








Crestron Paging Module Application Guide

Description

This module allows the user to easily add paging functionality to a Crestron PAD8, PAD8A, BIDPAD, or Adagio Audio Expander (AAE) audio distribution processor. When a page is triggered, selected rooms will switch to the designated paging input at the desired volume; when the page expires, all rooms will revert to the previously selected source and volume. If the room was previously off the module will turn it on to the page volume and source and will then turn it off once the page expires.

Supported Processors

This module is supported on any Crestron 2-series or X-generation processor. At least one Crestron CNX-BIPAD, PAD8, PAD8A, or AAE connected to the Cresnet network is required to use this module.

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

Module Application

This module may be used with a Crestron PAD8, PAD8A, BIPAD, or AAE audio distribution processor and is intended to sit between your existing room control logic and the SIMPL Windows hardware definition.

When this module is used with an Adagio Audio Expander (AAE), the room7 and room8 inputs and outputs on the module may be left disconnected.

A typical application of this module would be to use the page output from a phone system to page throughout the distributed audio speakers in a home. In order to accomplish this you will need to route the page output from the phone system to the PAD8A/BIPAD/AAE input. Be sure to define the source as "mono". Now you will need to notify the module that a page is in process. This can be accomplished by connecting a dry contact closure from the phone system to a digital I/O on the processor. If your phone system does not have an output that indicates page status you can accomplish the same function by connecting an audio sensing device to the page output. We have had success with a Radio Design Labs ST-ACR1 www.rdl.net.com. This device will provide a dry contact output as long as it senses audio level on the page output.

Signal and Parameter Descriptions

DIGITAL INPUTS

page_trigger	Hold high throughout the duration of a page, release to resume normal room audio.
[room1...8_page_enable]	Hold high to enable paging in the specified room. If this input is low, the room will not be included in a page.
[room1...8_power_on_in]	Connect to the power output logic of your room control logic. Hold high while the room is "on".

ANALOG INPUTS

page_source	Input number to switch rooms to when a page is active
[room1...8_page_volume]	Volume level that pages should be made at in each room
[room1...8_source_in]	The current input number from room control logic
[room1...8_volume_in]	The current volume for each room from room control logic.

SERIAL INPUTS

This module does not utilize any serial inputs.

DIGITAL OUTPUTS

room1...8_power_on_to_device.....	Connect to room-x-on input of PAD8, BIPAD or AAE. High when the room is on from room control logic or paging, low otherwise.
-----------------------------------	--

ANALOG OUTPUTS

room1...8_source_to_device	Connect to "src for roomX" input of PAD8, BIPAD or AAE. Contains the currently selected source for each room.
Room1...8_volume_to_device	Connect to the "volumeX" input of PAD8, BIPAD or AAE. Contains the current volume for each room.

SERIAL OUTPUTS

This module does not utilize any serial outputs.

PARAMETERS

This module does not utilize any parameters.

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:

crestron_paging_module_v3.umc.....	Crestron User Module to support paging
crestron_paging_engine_v3.usp.....	SIMPL+ file used within the module
crestron_paging_engine_v3.ush.....	SIMPL+ header file (2-series)
crestron_paging_engine_v3.uf.....	SIMPL+ header file (X-Generation)
crestron_paging_demo_xpanel_v3.vtp.....	Demo touchpanel for eControl
crestron_paging_demo_v3.smw.....	Demo program for PRO2 processor
crestron_paging_module_v3_help.pdf.....	Help file for this module

Revision History

V3 lincoln@controlworks.com 2006.11.09

Cosmetic changes only; added UMC wrapper and updated help file to new template.
Revised demonstration program for added clarity
New demonstration touchpanel.

V2 bob@controlworks.com 2003.01.13

Changed page off from fixed duration to the release of the trigger
Added initialization logic,

V1 lincoln@controlworks.com 2002.03.20

Initial release

Development Environment

Version 3 of this module 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 v3.155.1143

Software

Crestron SIMPL Windows	Version 2.07.36
Crestron Vision Tools Pro-e	Version 3.5.1.7
Crestron Database Version	18.2.6
Crestron Symbol Library	Version 396
Crestron Device Library	Version 396

ControlWorks Consulting, LLC Software 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.

Disclaimer of Warranties

ControlWorks Consulting, LLC software is licensed to You as is. You, the consumer, bear the entire risk relating to the quality and performance of the Software. In no event will ControlWorks Consulting, LLC be liable for direct, indirect, incidental or consequential damages resulting from any defect in the Software, even if ControlWorks Consulting, LLC had reason to know of the possibility of such damage. If the Software proves to have defects, You and not Us must assume the cost of any necessary service or repair resulting from such defects.

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.

License Grant

Software authored by ControlWorks remains the property of ControlWorks. ControlWorks grants You the non-exclusive, non-transferable, perpetual license to use the Software authored by ControlWorks as a component of Systems programmed by You. This Software is the intellectual property of ControlWorks Consulting, LLC and is protected by law, including United States and International copyright laws. This Software and the accompanying license may not be transferred, resold, or assigned to other persons, organizations or other Crestron Dealers via any means.

The use of this software indicates acceptance of the terms of this agreement.

Copyright (C) 2009 ControlWorks Consulting, LLC All Rights Reserved – Use Subject to License.
US Government Restricted Rights. Use, duplication or disclosure by the Government is subject to restrictions set forth in subparagraphs (a)-(d) of FAR 52.227-19.