

SERIAL COMMAND SET

GENERAL

The RGB/Videolink 1690 may be controlled from an ASCII terminal or host computer via the RS-232 serial port.

The Serial Command Set provides full system control of the RGB/Videolink 1690. This includes all functions available from the front panel, as well as several more.

COMMAND SET SUMMARY

The command set is made up of ASCII characters and is not case sensitive. The commands can be spelled out or abbreviated. For example, the **FREEZE** command can be specified as **freeze**, **FREEZE**, **FZ**, or **fz**.

Both forms of the command (long and short) are listed, as well as their associated parameters and descriptions. Each command line must be followed by a carriage return.

For example, at the prompt (>), a command would be as follows:

bri 100 Typing **bri 100** will change the brightness of the input source to a new brightness value of 100.

Unrecognized commands or arguments generate error messages.

SERIAL COMMAND SET USAGE

The serial command set can be used to control the RGB/Videolink 1690. For example, to set the contrast level to 100 type **CONTRAST 100** on the prompt line and press return on your keyboard. The serial command can also be used to find out the current state for a particular parameter. For example, to find out the contrast level of the 1690, type **CONTRAST**. The 1690 will return the current value (i.e. Contrast = 100).

The uppercase letters in the command name can be used to abbreviate the command at the prompt line. For example, for **FreeZe** you can use **FZ**, and for

CONTrast you can use **CONT**. A space is required between a command and its argument.

TABLE 1. RS-232 Serial Command Set

Command	Arguments	Description
Aspect (ART)	<0.25..4>	Provides a correctly proportioned image on the output display. The RGB/Videolink 1690's default setting assumes the input image has an aspect ratio of 1.333, and the output aspect ratio is also 1.333. The <i>AspectRatioTrim</i> command can be used to compensate for a non-standard aspect ratio, or to deliberately introduce a stretch into the conversion. Values greater than 1.0 increase the width and decrease the height of the output image. Factory default: 1
AutoSync	(none)	When the RGB/Videolink 1690 starts up, it immediately measures certain parameters of the input sync pattern and makes a best guess to determine the appropriate timing parameters. The best guess can be overridden or modified by the user but the <i>AutoSync</i> command causes the 1690 to return to the original best guest values.
BAUDrate	<4800 9600 19200 38400 57600 115200>	Sets the <i>baud</i> rate. Factory default: 115,200
BRiGhtness	<-100..100>	Sets the <i>brightness</i> level value of the input source. Factory default: 0
CHRoMa	<0..100>	Sets the saturation level. Factory default: 100
ClearHostList	(none)	Clears the <i>Host List</i> of all user-defined hosts.
ComponentAnalogVideo	<RGB SMPTE BETA MII>	Sets the component analog video outputs to one of four video formats: RGB, SMPTE, BETA, or MII.
CONTrast	<50..150>	Sets the <i>contrast</i> level value of the input source. Factory default: 100
ECHO	<ON OFF>	Turns the serial <i>echo</i> On/Off. The value is saved in NVRAM. The <i>echo</i> is only on commands typed and sent to the unit. Note: The <i>echo</i> setting has no effect on responses issued by the 1690; responses are always visible, regardless of the echo status. Factory default: ON
FlickerFilter	< -15 .. 15 >	Switches between five levels of flicker filter. Positive values reduce the degree of flicker in the display. However, there is a trade-off between flicker and vertical resolution. Factory default: 0
FreeZe	<ON OFF>	Freezes the output image. This function is enabled when the freeze is ON and disabled when freeze is OFF. The <i>Freeze</i> function is always OFF after a power cycle. Factory default: OFF

TABLE 1. RS-232 Serial Command Set (Continued)

Command	Arguments	Description
FrontPanel	<LOCK UNLOCK>	Disables access to <i>front panel</i> control. When set to LOCK, front panel control is disabled. If a button is pressed in the locked state the LCD displays the message "controls LOCKED" The front panel status is not stored in non-volatile memory; front panel is always unlocked after a power cycle. Factory default: UNLOCK
Gamma	<0.5..3>	Sets the <i>gamma</i> value of the input source. Factory default: 1
GenLock	<ON OFF>	The 1690 can be genlocked to an external video source. This command turns genlock On or Off. Factory default: OFF
GenLockH	(-31.788..31.788) NTSC (-32.000..32.000) PAL	Adjusts horizontal timing, in microseconds, relative to the genlocked external signal.
GenLockPhase	<-180..180>	Sets the subcarrier phase of the output relative to that of the genlock source. The parameter is in degrees. This command will have no visible effect when there is no genlock source connected to the RGB/Videolink 1690. Factory default: 0
GenLockStatus	(none)	Queries information on whether the 1690 has a valid and stable genlock signal.
GenLockV	<-20..20>	Adjust vertical timing, in lines, relative to the genlocked external signal.
HElp	[<command>]	Provides access to <i>Help</i> menu. Without an argument, the <i>Help</i> command will display the entire serial command set. With a command as an argument, it will display detailed information about that command.
HACTive	<0..max>	The horizontal active image width, in microseconds.
HBackPorch	<0..max>	The horizontal back porch width, in microseconds.
HFREquency	(none)	This is a read-only command that returns the value of the horizontal frequency, in KHz.
HFRontPorch	(none)	This is a read-only command that returns the value of the horizontal front porch width, in microseconds.
HPosition	<-100..100>	Adjusts relative horizontal position.
HsiZe	<50..200>	Relative horizontal size.
HSync	(none)	This is a read-only command that returns the value of the horizontal sync width, in microseconds.
HOST	[<1..72>]	Queries information on the host settings. Without an argument, the command returns information for the current (active) host. With an argument, the command returns information for the specified host entry.
HostDElete	<1..72>	Deletes the specified host from the host list. If you are trying to save more than the allowed 72 configurations to your host list, you will first need to delete one or more hosts to make room for additional entries.

TABLE 1. RS-232 Serial Command Set (Continued)

Command	Arguments	Description
HostInt	(none)	<p>Enters the host interactive mode. Once in the interactive mode, two white lines appear and intersect at the top left corner of the output display. Use these to guide your adjustments.</p> <p>Looking at the left edge of your image, use these keyboard controls to position the image to the corner of the intersecting lines:</p> <p>i = move up m = move down j = move left l = move right s = save and move to lower right adjustments e = escape and abandon changes</p> <p>Note that you must press return after each of the above commands in order for the adjustment to take place.</p> <p>Once you enter "s" to indicate that you are finished with the upper-left corner, two intersecting lines will appear at the bottom right corner of the output display.</p> <p>Looking at the right edge of your image, use the keyboard controls to position the image to the corner of the intersecting lines:</p> <p>i = move up m = move down j = move left l = move right s = save all changes and exit e = escape and return to adjusting upper left corner</p> <p>Note that you must press return after each of the above commands in order for the adjustment to take place.</p> <p>After you have adjusted the input to your satisfaction, use the <i>HostName</i> command to name your input source on the <i>HostList</i>.</p> <p>Note: In addition to the keyboard commands note above the front panel arrow controls are active and may be used to manually adjust the settings from the front panel. This applies even when the mode has been activated using the serial port.</p>
HostList	(none)	Displays the entries in the host list. When the entire host list is displayed, the entry marked with a "*" is used to reflect the current input signal.
HostName	<name>	<p>Assigns a name to the current host. The argument can be up to 16 alphanumeric characters with no spaces (underscore is acceptable).</p> <p>The default name for the host is constructed from the horizontal, vertical, and sync format information. For example, H063.9/V060.0HV.</p>
ID	(none)	Displays the Product name, Serial number, Manufacture date, Firmware version number, Firmware date and time.
InputGain	<70..140>	<p>Sets the gain of the input circuitry as a percentage of the nominal. The argument is the gain (in %) relative to that required to digitize a video range of 700 mV.</p> <p>Values below the correct value for any signal will result in dim images. Values higher than the correct value will result in high brightness regions of the image being "clipped".</p> <p>Factory default: 100</p>
InputPedestal	<-124..124>	<p>Sets the difference between black and blanking levels of the input signal. Increasing the value makes the image appear darker.</p> <p>Factory default: 0</p>

TABLE 1. RS-232 Serial Command Set (Continued)

Command	Arguments	Description
OUTput	<NTSC PAL>	Configures the 1690 for either NTSC or PAL output. Factory default: NTSC
PreSet	<1 2 3 4 >	Selects one of four Zoom Pre-sets. These pre-sets store information on brightness, contrast, chroma, flicker filter, zoom, size, position and aspect ratio. Pre-set information is recalled with Host settings. In other words, when you save a host, you are also saving the pre-set settings. Factory default: Pre-set 1
RFD	(none)	Restores all user settings to their factory default values.
SAVEParams	(none)	This command forces an update of the system's NVRAM. Information about host and input configurations are stored as well as display parameters.
SyncPolarity	(none)	Queries the sync signal polarity.
TestPat	<ON OFF>	Turns the internal <i>test pattern</i> (color bars) on and off. Factory default: OFF
VACTive	<0..max>	The vertical active image width, in lines.
VBackPorch	<0..max>	The vertical back porch width, in lines.
VFrontPorch	(none)	This is a read-only command that returns the value of the the vertical front porch width, in lines.
VPosition	<-100..100>	Adjusts relative vertical position.
VsiZe	<50..200>	Relative vertical size.
VSync	(none)	This is a read-only command that returns the value of the the vertical sync width, in lines.
ZooM	<50..200>	<i>Zooms</i> in or out in the output image. The parameter is represented as a percentage. The command Zoom 100 takes the vertical extent of the input image and scales the number of lines to exactly fill the vertical extent of the output image. The <i>zoom</i> command always scales the horizontal and vertical extents by the same amount. Factory default: 100

