

# KSP Graphical User Interface

1-ME SOFT PANEL CONTROLLER



Instruction Manual

Software Version 1.0

**KEMA Quality**

# CERTIFICATE

Certificate Number: 510040.001

The Quality System of:

## **Grass Valley USA, LLC and its Grass Valley Affiliates**

Headquarters:

**400 Providence Mine Road  
Nevada City, CA 95945  
United States**

**15655 SW Greystone Ct.  
Beaverton, OR 97006  
United States**

**Brunnenweg 9  
D-64331 Weiterstadt  
Germany**

**Kapittelweg 10  
4827 HG Breda  
The Netherlands**

**2300 So. Decker Lake Blvd.  
Salt Lake City, UT 84119  
United States**

Including its implementation, meets the requirements of the standard:

## **ISO 9001:2008**

Scope:

The design, manufacture and support of video and audio hardware and software products and related systems.

This Certificate is valid until: June 14, 2012  
This Certificate is valid as of: December 23, 2010  
Certified for the first time: June 14, 2000



H. Pierre Sallé  
President  
KEMA-Registered Quality

The method of operation for quality certification is defined in the KEMA General Terms And Conditions For Quality And Environmental Management Systems Certifications. Integral publication of this certificate is allowed.

**KEMA-Registered Quality, Inc.**  
4377 County Line Road  
Chalfont, PA 18914  
Ph: (215)997-4519  
Fax: (215)997-3809  
CRT 001 042108

Accredited By:  
ANAB



a  **DEKRA** company



# KSP Graphical User Interface

1-ME SOFT PANEL CONTROLLER

Instruction Manual

Software Version 1.0

# Contacting Grass Valley

<b>International Support Centers</b>	<b>France 24 x 7</b>	+800 8080 2020 or +33 1 48 25 20 20	<b>United States/Canada 24 x 7</b>	+1 800 547 8949 or +1 530 478 4148
<b>Local Support Centers (available during normal business hours)</b>	<b>Asia</b>	<b>Hong Kong, Taiwan, Korea, Macau:</b> +852 2531 3058 <b>Indian Subcontinent:</b> +91 22 24933476 <b>Southeast Asia/Malaysia:</b> +603 7805 3884 <b>Southeast Asia/Singapore:</b> +65 6379 1313 <b>China:</b> +861 0660 159 450 <b>Japan:</b> +81 3 5484 6868		
		<b>Australia and New Zealand:</b> +61 1300 721 495	<b>Central/South America:</b> +55 11 5509 3443	
		<b>Middle East:</b> +971 4 299 64 40 <b>Near East and Africa:</b> +800 8080 2020 or +33 1 48 25 20 20		
	<b>Europe</b>	<b>Belarus, Russia, Tadzikistan, Ukraine, Uzbekistan:</b> +7 095 2580924 225 <b>Switzerland:</b> +41 1 487 80 02 <b>S. Europe/Italy-Roma:</b> +39 06 87 20 35 28 <b>-Milan:</b> +39 02 48 41 46 58 <b>S. Europe/Spain:</b> +34 91 512 03 50 <b>Benelux/Belgium:</b> +32 (0) 2 334 90 30 <b>Benelux/Netherlands:</b> +31 (0) 35 62 38 42 1 <b>N. Europe:</b> +45 45 96 88 70 <b>Germany, Austria, Eastern Europe:</b> +49 6150 104 444 <b>UK, Ireland, Israel:</b> +44 118 923 0499		

Copyright © Grass Valley USA, LLC. All rights reserved.

This product may be covered by one or more U.S. and foreign patents.

## Grass Valley Web Site

The [www.grassvalley.com](http://www.grassvalley.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.



## 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, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: [www.grassvalley.com/about/environmental-policy](http://www.grassvalley.com/about/environmental-policy)

001187401

# Contents

- The 1-ME KSP** ..... 7
  - Overview ..... 7
  - Features..... 7
  - KSP Requirements..... 7
    - Specifications ..... 8
  - KSP GUI ..... 9
  - Preparing for Installation..... 14
    - Software Requirements..... 14
    - Connect the KSP Keyboard ..... 14
    - Power On and Configure the PC/Touchscreen PC ..... 14
      - Touchscreen PC ..... 14
    - Licensing ..... 14
  - Installation ..... 15
    - Installing KSP GUI (and GV Switcher Menu)..... 15
  - Operations ..... 17
    - Delegation..... 17
      - ME Delegation ..... 18
      - Row Delegation ..... 18
      - Aux Bus Row Delegation ..... 19
      - Keyer Auto/Cut Transition ..... 19
    - Transitions ..... 19
      - Source Selection ..... 19
      - ME Transitions ..... 20
    - Effects ..... 20
      - E-MEM..... 20
      - Macros ..... 21
  - 1-ME USB Keyboard..... 22
    - Standard USB Keyboard..... 23



# *The 1-ME KSP*

## **Overview**

The KSP is an optional 1-ME Soft Panel GUI which provides direct control of switching crosspoints and the ability to recall effects and macros together, with an integrated version of the Grass Valley Switcher menu application. A customized PC keyboard is included as an option for users who like quick cut and mix action from a hard-button interface. The KSP can be used as a standalone Control Panel, an adjunct to a main panel providing a second seat (second control surface) in a Suite, or as the only control surface for a second Suite.

## **Features**

- Control any ME of an attached Switcher Frame, regardless of Frame size,
- Suites mode allows KSP to control its own show or collaborate with the main switcher on a single production,
- Easy transition from KSP to operation of full panel as menu and function remain the same,
- Custom keyboard provides desktop control of up to 36 sources and instant access to primary video processing functions,
- Keyboard toggles between menu parameter entry and control modes,
- Configured for easy use with a touchscreen monitor, but touchscreen is not required, and
- Software runs on a user-supplied touchscreen or standard PC.

## **KSP Requirements**

The KSP GUI application is designed to run on a PC platform. The screen must be 1920x1080 resolution or better (which is common in many professional video environments). A touchscreen is not required but may enhance the user experience.

The KSP software is included with the switcher application software. Purchasing the option provides a software license that enables the interface in the Video Processor Frame, and includes a customized PC keyboard. The license enables users to access an unlimited number of applications associated with a video processor frame. Additional customized PC keyboards are also available for purchase.

## **Specifications**

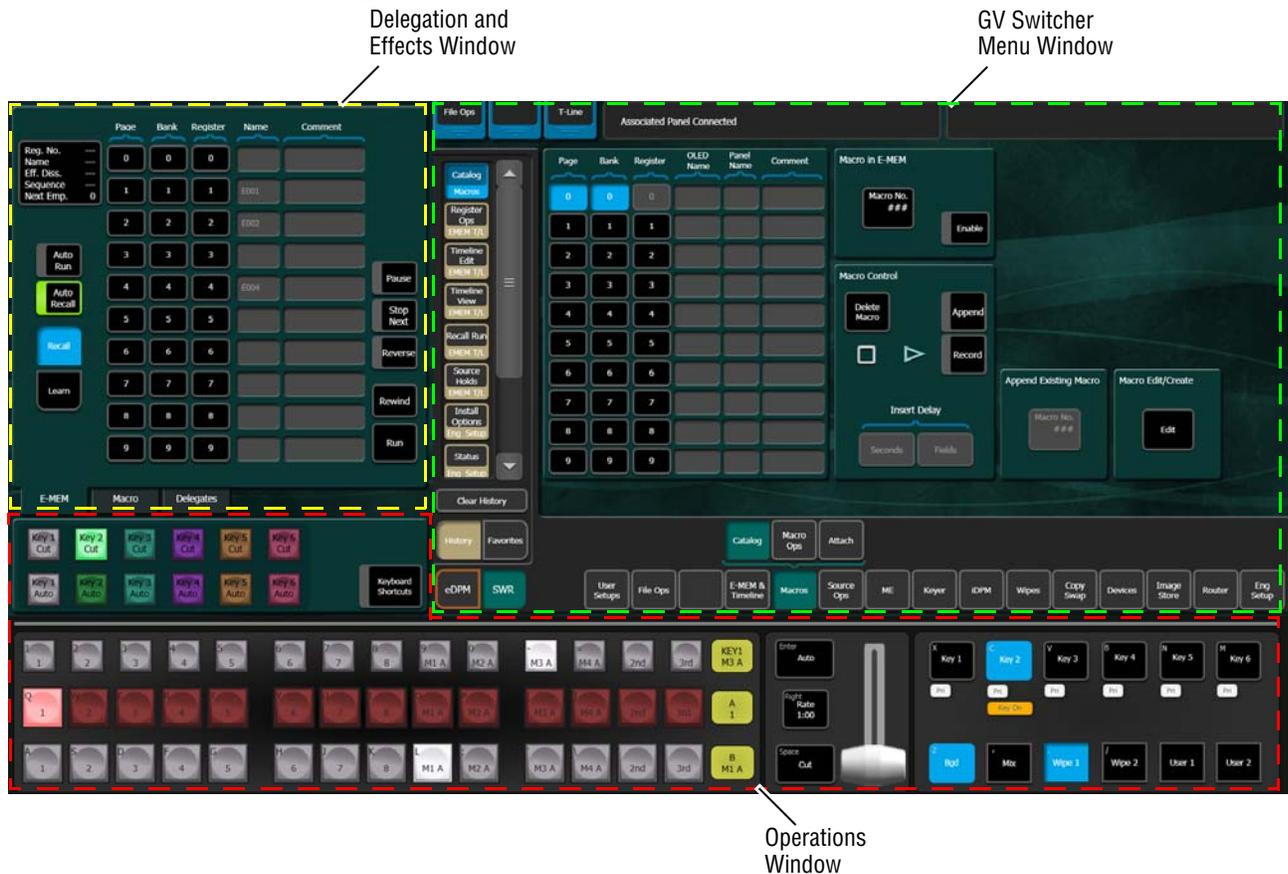
The KSP runs on a user-furnished Windows-based PC with a keyboard and mouse. A touchscreen may be used as a replacement for a mouse but is not required. To function correctly, the PC must meet or exceed the following specifications:

- **Operating system**—MS Windows XP SP3 or MS Windows 7 (32 or 64 bit)
- **Processor**—Intel Core 2 Duo processor
- **Memory (RAM)**—2 GB
- **Graphics memory**—512 MB
- **Network interface**—10/100/1000 Mb/s (Ethernet)
- **Productivity Ports**—USB 2.0
- **Keyboard and mouse**—USB 2.0
- **Optical drive**—not required
- **Monitor resolution**—1920x1080 (touchscreen optional) *KSP does not scale to lower resolutions*

# KSP GUI

The KSP GUI is comprised of three windows: the GV Switcher menu, the Delegation and Effects window, and the Operations window (Figure 1).

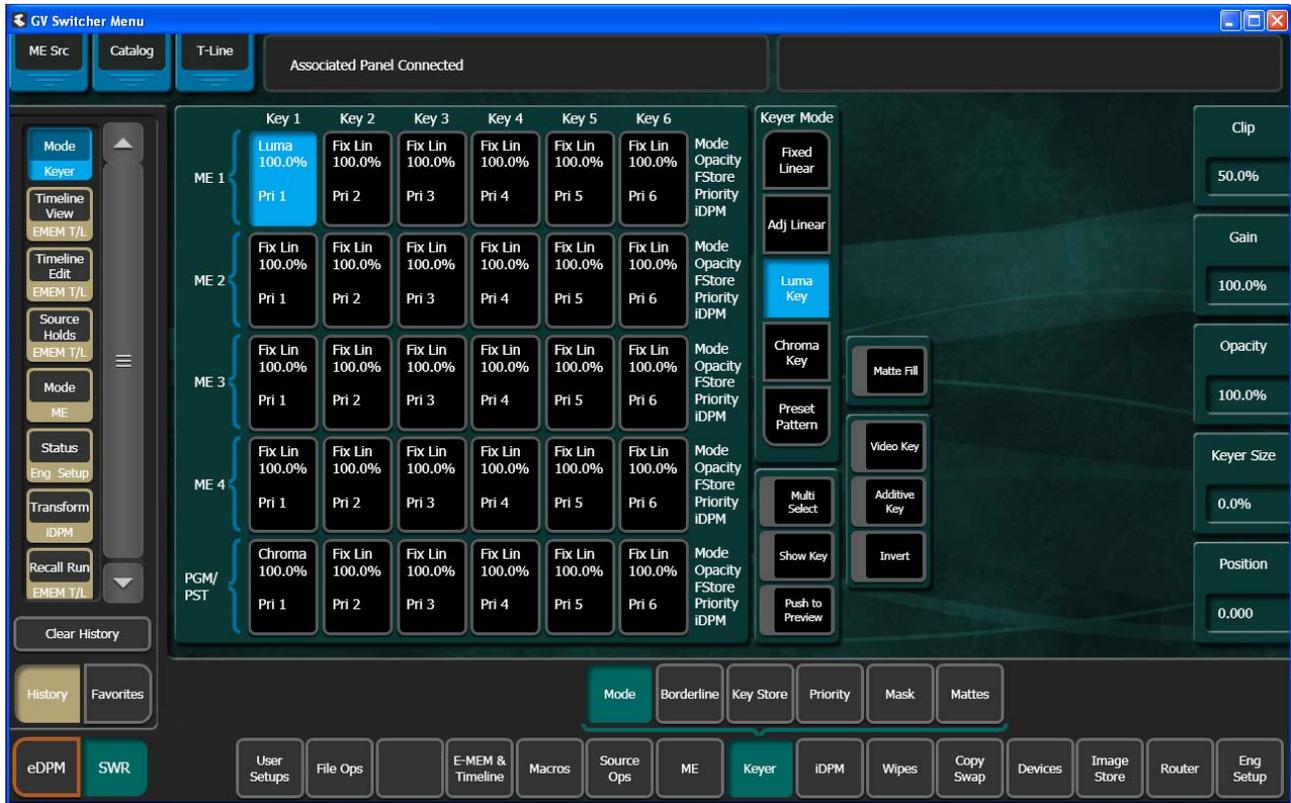
Figure 1. KSP GUI



The GV Switcher menu window (Figure 2) uses the standard menu application available for the GV video production switchers. This keeps the menu structure the same regardless of the control surface, making it easy for operators to quickly move between a primary switcher menu and the KSP UI when it is used for secondary suite or sub-switching applications. Refer to the *Video Production Center User Manual* for your Video Frame model, about GV switcher menu operations.

The GV Switcher menu is “always on top” but can be minimized to a pull-down in the upper left corner of the GV Switcher menu. Minimizing the KSP minimizes the entire GUI.

Figure 2. GV Switcher Application Window

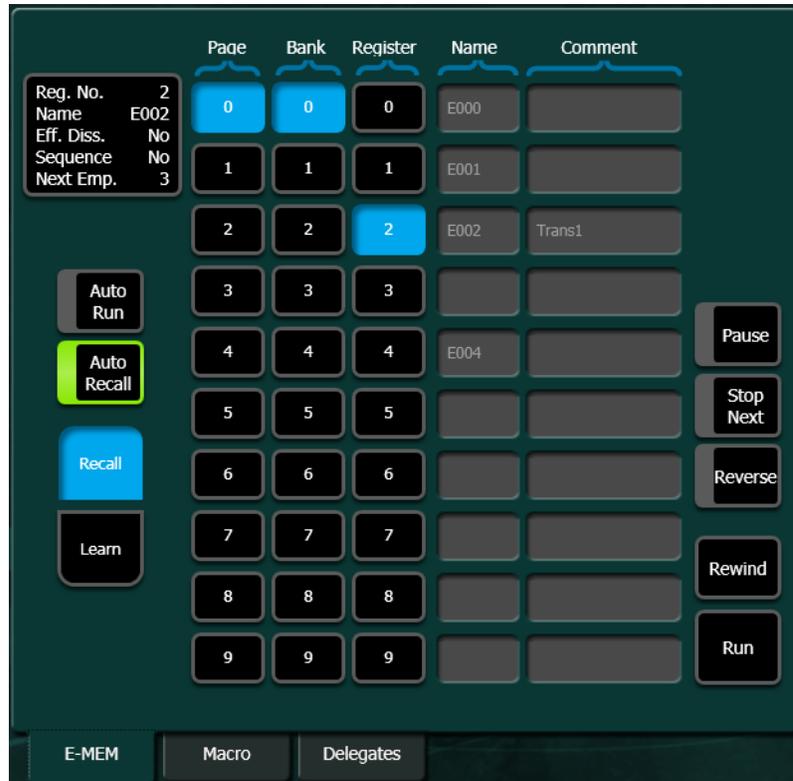


**Note** The History and Favorites features of the GV Switcher menu are very handy for navigating between menus quickly. See the *Video Production Center User Manual* for your Video Frame model for more information.

The Delegation and Effects window E-MEM menu tab (Figure 3), is a simplified version of the same functionality that is in the E-MEM & Timeline,

Recall Run menu in the GV switcher menu. Selecting registers in this menu will cause an immediate E-MEM recall.

Figure 3. Delegation Menu, E-MEM sub-menu



The Delegation and Effects window Macro menu tab (Figure 4), is a simplified version of the same functionality that is in the Macro, Catalog menu in

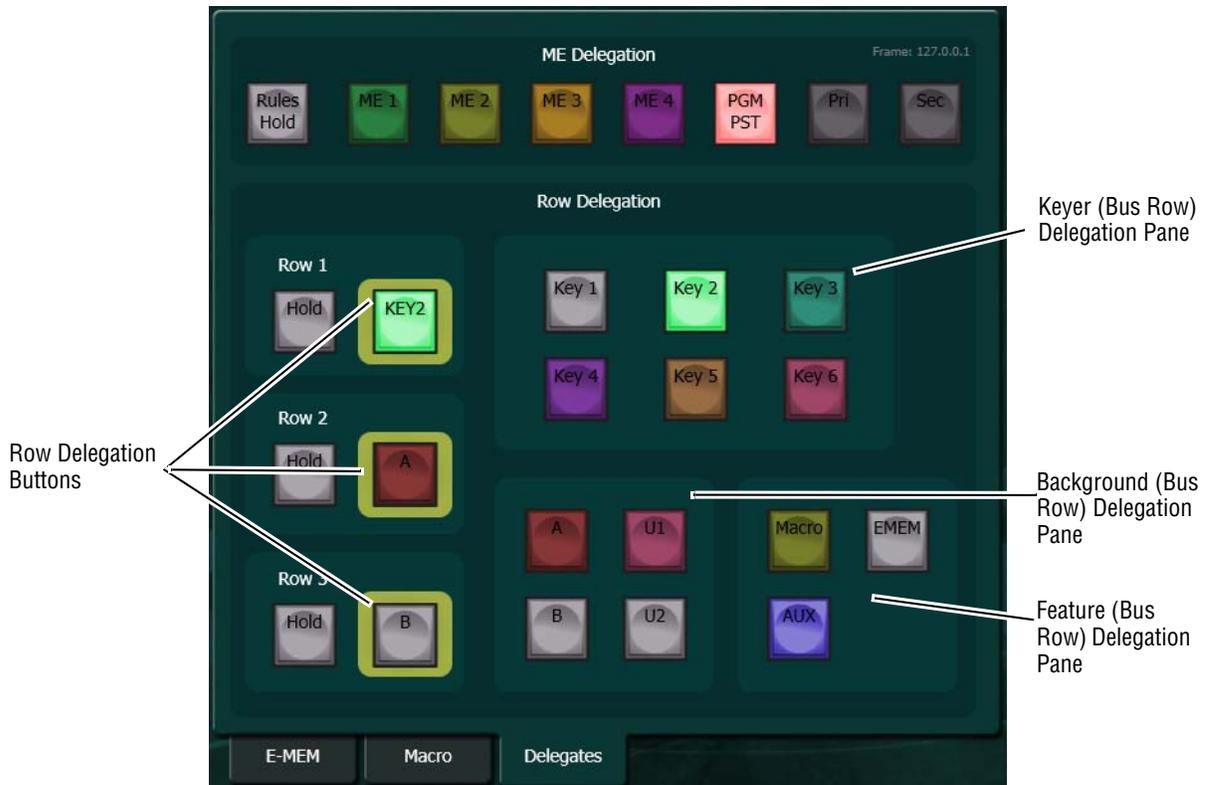
the GV switcher menu. Selecting registers in this menu will preset them; selecting the **Play** button is required to run the macro.

Figure 4. Delegation Menu, Macro sub-menu



The Delegates menu tab allows delegation of ME busses, Aux busses, and macros to source select rows.

Figure 5. Delegation Menu, Delegates Menu Tab



The Operations window has three rows of Source Select buttons which are delegated from the Delegates menu tab. Source Select buttons have dynamic legends with source names and static legends with the keyboard key that selects them. The operations window also contains the **Auto**, (Trans) **Rate**, and **Cut** transition buttons (Figure 6).

The Transition Area (Figure 6) in the Operations window is used to select the transition components (Bgd, Key 1-Key 6) and the transition type (Mix, Wipe 1 and Wipe 2, and User 1 and User 2 (Figure 6)). These selections are keyboard and/or mouse controlled with each button as an on/off toggle for the transition components and a "radio button" group for the transition type.

Figure 6. Operation Window



# Preparing for Installation

## Software Requirements

The KSP software requires Microsoft .NET 4.0 and vcredist\_x86 (for Visual Studio 2010) to be installed on the PC. These applications are available on the GV Software USB Memory Stick shipped with your system, on our website at [grassvalley.com](http://grassvalley.com), or from the Microsoft download site.

**Note** .NET 4.0 and vcredist\_x86 (VisualStudio2010 sub-folder) are available in the Third-party Updates folder.

## Connect the KSP Keyboard

The KSP Keyboard must be connected to a USB port on the PC prior to power on of the touchscreen or PC monitor. The KSP only recognizes keyboards that are plugged in when the KSP application is started.

## Power On and Configure the PC/Touchscreen PC

Once the keyboard is connected, power on the PC and set the resolution to 1920x1080.

### Touchscreen PC

If you are using a touchscreen PC, you will need to turn off the *multi-touch* feature (see the documentation that came with your system). The multi-touch feature is actually a two step process; touch and remove. For switching video you will want the touch of a button to trigger an effect.

## Licensing

When you receive a new KSP system, the license is included. You can verify that all of your options are installed in the Install Options menu (select **Eng Setup, Install Options** in the GV Switcher menu).

If you are upgrading from a previous version of software, and want to verify that your existing licenses remain and the new Soft Panel license is added, perform the following before installing the new KSP system:

1. In the Eng Setup, Install Options menu, record the licenses in the Enabled column of the Options list.

2. Once you have installed the KSP system, verify that the existing licenses remain and the Soft Panel option has a 'Yes' in the Enabled and the New column.
3. You can add a Temporary or Permanent license by selecting one of the buttons in the Option Group pane. For a permanent license select the **New Auth Code for Perm** data pad and enter the Authorization code that came with your system license, and select **Install**.

Refer to the *Video Production Center Installation & Service Manual* for your Video Frame model for more information.

## Installation

### Installing KSP GUI (and GV Switcher Menu)

1. Open the GV Switcher menu software from a USB device plugged into the PC.
2. Double-click on GVSwitcherInstaller.exe.
3. Click on **Menu** to install the GV Switcher menu ([Figure 7](#)); follow the prompts.

**Note** Always install the GV Switcher menu first.

Figure 7. GV Software Installer



4. Run the GVSwitcherInstaller.exe again then click on Soft Panel (Figure 7) to install the KSP; follow the prompts.
5. With the GV Switcher menu open, navigate to the Frame Suite Nodes & ID menu by selecting the **Eng Setup, Node Settings, Frame Suite Nodes & ID** buttons.
6. Select the **Frame IP Address** data pad and enter the Frame IP in the Frame IP pop-up keypad and select **Enter** (Figure 8).

Figure 8. Frame IP



7. Select the **Associated Panel IP** data pad.
8. When the Associated Panel IP pop-up keypad displays, clear the entry so it is blank (select the **Delete, Backspace Arrow, or CE (Clear Entry)** button in the pop-up keypad or use the Delete, Backspace or Space Bar on the keyboard).
9. Select **Enter**.  
This sets the Control Panel IP to 0.0.0.0. which prevents missing connection error messages.
10. When prompted to restart the GV Switcher menu, select **Cancel** (there will be a restart later in this procedure).
11. Navigate to the Control Surfaces menu by selecting **Eng Setup, Node Settings, Control Surfaces**.

12. Select a blank Node Name data pad and enter KSP (or an easily identifiable Soft Panel name) and select **Enter**.
13. Select the adjacent **IP Address** data pad and enter the IP Address of the PC/touchscreen used for the KSP application, and select **Enter**.

**Note** The IP Address of the PC can be the existing IP Address or you can change it to one of the reserved switcher IP Addresses, for example 192.168.0.176.

14. When prompted, restart the GV Switcher menu.
15. Open the KSP GUI by double-clicking on the KSP.exe icon on the desktop or open it from the Grass Valley folder in the Start menu.

## Operations

### Delegation

Delegation from the KSP GUI is controlled in the Delegates menu tab in the Delegation area. The Delegates menu tab is divided into ME Delegation and Row Delegation (Figure 9).

Figure 9. Delegation Menu, Delegates Menu Tab



## ME Delegation

Press the desired ME button in the ME Delegation area of the Delegates pane (Figure 9) to delegate an ME. If source rules have been created, you can toggle on/off Rules Hold by pressing the **Rules Hold** button (Figure 9). If an ME is split (in the GV switcher menu), you can delegate the Primary or Secondary partition by pressing the **Pri** or **Sec** buttons (Figure 9). Refer to the *Video Production Center User Manual* for your Video Frame model for information about Rules and Split MEs.

PGM PST (Program Preset) is the default delegation upon KSP start up.

**Note** Upon restart, the KSP delegates to PGM PST (Program Preset) therefore if you restart the KSP menu, and you want a different ME, you will have to press the button for that ME in the Delegates menu tab.

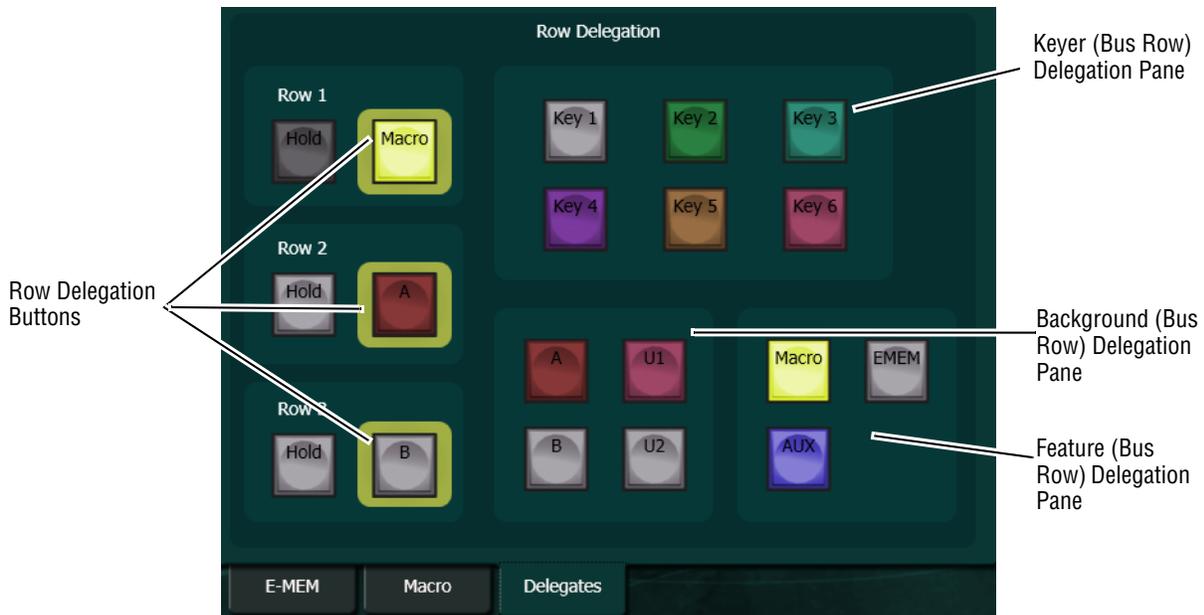
## Row Delegation

The default row delegation upon start up is:

- **Row 1**—Keyer 1,
- **Row 2**—Bkgd A, and
- **Row 3**—Bkgd B

You can use the default or delegate the rows to Keyers, Background, Macro, E-MEM, or Aux bus by selecting a Row delegation button, then a Key, Background, or Feature button, as demonstrated in Figure 10 with Row 1 delegated to Macro.

Figure 10. ME Transition Area



**Note** Pressing any Keyer, Background, or Feature button changes the row delegation button label for that row.

## Aux Bus Row Delegation

Delegating a row for Aux has special characteristics; the source select buttons change display from “Aux” delegation to “source” delegation. When a row selection button and then the **AUX** button is pressed, the delegated bus row source buttons display the available “Aux delegates”. However once the row is delegated to Aux and a source select button is pressed, the source select buttons change to display the available Aux “sources”. Now Aux sources can be selected for the delegated bus row.

## Keyer Auto/Cut Transition

Keyer Auto and Cut transitions can be performed from the Keyer Transition Area of the KSP GUI (Figure 11).

**Note** Touchscreen response time is deterministic and may not be immediate, therefore cut transitions from a keyboard may be preferred (see [1-ME USB Keyboard on page 22](#)).

Figure 11. Keyer Transition (Cut) Area



## Transitions

### Source Selection

Selecting sources for transition from the KSP GUI is performed in the Source Select area (Figure 12). Rows 1-3 can be delegated as Keyer, Background, Macro, E-MEM, or Aux using the Delegates pane (see [Delegation on page 17](#)).

The source select button center labels change to match the current row delegation. The upper left button legends are static keyboard characters as a guide when using a standard keyboard (not the GV 1-ME USB Keyboard) (Figure 12).

Figure 12. Source Select Area



## ME Transitions

The ME Transition area (Figure 13) provides KSP GUI control of:

- Next transition,
- Key On status,
- Trans Rate,
- Primary and Secondary partition states,
- Mix or wipe types,
- ME transition Auto/Cut, and
- Lever arm transition (mouse click or touch and drag).

Figure 13. ME Transition Area



## Effects

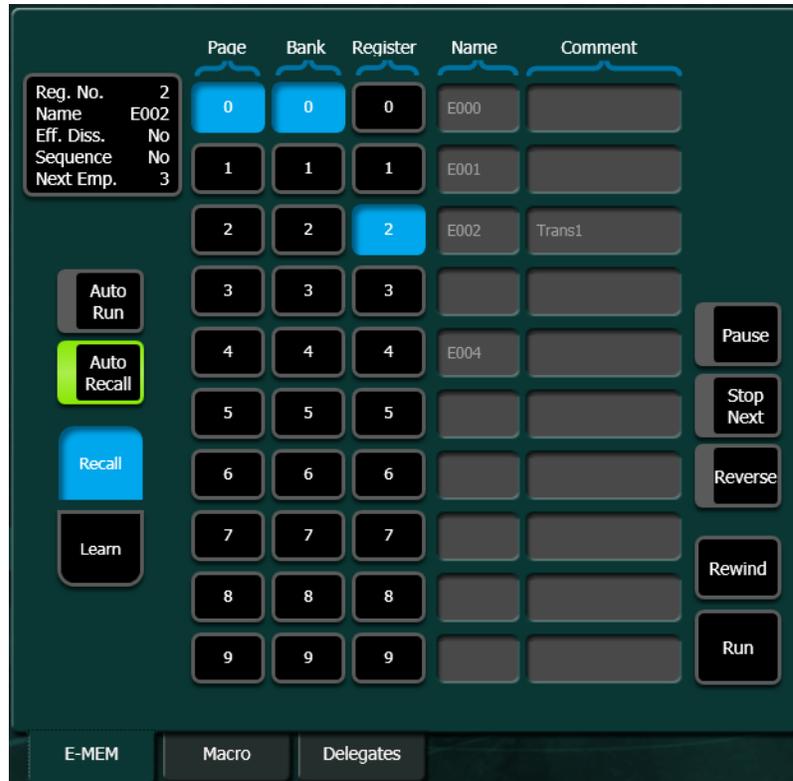
E-MEMs are created in the E-MEM & Timeline, Recall Run menu in the GV Switcher menu. Refer to the *Video Production Center User Manual* for your Video Frame model for information about creating effects with E-MEMs and Macros.

## E-MEM

E-MEMs can be ran from the KSP GUI in two ways; from the E-MEM menu tab (Figure 14) in the Delegation area or by delegating a bus row using the

**EMEM** Feature button in the Delegates menu tab (see [Row Delegation on page 18](#)).

Figure 14. Delegation Menu, E-MEM Menu Tab

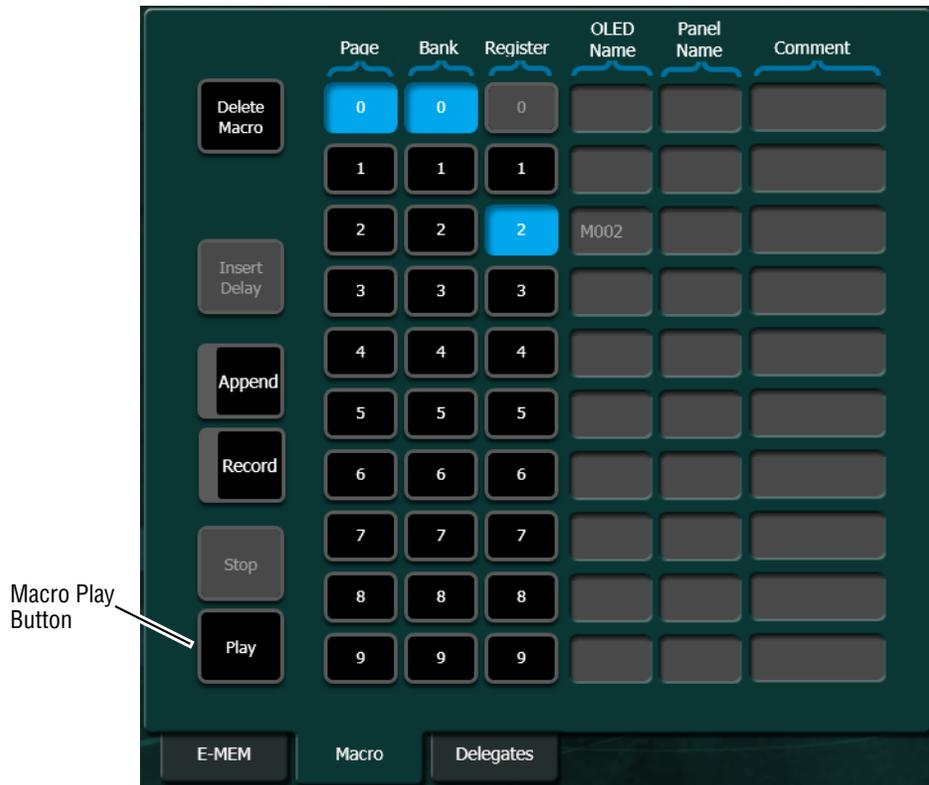


The KSP E-MEM menu tab is a simplified version of the E-MEM and Timeline, Recall Run menu in the GV Switcher menu and one mirrors the other when an E-MEM is selected for recall. For example if you choose Register E001 in the GV Switcher menu, that selection would also be reflected in the KSP E-MEM menu tab and vice versa. Names and Comments are displayed in the E-MEM menu tab but can only be edited from the GV Switcher menu.

## Macros

The Macro menu tab is a simplified version of the Macro Catalog menu in the GV Switcher menu (Figure 14). When using the KSP GUI the process is to press the button of the desired macro and then press the **Play** button to execute the macro. Macros can also be run by delegating a bus row using the **Macro** Feature button in the Delegates menu tab (see [Row Delegation on page 18](#)). Macros selected on bus rows run when selected.

Figure 15. Delegation Menu, Macro Menu Tab

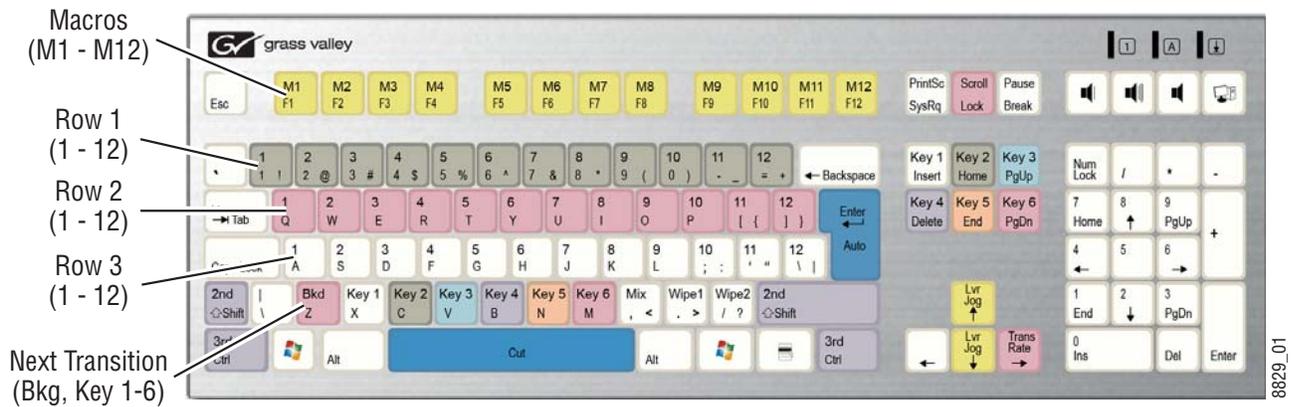


## 1-ME USB Keyboard

The 1-ME KSP GUI comes with a full-sized PC style keyboard with navigation and numeric keypads, two integrated USB ports, and uses a USB 2.0 host connection (Figure 16). For switcher control, the keyboard has special keycap labels and colors with Program, Preset, and Keyer rows for up to 12 sources and three shift levels for a total of 36 keyboard-controllable sources.

Dedicated buttons are also provided on the keyboard for each of the ME's six keys, along with twelve Macro Attachment buttons. The numeric keypad provides E-MEM control. Also available are Cut, Auto transition, and lever jog control at the touch of a button (Figure 16).

Figure 16. KSP Full-sized Keyboard for Switcher Control



The keyboard has two modes: control and data entry. Turning on the **Keyboard Shortcuts** button (highlights red) in the Operations Window (Figure 17) puts the keyboard in control mode, turning it off puts the keyboard in data entry mode, to enable parameter or text entry.

**CAUTION** When the Keyboard Shortcuts button is red, the changes to the keyboard may be On Air changes.

Figure 17. Keyboard Shortcuts Button



## Standard USB Keyboard

You can use a standard USB keyboard for KSP operation. The buttons in the Operations area have keyboard characters in the upper left-hand corner that correlate to the keys on the keyboard.

