Partner: WolfVision
Model: vCam, VZ-3/3s/3neo/8light[4]/8plus[4]/8neo /8neo+/9-plus[3]/9.4F/9.4L/C6/C12[3]/C32[3]/C3D, EYE-12/14
Device Type: Document Camera

CRESTRON
CERTIFIED **INTEGRATED** PARTNER

GENERAL INFORMATION

SIMPLWINDOWS NAME:	WolfVision WolfProt TCP-IP v1.3
CATEGORY:	Document Camera
VERSION:	1.3
SUMMARY:	This module provides TCP-IP control of the WolfVision Document Cameras.
GENERAL NOTES:	This module provides TCP-IP control of the following WolfVision devices: vCam, VZ-3, VZ-3s, VZ-3neo, VZ-8light[4], VZ-8plus[4], VZ-8neo, VZ-8neo+, VZ-9plus (serial number #1008068 and higher), VZ-9plus[3], VZ-9.4F, VZ-9.4L, VZ-C6, VZ-C12[2] (serial number #1009412 and higher), VZ-C12[3], VZ-C32 (serial number #1011797 and higher), VZ-C32[3], VZ-C3D, EYE-12 and EYE-14. Please also note that not all commands are supported by all models.
CRESTRON HARDWARE REQUIRED:	2 or 3-Series Processor with Ethernet
SETUP OF CRESTRON HARDWARE:	TCP/IP Port Number: 50915
VENDOR FIRMWARE:	N/A
VENDOR SETUP:	None
CABLE DIAGRAM:	Ethernet

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CONTROL:

Power_<On/Off/Toggle>	D	Pulse to turn the document camera on and off.
Zoom_<Wide/Tele>	D	Press and hold to adjust the camera's zoom. Once zoomed all the way in, releasing and pressing the Zoom_Tele again will cause the camera to zoom in farther using the digital zoom.
Focus_<Near/Far>	D	Press and hold to adjust the camera's focus.
Auto_Focus_<On/Off/Toggle>	D	Pulse to turn the auto focus on and off.
Iris_<Open/Close>	D	Pulse to adjust the camera's iris.
Auto_Iris_<on/Off/Toggle>	D	Pulse to turn the auto iris on and off.
Iris_Priority_<Auto/Manual/Toggle>	D	Pulse to set the iris priority to auto or manual.
Image_Rotation_Off	D	Pulse to turn the image rotation off.
Image_Rotation_Cycle	D	Pulse to cycle through the image rotation settings, -90, 180, +90 and off.
Source_Select_*	D	Pulse to select the source for the visualizer.
Set_PIP_<On/Off/Toggle>	D	Pulse to turn the PIP on and off.
Take_Snapshot	D	Pulse to store a picture to memory or USB.
Start_Recording	D	Pulse to start recording.
Stop_Recording	D	Pulse to stop recording.
<Pause/Resume>_Recording	D	Pulse to pause or resume the current recording.
Volume_<Up/Down>	D	Pulse to change the audio output volume.
Set_Volume_Level	A	Set output volume. Valid range of 0d – 100d in increments of 10d.
Mute_<On/Off/Toggle>	D	Pulse to mute or unmute the audio output.
Streaming_Mode_<Auto/Off>	D	Pulse to set the streaming more.
Menu_*	D	Pulse to access and navigate setup menus.
Video_<Pause/Resume>	D	Pulse to pause/resume video playback.
Vergence_<+/->	D	Pulse to Start/Stop vergence Plus/Minus.

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12/14
Device Type: Document Camera

_2D_On	D	Pulse to turn 2D mode on and 3D mode off.
_3D_On	D	Pulse to turn 3D mode on and 2D mode off.
_2D/3D_Toggle	D	Pulse to toggle between 2D/3D modes.
Light_*	D	Pulse to turn the light, lightbox and slidebox on and off.
Lampchange	D	Pulse to allow a lamp change.
Reset_Lamp_<1/2>_Hours	D	Pulse to reset the lamp hours for the desired lamp.
Lamp_Voltage_*	D	Pulse to set the lamp voltage to the desired light level.
Recall_Preset_*	D	Pulse to recall a camera preset. Presets 1, 2, and 3 can be set using the Store_Preset_<1/2/3> inputs.
Store_Preset_<1/2/3>	D	Pulse to store the current camera settings in the desired preset.
Freeze_<On/Off/Toggle>	D	Pulse to turn the freeze function on and off.
Recall_Stored_Image_<1…9>	D	Pulse to recall the desired stored image.
Memory_Off	D	Pulse to turn the recalled image off.
Show_All_<On/Off/Toggle>	D	Pulse to turn the show all images on and off.
Store_Image_<1…9>	D	Pulse to store the current image in the desired memory location.
Erase_All_Images	D	Pulse to erase all stored images.
Capture_Area_Shift_<On/Off/Toggle>	D	Pulse to turn the capture area shift on and off.
Poll_Enable	D	Set high to enable polling for status.
Connect	D	Digital signal that can be used to control the TCP/IP Connection.
{{TCP/IP_Client_>>_connect-f}}	D	Digital signal to be routed from the connect-f output of the TCP/IP Client.
{{TCP/IP_Client_>>_status}}	A	Analog signal to be routed from the status output of the TCP/IP Client.
{{TCP/IP_Client_>>_RX$}}	S	Serial signal to be routed from the RX$ output of the TCP/IP Client.

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Device Type: Document Camera

FEEDBACK:

Power_Is_<On/Off>	D	High to indicate the current power status.
Zoom_Position_Gauge	A	Analog signal indicating the current zoom position. To be displayed using a gauge on a touch panel.
Digital_Zoom_2x_Is_On	D	High to indicate digital zoom 2x is on.
Digital_Zoom_4x_Is_On	D	High to indicate digital zoom 4x is on.
Digitial_Zoom_Is_Off	D	High to indicate digital zoom is off.
Focus_Position_Gauge	A	Analog signal indicating the current focus position. To be displayed using a gauge on a touch panel.
Auto_Focus_Is_<On/Off>	D	High to indicate the current auto focus state.
Iris_Position_Gauge	A	Analog signal indicating the current iris position. To be displayed using a gauge on a touch panel.
Auto_Iris_Is_<On/Off>	D	High to indicate the current auto iris site.
Iris_Priority_Is_<Auto/Manual>	D	High to indicate the current iris priority state.
Source_*_Selected	D	High to indicate current source selected.
PIP_<On/Off>	D	High to indicate the current PIP state.
Recording	D	High to indicate device is recording.
Stopped	D	High to indicate device has stopped recording.
Paused	D	High to indicate recording is paused.
Set_Volume_Level	A	Analog signal indicating the current volume level. To be displayed using a gauge on a touch panel.
Mute_Is_<On/Off>	D	High to indicate the current mute state.
Streaming _Mode_Is_<Auto/Off>	D	High to indicate the current streaming mode state.
Vergence_Position_Gauge	A	Analog signal indicating the current vergence position. To be displayed using a gauge on a touch panel.
_2D_Is_On	D	High to indicate current 2D state.
_3D_Is_On	D	High to indicate current 3D state.

Certified Module

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Freeze_Is_<On/Off>	D	High to indicate current freeze state.
Show_All_Is_<On/Off>	D	High to indicate the current show all state.
Capture_Area_Shift_<On/Off>	D	High to indicate the current capture area shift state.
Connect-F	D	Digital signal indicating the connection state of the TCP/IP Client.
{{Connect_>>_TCP/IP_Client}}	D	Digital signal to be routed to the Connect input on the TCP/IP Client.
{{TX$_>>_TCP/IP_Client}}	S	Serial signal to be routed to the TX$ input on the TCP/IP Client.

TESTING:

OPS USED FOR TESTING:	1.501.2867.30341
SIMPL WINDOWS USED FOR TESTING:	4.07.03
DEVICE DB USED FOR TESTING:	84.00.003.00
CRES DB USED FOR TESTING:	62.00.002.00
SYMBOL LIBRARY USED FOR TESTING:	1031
SAMPLE PROGRAM:	WolfVision WolfProt TCP-IP v1.3 Demo

REVISION HISTORY:	v1.0 – Initial Release
	
	v1.2 – Updated February 20, 2017
	  1) Polling: added error handling for WolfProt communication.
	  2) Polling: Increased delay between two successive commands from 100ms to 200ms.
	  3) Polling: Fixed error in Timeout detection.
	  4) Polling: Reduced polling interval from 15s to 5 s (complete polling cycle requires approx. 3.5 s).
	
	v1.3 – Updated June 12, 2017
	  1) Added Capture Area Shift control.
	  2) Bug fix: Module reuses network connection instead of opening a new connection for each command to send. This speeds up polling on older WolfVision hardware significantly.
	  3) Bug fix: Wrong error replies from older WolfVision hardware is now handled correctly by the module. This speeds up polling on these devices significantly.