Crown Amplifiers PIP-USP3/CN
Error Reporting v3
Module Application Guide

Description

This module allows an Ethernet-equipped Crestron 2-series processor to control the output volume stage of a Crown Amplifier equipped with a PIP-USP3/CN card via UDP/IP communications.

Note: CobraNet traffic generates an "Error: ReadData: Unable to find driver node to match address" message in Viewport and in the error log. This message does not impact the functionality of the module or processor. The frequency of this error message increases when the IQwic software is running.

The thresholds for the various errors to be monitored must be set using the IQwic configuration software; in addition the "include in standard error reporting" option must be activated.

Also note that a wide variety of settings, including amplifier error monitoring, are stored and recalled in presets, therefore, if Error Monitoring is to be used it is important to make sure that the proper settings are made in each preset to be used.

Compatibility			Processor Requirements	
🙂 2-Series Compatible	🚫 NOT CNMSX Compatible	🚫 NOT System Builder Compatible	Ethernet REQUIRED	Compact Flash NOT NEEDED

Ethernet Configuration Information

It is strongly suggested that you load the supplied demonstration program and touchpanel to gain an understanding of the application of the module before you attempt to implement the module in your own program.

You will have to enter information in three different places in your program in order for the module to function. Under **System Views** drop a **UDP/IP Client** onto your Ethernet Slot. Now double click on the Client and select the **IP Net Address** tab. Enter the **Host Name** or **IP Address** of your Crown CTs Series Amplifier with PIP-USP3/CN card.

Return to the **Program View** and open the **Client** you just inserted. To keep implementation simple, please use the same signal names used in our demonstration program. Your Client with signal names should look like this:
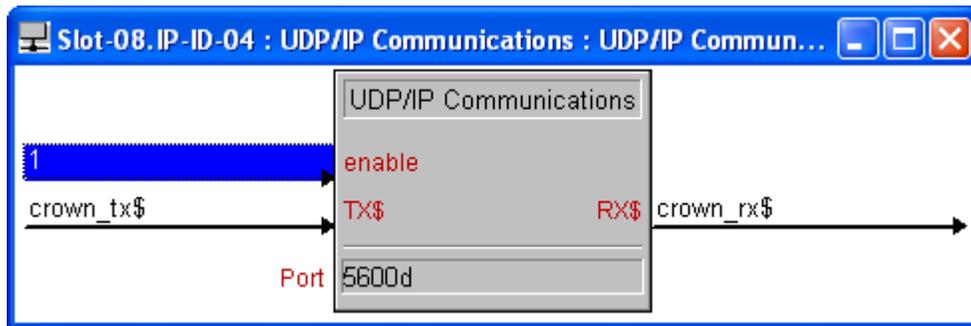
Module Application

Now launch a second instance of SIMPL Windows and open the program Crown_CTs_Amplifier_PIP-USP3CN_Pro2_Demo_v3.smw. If the program you are writing is in the same directory as the demo program, you can simply copy and paste the module(s) you want with all of its signal names from the demo program into your program. Otherwise, you will need to copy the module and all of its SIMPL+ modules into your project directory first.

You will now need to set up the address of the amplifier you would like to monitor for errors using the parameter field.
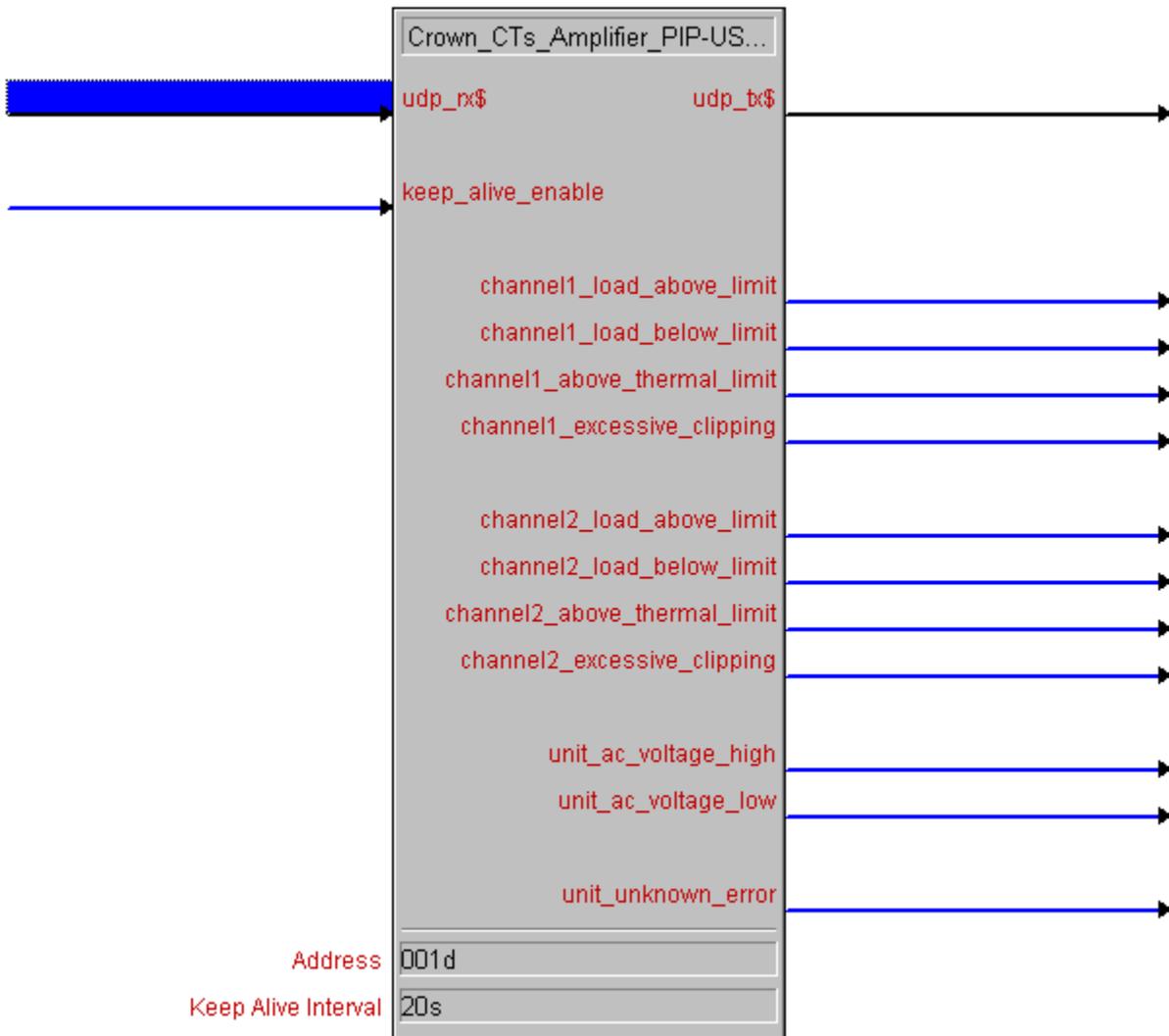
Signal and Parameter Descriptions

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

DIGITAL INPUTS

keep_alive_enable .... hold this input high (or place 1 on this input) to enable send "keep alive" packets to the amplifier to ensure that errors are reported. If keep_alive_enable is low, the amplifier may still report errors for a period of time.

DIGITAL OUTPUTS

channel1_load_above_limit .... Pulsed when the amplifier reports that Channel 1's measured speaker impedance is above the limit set using IQwic

channel1_load_below_limit .... Pulsed when the amplifier reports that channel 1's measured speaker impedance is below the limit set using IQwic

channel1_above_termal_limit .... Pulsed when the amplifier reports that channel 1's temperature has exceeded the limit set using IQwic

channel1_excessive_clipping .... Pulsed when the amplifier reports "excessive" clipping on Channel 1

channel2_load_above_limit .... Pulsed when the amplifier reports that Channel 2's measured speaker impedance is above the limit set using IQwic

channel2_load_below_limit .... Pulsed when the amplifier reports that channel 2's measured speaker impedance is below the limit set using IQwic

channel2_above_termal_limit .... Pulsed when the amplifier reports that channel 2's temperature has exceeded the limit set using IQwic

channel2_excessive_clipping .... Pulsed when the amplifier reports "excessive" clipping on Channel 2

unit_ac_voltage_high .... Pulsed when the amplifier reports that the AC line voltage has exceeded the limit set using IQwic

unit_ac_voltage_low .... Pulsed when the amplifier reports that the AC line voltage has dropped below the limit set using IQwic.

unit_unknown_error .... Pulsed when the amplifier reports any error other than those listed above

SERIAL INPUTS

udp_rx$ .... tie to rx$ of UDP/IP client

SERIAL OUTPUTS

udp_tx$ .... tie to tx$ of UDP/IP client (if you have multiple modules controlling the amplifier, it is recommended to run all of the signals through a cat$ and then to the tx$ port)

PARAMETERS

Address .... enter the desired amplifier's IQ Address in decimal format

Keep Alive Interval .... Time in seconds between sending Keep Alive packets to the amplifier when keep_alive_enable is high. This should be between 5s and 30s.

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 normal office hours 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 http://www.thecontrolworks.com/customerlogin.aspx.

Distribution Package Contents

The distribution package for this module should include:

BSS PS-8810 Limits v1.usp .... SIMPL+ file used within the volume control modules
BSS PS-8810 Limits v1.ush .... SIMPL+ header file
Crown_CTs_Amplifier_PSP-USP3CN_Presets_v3.umc ..... Crestron user module for preset control
Crown_CTs_Amplifier_PSP-USP3CN_Outputs_v3.umc .... Crestron user module for output volume control
Crown_CTs_Amplifier_PIP-USP3CN_Error_Monitoring_v3.umc
.... Crestron user module for error monitoring
Crown_CTs_Amplifier_PIP-USP3CN_Demo_TPS-4500_v3.vtp
.... Demo touchpanel for TPS-4500 touchpanel
Crown_CTs_Amplifier_PIP-USP3CN_Demo_TPS-4500_v3.vtp
.... Compiled demo touchpanel
Crown_CTs_Amplifier_PIP-USP3CN_PRO2_Demo_v3.smw
.... Demo program for PRO2 processor
Crown_CTs_Amplifier_PIP-USP3CN_PRO2_Demo_v3.spz
.... Compiled demo program
Crown_CTs_Amplifier_PIP-USP3CN_Presets_Help_v3.pdf Help file for presets module
Crown_CTs_Amplifier_PIP-USP3CN_Outputs_Help_v3.pdf   Help file for output volume module
Crown_CTs_Amplifier_PIP-USP3CN_Errors_Help_v3.pdf . Help file for error reporting module

Revision History

v3 lincoln@controlworks.com 2006.04.14
    Initial release of Crown CTs Amplifiers PIP-USP3CN version. Derived from BSS PS-8810C modules

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.

Hardware
Crestron PRO2 Processor v3.137
Crestron TPS-4500 Touchpanel...v2.002

Software
Crestron SIMPL Windows ....Version 2.06.20
Crestron Vision Tools Pro-e ....Version 3.4.2.9
Crestron Database ....Version 17.5.1
Crestron Symbol Library ....Version 360
Crestron Device Library ....Version 360

ControlWorks Consulting, LLC Module License Agreement

Definitions:
ControlWorks, *We*, and *Us* refer to ControlWorks Consulting, LLC, with headquarters located at 701 Beta Drive, Suite 22 Mayfield Village, Ohio 44143-2330. *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* 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. You may 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.

Indemnification/Hold Harmless
ControlWorks, in its sole and absolute discretion may refuse to provide support for the application of the Module in such a manner that We feel has the potential for property damage, or physical injury to any person. Dealer shall indemnify and hold harmless ControlWorks Consulting LLC, its employees, agents, and owners from any and all liability, including direct, indirect, and consequential damages, including but not limited to personal injury, property damage, or lost profits which may result from the operation of a program containing a ControlWorks Consulting, LLC Module or any component thereof.

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