Blackmagic Design SmartView v1.0
Module Application Guide

Description

This Module allows two-way control of a Blackmagic Design SmartView Duo, SmartView 4K and SmartScope Duo 4K over TCP/IP. Features include

- 2 Monitor Control(SmartView Duo and SmartScope Duo 4K)
- Borders
- Widescreen modes
- Scope Control(SmartScope Duo 4K)
- LUT control (SmartView 4K and SmartScope Duo 4K)
- Input selection (SmartView 4K)
- Tally override(SmartView 4K)

Supported Processors

Any 3-Series, 4-Series processor appliance, or VC4 instance that supports SIMPL Windows and has Ethernet.

Compatibility			Processor Requirements	
4 SERIES CONTROL COMPATIBLE	3 COMPATIBLE	NOT COMPATIBLE SERIES		USB REMOVABLE MEDIA NOT REQUIRED

Contents

Setup
Generally speaking, there is no specific setup on the SmartView device needed. It should be noted that if the Blackmagic SmartView Setup application is connected to the monitor, the module will be unable to connect.

Knowledge Base
Please be sure to visit our Knowledge Base for additional information that can assist in developing your solutions. http://controlworks.com/ResourceLibrary/KnowledgeBase.aspx

Signal and Parameter Descriptions

Bracketed signals such as "[signal_name]" are optional signals

DIGITAL INPUTS

[connect] ....pulse this signal to connect to the SmartView device.

[disconnect] ....pulse this signal to disconnect from the SmartView device.

[enable_debug] ....Latch this signal high to print debug information. Typically used with ControlWorks Support.

[monitor_x_identify]...pulse this signal to put the selected monitor in identify mode. When in this mode, a white tally box will appear on the screen for 15 seconds.

[monitor_x_border_xxxx] ....pulse to display the desired soft tally border off/green/red/blue/white. Note that the identify function will override any other border setting in effect.

[monitor_x_widescreen_sd_xxxx]...............................pulse to enable, disable, or auto widescreen sd mode. This enables/disables standard definition video to display in 16:9.

[monitor_x_scope_xxxx]..pulse to set the scope mode to audio dbfs/audio/dbvu/histogram/parade rgb/parade yuv/picture(scope off)/vector 100/vector 75/waveform luma.

[monitor_x_audio_channles_x_and_x].........................pulse to set the audio scope to monitor the desired SDI audio channels.

[monitor_x_lut_xxxx] ....pulse to set the monitors LUT mode.

[monitor_x_input_xxxx]..pulse to set the input of the monitor to SDI A/SDI B/Optical.

[monitor_x_tally_override_xxxx] ....pulse to set the tally override feature to on or off. This will display tally borders on SmartView 4K when connected to a Blackmagic URSA Mini Pro or URSA Broadcast camera.

ANALOG INPUTS

[monitor_x_brightness] ....Initialize to brightness value. Do not ramp this input. Valid values are 0-255d.

[monitor_x_contrast]...Initialize to contrast value. Do not ramp this input. Valid values are 0-255d.

[monitor_x_saturation]..Initialize to saturation value. Do not ramp this input. Valid values are 0-255d.

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SERIAL INPUTS

No Serial inputs are utilized on this module.

DIGITAL OUTPUTS

[connected_fb] ....Latched high when module is connected to the display.

[disconnected_fb] ....Latched high when module is disconnected from the display.

[inverted_fb] ....Latched high if the monitor is reporting that it is in a inverted orientation.

[monitor_x_supports_brightness_fb]...........Latched high if the connected device supports brightness adjustment.

[monitor_x_supports_contrast_fb] ....Latched high if the connected device supports contrast adjustment.

[monitor_x_supports_saturation_fb]...........Latched high if the connected device supports saturation adjustment.

[monitor_x_supports_border_fb] ....Latched high if the connected device supports displaying borders.

[monitor_x_border_xxxx_fb].....................Latched high when the device should be displaying a border color off/green/red/blue/white. Unknown_fb high when the driver cannot determine the devices current state. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

[monitor_x_supports_widescreen_sd_fb].....Latched high if the connected device supports Widescreen SD modes.

[monitor_x_widescreen_xxxx_fb]...............Latched high when the device is in a Widescreen SD mode off/on/auto. Unknown_fb high when the driver cannot determine the devices current state. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

[monitor_x_supports_scope_fb]................Latched high if the connected device supports scopes.

[monitor_x_scope_xxxx_fb] ....Latched high when the device is displaying a scope mode audio dbfs/audio dbvu/histogram/parage rgb/parade yuv/picture(no scope)/vector 100/vector 75/waveform luma. Unknown_fb high when the driver cannot determine the devices current state. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

[monitor_x_supports_audio_channels_fb]....Latched high if the connected device supports selecting audio channels for scope audio mode.

[monitor_x_audio_channels_x_and_x_fb] ....Latched high when the device using the indicated audio channels for the scope audio mode. Unknown_fb high when the driver cannot determine the devices current state. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies

[monitor_x_supports_lut_fb]...with current status after sending commands, the status will be updated immediately.

[monitor_x_supports_lut_fb]...Latched high if the connected device supports selecting the LUT.

[monitor_x_lut_xxxx_fb]...Latched high when the device should be in the indicated LUT mode. Unknown_fb high when the driver cannot determine the devices current state. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

[monitor_x_supports_input_fb]..Latched high if the connected device supports selecting the input.

[monitor_x_input_xxxx_fb]..Latched high when the device should have the indicated input selected. Unknown_fb high when the driver cannot determine the devices current state. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

[monitor_x_supports_tally_override_fb] ....Latched high if the connected device supports the tally override feature.

[monitor_x_input_xxxx_fb]..Latched high when the device should have the indicated tally override state selected. Unknown_fb high when the driver cannot determine the devices current state. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

ANALOG OUTPUTS

[monitor_x_brightness_fb]...Unsigned integer indicating the devices current brightness 0-255d. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

[monitor_x_contrast_fb]..Unsigned integer indicating the devices current contrast 0-255d. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

[monitor_x_saturation_fb] ....Unsigned integer indicating the devices current saturation 0-255d. Some SmartView monitors do not provide status updates when commands are sent. In all cases setting inputs on the driver will update the corresponding feedback output. In cases where the monitor replies with current status after sending commands, the status will be updated immediately.

SERIAL OUTPUTS

[connection_status_fb$] ....String status of the connection state.

[version_fb$]..String indicating the firmware loaded on the connected device.

[model_fb$] ....String indicating the model of the connected device.

[hostname_fb$] ....String indicating the hostname of the connected device.

[name fb$]..String indicating the name of the connected device.

PARAMETERS

IP Address or Hostname..Enter the SmartView's IP address or hostname.

Support

This module is supported by ControlWorks Consulting, LLC. Should you need support for this module please email support@controlworks.com or call us at 440-449-1100. ControlWorks will seek to answer your question during office hours which are 9 AM to 5 PM Eastern, Monday through Friday, excluding holidays.

Before calling for support, please ensure that you have loaded and tested operation using the included demonstration program and touchpanel(s) to ensure that you understand the correct operation of the module. It may be difficult for ControlWorks to provide support until the demonstration program is loaded.

Updates, when available, are automatically distributed via Email notification to the address entered when the module was purchased. In addition, updates may be obtained using your username and password at https://www.controlworks.com/Customers/Login.aspx.

Distribution Package Contents

The distribution package for this module should include:

Blackmagic_Design_SmartView_V1.0_(ControlWorks)_Demo.smw	Demonstration Program
Blackmagic_Design_SmartView_V1.0_(ControlWorks).umc	Main User Module
Blackmagic_Design_SmartView_Engine_V1.0_(ControlWorks).usp	SIMPL+ for use inside main module
Blackmagic_Design_SmartView_Engine_V1.0_(ControlWorks).ush	SIMPL+ header file, for use inside main module
CWBMDSmartView.clz	SIMPL# module for use in SIMPL+
Blackmagic_Design_SmartView_V1.0_(ControlWorks)_Demo_TSW1060.vtp	Demonstration Touchpanel file
Blackmagic_Design_SmartView_v1.0_(ControlWorks)_Help.pdf	This help file.

Revision History

V1.0 caleb@controlworks.com 2022.08.44
    -Initial release

Development Environment

This module version was developed on the following hardware and software. Different versions of hardware or software may or may not operate properly. If you have questions, please contact us.

Manufacturer Hardware	Software Version
SmartView Duo	1.3
SmartScope Duo 4K	1.3
Crestron Hardware	**Firmware Version**
Crestron AV3 Processor	v1.8001.4814.22511
VC4	V4.0000.00007.01
TSW-1060	v3.002.0028
Software	**Software Version**
SIMPL Windows	4.20
Vision Tools Pro-e	6.0.07
Smart Graphics Controls	2.09.06.01
Crestron Database	213.00
Device Database	200.201

ControlWorks Consulting, LLC Module License Agreement

Definitions:
ControlWorks, *We*, and *Us* refer to ControlWorks Consulting, LLC, with headquarters located at 8228 Mayfield Road Suite 6B Rear, Chesterland, Ohio 44026. *You* and *Dealer* refer to the entity purchasing the module. *Client* and *End User* refer to the person or entity for whom the Crestron hardware is being installed and/or will utilize the installed system. *System* refers to all components described herein as well as other components, services, or utilities required to achieve the functionality described herein. Module Instance License refers to a module license that is granted to a specific combination of a Crestron Processor and a single controlled device (for example, based on the respective serial numbers); a separate Module Instance License must be purchased for each such combination. *Module* refers to files required to implement the functionality provided by the module and may include source files with extensions such as UMC, USP, SMW and VTP. *Demo Program* refers to a group of files used to demonstrate the capabilities of the Module, for example a SIMPL Windows program and VisionTools Touchpanel file(s) illustrating the use of the Module but not including the Module. *Software* refers to the Module and the Demo Program.

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Provision of Support
We provide limited levels of technical support only for the most recent version of the Module as determined by Us. We do not provide support for previous version of the module, modifications to the module not made by Us, to persons who have not purchased the module from Us. In addition, we may decline to provide support if the Demo Program has not been utilized. We may withdraw a module from sale and discontinue providing support at any time and for any reason, including, for example, if the equipment for which the Module is written is discontinued or substantially modified. The remainder of your rights and obligations pursuant to this license will not be affected should ControlWorks discontinue support for a module.

Modification of Software
You may not decrypt (if encrypted), reverse engineer, modify, translate, disassemble, or de-compile the Module in whole or part. Any modifications to the Module shall immediately terminate any licenses purchased with respect thereto. You may, however, modify the Demo Program. In no event will ControlWorks Consulting, LLC be liable for direct, indirect, incidental or consequential damages resulting from You modifying the Software in any manner.

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