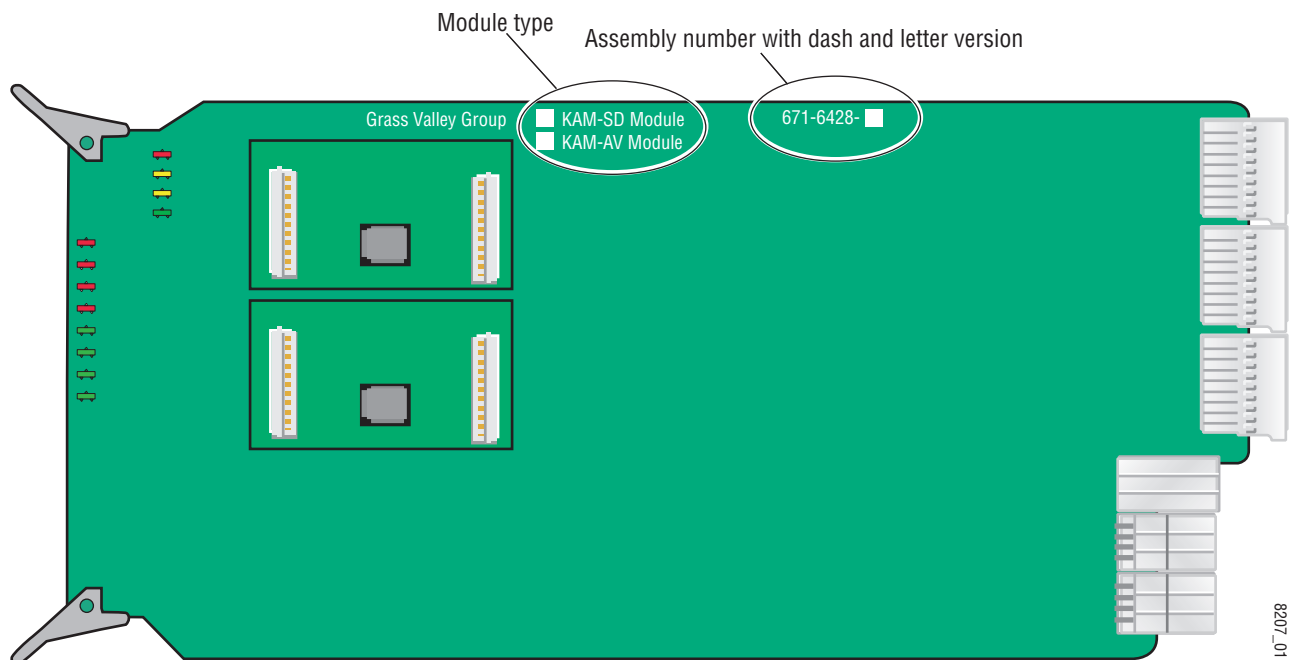
NetConfig Requirements

Use the NetConfig Networking application to update all software. Use the latest version of the NetConfig Networking application, version 2.0.8, for proper operation.

To determine your NetConfig version, open NetConfig click on the **About** link on the top of the NetConfig Toolbar.

If you do not have NetConfig or the latest version (v2.0.8), you can download it from the Thomson Grass Valley ftp site free of charge at this URL:

ftp://ftp.thomsongrassvalley.com/router/NetConfig/Version2.0.8/

1. Right-click on the latest NetConfig link to download the zipped file to the C:\temp folder or other convenient location on your PC.

2. Extract the zipped files onto your local drive:

3. Double-click on the NetConfig.EXE file to install NetConfig.

Note Installing NetConfig into the default location given in the install script (C:\Programs\Grass Valley Group) is recommended for future NetConfig and module software updates.

Kameleon Frame 2000NET Requirements

Kameleon modules must be installed in a 2000TFN frame with a 2000NET module running software version 4.0.0 or later.

Note The 2000NET software version can be read on the Frame Status web page or the 2000NET Status web page.

The latest 2000NET software (version 4.0.2) can be downloaded from the Thomson Grass Valley ftp site at this URL:

ftp://ftp.thomsongrassvalley.com/modular/2000/2000net/

This software can be installed using the NetConfig Networking application as described in the *2000NET Release Notes* available on the ftp site in PDF format.

Newton Control Panel Requirements

Both the NewtonPC and the Newton hardware control panels must be at version 2.0.0 for proper operation. The Newton Panel Configurator Plug-in that resides in the NetConfig directory must also be updated to version 2.0.2.

The Newton hardware panel software and the latest Newton Configurator Plug-in can be downloaded from the Thomson Grass Valley ftp site as described below.

Newton Hardware Control Panel

To determine the software version of your Newton Hardware Control Panel, hold down the **Ident** button (lower left button on the hardware panel) until the software version and IP address of the panel appear on the display.

The latest Newton Hardware Control Panel software can be downloaded from the Thomson Grass ftp site at this URL:

ftp://ftp.thomsongrassvalley.com/modular/Newton/v2.0.0/

1. Download the zip file to your local drive and unzip the file.

2. Run the Newt-RM1-Setup-2.0.0.EXE application to install the hardware panel software into the default Newton directory (Programs/Grass Valley Group/Newton).

Note   Do not install the NetConfig present in the **Select Components** window. Uncheck the NetConfig selection. This is an older version and should not be installed.

3. Use NetConfig to update the hardware panel software. Refer to the NetConfig or the Newton manual in PDF format in the NetConfig or Newton directory for instructions.

NewtonPC Control Panel

To determine the software version of NewtonPC, open NewtonPC and right-click on the blue bar at the top of the screen. Right-click on **About NewtonPC** in the pulldown.

Contact Customer Service for updating NewtonPC.

NetConfig Newton Panel Configurator Plug-in

The Newton Panel Configurator Plug-in must be at version 2.0.2. To view the version you currently have, open NetConfig on your PC and select the Newton Panel Configurator icon (shown at left) in the NetConfig Tool Bar. The current version is shown in the top right corner of the Configurator.

A file named **PanFigR.dll** must be downloaded from the Thomson Grass Valley ftp site and placed into the NetConfig directory to update the Configurator to version 2.0.2.

The required .dll file can be downloaded from the Thomson Grass Valley Customer Service web site at this URL:

ftp://ftp.thomsongrassvalley.com/modular/Newton/
NetConfig%20Plugin%202.0.2/

1. Right-click on the PanFigR.dll to save it to your local drive.

2. Shut down NetConfig.

3. Open the NetConfig directory on your local drive (installed by default in Programs/Grass Valley Group/NetConfig) and drag the new .dll file into the main NetConfig directory.

4. Select **Yes** to replace the current PanFigR.dll with the new one provided when the **Confirm File Replace** window comes up.

5. Open NetConfig and select the Newton Configurator icon.

6. Verify that the version is now 2.0.2.

Version 6.0.2 Software Release

This section provides information on software enhancements, minor changes in operation, web page content, and parameter values and resolved software issues from version 5.0.1 to version 6.0.2 software release for the KAM-AV/SD module.

Version 6.0.2 Enhancements

Kameleon software release 6.0.2 includes the following enhancements:

- A new Timing Compatibility timing control has been added on the Frame Sync web page that allows the user to select the current timing settings from software version 5.0.1 instead of the defaults as loaded with the new version 6.0.2. This allows the user to return to the previous (version 5.0.1) timing parameters after the new software is uploaded and factory defaults have been recalled (page 14), and

- E-MEM and factory default recalls can now be performed using the Newton Control Panel (80982) (page 15).

Version 6.0.2 Operational Changes

Some minor changes in operation, web page content, and parameter values in the version 6.0.2 release are described below:

- Note that current Kameleon part numbers may now appear as different numbers on the Status web page than shown in this document due to the lead-free (RoHS compliant) printed circuit boards now being used.

- On the VBI SDI web page, a warning message (**Clip Settings is Disable in Video Proc Web Page)** will now appear when the **Apply Clips to VBI/Data Lines** checkbox is checked on the VBI SDI web page and this control on the Video Proc web page is disabled (page 18).

- When **Video In** is selected as the Output Timing source on the Video Input Select web page, the **Enable Auto Track** for Audio Pairs 1-4 on the Audio Sync web page will now default to disabled (77338).

- When the Internal Frame Reference is selected as the Output Timing source on the Video Input Select web page and the Genlock setting on the 2000GEN module is set to Free Run (instead of Enable), the Genlock and Audio Framing Output Timing status reporting on the Video Input Select web page will now report Free Run. A warning message will also appear on the module Status web page stating: **Internal Reference is free running** (85201).

- On the DEMUX web page, the selected audio streams made while an SDI input is selected will now remain the same when the input is changed to a composite input then back to the original SDI input.

- When the Input Status reporting has been disabled on the Video Input Select web page and no video is present, the status of the input will now report **Not Monitored**. Previously, it would report **Not Present** when the reporting was disabled. Status reporting is now consistent on the SDI In, Video Input Select, and DEMUX web pages (84728).

- On the Audio Sync web page, the Ch A and Ch B Delay Adjust control for Audio Pairs 1-4 will now increment the delay in steps of 2 ms with the fine (> <) control. Previously, the fine adjust was in 20 ms steps (75670).

- The parameters for the Video Brightness/Y Offset on the Video Proc web page have been changed to a broader adjustment range of -10.20 to +10.10%.

Current Software Issues

The following software issues should be noted as still present from previous software versions:

- On the Video Input Select web page, when selecting the Video Format (SDI, Composite, or Auto), Video Line Rate (525 or 625), and the Output Timing selection (Internal Frame Reference or Video In), allow each parameter to load completely and the module to update for a few seconds after making a selection in any of these controls. Changing this type of parameter requires a reload of the firmware and the module needs time to update each time the firmware is reloaded. If a fault should occur, unplug the module and plug it back in to reboot (86565).

- When no audio submodules are installed on a Kameleon Front module, an occasional Front Module Fault will occur reporting that the -12.5 power supply on the on the module is bad (Figure 2 on page 13). This is a software voltage reporting error and will not affect module operation.

  This warning will usually clear up and return to normal after the module has either warmed up to normal operating temperature or had submodules installed. If this problem continues to occur, contact Thomson Grass Valley customer service for a replacement.

Figure 2. Fault Reporting Power Supply Bad
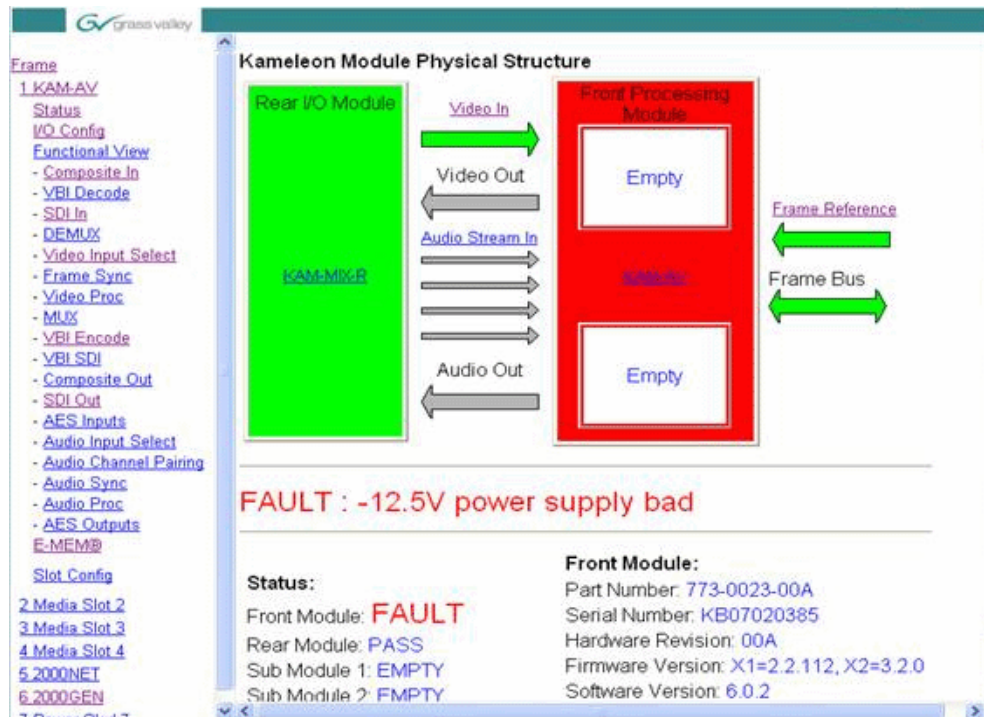
Resolved Software Issues

Kameleon software release 6.0.2 includes the following resolved software issues from version 5.0.1:

- When a SDI video signal with narrow blanking (such as a pathological signal) was input to a KAM-AV module, video distortion would occur on the analog output (37605).

- Sometimes after a source has been down for a while (such as a fiber or satellite feed), the audio input select would switch on its own to Silence from Analog or Embedded audio.

  This was caused by audio choices made on the Audio Input Select and DEMUX web pages not being retained in configuration when switching from SDI to composite or after audio configuration (84468, 73032).

- Sometimes the Video composite output would not recover correctly when the Output Timing reference was changing between Video Input and Internal Frame Reference and when the frame rate was changed between 525 and 625 (76201).

- When factory defaults were recalled, the 525 composite output setup was missing on lines 21-25 (79771).

- Video levels were changing when removing the input signal and then re-applying it and when switching between 525 and 625 line rates (83070).

Version 6.0.2 Enhancements and Operational Changes

The enhancements and the VBI SDI web page operational change for this release are described below.

Timing Compatibility Control

A new **Timing Compatibility** control has been added to the Frame Sync web page (Figure 3 with external reference selected as Output Timing source) that allows the user to select the timing parameters from the previous software version 5.0.1 after the latest version, 6.0.2 is installed.

When the new version 6.0.2 software version is installed, it requires recalling factory defaults which will reset all timing parameters to the default (0). Selecting the **5.0.1** radio button will return the module to the previous timing settings without having to reset all parameters.

Figure 3. Timing Compatibility Control on Frame Sync Web Page (Ext Ref)

E-MEM and Factory Default Recall with Newton Control Panel

The five available E-MEM registers and the factory defaults for the module can now be recalled using the Newton Control Panel. The new E-MEM controls are shown in Figure 4 in the Newton Configurator.

Figure 4. E-MEM Controls in Newton Control Panel Configurator)
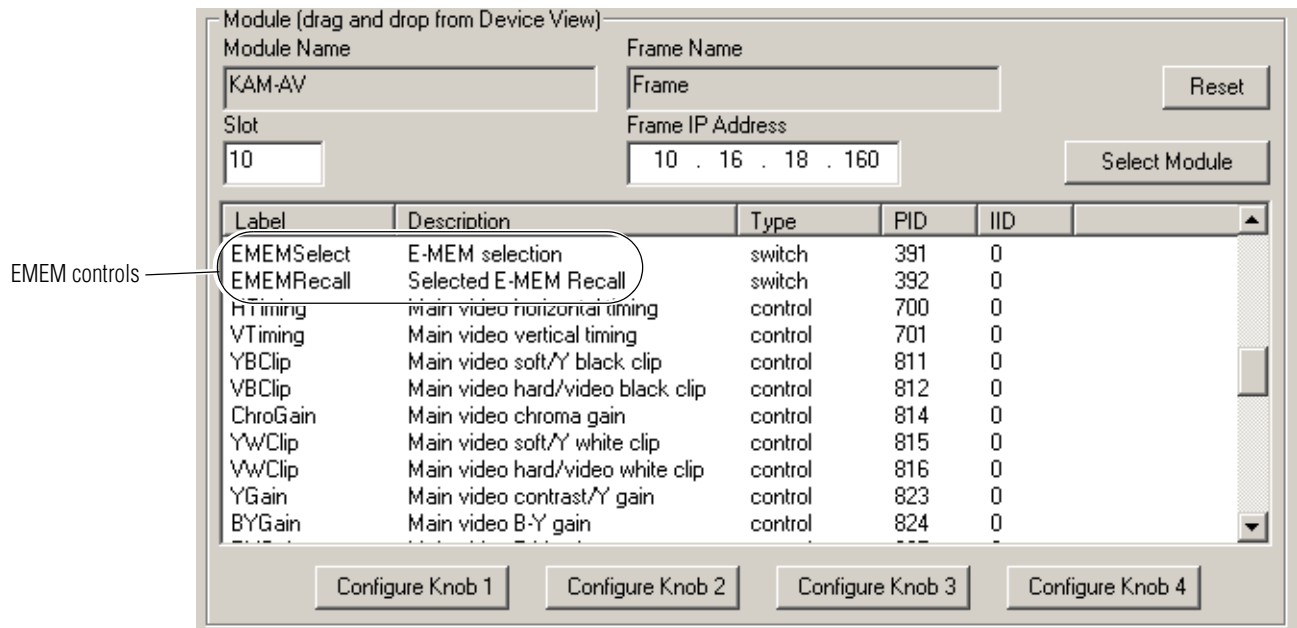
There are six parameters choices for this control as listed below:

- Defaults (recall factory defaults)

- E-MEM1 (recall present configuration in E-MEM 1 register)

- E-MEM2 (recall present configuration in E-MEM 2 register)

- E-MEM3 (recall present configuration in E-MEM 3 register)

- E-MEM4 (recall present configuration in E-MEM 4 register)

- E-MEM5 (recall present configuration in E-MEM 5 register)

Once the E-MEM controls have been configured into a Newton configuration, they will appear as shown in Figure 5 on page 16 for the Newton PC application.

Note   The NewtonPC application is used in these examples. For the hard panel, the same Label names are used. Use the corresponding knobs on the hard panel to change parameters.

Figure 5. Newton Control Panel E-MEM Controls on Soft Panel
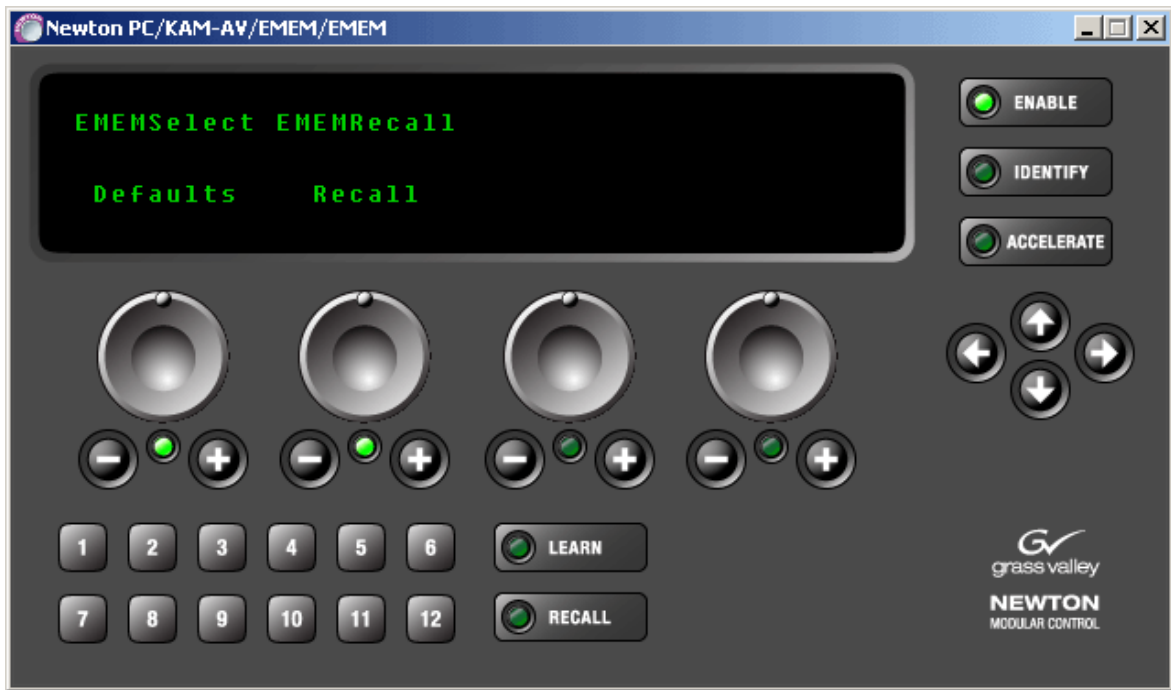
To recall factory defaults or an E-MEM register, use the **+** or **–** buttons or the far left knob under the **EMEMSelect** label to scroll to the Defaults selection or an E-MEM register to recall.

As shown in the example in Figure 6, E-MEM3 has been selected for recall.

Figure 6. Recall E-MEM Register 3

To perform the recall, move the knob or select the + button until the recall is triggered. The display may report *COMM* while the recall is being done, depending on the type of change occurring on the module. Once the recall is complete, the display will show the register as **Recalled** (Figure 7).

Figure 7. Recalled Performed

To move to another recall (E-MEM4 as shown in Figure 8), move the EMEMRecall knob or **+** button to return the state to Recall, then use the EMEMSelect knob to select another E-MEM register. Recall this new register by turning the knob or pressing the **+** button to trigger a recall of the selected register.

Figure 8. Recall Next Register

VBI SDI Web Page Warning

When the **Apply Clips to VBI/Data Lines** checkbox is selected on the VBI SDI web page and this control is not enabled on the Video Proc web page, a warning message will now appear as shown in Figure 9. The message will indicate that the clip setting on Video Proc page is disabled.

Figure 9. VBI SDI Web Page Warning

Updating Software

This section describes how to obtain and install the latest software.

Acquiring Software

To acquire the latest Kameleon software, do the following:

1. Connect to the Thomson Grass Valley ftp site at the following URL:

    ftp://ftp.thomsongrassvalley.com/modular/Kameleon/

2. Select the link to either KAM-AV or KAM-SD. If a README file is present, open it and read the information before attempting to download the files.

3. Create a temporary folder on your C:\ drive or connect directly to your NetConfig folder on your PC. The link below is the default location for the NetConfig application:

    C:\Program Files\Grass Valley Group\NetConfig

4. Download the following files to the C:\temp directory or the NetConfig directory on your PC by dragging each file into the folder:

    • KAM-AV-SD.sw2 (required for all versions)

    Note   Do not save this file as a text document. NetConfig will not recognize this file if it has a .txt extension.

    • KAM-AV-SD_6.0.2_appli_only.fld (first .fld download file with application only). (This file is only needed for upgrading from version 2.0.2.)

    • KAM-AV-SD_6.0.2.fld (second .fld download file with application plus complete Xilinx firmware package) (This file is required for all versions)

Updating Software With NetConfig

Updating from v2.0.2 to v6.0.2

For updating Kameleon software version 2.0.2, use the complete download procedure given next. This involves downloading two .fld files.

Updating from v4.1.0 and Later to v6.0.2

If you are currently running software version 4.1.0 or 4.1.2 on your KAM-AV or KAM-SD module, you will only need to do the second download of the KAM-AV-SD_6.0.2.fld, starting with Step 19 on page 25.

Updating from v5.0.1 and to v6.0.2

If you are currently running software version 5.0.1 on your KAM-AV or KAM-SD module, you will only need to do the second download of the KAM-AV-SD_6.0.2.fld, starting with Step 19 on page 25

NetConfig Upgrade Procedure

Use the following procedure to upgrade using NetConfig:

1. Copy all Kameleon software download files from the C:\temp directory into the main NetConfig directory on your PC. This is normally in the default location in C:\Program Files\Grass Valley Group\NetConfig.

   If you have installed NetConfig in another location, find the location of the NetConfig directory by right-clicking on the NetConfig shortcut. Select **Properties** and note the location in the **Start In** field. Download the package to the NetConfig directory.

2. In the main NetConfig directory, locate a folder named **modular**. If this folder does not exist, create a folder called **modular** in the main NetConfig directory.

3. Move the two KAM-AV-SD .fld files you copied into the main NetConfig directory (KAM-AV-SD_6.0.2_appli_only.fld and KAM-AV-SD_6.0.2.fld) into this **modular** folder.

4. Verify that the KAM-AV-SD_6.0.2.sw2 file is somewhere in the main NetConfig directory (not in the **modular** folder). This file should not have a .txt extension or it will not work properly.

Note   NetConfig reads each .sw2 file in its main directory and navigates to the directory given in these files to find the .fld files available. There may be a number of .sw2 and .fld files in your NetConfig directory for other modular products. These will not interfere with the update.

5. Locate the module to be upgraded in your frame and unplug it. Plug it back in to reset it and begin the upgrade.

CAUTION During the download, the module will have no video output, so be sure the module is off-air before upgrading.
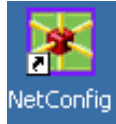
6. Open NetConfig on your PC desktop.

7. Navigate to the frame containing the KAM-AV or KAM-SD module you wish to upgrade on the left of the screen.

Note If you have not used NetConfig before, refer to the *NetConfig Instruction Manual* included during installation in the main NetConfig directory in pdf format (NetConfig.pdf).

8. Open the module link and select the link to the module's Status page and verify you the following software and firmware versions:

- Firmware Version: X1=48, X2=47

- Software Version: 2.0.2

9. Click on the **Load SW** button on the top of the NetConfig toolbar.

10. This will bring up the Load Software screen (Figure 10 on page 22). This manual illustrates the latest version of NetConfig, v2.0.8.

The following files names should appear in the modular directory (if not, check the Misc directory):

- KAM-AV-SD_appli_only (KAM-AV-SD_6.0.2_appli_only)

- KAM-AV-SD (KAM-AV-SD_6.0.2)

11. For updating to a module with version 2.0.2 software only, highlight the KAM-AV-SD_appli_only selection (Figure 10). This will bring up all of the KAM-AV and KAM-SD modules accessible on this network in the window on the right. Their current software version and frame IP Address will be displayed.

Figure 10. NetConfig Load Software Screen – First .fld Download
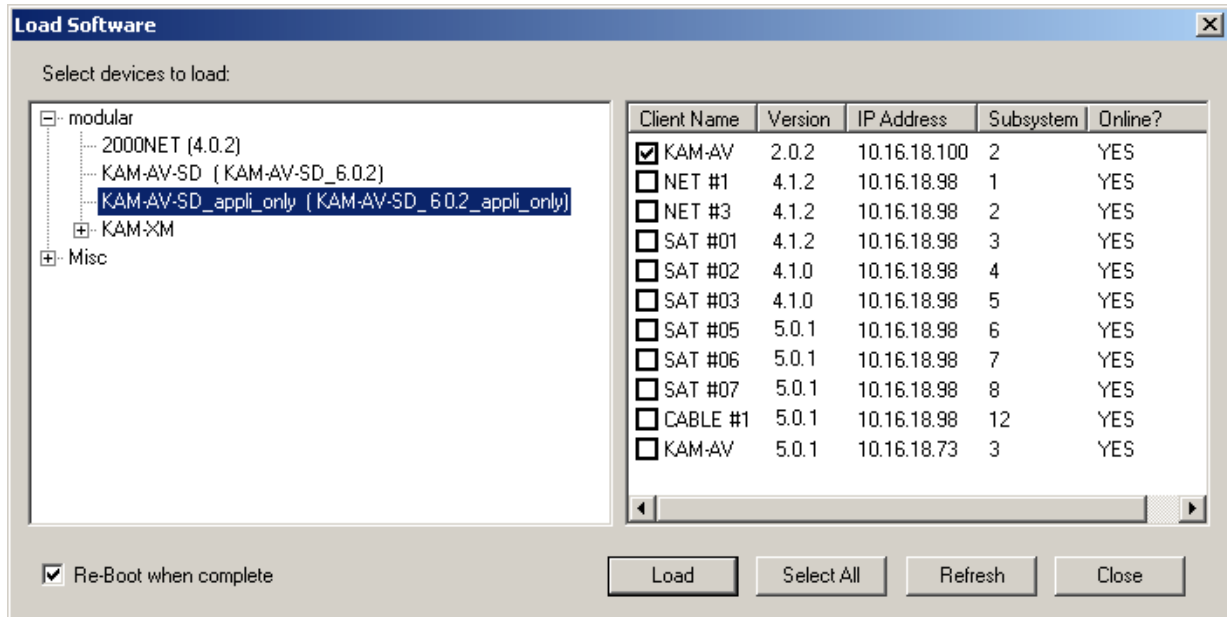
12. Find any KAM-AV or KAM-SD modules with version 2.0.2 that need updating in the Client Name list. Check the corresponding checkbox in the window on the right to indicate you wish to update this device.

Note You may upgrade all modules at once with this application by checking all of the Client Name checkboxes. We recommend upgrading one module first to understand the process before attempting to upgrade all of the modules at once.

13. Check the **Re-Boot when complete** checkbox in the lower left corner of the screen.
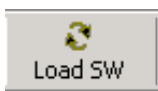
14. Click on the **Load** button in the NetConfig Load Software window to begin the update.

15. If the load has been successful, a popup will appear as shown in Figure 11. Click the **OK** button.

Figure 11. Load Successful Popup
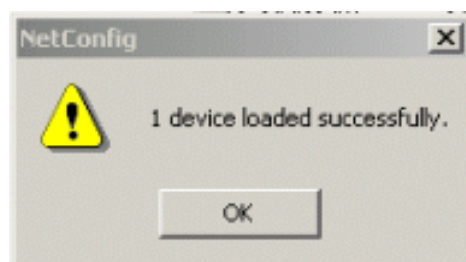
16. Allow the reboot to complete.

17. Open the Status web page of the module.

If the KAM-AV is fed with composite video (or no video input), the firmware version should be reported as X1=159.159.159, X2=47 and Software Version: 6.0.2 as shown in Figure 12.

Figure 12. KAM-AV with Composite In Status Page – First Download
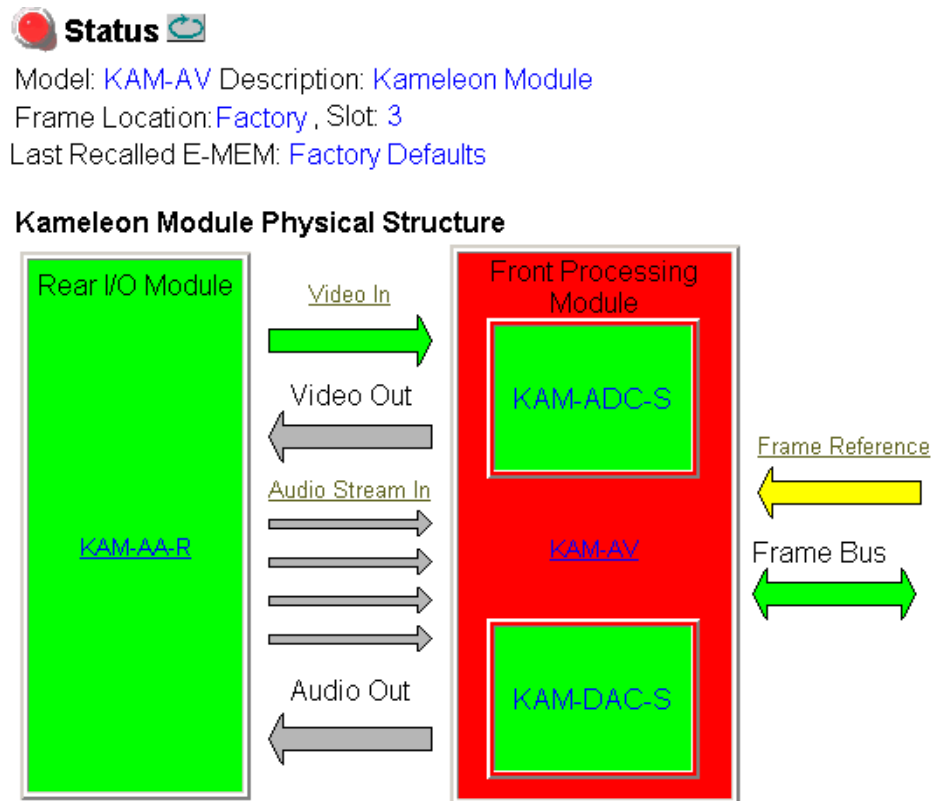
If the KAM-AV is fed with an SDI video input or if this is a KAM-SD module (-00R), the firmware version should be reported as X1=48, X2=47 and Software Version: 6.0.2 as shown in Figure 13.

Figure 13. KAM-AV with SDI Video In or KAM-SD Status Page

Discover (button image with magnifying glass icon)
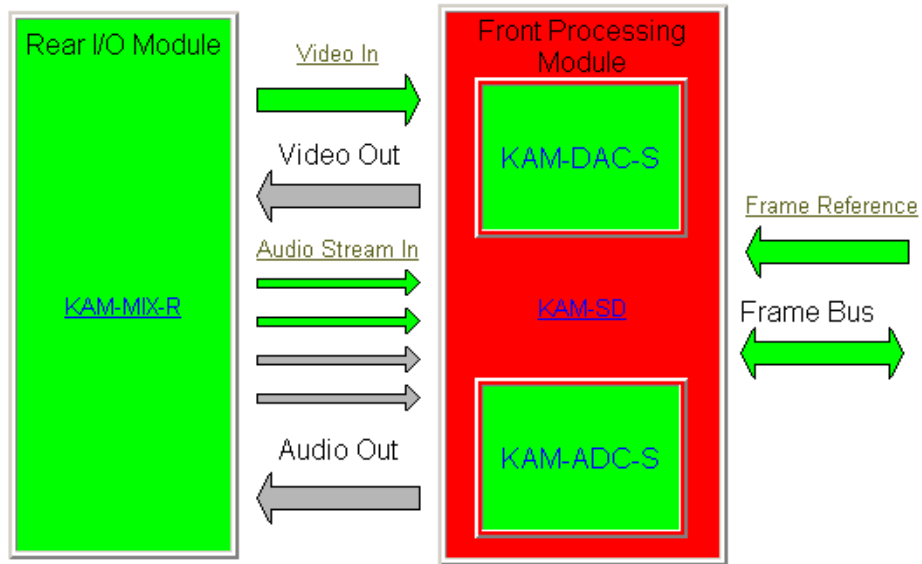
18. Bring up NetConfig again and click on the **Discover** button in the top menu bar. Then click on the **Load Sw** button.

19. Now select the KAM-AV-SD (KAM-AV-SD_6.0.2) selection in the modular directory on the left (Figure 14).

20. Select the same Client Name as the first download. Note that its Version will now report 6.0.2.

Note If you are updating other modules that are currently at version 4.1.0 and later, you may also select their Client Name(s) on the right of the screen to update at this point.

21. Check the **Re-Boot when complete** checkbox in the lower left corner of the screen.

22. Press the **Load** button to download the full package to the KAM-AV module(s) selected.

23. If the load has been successful, a popup will appear as shown in Figure 11 on page 22. Click the **OK** button in the popup.

24. Allow the reboot to complete.

Figure 14. NetConfig Load Full Package
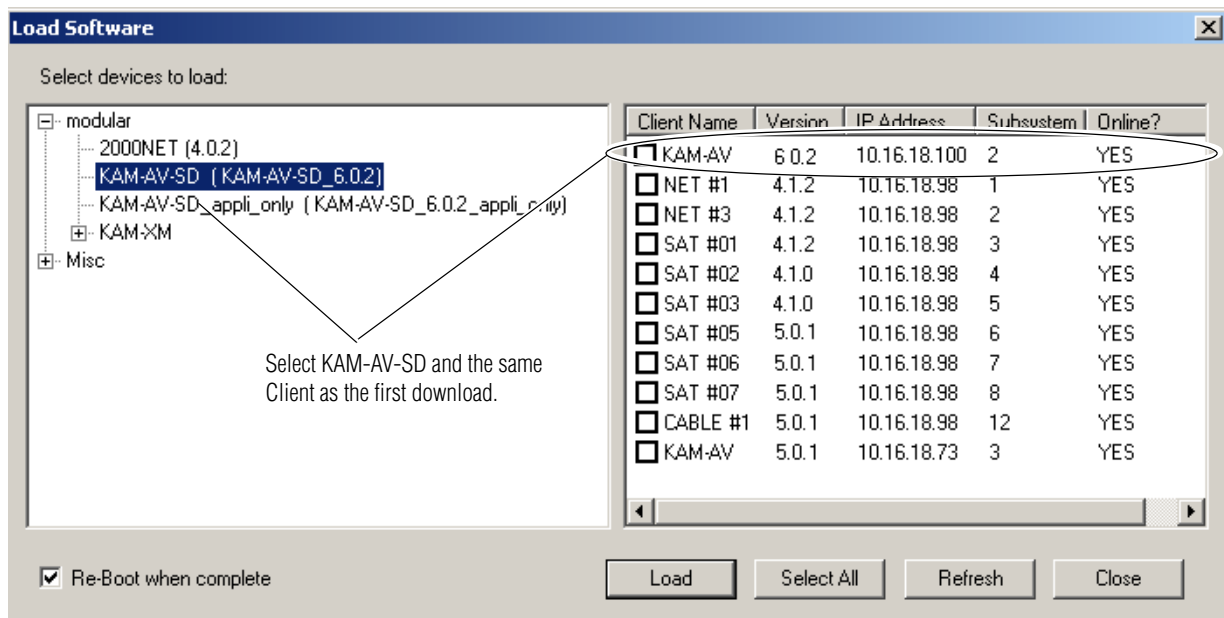
25. Open the Status web page of the module again.

If the KAM-AV is fed with composite video (or no input video), the firmware version should now be reported as X1=2.5.3 (3D version), X2=3.2.0 and Software Version: 6.0.2 as shown in Figure 15.
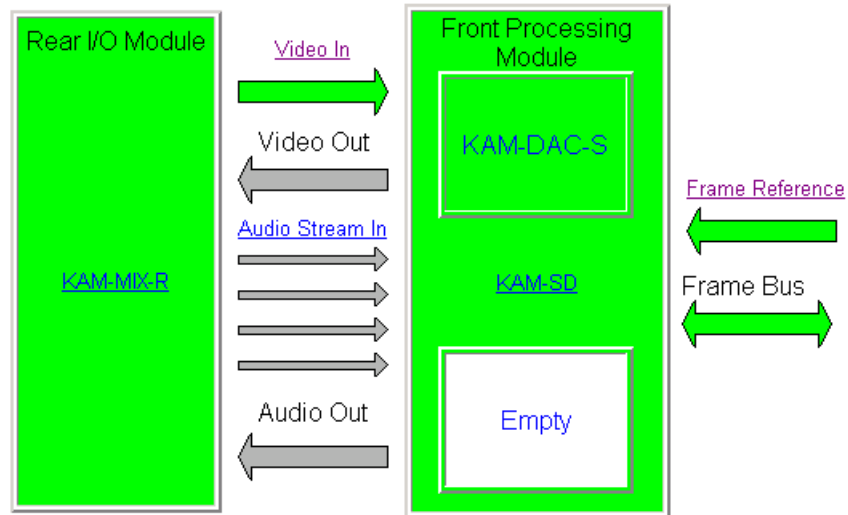
Figure 15. KAM-AV with Composite In Full Package

If this is a KAM-SD module (-00R) or a KAM-AV module is fed with a composite input, the firmware version should be reported as X1=2.2.112 (SD version), X2=3.2.0 and Software Version: 6.0.2 as shown in Figure 16.

Figure 16. KAM-SD Module or KAM-AV with Composite Input

26. For each module, link to the E-MEM web page and select the **Recall** button to restore factory settings.

27. Verify proper operation of the module.

Note The latest Kameleon modules will report a different part number than shown in this document. These new part numbers indicate modules that have been modified to be RoHS compliant (use lead-free components).