

QuadView Plus™ Multi-Window Display Processor

Quick Start Guide

INTRODUCTION

This guide is intended to assist in quickly getting your QuadView Plus into operation. It provides basic information about installing and configuring the device. Advanced functions such as zoom and pan within a window are covered in more detail in the QuadView Plus User Guide.

The QuadView Plus can be controlled from a terminal or an optional Windows application. Serial commands can be issued as commands from a terminal or from the optional Windows application known as the Virtual Control Panel (VCP). Both of these methods are described separately in this *Quick Start Guide*.

1. INSTALLATION

Use the numbered steps shown in **Figure 1** to connect up your QuadView Plus.

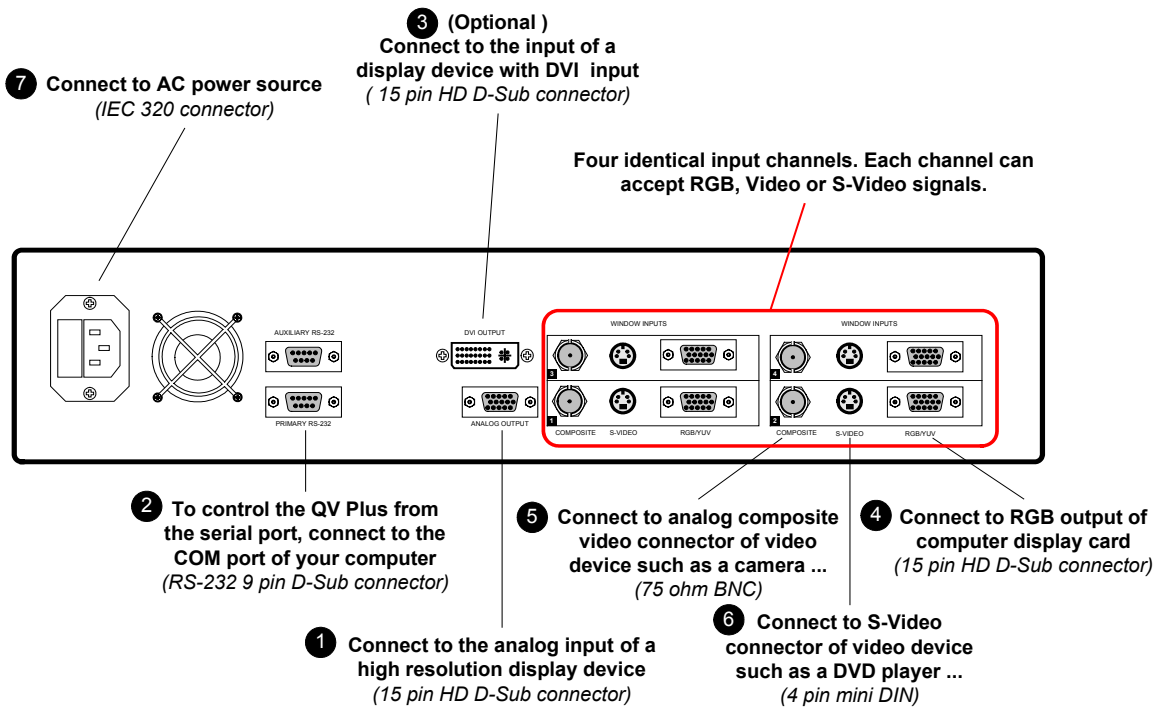


Figure 1. QuadView Plus Rear Panel

Note: Before turning on the power, make sure that the device is connected to a reliable AC power source with a nominal voltage between 100 and 264 VAC. After making all connections, turn on the power switch located on the QuadView Plus front panel.

The QuadView Plus is now ready for initial set up. This can be accomplished using the serial port, front panel (optional item) or VCP (optional item). Proceed directly to the section that describes the control method you wish to use.

2. OPERATING QuadView Plus FROM THE SERIAL PORT

The QuadView Plus can be controlled from an RS-232 serial control port of a terminal, terminal emulator or 3rd party serial controller. This section describes control of the QuadView Plus using a terminal or PC running a terminal emulation program such as HyperTerminal or Procomm.

To use the QuadView Plus it will be necessary to instruct the device about issues such as which inputs to use for each window, and the size and position of windows. All functions such as this are accessible by means of the serial control port which is a standard item for the QuadView Plus. A complete list of serial commands can be found in the QuadView Plus User Guide.

COMMUNICATING TO THE QUADVIEW PLUS

The QuadView Plus is pre-configured at the factory to operate at a baud rate of 9600 baud. Ensure that the controlling host computer or ASCII terminal is set initially for 9600 baud, 8 data bits, 1 start bit, 1 stop bit and no parity and X-ON / X-OFF flow control. Note that the QuadView Plus serial port can be operated at baud rates from 4800 baud to 115 kbaud. See the Serial Command Set chapter of the QuadView Plus User Guide for information on how to change the baud rate setting.

After the terminal is set up appropriately, type the command **HELP** from the terminal. Assuming that communications have been established correctly, the QuadView Plus will respond with a list of available commands. A complete description of the commands will be found in the Serial Command Set chapter of the QuadView Plus User Guide.

Operation of QuadView Plus from the RS-232 port typically involves issuing commands with some associated parameters. For example to increase the contrast setting for input channel 3 by 20% above nominal (100) the command **SAT 3 120** would be entered.

ADJUST / SELECT OUTPUT SIGNAL

The QuadView Plus must be set up to deliver the correct signal for your display device (known as the *Host*). *Host* commands are used to set the output parameters for the control the output.

1. ESTABLISH DISPLAY DEVICE REQUIREMENTS

Determine the specifications (resolution, and frame rate for example) of your display device so that you can set the QuadView Plus output to match the display.

2. CHOOSE HOST SETTINGS

A list of pre-defined hosts can be viewed on the serial port by typing the command **HLIST** (note the first 10 entries in the list are user defined). From the list choose the closest match to your display.

3. SET HOST SETTINGS

Use the host load command **HLOAD <1..64>** to load the timing parameters (step 2 above) into the device.

4. TEST SIGNAL

To confirm the output setting is correct it is convenient to use the internal test pattern. This provides an output signal without needing any input signals. For the purposes of this test it is best to use the color bar generator. Color bars can be activated by using the following serial command: **TP CB**

If the device is configured correctly you should see full screen color bars on your output monitor.

Turn off the color bars by typing the command **TP OFF**

CHECKING INPUT SIGNALS

This section describes a simple procedure to test that all inputs to the QuadView Plus are connected and set up appropriately.

The QuadView Plus provides preset positions for the four windows in addition to the ability to independently size and position the four windows anywhere on the output screen. For information regarding the setting of priorities of overlapping windows please see the Installation and Set Up chapter of the QuadView Plus User Guide.

1. SET UP WINDOWS

Set an arrangement of all four windows by issuing the command **QV** (this is the factory default).

2. ENABLE WINDOWS

Enable all windows by typing **WIN ALL ON** (this is the factory default)

3. SELECT INPUT TYPE

Make sure that you have selected the input that you have your source connected to by using the **INTYPE** command. Each input channel has the choice of four different input types. The types are **RGB**, **COMPOSITE**, **SVIDEO** and **COMPONENT**. For example to select the S-Video for Input channel 2 you would type: **INTYPE 2 SVIDEO**.

NOTE: Dedicated inputs are provided for the Composite and S-Video signals, however RGB and Component signals use the same input connector.

4. ADJUST INPUT SIGNALS

The QuadView Plus will automatically lock to Composite or S-Video signals without any adjustment. It will also lock to a wide variety of RGB signals automatically.

When an RGB signal is applied to the QuadView Plus for the first time, the unit will automatically lock to the signal and estimate what portion of the signal is active picture. If this estimate is not exact, the window may be missing part of the picture, or display "extra" black band along an edge. To improve the timing parameters you may make adjustments for each input and then save these settings to the unit's internal memory. The input Interactive command (**INI**) provides an interactive way of adjusting input timing. For full details consult the Serial Command Set chapter of the QuadView Plus User Guide.

When you are satisfied that the input is connected correctly, repeat steps 3 through 4 for the remaining inputs until all have been tested.

When you have completed this test you have shown that the unit is working normally and all inputs and outputs are connected correctly.

SETTING AND VIEWING WINDOWS ON THE OUTPUT DISPLAY

QuadView Plus provides serial commands to set the windows to predefined display configurations on the output screen, or the user may size and position them anywhere on the output.

Full screen Display

To make a full size window use the full screen command **FS <input#>**. For example to set input (window) number 3 to full screen type **FS 3**. Note that in order to view the window it must be enabled and have a higher priority level than any other enabled window. See the Installation and System Set Up chapter of the QuadView Plus User Guide for more information on setting Window Priorities.

Quad Split Display

The output can be set to display all four windows arranged as four ¼ sized windows. This is referred to as Quad Split or QuadView. Use the command **QV** to set the display to Quad view.

Arbitrary Output Display arrangement

Any window can be sized and positioned anywhere on the screen. This involves the use of the **WDR** command. See the QuadView Plus User Guide chapter entitled Installation and System Set Up for complete information.

3. OPERATING QuadView Plus FROM THE VIRTUAL CONTROL PANEL (VCP)

SETTING UP THE VCP APPLICATION

The VCP application must be loaded to the PC that you want to use to control the QuadView Plus. Create a folder in the PC's Program directory and copy the .exe and .hlp files from the VCP disk to the folder. To make access easier you may also wish to create a shortcut to the .exe file and place it on the Windows desktop or toolbar.

To start the VCP program double click the .exe file or associated shortcut icon. The program is designed as a dialog based application with tabs relating to different VCP functions.

To control the QuadView Plus the PC you are using must be connected to the QuadView Plus via the computers serial control port (RS-232). After making this connection it is necessary to set up the communication parameters using the VCP program and choose the serial communications port that the QuadView Plus is connected to.

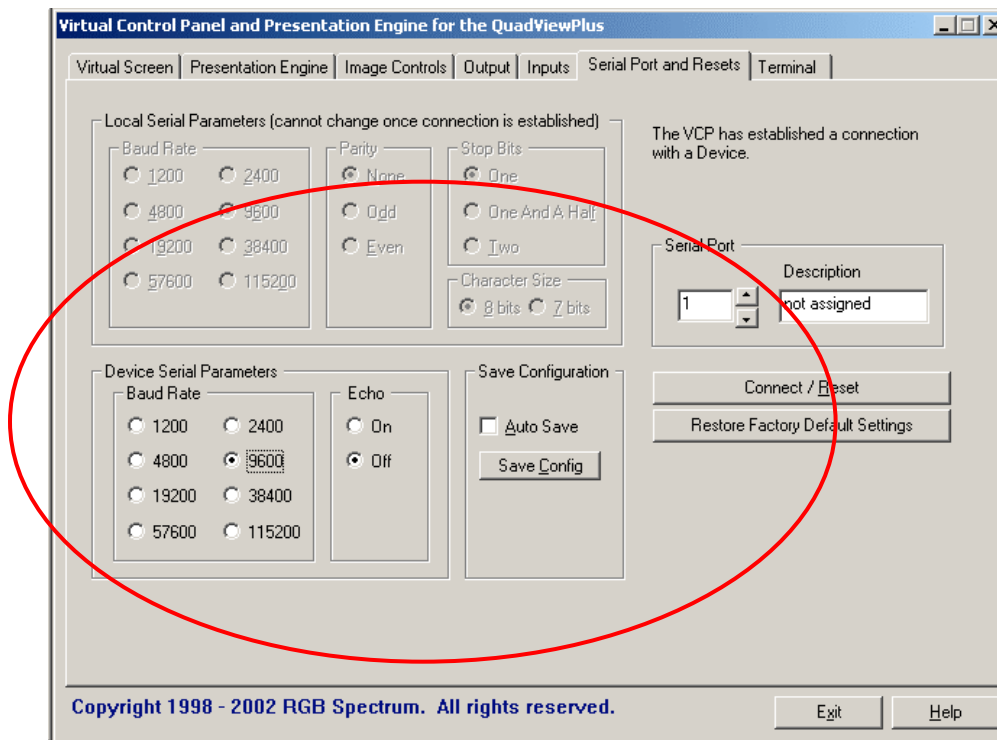


Figure 2. QuadView Plus VCP Serial Port Menu

1. Select the VCP "Serial Ports and Resets" tab shown in **Figure 2** above.
2. In the "Serial Port" section choose the Serial port that you will use.
3. In the "Device Serial Parameters" section, set the baud rate for 9600 baud
4. Click on the "Connect / Reset" button.

Note that after the connection has been made the "Virtual Screen" page is automatically displayed (see **Figure 5**).

ADJUST / SELECT OUTPUT SIGNAL

Select the VCP *Output* tab to view the current output mode of your unit. (see **Figure 3**)

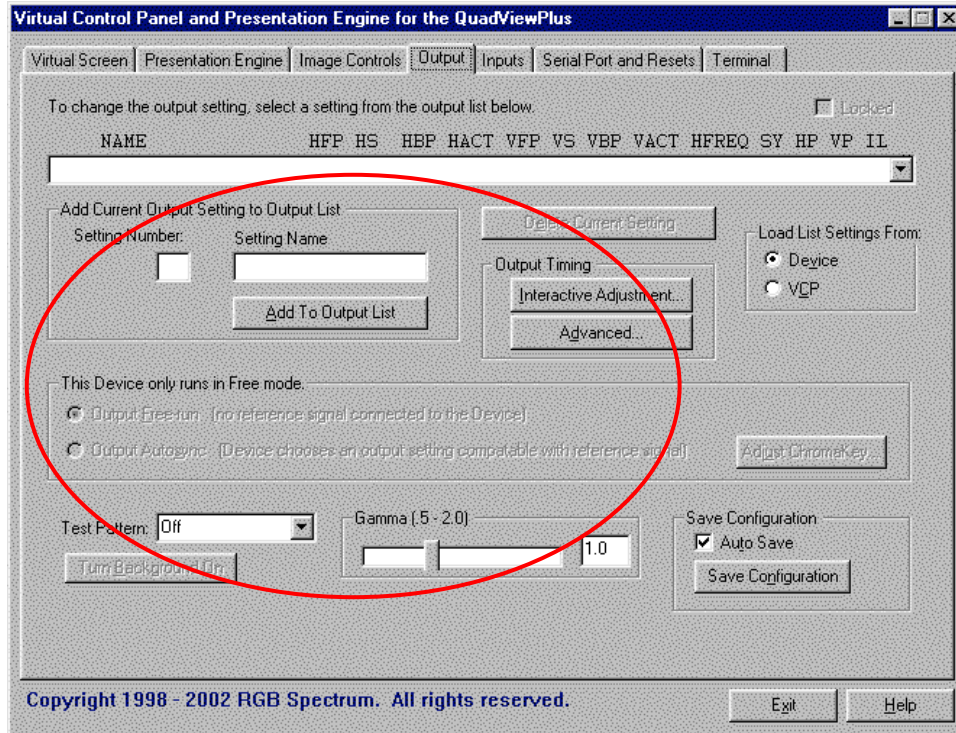


Figure 3. QuadView Plus VCP Output Menu

1. To create a user output setting with the aid of the QuadView Plus's output interactive mode, click on the "Interactive Adjustment" button in the "Output Timing" section (**Figure 3**).
2. Adjust the horizontal and vertical adjustments so that the output display is set up to fully display the output image using the arrow buttons.
3. Click OK when you have completed the adjustment.
4. To save the current user output setting, enter a number (1- 10) and a name for the new setting in the "Add Current Output Setting To Output List" section".
5. Once you provide a number and name, click the "Add To Output List" button. The VCP will instruct the QuadView Plus to store the current setting as a new output preset with the name and number that you chose. If an output preset with the same number already exists, the VCP will ask for confirmation that you want to overwrite the existing preset with a new one.
6. In the "Test Pattern" pull down menu select the option "On" to set the test pattern on.
7. Observe output display and confirm that the image is normal.
8. In the "Test Pattern" Pull down menu select the option "Off" to the test pattern off.

ADJUST INPUT SIGNAL SETTINGS

The *Inputs* tab allows you to adjust input parameters for all QuadView Plus inputs. Each window can display one of four different type of input sources. The “Input Type” section in the right portion of the page allows you to select a QuadView Plus input source (see **Figure 4**).

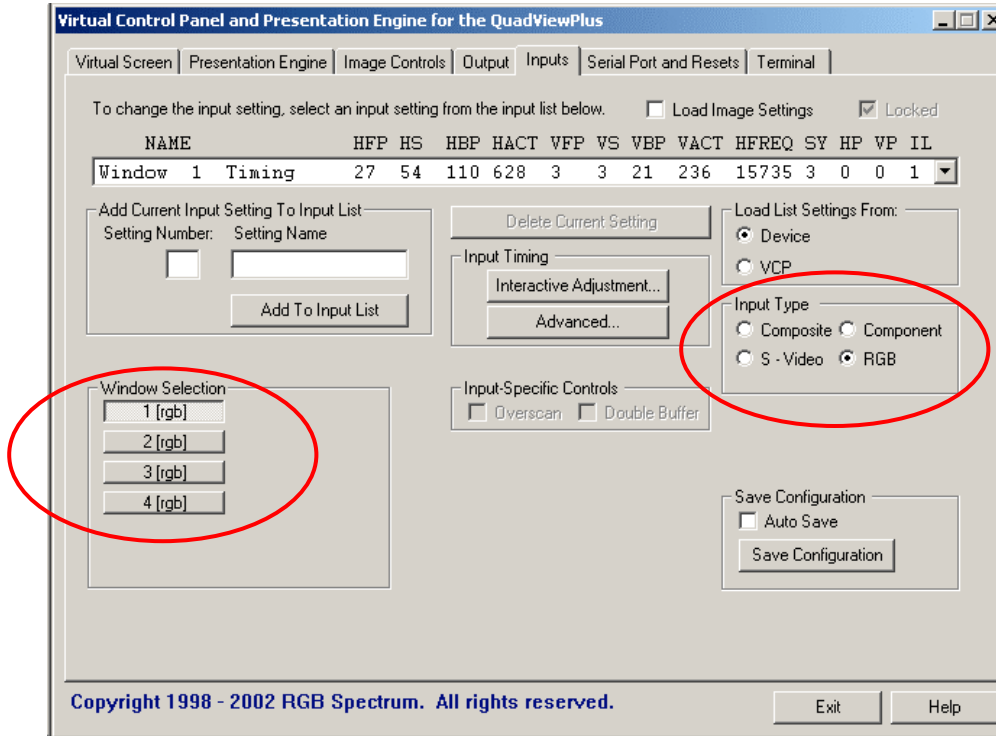


Figure 4. QuadView Plus VCP Input Page

To ensure that all connections have been made correctly use the following test procedure:

1. To avoid the problem of a window overlapping and obscuring one of the other windows, set up a window arrangement of tiled windows. A variety of pre-set arrangements is provided on the **Virtual Screen** page (**Figure 5**). Click on the “Virtual Screen” tab
2. Select the “Inputs” tab (**Figure 4**).
3. Select the desired window to test by clicking on the “Window Selection” button located in the lower left portion of the “Inputs” screen. The active selection is shown as an indented button.
4. Select the required input type by clicking the appropriate button in the “Input Type” section of the “Inputs” screen.
5. Repeat steps 2 through 4 until all inputs have been set up.

NOTE: When an RGB signal is applied to the QuadView Plus for the first time, the unit will automatically lock to the signal and estimate what portion of the signal is active picture. If this estimate is not exact, the window may be missing part of the picture, or display “extra” black along an edge. This may be adjusted using the “Input Interactive Timing Adjustment” which can be accessed from the “Inputs” menu.

If you wish to make manual adjustments to the timing click on the “Interactive Adjustment” button in the “Input Timing” section. Use the arrow buttons to shift the image to match your preference.

To save the current user input setting, enter a number (1-50) and a name for the new setting in the *Add To Input List* section. Once you provide a number and name, click the Add button. The VCP will instruct the QuadView Plus to store the current setting as a new input preset with the name and number that you chose. If an input preset with the same number already exists, the VCP will ask for confirmation that you want to overwrite the existing preset with a new one.

USING THE VIRTUAL SCREEN

The VCP **Virtual Screen** is used to control the layout of windows on the output display. Several pre-set arrangements of windows are provided in the “Presets” section. In addition the ability to create and load a total of four QuadView Plus presets is provided.

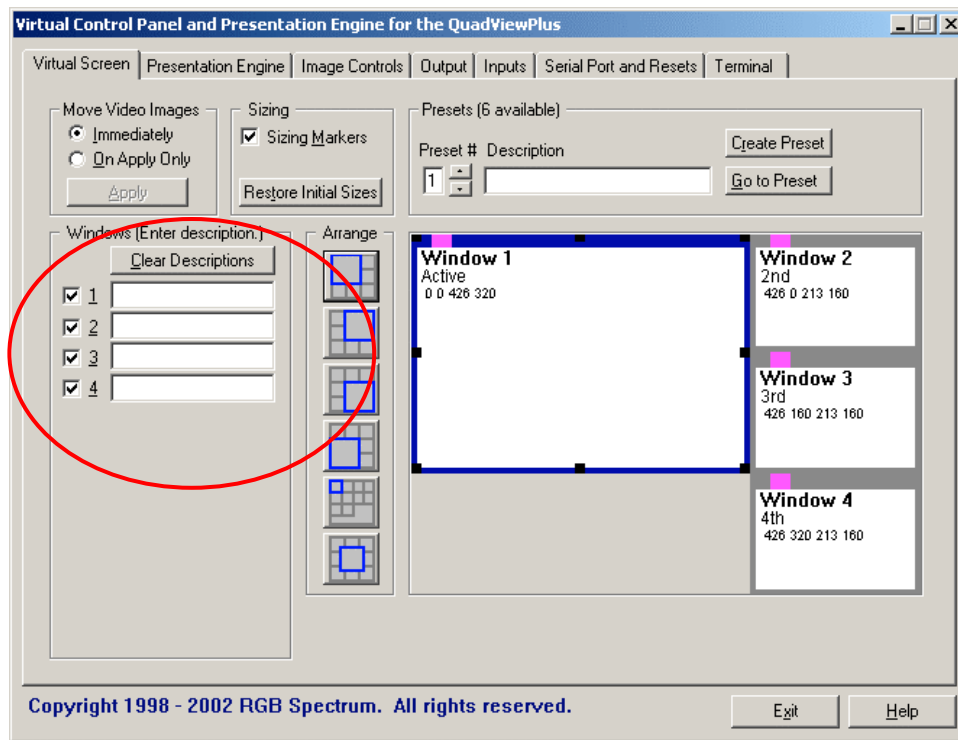


Figure 5. QuadView Plus VCP Virtual Screen Page

After you have completed your initial set up, you can then adjust the image controls for each channel. Click on the VCP “Image Control” tab to select the adjustment menu (see **Figure 6**).

MAKING IMAGE ADJUSTMENTS

After you have completed your initial set up, you can then adjust the image controls for each channel. Click on the VCP *Image Control* tab to select the adjustment page.

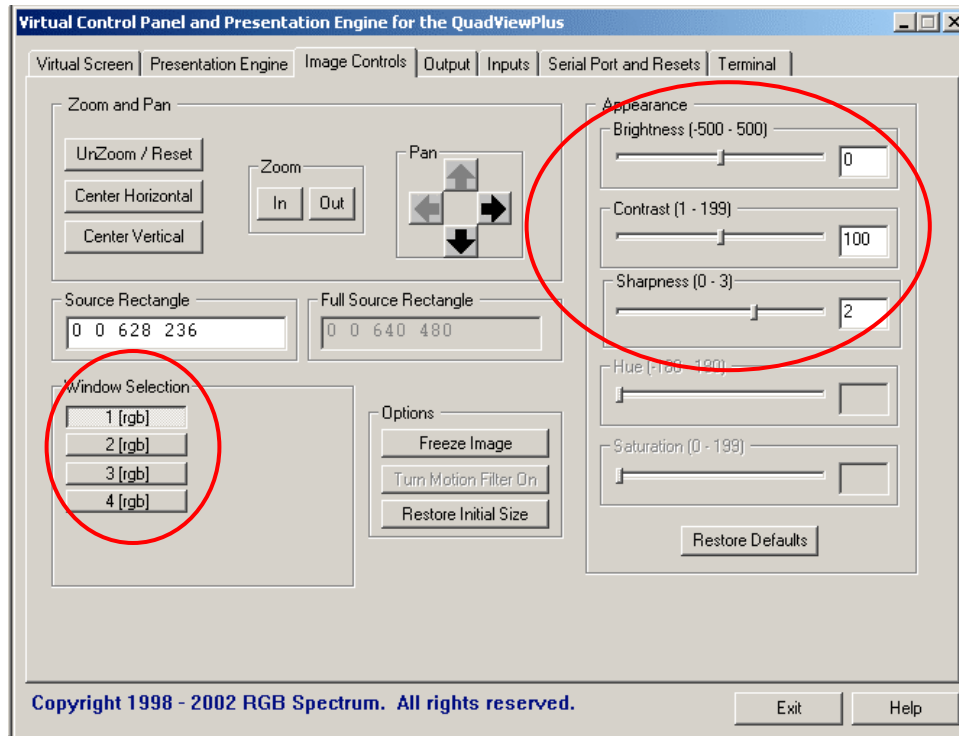


Figure 6. QuadView Plus VCP Image Control Menu

The following image controls apply to all input sources.

Brightness

Contrast

Sharpness

Additionally, for video channels only, you can also adjust the following parameters:

Hue (nominal value = 0)

Saturation (nominal value = 100)

The “Image Controls” menu also provides the ability to zoom and pan within a window. See the QuadView Plus User Guide for more details.