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KAHUNA

MSP (MAVERIK SOFT PANEL)

Supplement Manual

13-06514-030

2020-05-07

www.grassvalley.com

Patent Information

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1 KahunaMSP (Maverik Soft Panel)

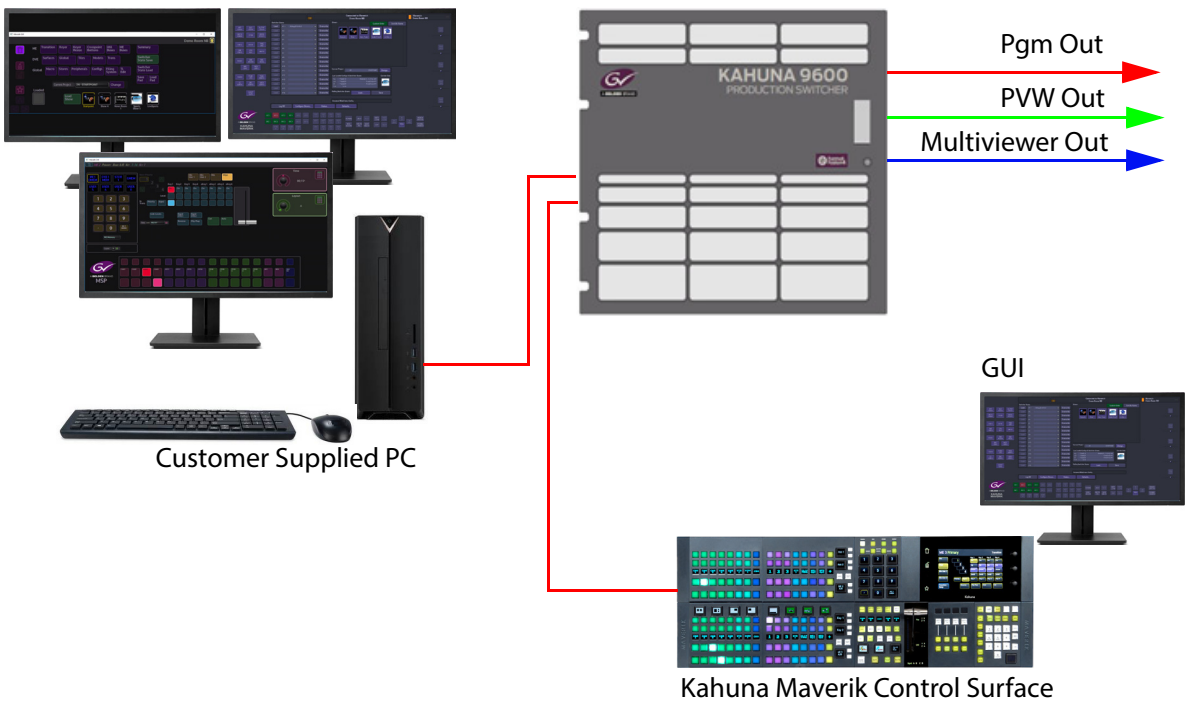
KahunaMSP Overview

KahunaMSP is an application software option for Kahuna. Once the software is installed, it allows you to run a soft version of the Kahuna MLC GUI, MAV-GUI and Maverik Control Surface on a Windows™ based computer.

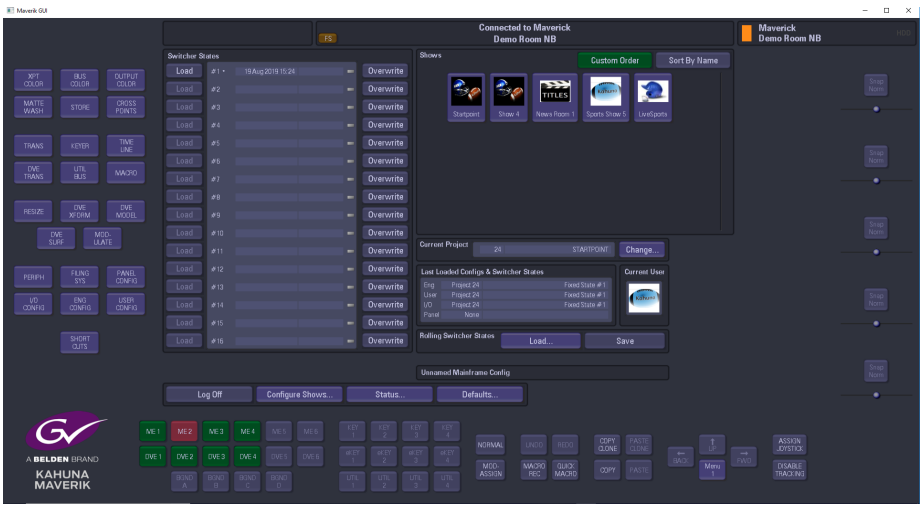
- Control any Virtual ME of an attached Switcher Frame, regardless of Frame size.
- The Make ME feature allows MSP to control its own show or collaborate with the main switcher on a single production.
- Familiar interface and easy transition to KahunaMSP software, which runs on a user-supplied standard PC.
- The MSP software is included with the switcher application software.
- Purchasing the option provides a software license that enables the interface in the Video Processor Frame.
- A license file enables users to access an unlimited number of applications associated with a video processor frame.

Example of KahunaMSP being used in a studio or OB

KahunaMSP can be used as in conjunction with a physical control surface, or can be used as stand alone GUIs and Control Surface



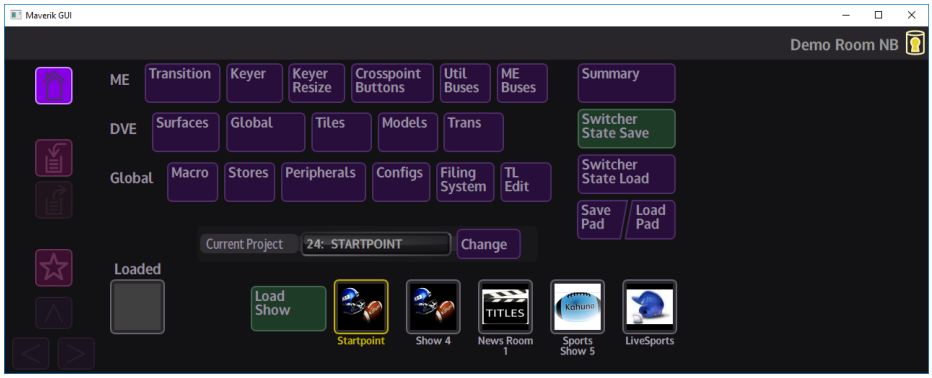
Example of KahunaMSP GUI menus and Control Surface

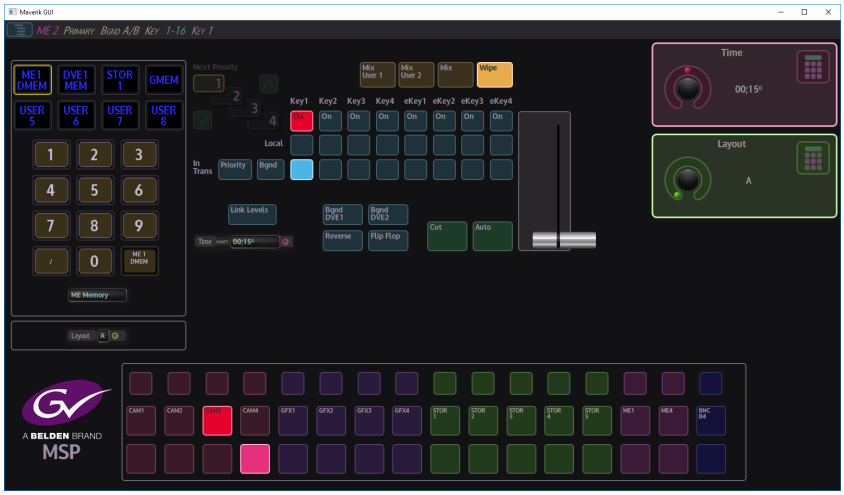


These three images display what you will see when you log into a mainframe.

Kahuna MLC GUI

Kahuna MAV-GUI





KahunaMSP Soft Control Surface.

Before Installing the KahunaMSP Software

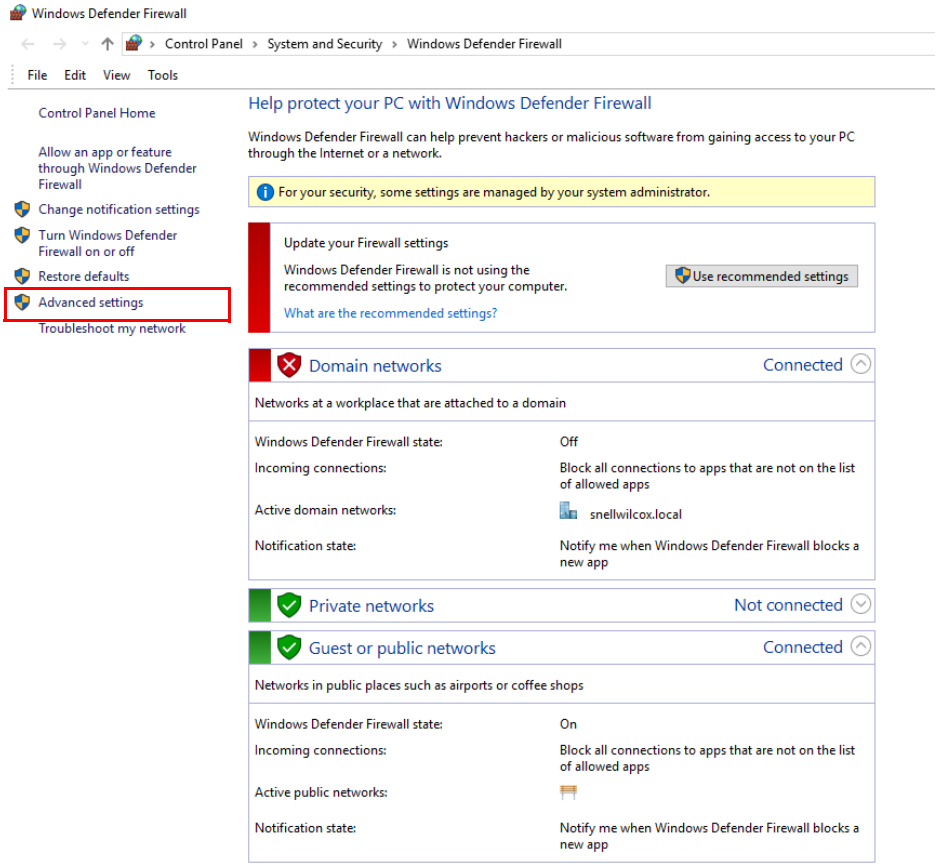
PC Requirements:

- Processor: Intel® Core™ i7-4790 CPU @ 3.60GHz
- Installed RAM: 32.0 GB
- Graphic Card: NVIDIA Quadro P2000
- System type: 64-bit operating system Windows 10 Pro (OS Build 17763.678)
- Storage: 500GB HDD SATA 6Gb/s, 7200rpm, 16MB cache
- Display: DELL U2212HM (1920 x1080)

Firewall Settings

The SWS filing system communicates via UDP. In some cases, the windows firewall prevents communication on inbound and some outbound ports until configured. Also, some of the ".exe " files in the Kahuna MSP software will not communicate correctly if the Windows firewall is on.

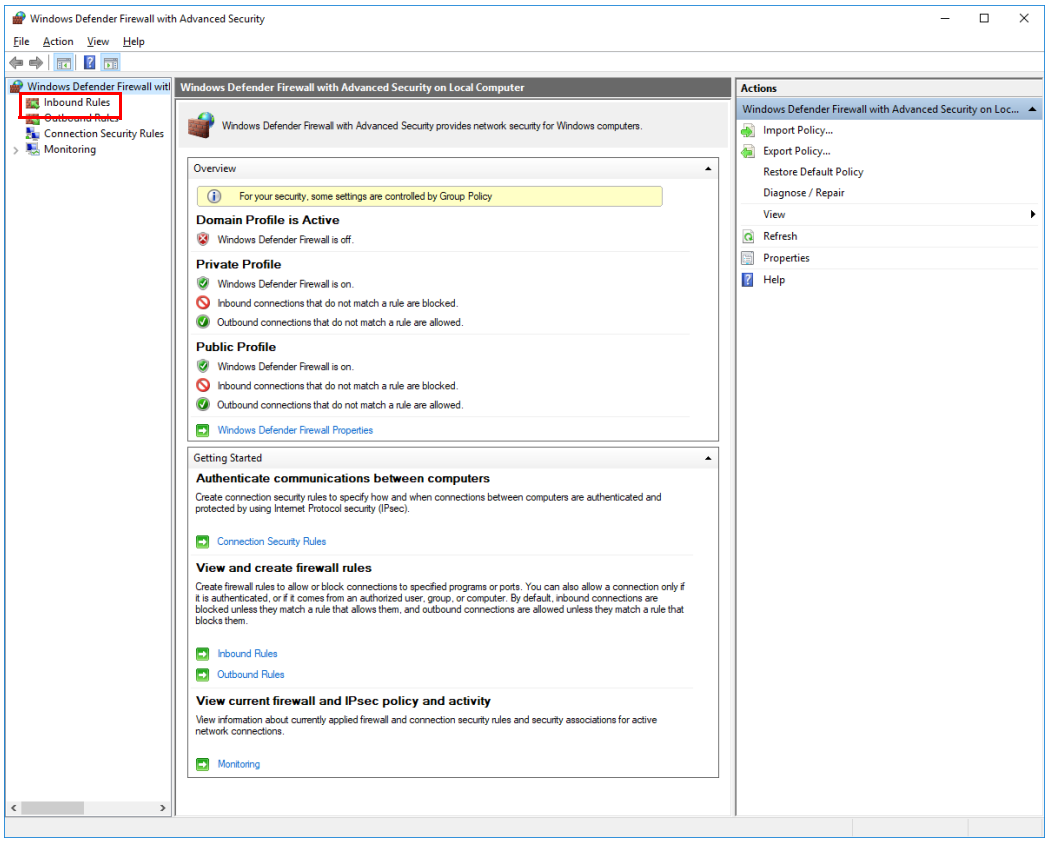
To change the firewall settings, type "Windows Defender Firewall" in the Windows search bar and the following menu is displayed:



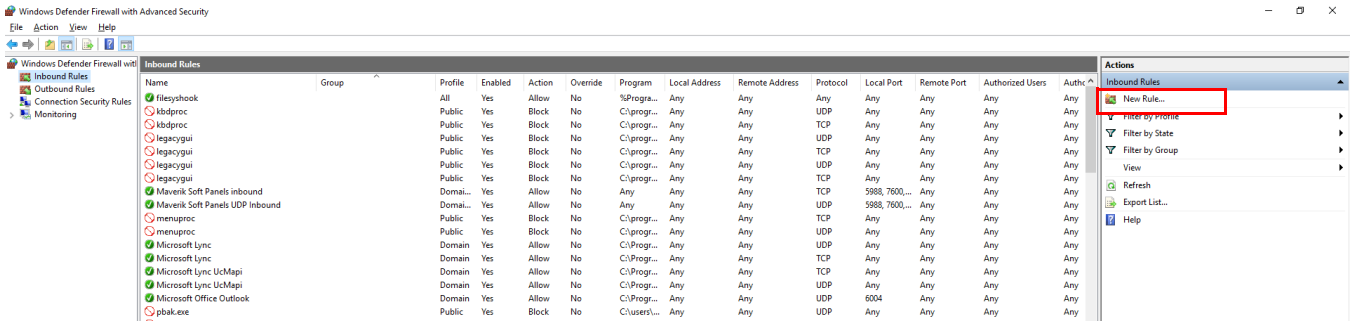
In the Windows Defender Firewall menu, in the list on the left, click on "Advanced Settings"

In the Advanced Settings menu, the “Inbound” rules for the UDP ports have to be set.

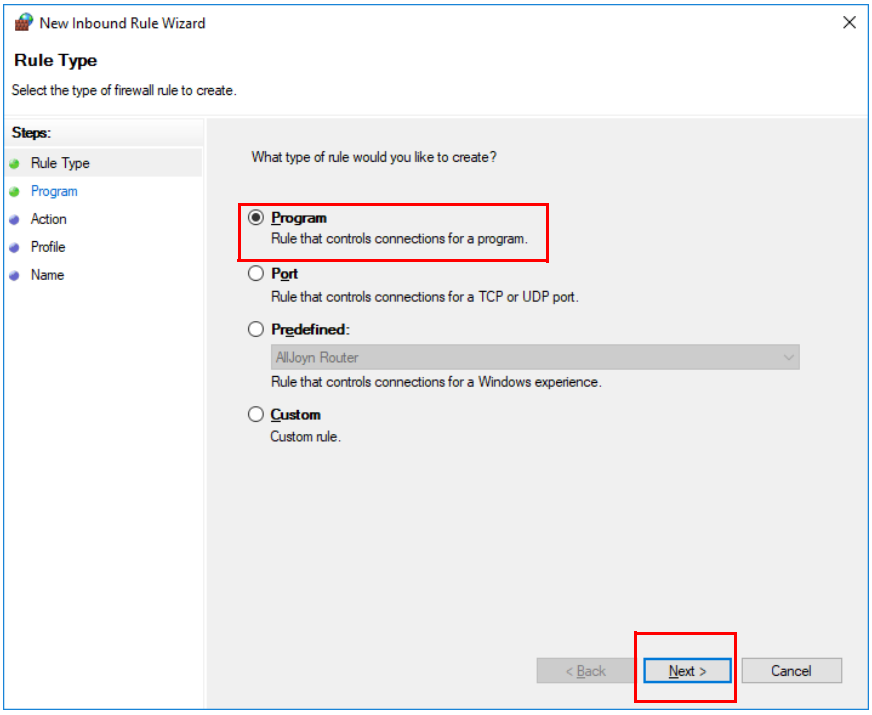
Click on the “Inbound Rules” as shown below:



In the Inbound Rules menu, click on “New Rule” as shown below.



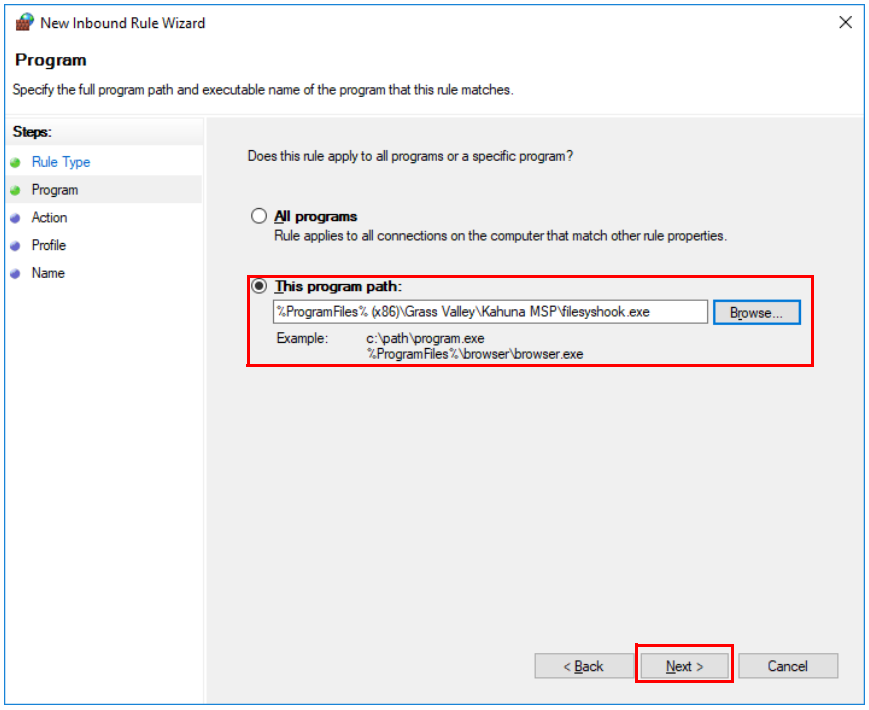
In the “New Inbound Rule Wizard - Rule Type” menu select “Program“and then click “Next”



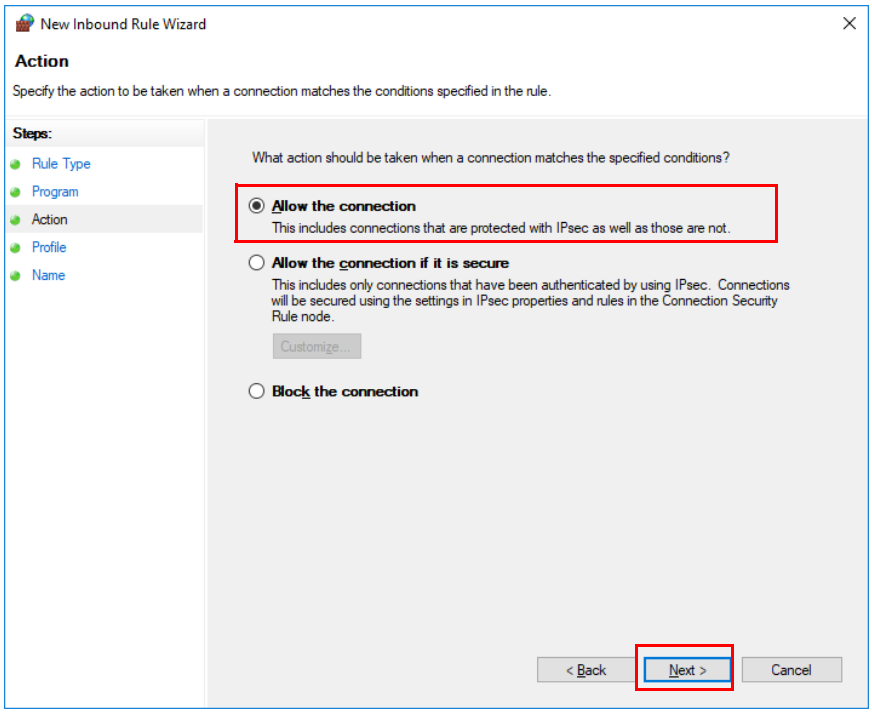
In the “New Inbound Rule Wizard - Program” menu, browse the “C” drive and in this example navigate to: “C>ProgramFiles(x86)>Grass Valley>Kahuna MSP>filesyshook”

Note: When you have finished following the steps in this process, follow the same process for: C:\Program Files (x86)\Grass Valley\Kahuna MSP\rtproc.exe

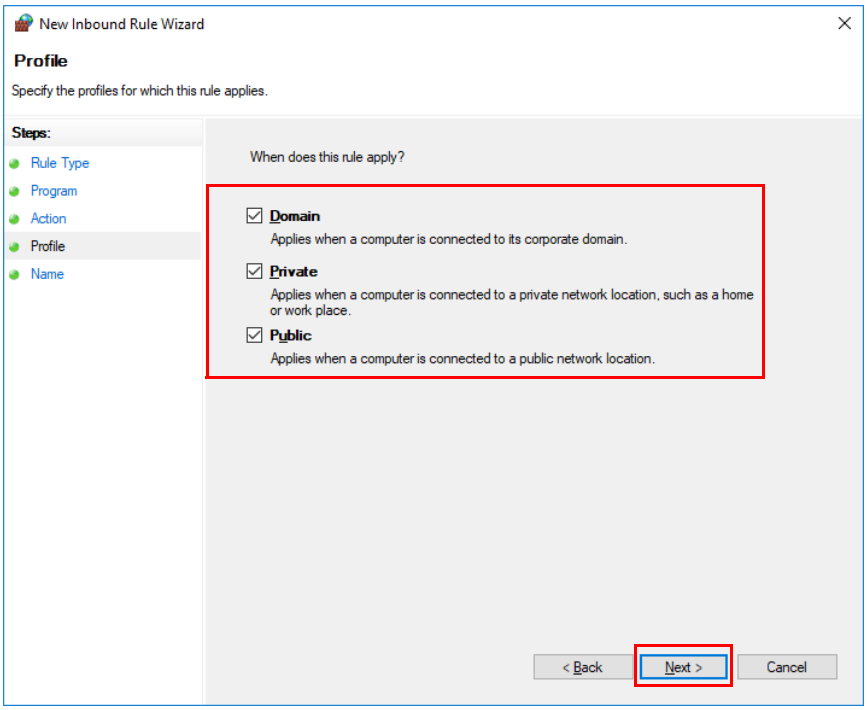
You will see that the browse bar will look exactly the same as the diagram below. Then click on “Next”



In the “New Inbound Rule Wizard - Action” menu, select “Allow the connection”, and then click on “Next”



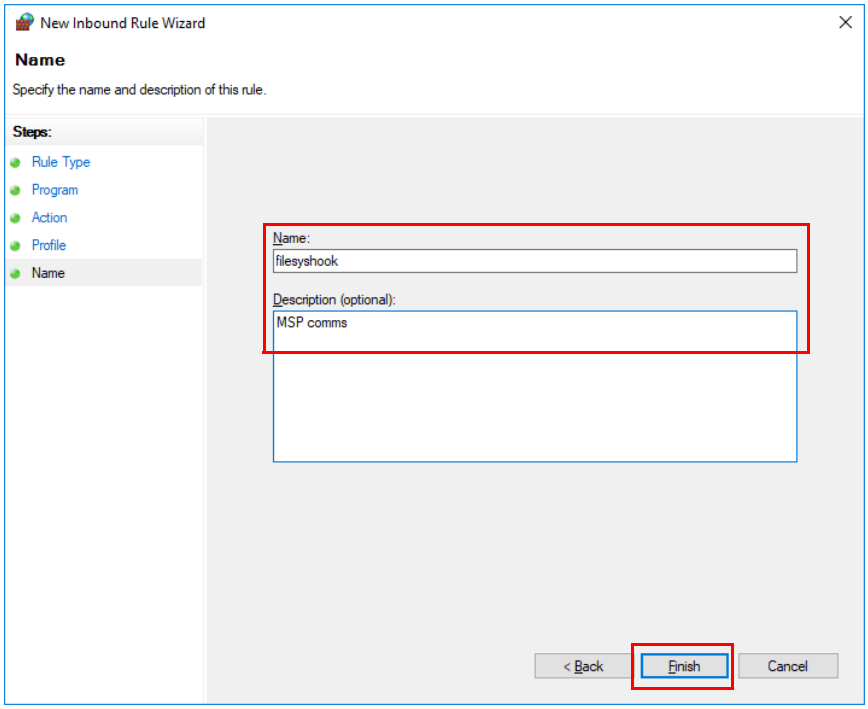
In the “New Inbound Rule Wizard - Profile” menu, select “Domain” , “Private” and “Public” and then click on “Next”.



Finally, in the “New Inbound Rule Wizard - Name” menu, give a name and description to the UDP port, as per the example below:

- Name - “filesyshook”
- Description - “MSP comms”

Finally, click on “Finish”

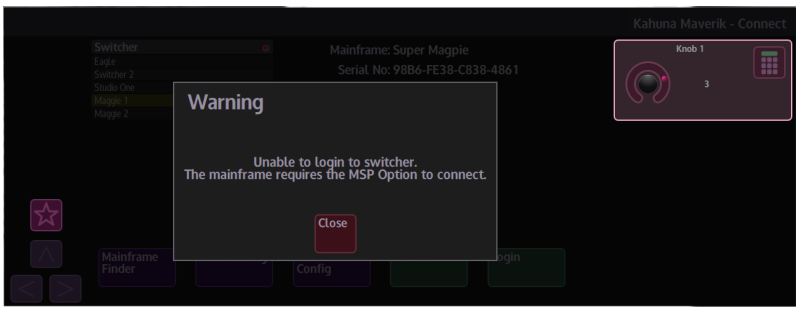


Note: Please follow the same process steps as above for:
C:\Program Files (x86)\Grass Valley\Kahuna MSP\rtproc.exe
Adding “rtproc” in the “Name” parameter in the above diagram.

Option File

KahunaMSP software is an option, and will only run if the correct “K_MAVERIK_SOFT_PANEL” option file is installed into the Kahuna mainframe.

Trying to run the KahunaMSP software without the option file will display the following warning:

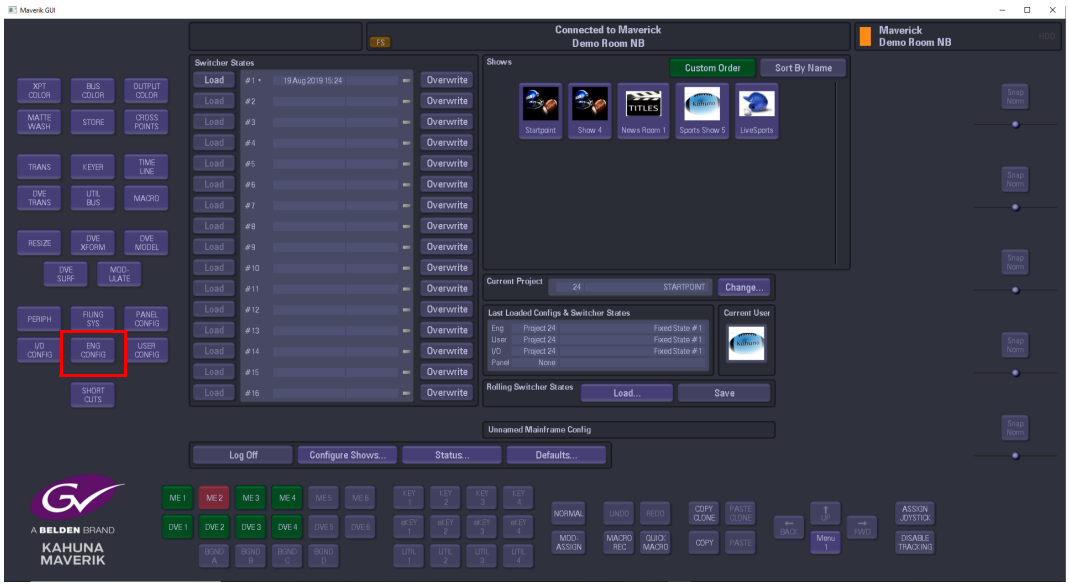


If you have not already purchased the option file, please contact a Grass Valley service representative, who will give you the details about how to purchase the option file (contact information can be found at the rear of this document).

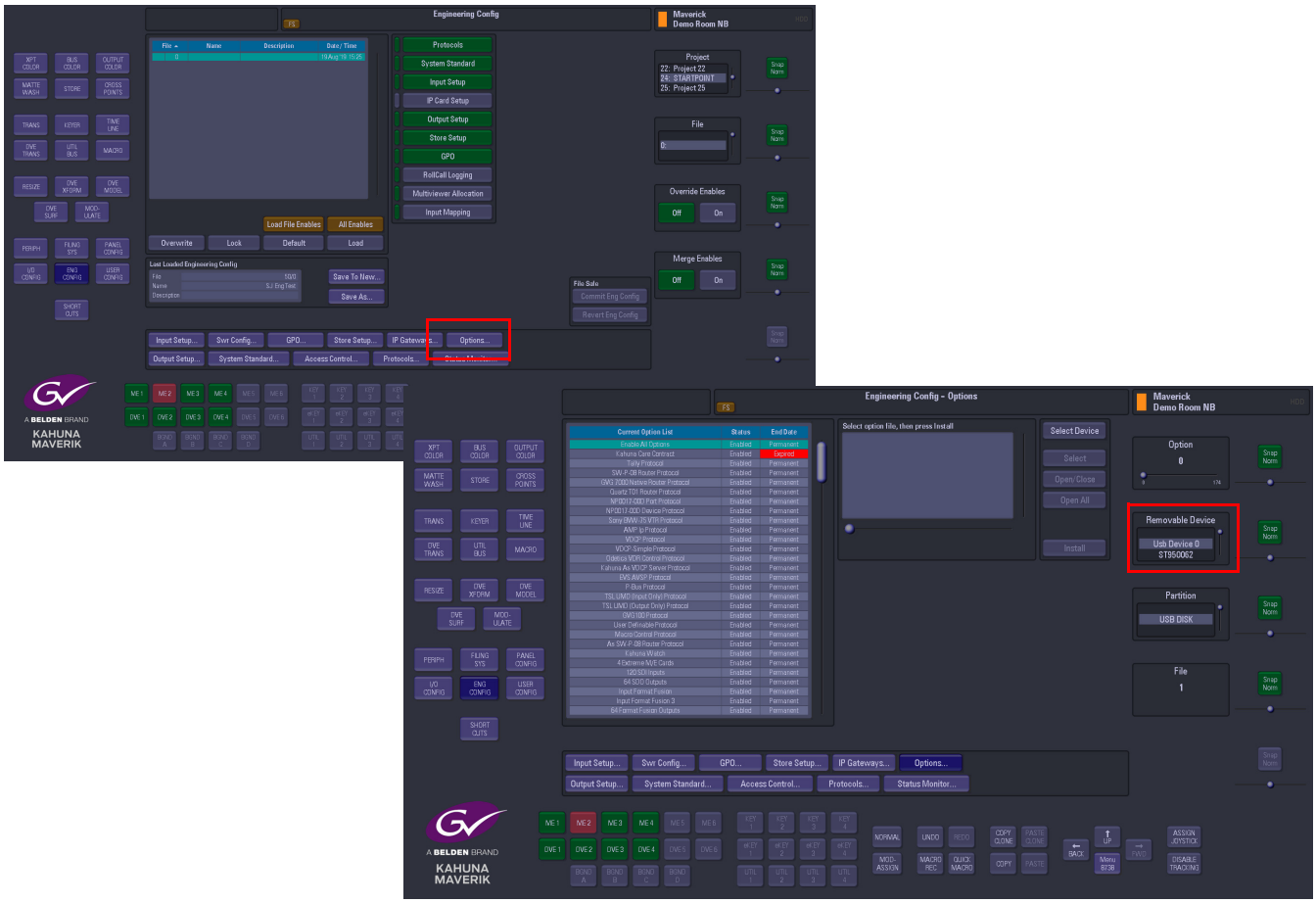
Installing the Option File

As mentioned above, the KahunaMSP Option File has to be installed, to do this, please follow these instructions.

In the Kahuna “Connected To” menu, touch the **{Eng Config}** button.

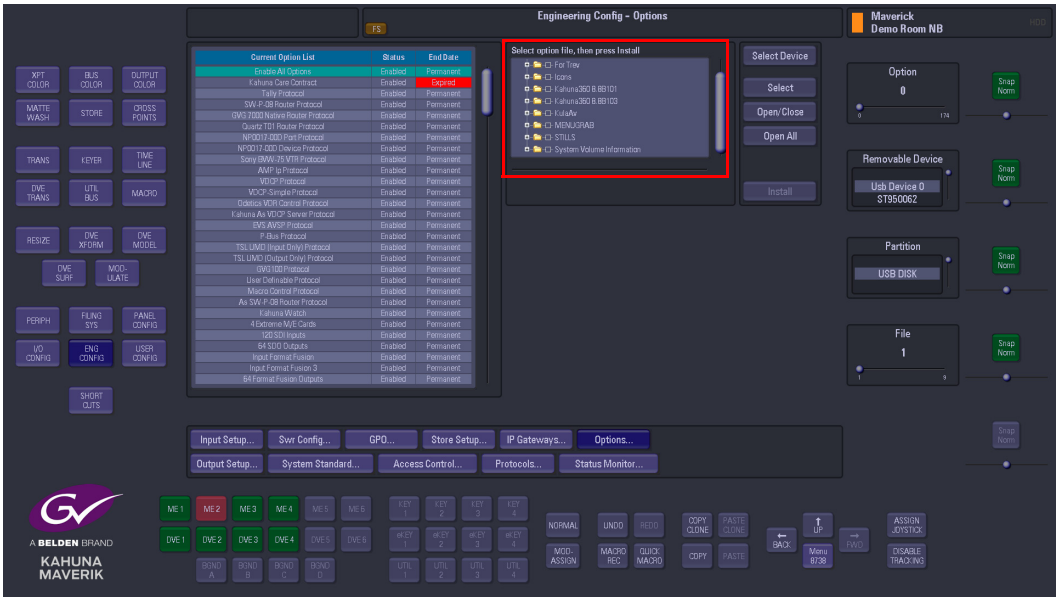


In the Eng Config menu touch the **{Options...}** button and the **Engineering Config - Options** menu will be displayed.



Place the option file onto a USB memory device, and insert the memory device into one of the USB ports on the Kahuna mainframe.

In the “Options” menu “, use the “Removable Device” parameter to select the USB memory device. The files on the memory device will be displayed in the gray window in the menu.



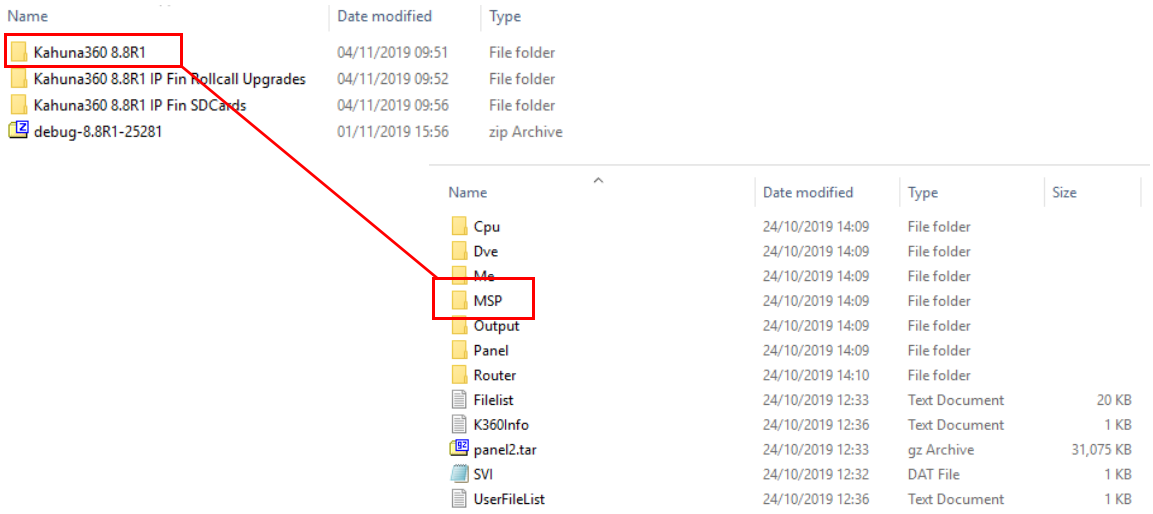
Touch the option file on the list to select it and then touch the **{Install}** button. The Option file will then load into the mainframe.

Installing the KahunaMSP Software for the First Time

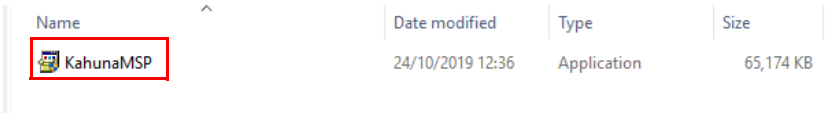
As of V8.8r1 Kahuna software release and greater, the KahunaMSP software comes packaged with in the main Kahuna Software Suite.
These instructions will guide you through the download and setup process.

Installing the Software

You will need to be able to access the Kahuna Software Suite to access the KahunaMSP software.
On the PC that the software will run on, open the Kahuna Software Suite folder and you will see three folders. The first folder will be the Kahuna software, the "Kahuna360 8.8rx" folder. Open the folder and you will see the following folders and files:

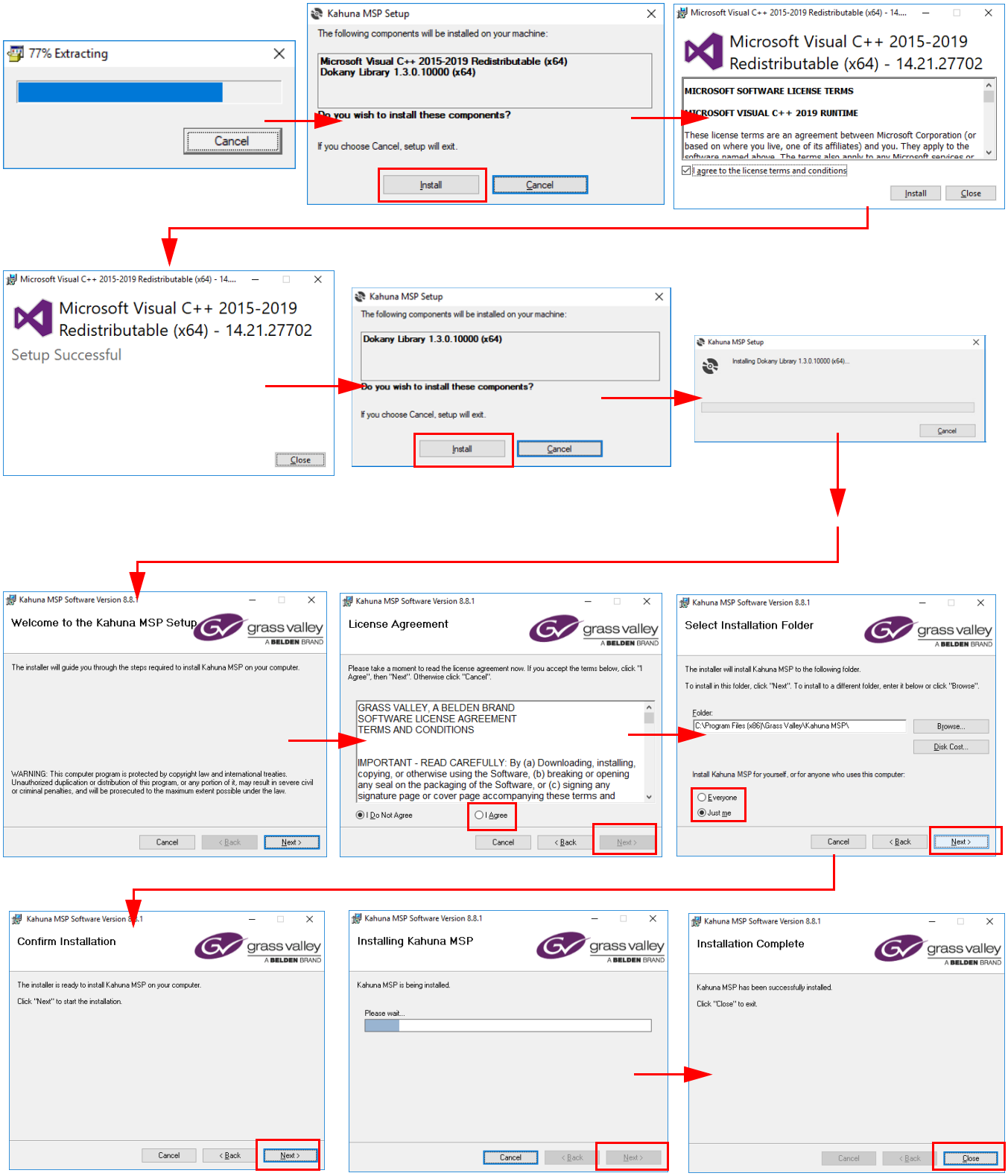


Open the "MSP" folder and then double click on the "KahunaMSP application" icon to run the software application.



Installation Process

You will be guided through the following menus. It looks like a lot of menus to work through, but the installation process is very fast and easy to follow.



The software is now installed and a KahunaMSP icon

will be on your desktop.

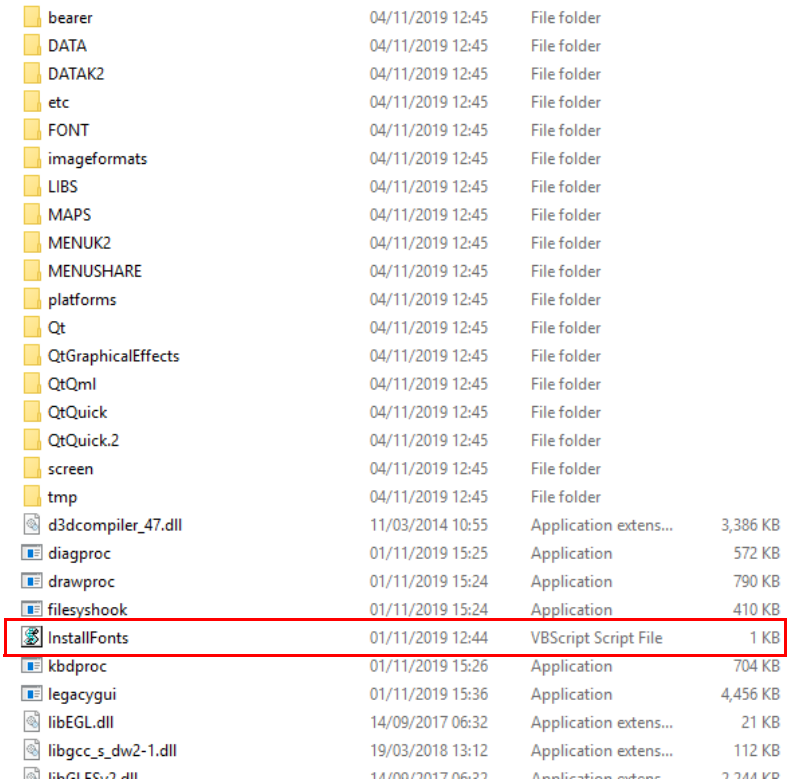
Note: Before running the software, you will need to install fonts as described on the next page.

Installing the Fonts

After installing the software, a set of fonts have to be installed. The fonts can be found here:

```
C:\Program Files (x86)\Grass Valley\Kahuna MSP\installfonts.vbs
```

Double click on the "InstallFonts.vbs" file and the fonts will be installed into the Windows operating system.

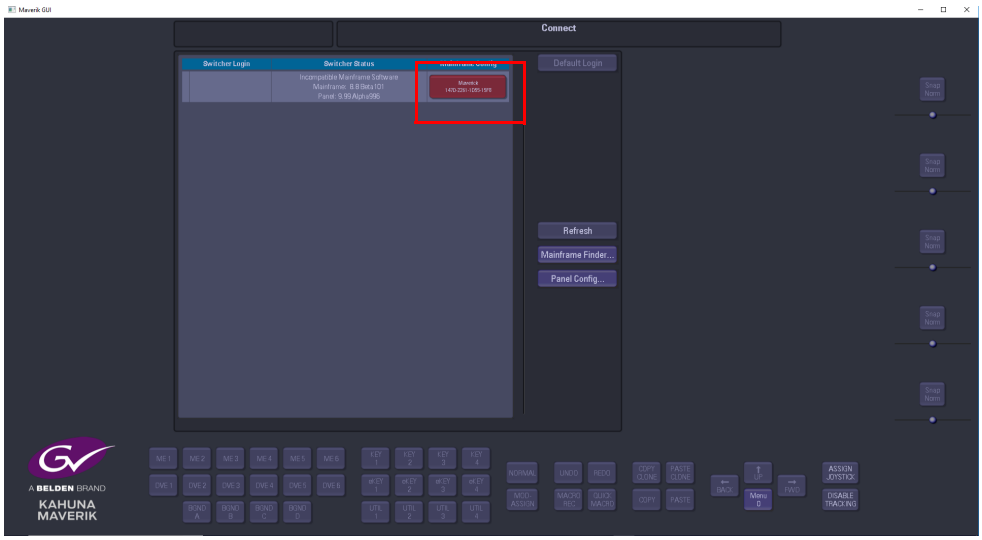


Note: If the "InstallFonts.vbs" fails, you can manually install the fonts by copying the OxyMav-Condensed.ttf and OxyMAv-Semi-Condensed-Bold.ttf fonts from here:
C:\Program Files (x86)\Grass Valley\Kahuna MSP
And pasting them here:
C:\Windows\Fonts

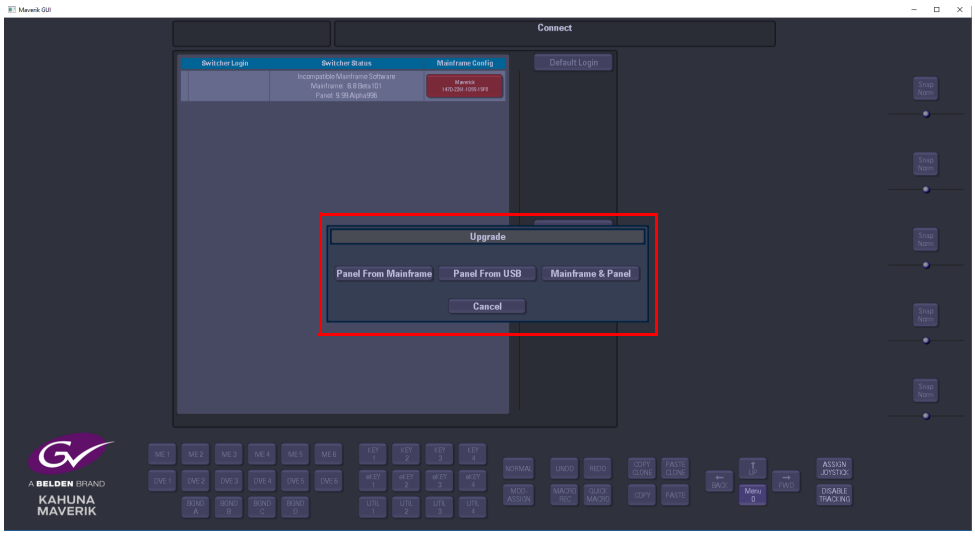
KahunaMSP Software Updates

Grass Vally has a continuous improvement policy which means that from time to time the KahunaMSP software will be updated with improvements and new features.

The latest version of KahunaMSP software will be released with new releases of Kahuna software.
Upgrading the KahunaMSP software is very easy. When new software has been loaded into a Kahuna mainframe, when trying to connect the KahunaMSP software you, will see that the "Mainframe Config" button in the "Connect" menu is red as shown below. This means that the KahunaMSP software is a different version to the software on the mainframe.

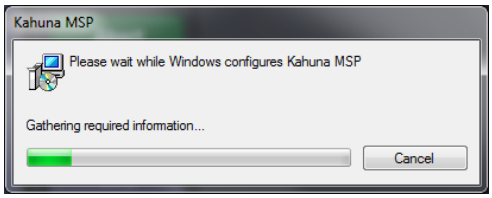


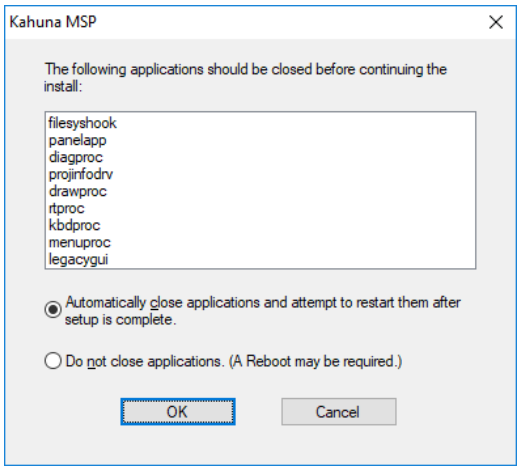
Click on the "Mainframe Connect" red button and a dialog box will appear, giving you upgrade path options as shown below.



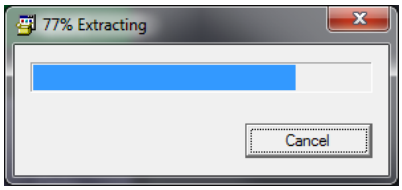
Click on the **{Panel From Mainframe}** button and the KahunaMSP software will start to updated.

The upgrade will first remove previous versions of KahunaMSP software.

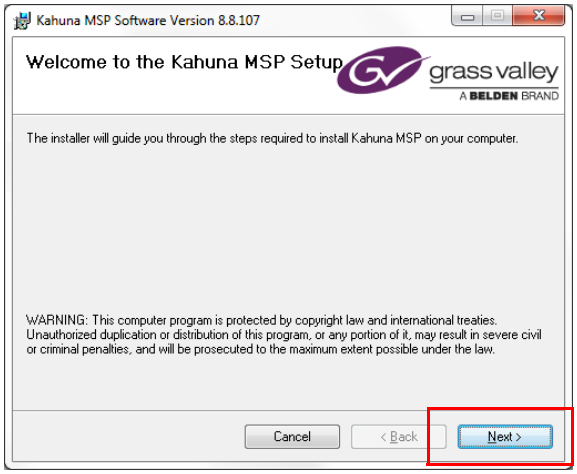




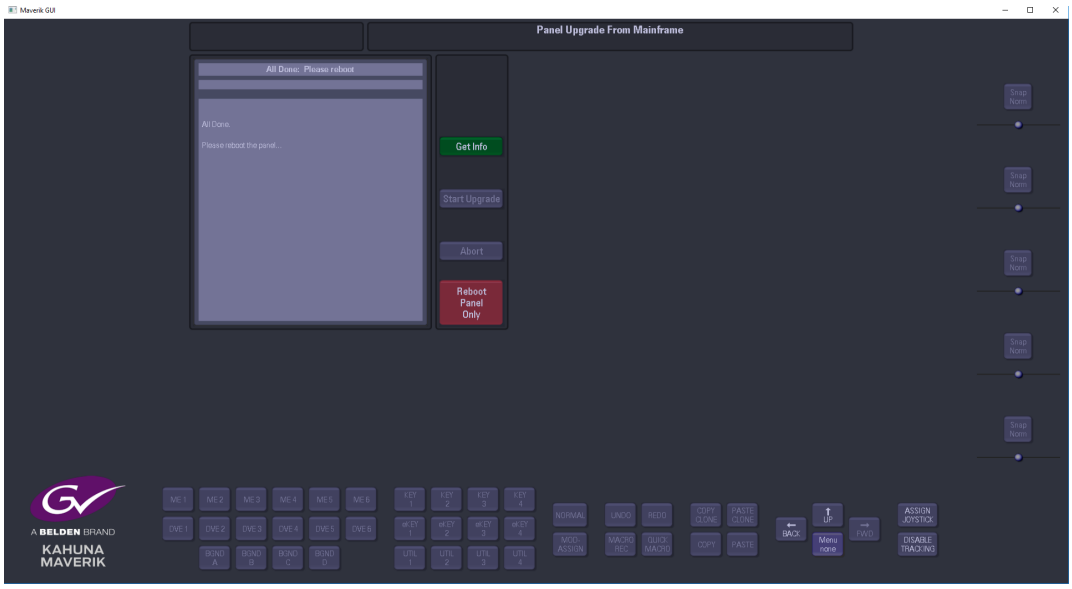
Click on OK.
The installer will start extracting the files.



Finally, follow the installer steps to finish updating the software.



Once the upgrade process is finished, the KahunaMSP software will be prompted to reboot the Panel to restart the KahunaMSP App, as shown below. After which you will be able to use the KahunaMSP GUIs and control surface as before.



2 Using KahunaMSP Software

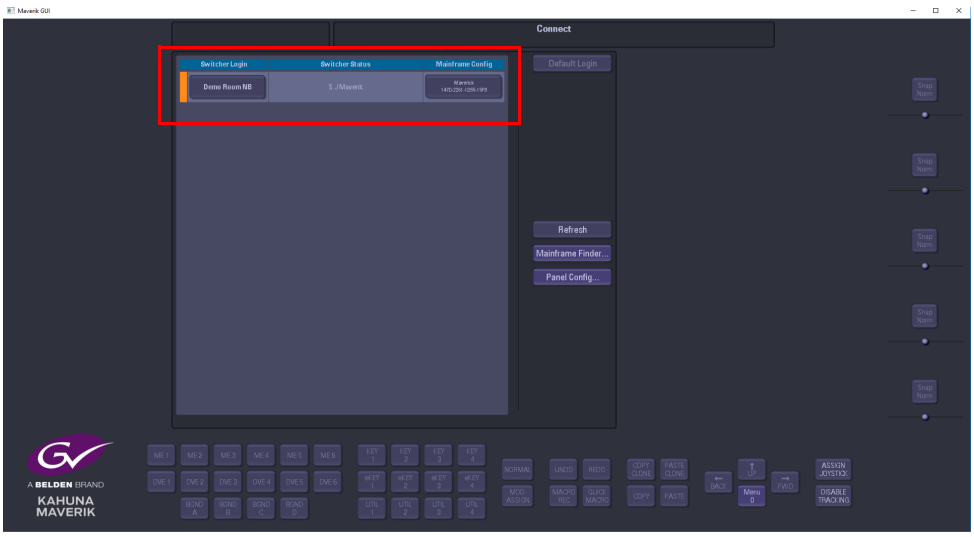
KahunaMSP Software Setup

Setting up the KahunaMSP software to work with a Kahuna mainframe is exactly the same process as setting Kahuna GUIs to work with the mainframe, because the Kahuna mainframe will now see the PC that the KahunaMSP is running on as a GUI.

Connecting to the Kahuna Mainframe

You will see that there are two GUIs open in your task bar on your PC.
Click on the one that looks like the menu below (the Legacy GUI).

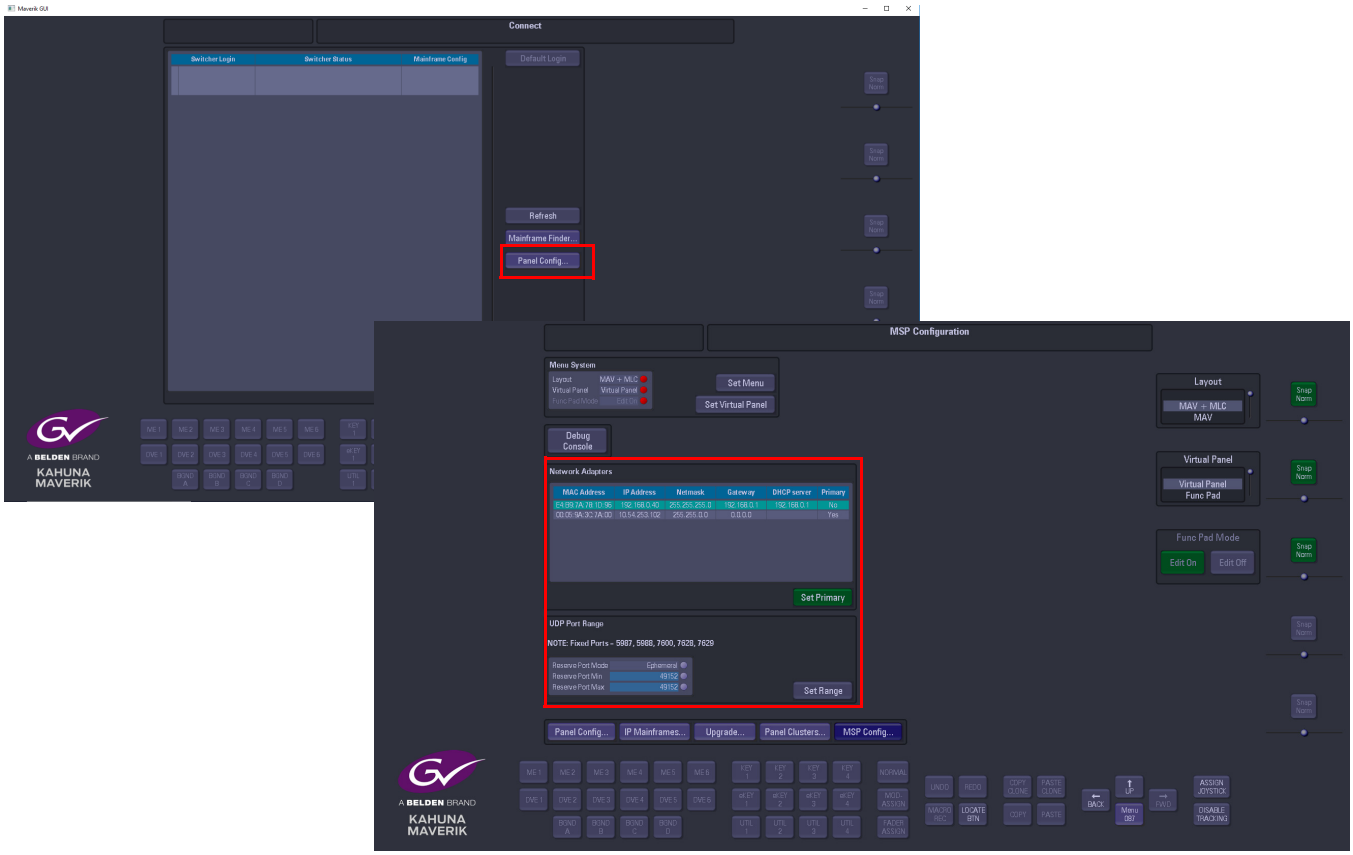
If you are connected to the same network as the Kahuna mainframe then the KahunaMSP software hooks into the network adapters of your PC. If it can see the mainframe, you will see that the "Connect" menu will look similar to the one below.



You are now able to click on the "Switcher Login" button to login to the mainframe and start using the GUI.

The MSP Config Menu

If KahunaMSP cannot see the mainframe, you may need to choose which adapter you would like to use VPN, local, Wifi etc.
Touch the {Panel Config...} button, thin in the Panel Config menu, touch the {MSP Config...} button. This menu has functions that will need describing for your reference.



The KahunaMSP software will automatically attempt to find the “Primary Network” adapter, which will be displayed in the “Network Adapter” table as “Yes” in the “Primary” field. If however, you have selected it manually using 'set primary'. MSP will remember the last primary adapter selected on start up.

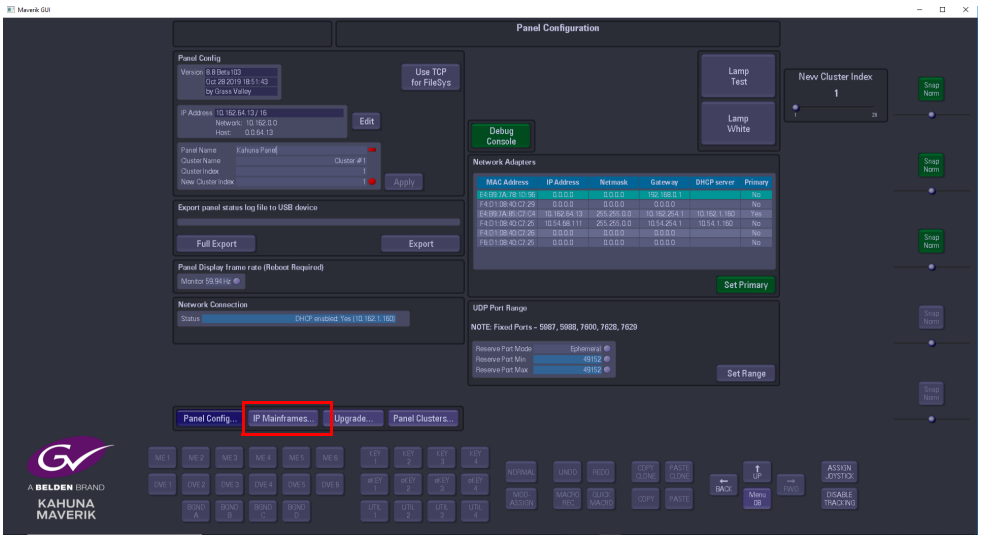
UDP Port Range:
UDP reserve port mode - Ephemeral, Reserved + Ephemeral and Reserved only
UDP reserve port range - The Kahuna MSP can be configured to reserve a range of UDP port numbers (1 - 65535). There are also fixed UDP ports for various panel and mainframe comms protocols to work 5987, 5988, 7600, 7628 and 7629.

- Ephemeral - by default the MSP uses the ephemeral range between 41952 - 65535.
- Reserved + Ephemeral - user reserves a range of UDP port numbers to which the KahunaMSP attempts to use, but defaults to using the ephemeral range if it runs out of reserved UDP ports.
- Reserved Only - user reserves a range of UDP ports to which the KahunaMSP will attempt to use.

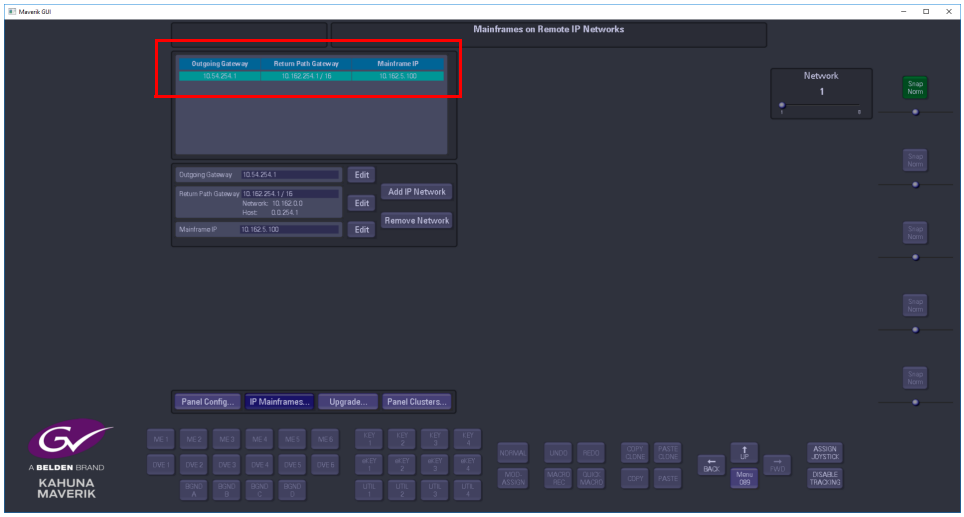
Note:	MSP requires at least a range of 200 to operate efficiently

Connecting from a Different Network

If your PC is on a different network to the one that the Kahuna mainframe is on, you will have to enter gateway and IP address information to connect as follows.
As before, click on the **{Panel Config...}** button in the "Connect "menu. In the Panel Config menu, click on the **{IP Mainframes...}** button.



In the "IP Mainframes" menu you will have to enter the "Outgoing Gateway", "Return Path Gateway" and "Mainframe IP" addresses.



Outgoing Gateway - click on the **{Edit}** button and enter the "Default Gateway" address that your PC is running on.

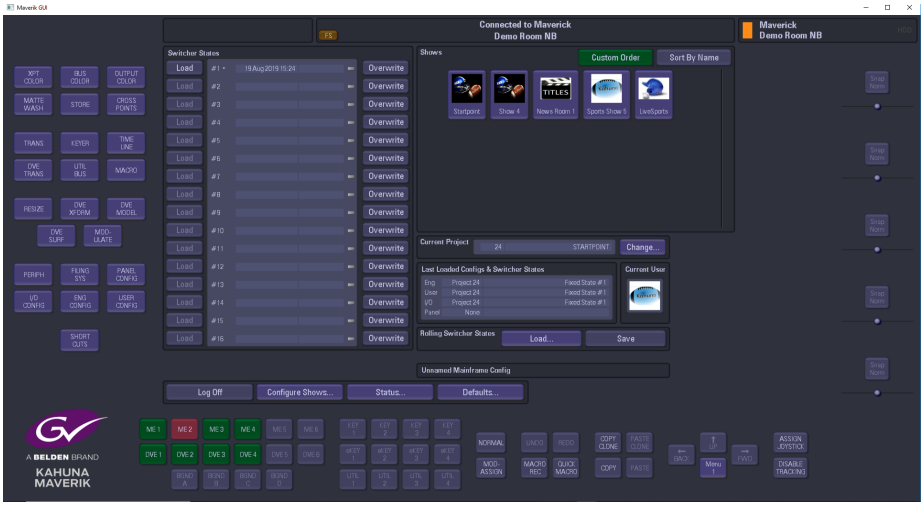
Return Path Gateway - click on the **{Edit}** button and enter the "Default Gateway" address of the network that the Kahuna mainframe is on. Also add the "Subnet Mask" number of the network i.e. for a subnet mask of 255.255.0.0 this would equate to "/16".

Mainframe IP - again, click on the **{Edit}** button and enter the IP address of the mainframe.

Once the information above has been added, click on the **{Add IP Network}** button. You will now see the mainframe added to the table (as shown in the example above). Go back to the "Connect" menu and you will see that you are connected to the mainframe.

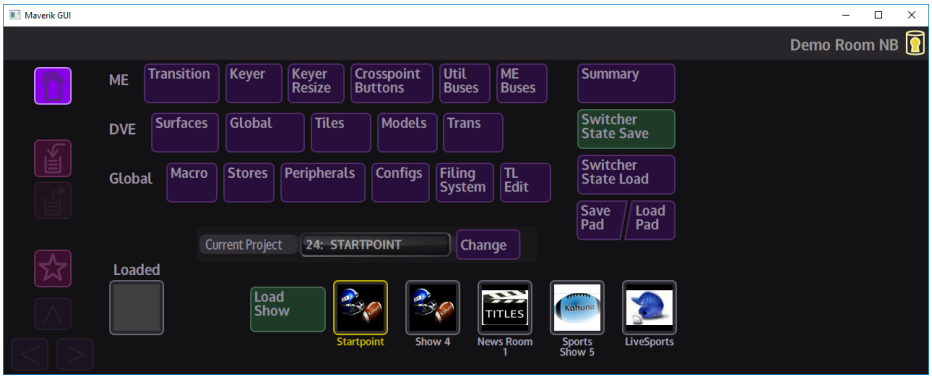
KahunaMSP GUIs

The KahunaMSP software emulates the Kahuna MLC GUI and the Kahuna MAV-GUI and should be thought of as just another set of GUIs added to a Kahuna system. The menus and menu structures are exactly the same.

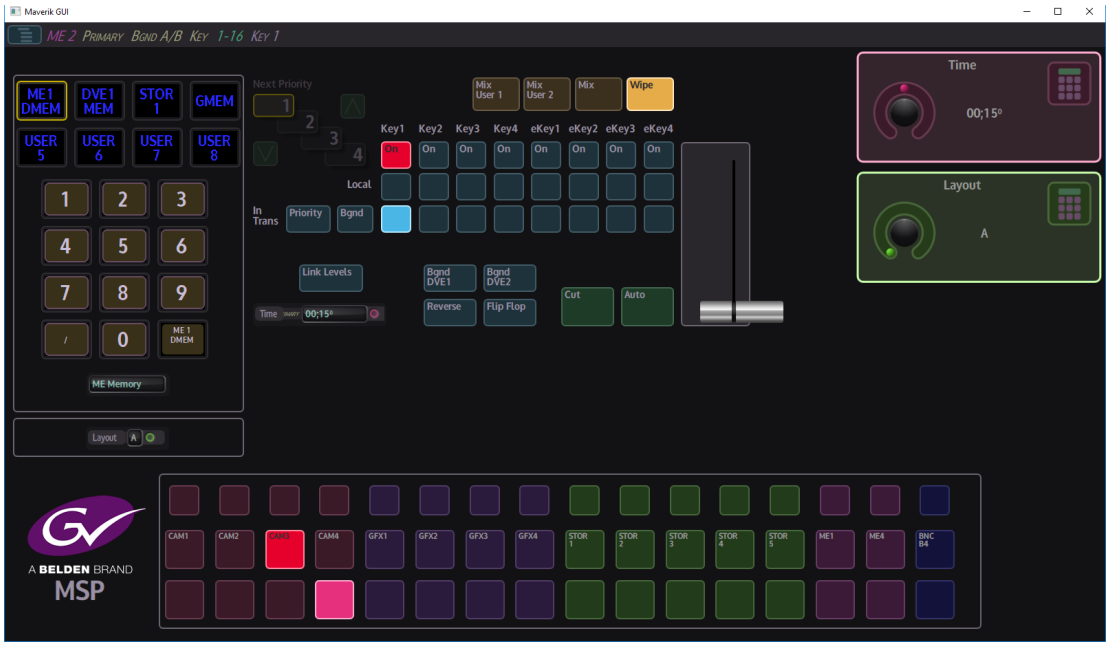


Kahuna MLC GUI

Kahuna MAV-GUI



The added feature that KahunaMSP has is that it also comes with a soft control surface that will control the mainframe like adding another physical Maverik control surface.



Soft Control Surface

The KahunaMSP control surface has some of the familiar features of a Kahuna Maverik control surface like Program/Preview Bus, Key Bus, Key selection, Background and Key Transitions and recall of DMEMs, GMEMs and Macros.

For a full explanation of using the control surface, please see the full Kahuna User Manuals.

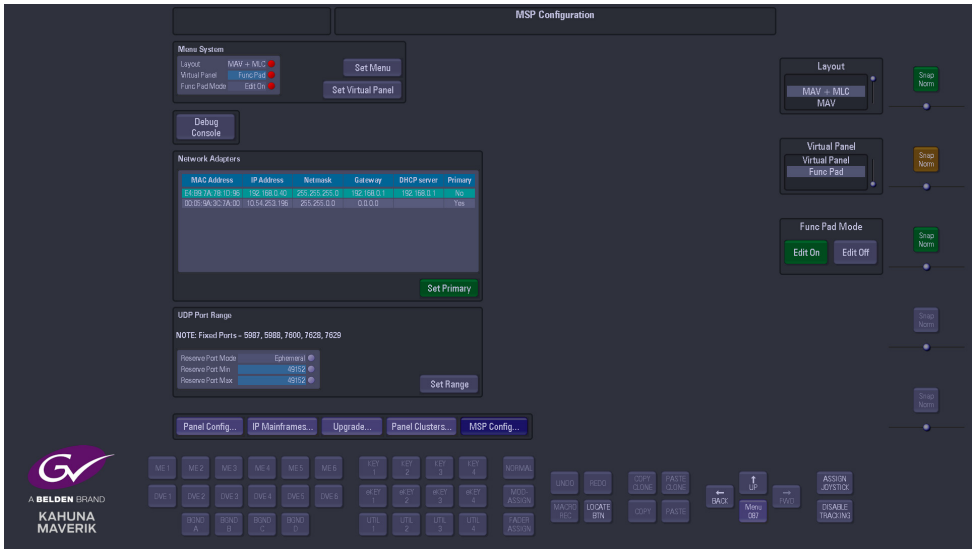
Func Pad

Func Pad Overview

With the release of V9.1r1 (and greater) software release, KahunaMSP offers you a soft User Function Pad that is completely configurable by the user. You can build the "Func Pad"; as it is called, using pre built Macros or Cloned buttons. This adds a new dimension of soft control remotely from the physical control surface and mainframe.

Setting Up the Func Pad

In the logged off state, touch the {Panel Config} button and then in the Panel Config menu, touch the {MSP Config…} button. This is where you can select to use the "Virtual Control Panel" or the "Func Pad".

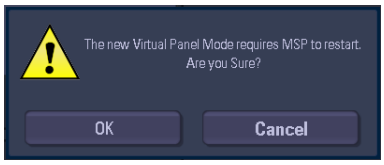


Using the "Virtual Panel" parameter, select "Func Pad". Notice that the **{Set Virtual Panel}** button in the "Menu System" attacher has turned green.

Next, use the "Func Pad Mode" parameter to select

- "Edit On" to build a new or add to an existing Func Pad (explained in full in the following sections).
- "Edit Off" to use an existing Func Pad in a live environment (again, explained in full in the following sections).

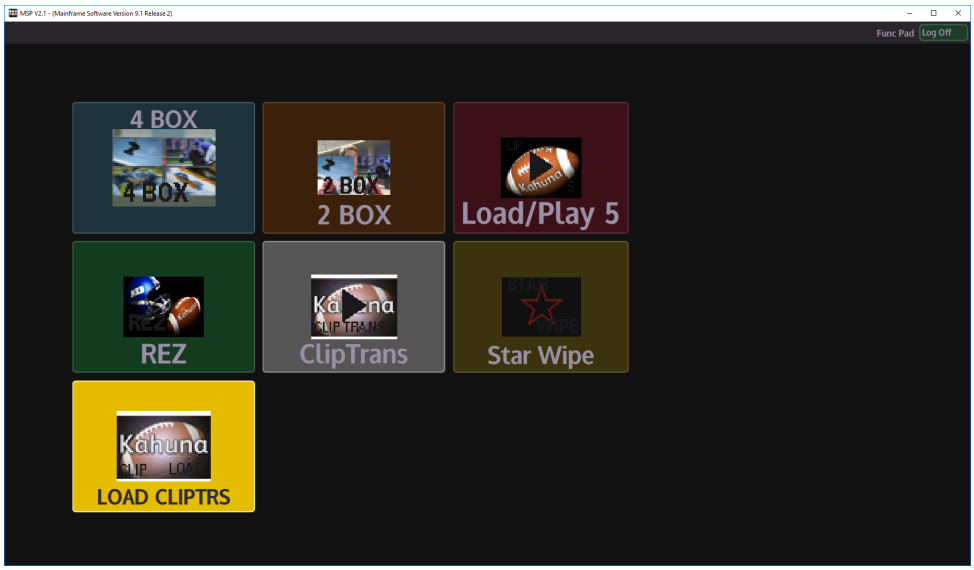
When you touch the button "Set Virtual Panel" a warning dialog box will be displayed telling you that the system needs to restart so that the Func Pad can be used.



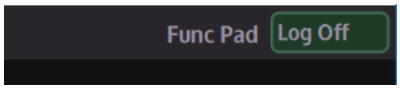
Note: You have to login to the system to be able to use the Func Pad.

Func Pad "Edit Off" Mode

The Func Pad has two modes; "Edit On" (described in the next section) and "Edit Off". The "Edit Off" mode should only be used when a Func Pad has been built and populated with Macros or Cloned buttons, in this mode, just the Func Pad available to use. The legacy GUI and MAV-GUI are no longer available to use, until you have logged out of the Func Pad.



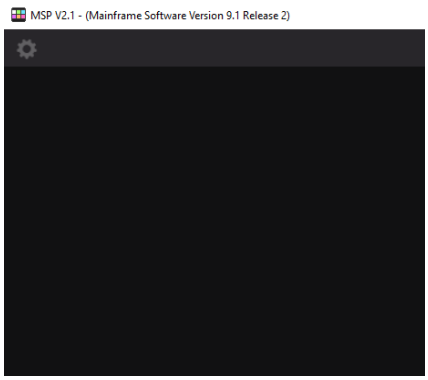
As just stated, in this mode, you cannot add any more Clones or Macro buttons to the Func Pad. It is designed for "Live" use, once a suitable Func Pad layout has been generated.

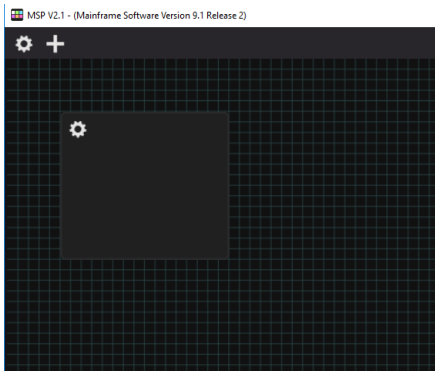


At the top right of the Func Pad menu, is a system **{Log Off}** button, when touched, it re-enables the Legacy and MAV-GUIs, where you now have full control of the Switcher in MSP mode again.

Func Pad "Edit On" Mode

Creating a Func Pad





To create a Func Pad button, click on the "Edit Cog" in the top left corner of the menu. This will then show a "+" symbol next to edit cog. Clicking on the "+" symbol will add a new "Button" to the Func Pad.

The button can be resized by clicking on the right hand edge, or the bottom edge, holding the left mouse button and moving the edge to resize.

> Note: The size of the next button added to the pad will default to the last size you set.

To move the button around the pad, place the mouse cursor on the button, left click and hold, you can then move the button where required around the menu.

The default action of this button is "do nothing". You can then assign Macros or Clones as required.

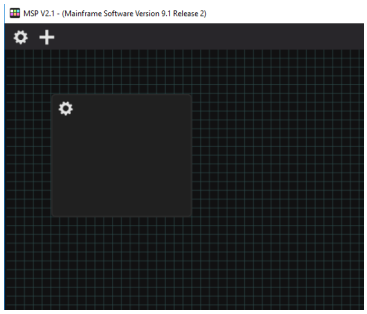
> Note: The Func Pad does not need to be in edit mode at this point, i.e. you don't have to create a button on the Func Pad.

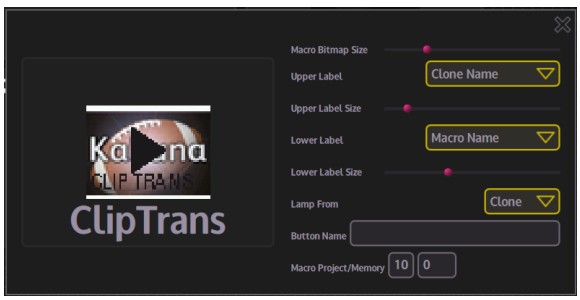
Other ways to add a button is via Cloning and attach Macro. For example; if you go to the "Macro - Assign" menu on the Legacy or the MAV-GUI, select a macro form a project and the touch the {Attach} button, you can then click (with the left mouse button), and a Macro button will be created where you clicked on the Func Pad.

Similar with Clones if you go to the Legacy menu and clone a button, you can then paste the clone directly to the Func pad.

> Note: In the Legacy menu, you will get the normal Cloning options pop up

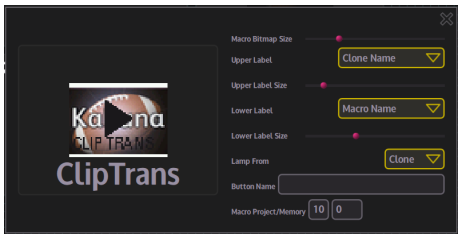
Once you have a button on the Func Pad, you can edit its content by left clicking on the cog on the button and an edit menu popup dialog box will appear.



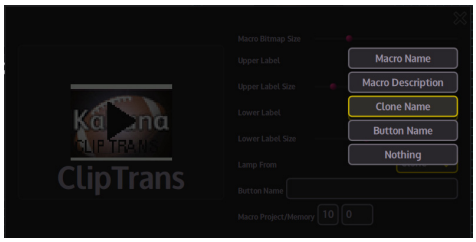


Using the Button Edit Functions

If you have a Macro with a Bitmap, the bitmap will appear on the Button. The size of the bitmap button can be adjusted using the "Macro Bitmap size" slider.



By default, the button will show two labels; "Macro Name" and "Clone Name", for the Upper and Lower areas of the button. These labels can be edited as Shown Below.

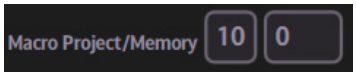


The "Button Name" is a User defined string that can be entered in the box marked Button Name

Note: You must press <Enter> to accept the typed in name.

The Size of this label is set by the appropriate "Slider Bar", depending on whether you have selected "Button Name" in the Upper or Lower Position.

If you have assigned a Macro to the Button the Project and Macro Number will appear in the bottom two boxes.

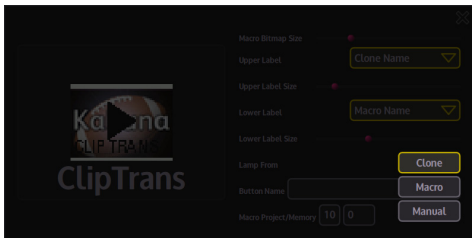


Note: You can also type the Project number and Macro file number into this box to attach a specific Macro.

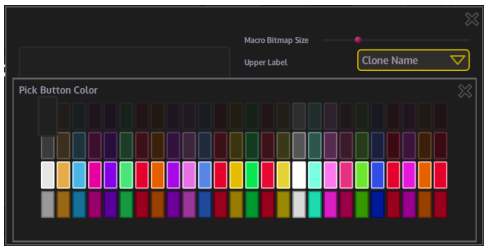
The "Lamp From" parameter will allow you to get a "button background lamp" from either a Clone or the Macro, or the third option is a specified as "Manual". One key feature here is that you can attached both a Macro and Clone and only the Lamp from the Clone.

> Note: You must set the Function Mode appropriately when you initially attach the Clone. The Clone Lamp can then provide direct Tally feedback for a specific function e.g. Key2 ON.

The Underlying Macro may do several functions, of which turning on Key2 is the prime information that the user may want tallied.



When you click on "Manual" option in the "Lamp From" parameter, you will get the option of manually changing the color of the button background. You can add Macros and Clones and use this function with the addition of Lables from either Cone or the Macro - and even set the Macro Bitmap to Size 0.

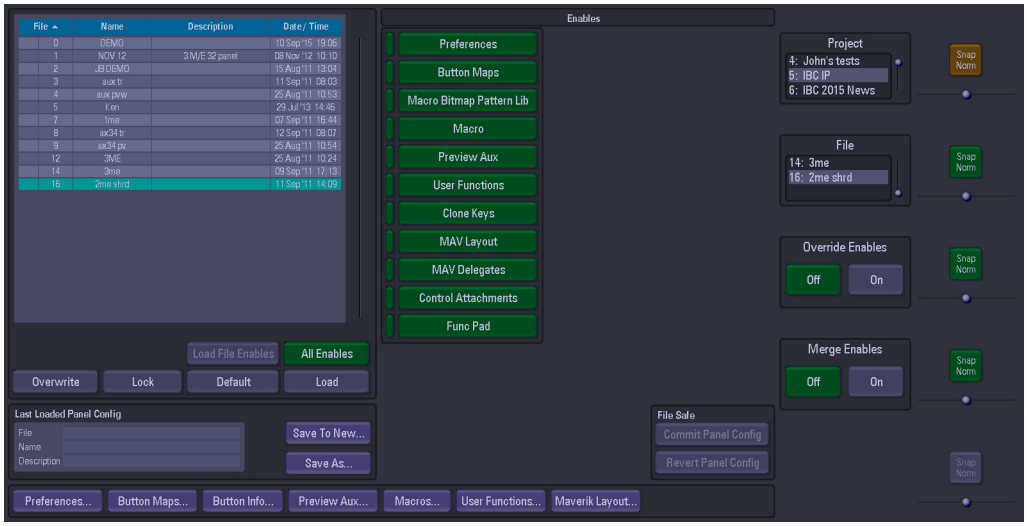


To remove a button from the Func Pad, whilst in Edit mode click on the button and drag it off the top of the menu.

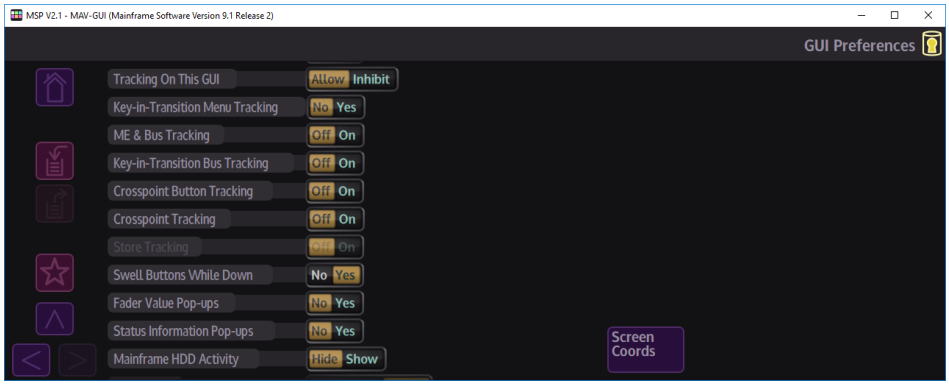
The data for the Func Pad is stored in the Panel Config.

Note: This can be saved as a single item by setting only the Func Pad enable.

Another key enable you may wish to set is preferences as this will also save the Current Project for the MSP, especially useful when you use the Func Pad in Non Edit Mode (Live Mode).



To get "Haptic" feedback of the press of a button, go to the MAV-GUI menu, then in the main menu, click on "Configs". Then within Panel Configs buttons, click on GUI Prefs. Scroll down to "Swell Buttons While Down" and select "Yes". This will enlarge the button when it's pressed indicating that it has actually been pressed.



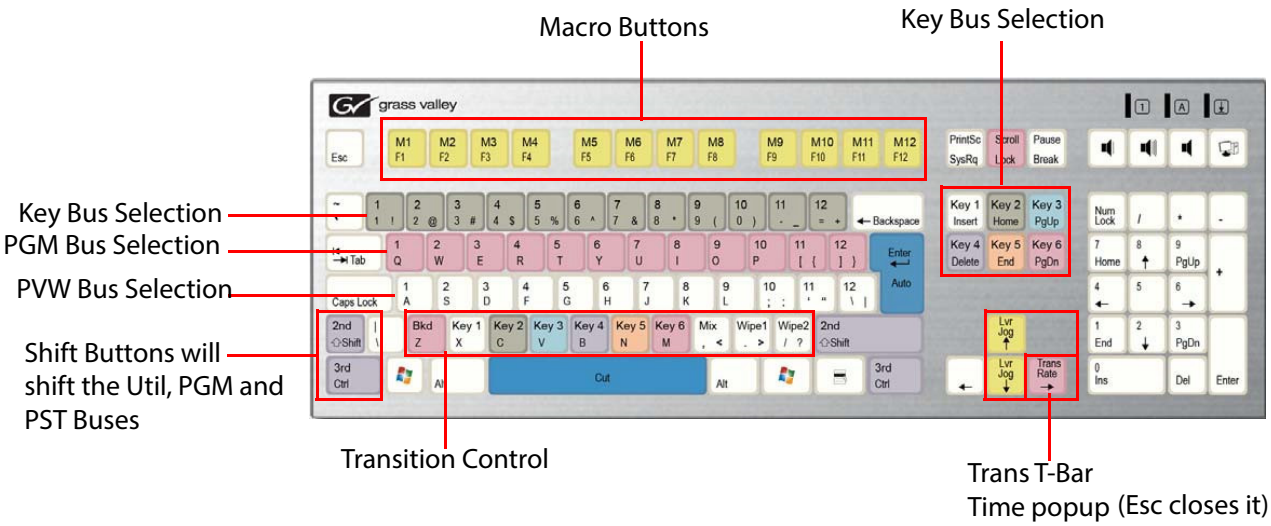
Optional Keyboard

An options physical PC style keyboard can be supplied with KahunaMSP. The keyboard has navigation and numeric keypads, two integrated USB ports, and uses a USB 2.0 host connection. For master control, the keyboard has special key cap labels and colors with PGM, PST, and Keyer rows for up to 12 sources and three shift levels for a total of 36 keyboard-controllable sources.

The keyboard simply connects to a USB port on your PC or laptop and KahunaMSP will recognize it ready to use. On the KahunaMSP virtual Keyboard, touch the **{Keyboard Shortcuts}** button.

The keyboard can be ordered via your Grass Valley partner or supplier using the following part number: MSP-PNL-1ME-KBD.

Keyboard Layout

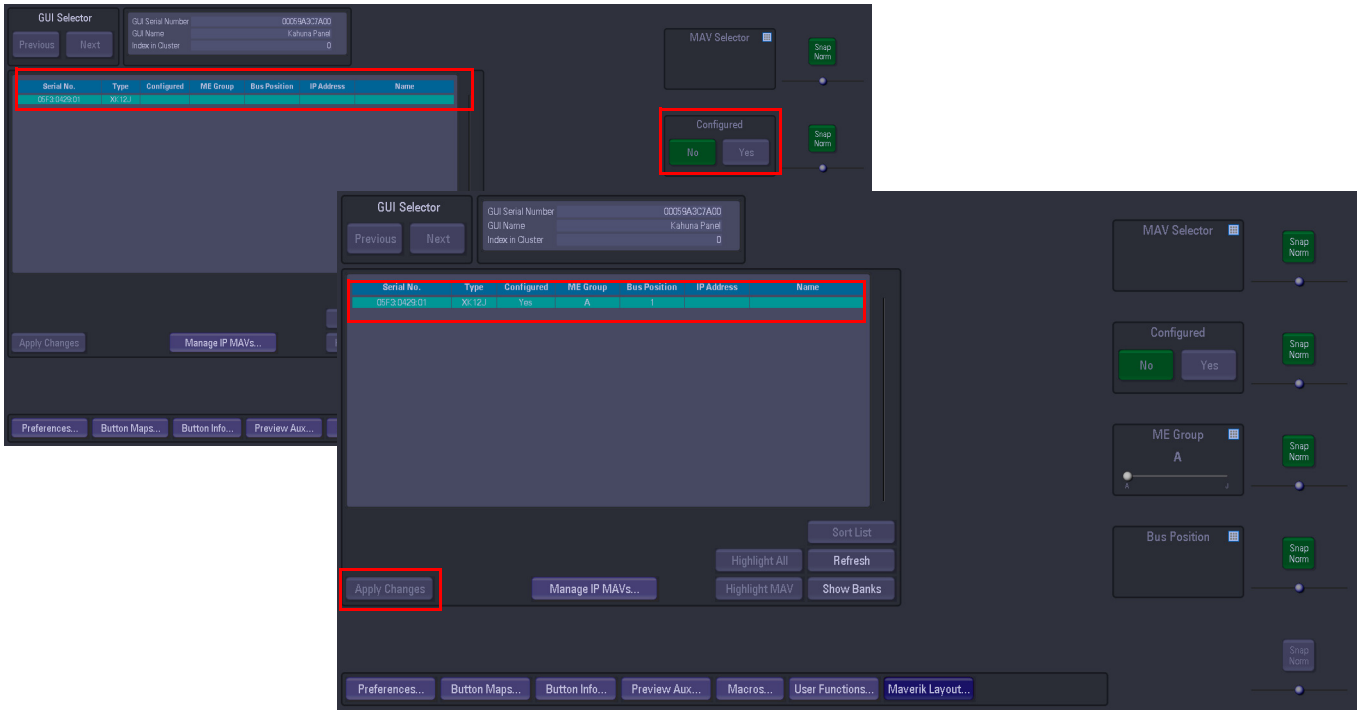


Joystick (customer supplied)

MasterpieceMSP is able to work with an X-Keys XK-12 Joystick. The joystick is bought and supplied by yourself - the customer.

The website address for the X-Keys XK-12 Joystick is here: https://xkeys.com/xk12joystick.html

To setup the joystick, plug the USB lead in to the PC or laptop, and then on the legacy GUI go to the “Panel Config” menu and then touch the {Maverik Layout...} button.



You will see the joystick listed as shown above, set the “Configured” parameter to “Yes” and then touch the {Apply Changes} button. In the main menu screen, in the bottom right corner is the {ASSIGN JOYSTICK} button, press the button and then press the top left button on the joystick, which is the “Assign” button.
The buttons on the on the joystick correspond to the table below. The “Snap Norm” buttons will center the joystick. The remaining buttons can have Macros and Clones assigned to them.

ASSIGN	X SNAP NORM	Y SNAP NORM	Z SNAP NORM
MACRO CLONE	MACRO CLONE	MACRO CLONE	MACRO CLONE
MACRO CLONE	MACRO CLONE	MACRO CLONE	MACRO CLONE

Contact Us

Grass Valley Technical Support

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, please consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

An online form for e-mail contact is also available from the website.

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