



iPort V6 (with Video support) Module Application Guide

Description

This module allows a Crestron 2-series processor to control an Apple iPod via an iPort IW-4, IW-5, FS-4, or FS-5 Music System via RS-232. The module provides the browsing and transport functionality. Additionally, the module provides text feedback for currently playing track and allows for full menu navigation via a two-way touchpanel. Certain iPort Music Systems offer not only full control of the iPod but provide an S-Video and Composite video output for video enabled iPod's. See www.iportmusic.com for more information on Audio/Video/RS232-control compatibility.

Supported Processors

This module is supported on any 2-series processor with an available com port.

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

Module Application

Please refer to the demonstration program for an example implementation of the module. In SIMPL Windows, configure the serial port that the iPort is connected to with the following communication parameters: 19,200 BPS, No Parity, 8 Data Bits, 1 Stop Bit, No Handshaking. Use the control cable supplied with the iPort.

When an iPOD is inserted into the iPort, it will immediately be queried for name, repeat status, and shuffle status.

Signal and Parameter Descriptions

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

DIGITAL INPUTS

request_name	pulse to request the name of the iPod
enable_cos	pulse to force change of state reporting when in play mode (this is automatically done within the module)
disable_cos	pulse to turn off change of state reporting
[play_discrete]	discrete play (based on play fb state)
play/pause	play/pause toggle
stop	stop playing (must re-select music to re-start playing)
skip+/-	next/prev song
[scan+] and [scan-]	scan within song
shuffle_modes	scrolls through shuffle modes
shuffle_off	forces shuffle mode to off
repeat	scrolls through repeat modes
reset_db_selection	re-start browsing for music or video
audio_db_sel	start browsing for music
video_db_sel	start browsing for video
menu	return up one level while browsing
scroll+ and scroll-	scroll down/up in browse window
select1-select10	select entry in browse window

ANALOG INPUTS

[scroll_location]	input from slider for scrolling through browse window
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SERIAL INPUTS

ipod_rx\$	route to serial rx\$ for iPort's COM port
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DIGITAL OUTPUTS

[ipod_docked]	feedback indicating that an IPOD is present in the dock
[ipod_not_docked]	feedback indicating that the dock is empty
play_fb	play feedback
pause_fb	pause feedback
stop_fb	stop feedback
shuffle_off_fb	shuffle mode off
shuffle_songs_fb	shuffle songs
shuffle_albums_fb	shuffle albums (play all songs on album then play the next shuffled album)
repeat_off_fb	repeat mode off
repeat_one_fb	repeat current song
repeat_all_fb	repeat all currently selected songs

ANALOG OUTPUTS

[elapsed_time]	elapsed time on currently playing song
[total_time]	total time of currently playing song
[progress_bar]	current song progress indicator (0-100)
[scroll_location_fb]	feedback to show current location in browse window

SERIAL OUTPUTS

ipod_tx\$..... route to serial tx\$ for iPort's COM port
[ipod_version\$] software version of the iPort Music System
[ipod_name\$] name of iPod
song_title\$ name of song currently playing
song_artist\$ name of artist currently playing
song_album\$ name of album currently playing
ipod_line1-10\$ text for browse window

PARAMETERS

records_to_display..... number of records to display in browse window.
Default is 10. Valid range is 6 to 10 (smaller values
may be used for small format panels, e.g CT-1000)

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:

iPort_v6_help.pdf	This help file
iPort_v6.umc	Crestron user module to insert in program
iPort_engine_v6.usp	Crestron SIMPL+ file used by the module
iPort_engine_v6.ush	Crestron SIMPL+ file used by the module
string queue.usp.....	Crestron SIMPL+ file used by the module
string queue.ush.....	Crestron SIMPL+ file used by the module
UTF-8_processor_v1.usp	Crestron SIMPL+ file used by the module
UTF-8_processor_v1.ush	Crestron SIMPL+ file used by the module
iPort Demo TPS12.vtp	example touchpanel (TPS12)
iPort Demo XPANEL.vtp	example XPANEL (800x600)
iPort demo v6.smw	example program (PRO2)

Revision History

V6 bob@controlworks.com 2007.10.03

Updated touchpanel template/help files. Remapped all joins. Corrected issue where Music Video selection was off by one because iPort doesn't return "ALL" as the first selection. Changed iPod docking/undocking events to gather data on initial docking and clear fields when undocked. Cleaned up the UMC wrapper. Removed poll_for_status input function.

V5 bob@controlworks.com 2007.08.08

Initial release with Video support.

V4 lincoln@controlworks.com 2006.05.01

Added UTF-8 Processing Logic;

bob@controlworks.com 2006.05.04

Added menu command. Added discrete play command. Added scroll ability from category screen. Added support for Audiobooks and Podcasts. Corrected error condition from rapid presses or sliding on scroll bar.

V3 bob@controlworks.com 2005.11.4

Added logic to query for song info upon selection after reports of module not updating. Test Manager trace shows that iPort is not always reporting the song change. There may still be instances with certain iPod/iPort combinations whereby change of state notification fails.

V2 bob@controlworks.com 2005.09.16

Internal. Feedback issue changes for internal testing.

V1 bob@controlworks.com 2005.09.16

Initial release

Development Environment

Version 6 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	v3.155.1240
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Software

Crestron SIMPL Windows	Version 2.08.41 Build:2007030:3
Crestron Vision Tools Pro-e	Version 3.7.2.1 Build:20070824:1
Crestron Database Version	18.8.8
Crestron Symbol Library	Version 487
Crestron Device Library	Version 487

iPort Firmware

IW-5 Version 1.3.1

iPort_v6 (with Video support)

Telephone: (+1)440-449-1100

support@controlworks.com

ControlWorks Consulting, LLC

<http://www.controlworks.com>

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.

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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.

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