



# Logitech SqueezeCenter Player Control Module Application Guide

## Description

This module allows any Ethernet-equipped Crestron 2-series or 3-series processor to control a compatible player associated with a Squeezebox Server. Multiple players may be controlled using multiple instances of this module.






Although this module is expected to work across the spectrum of players and server configurations that are available, **ControlWorks Consulting is only able to support this module when used in conjunction with a Windows PC-based implementation of the Squeezebox Server software and a SlimDevices/Logitech Squeezebox, Duet, Boom, Radio, Touch, or Transporter.**

Before implementing this module you should have the Squeezebox Server software installed and running with at least one player associated with the Server. You should also have an understanding of the operation of the Server and Player. ControlWorks does not provide support for software that is not provided by ControlWorks.

Please note that at this time it is only possible to fully control a player that is associated with a Squeezebox Server. It is not possible to fully control a player on a standalone basis or a player associated with the MySqueezebox.com. **While this module will connect to some of the newer Squeezebox players directly, ControlWorks Consulting will not provide support for this use of our module due to the severe limitations of the "TinySC" server built into the players.**

## Supported Processors

This module is supported on any 2-series or 3-series processor with Ethernet. Control of the player or server via infrared (IR) or serial connection is not supported by this module.

Compatibility			Processor Requirements	
				

## **Setup & Programming Tips**

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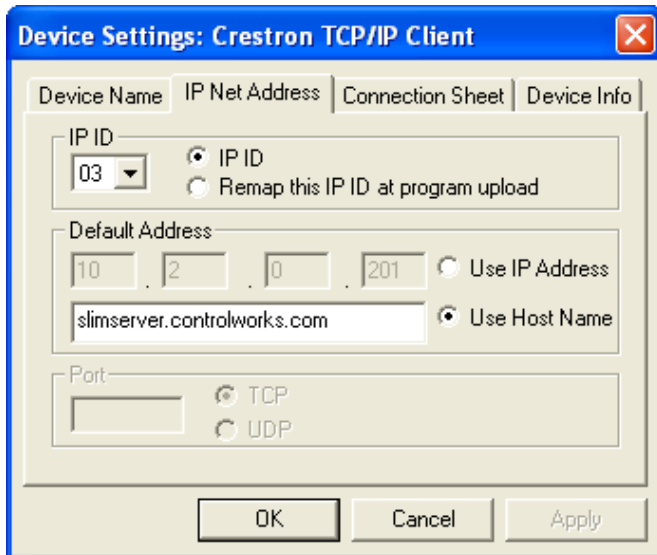
\*The browse menu now has double press as well as single press commands to accommodate programmers that would like their panels to operate in either fashion. Please be sure to look at the demo XPanels to see how we are handling the different menu systems.

\*The inputs and outputs of this module have changed a lot so you will not be able to perform a "Copy All Signals/Parameters" and have it move 100% of your signals.

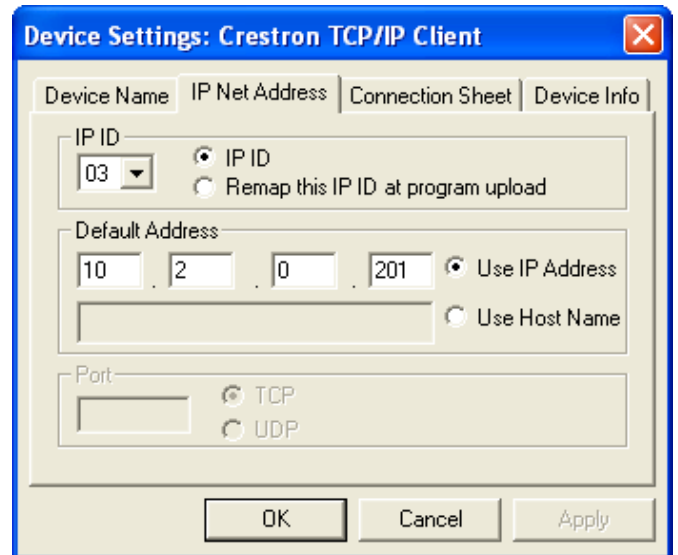
\*We recommend that this module be used with any of the players that come with an IR remote. It will work with the Duet, but the Duet lacks some commands in the firmware (mainly IR related) that can cause some confusion. Duet users also report having connection issues that users of the other players don't seem to experience.

## Ethernet Configuration Information

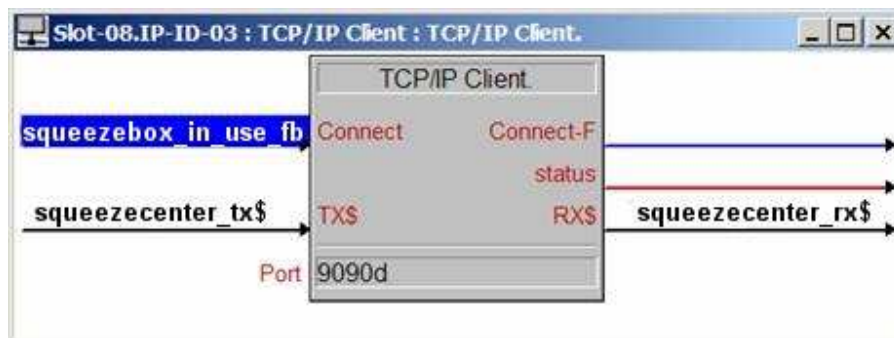
This module requires one TCP/IP client connection to the CLI port on the PC running the Squeezebox Server software, CLI port unless changed from the default is 9090. Ensure that the IP address or host name in the IP table is that of the hardware running the Squeezebox Server software and *not* that of an individual player.



or



The connection to the Squeezebox Server should be kept open at all times once established. This allows for the module to receive unsolicited status feedback and also improves the perceived performance of the module. However, if more than one player will be tied into your Crestron system, it is recommended to close each connection when it's respective player is not in use.

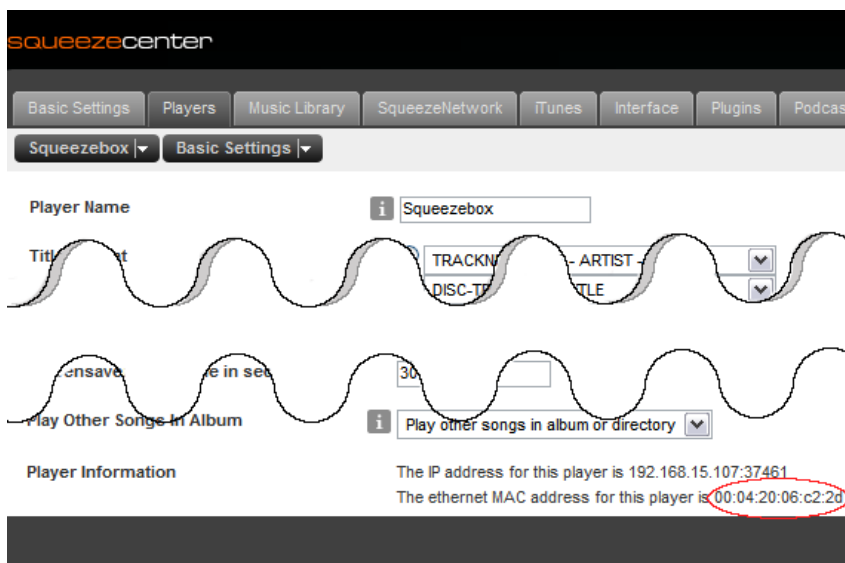


## Module Application

It is important to note that this module includes a player ID parameter; for the module to function properly, the Player ID must match the Player ID (which is typically, but not always, the Ethernet MAC address) of a player associated with the Squeezebox Server.

The Player ID parameter is case sensitive; the most reliable way to determine the Player ID is to copy it from the "Player Information" page from the Squeezebox Server's web administration console. To do this:

- 1) Open an Internet browser and access the page <http://servername:9000/> where "servername" is the name or IP address of the hardware running the Squeezebox Server software.
- 2) In the lower right, click the "Settings" button
- 3) Click on the "Players" Tab and then locate the player that you wish to control. If the player has been previously given a name, the name will be displayed; otherwise the player's IP address will be displayed.
- 4) Once the player has been selected, the settings for that player will be displayed. The player ID is located at the bottom of this pane. The Player ID parameter must be entered exactly as shown on this page.



If the player\_connected\_fb digital output remains low even when the player is connected, the first detail that should be verified is that the value Player ID parameter of the module exactly matches that of the desired player. The MAC address is case sensitive so a player ID of 00:04:20:06:c2:2d is not equivalent to 00:04:20:06:C2:2D.

It is suggested that a "1" be placed on the [subscribe\\_to\\_status\\_updates](#) digital input of all modules. If it is necessary to control subscriptions, you should use this input on one player module and place a "0" on all other modules. If you elect not to subscribe to status updates, some player feedback, including current track information will not function as expected. If a "1" is placed on this input, the module will subscribe to status updates when the program is first started and every 5 minutes thereafter.

## **Note about Internet Radio and Music Apps**

Version 2 (and later) of this module supports control of Squeezebox Server Streaming Music Plug-ins. Due to the fact that these plug-ins request information from the Internet (both for playing back audio and providing lists of available content), you may notice a delay between making a request and seeing the results of that request, especially on slower Internet connections or during periods of heavy use. In order to take advantage of Internet Radio plug-ins you *must* be running Squeezebox Server Version 7.2.0 (Windows) or later.

Not all Internet Radio streams or Podcasts report the same meta data; this means for example that any given podcast may be lacking a title or the `track_total_time_in_seconds` and `track_progress_fb` outputs may report 0.

## **Transporter External Inputs**

This module includes 4 digital inputs to activate the digital audio inputs that are present on the audiophile-grade Transporter. These inputs should only be used when the target player is a Transporter; they will not work when used for a different player (i.e. a SqueezeBox) and the player may react erratically.

## **Monitoring the Squeezebox Server Connection**

The Squeezebox Server software does not provide an indication when the software (or hardware running the software) is being shut down. Should this information be necessary in your application, it will be necessary to build logic that monitors the "tcp/ip\_client\_status" analog output of the module in SIMPL Windows.

# Signal and Parameter Descriptions

Bracketed signals such as “[signal\_name]” are optional signals

## **DIGITAL INPUTS**

{{TCP/IP_Client_>>_Connected-F}}	Tie to the “Connected-F” output of the TCP/IP client.
[tcp_connect]	Pulse to connect the TCP/IP client
[tcp_disconnect]	Pulse to disconnect the TCP/IP client
[power_on]	Pulse to turn the player’s power on
[power_off]	Pulse to turn the player’s power off
[power_toggle]	Pulse to toggle the player’s power
[play]	Pulse to send the Play command to the player
[stop]	Pulse to force the player to Stop playback
[pause_on]	Pulse to force the player into the “Pause” mode
[pause_off]	Pulse to force the player out of the “Pause” mode
[pause_toggle]	Pulse to toggle the player’s pause state
[previous_track]	Pulse to go to the previous track in a playlist; if the first track is reached, player will wrap to the last track.
[next_track]	Pulse to go to the next track in a playlist; if the last track is reached, the player will wrap to the first track
[player_shuffle_off]	Pulse to disable shuffle mode
[player_shuffle_songs]	Pulse to shuffle by song
[player_shuffle_albums]	Pulse to shuffle by album
[player_repeat_none]	Pulse to repeat no tracks
[player_repeat_one]	Pulse to repeat the current track
[player_repeat_all]	Pulse to repeat all tracks in a playlist
[volume_up]	Ramp the player’s volume up
[volume_down]	Ramp the player’s volume down
[volume_mute_toggle]	Pulse to mute or unmute the player’s audio output
[browse_home]	Pulse to generate the “Home” browse menu, which provides options to browse Songs, Albums, Artists, etc.
[browse_songs...sirius]	Pulse to browse the section defined on this digital signal. This permits quick source selection without the need to go back to the main menu option on the home browse screen.
[browse_back]	Pulse to go back one level when browsing
[scroll_first]	Pulse to scroll to the first screen of results
[scroll_up]	Pulse to scroll back one screen of results
[scroll_down]	Pulse to scroll forward one screen of results
[scroll_last]	Pulse to scroll to the last screen of results
[line_select_play_now]	Valid only when browsing or searching songs. Pulse to dump the currently playing playlist and play the selected track immediately.
[line_select_play_next]	Valid only when browsing or searching songs. Pulse to play the selected song immediately after the currently playing song has finished.
[line_select_play_last]	Valid only when browsing or searching songs. Pulse to add the song to the end of the current playlist.
[love_track]	Pulse to tell the Pandora, Slacker, or Last.FM service to add the currently playing song to your list of “liked” songs
[ban_track]	Pulse to tell the Pandora, Slacker, or Last.FM service to add the currently playing song to your list of “disliked” songs.
[create_pandora_station]	Pulse after entering an artist or song name to instantly create and start playing a new Pandora station
[scan_database]	Pulse to update your Squeezebox Server database

[add_web_source_to_favorites]	Pulse to store the currently playing station to your list of Favorites.
[add_to_favorites]	Pulse to store the currently playing track to your list of Favorites.
[clear_queue]	Pulse to clear the current queue and stop playback
[randomplay_tracks]	Pulse to play a random selection of tracks
[randomplay_albums]	Pulse to play a random album
[randomplay_contributors]	Pulse to play tracks from a random artist
[randomplay_year]	Pulse to play tracks from a random year
<b>-DoublePressMenu</b>	
[dp_select_line1...10]	Pulse to select the information displayed on the selected line.
[dp_play_line]	Pulse to play the information displayed on the selected line and clear the current playlist.
[dp_add_line]	Pulse to add the information displayed on the selected line to the current playlist.
[dp_fav_delete_line]	Pulse to delete the stored favorite on the current line
[dp_confirm_line_selection]	Pulse to confirm your line selection and proceed
<b>-SinglePressMenu</b>	
[sp_select_line1...10]	Pulse to select the information displayed on the selected line.
[sp_play_line1...10]	Pulse to play the information displayed on the selected line and clear the current playlist.
[sp_add_line1...10]	Pulse to add the information displayed on the selected line to the current playlist.
[sp_fav_delete_line1...10]	Pulse to delete the stored favorite on the current line
<b>-search_keys</b>	
[search_local_library]	Pulse to show the keyboard page and perform a search
[close_keyboard]	Pulse to hide the keyboard page
[key_shift]	Pulse to "shift" the keyboard
[search_now]	Pulse to perform a search of the Squeezebox Server database looking for [search_string\$]
[search_artist]	Pulse to look for [search_string\$] in artist fields when searching
[search_by_song]	Pulse to look for [search_string\$] in song title fields when searching
[search_by_album]	Pulse to look for [search_string\$] in the album name when searching
[search_by_genre]	Pulse to look for [search_string\$] in the genre field when searching
[search_by_playlist]	Pulse to look for [search_string\$] in the playlist name when searching
[key_clear...z]	Keyboard inputs for search string
<b>-ir_emulationi_keys</b>	
[ir_power...add_*]	Emulate keys on factory remote
<b>-Transporter_Commands</b>	
[transporter_input_balanced_aes-ebu]	Pulse to activate the AES-EBU external input [Valid on Transporter only]
[transporter_input_bnc-spdif]	Pulse to activate the BNC SPDIF external input [Valid on Transporter only]
[transporter_input_rca-spdif]	Pulse to activate the RCA SPDIF external input [Valid on Transporter only]
[transporter_input_toslink]	Pulse to activate the optical Toslink external input [Valid on Transporter only]
<b>-text_to_display</b>	
[display_text_now]	Pulse to display the text specified in [line1_text\$] and [line2_text\$] for the period of time specified by display_time_in_seconds.

## **ANALOG INPUTS**

{{TCP/IP_Client_>>_status}}	.....Tie to the status output of the TCP/IP client symbol
[volume_level_slider]	.....Full range input to set the volume level on the player
[track_progress_slider]	.....Full range input to force the player to a specific location within a track (NOTE: Some players react erratically to this input, in addition some versions of VisionTools do not properly support transparent sliders)
[scroll_slider]	.....Full range input to allow the user to jump to an arbitrary location within the results list; functions like a scroll bar in Windows.
[display_time_in_seconds]	.....Number of seconds to display the text for when sending to display. Time needed for scrolling, if applicable, is automatically added to this value.

## **SERIAL INPUTS**

{{RX\$_>>_TCP/IP_Client}}	.....Tie to the RX\$ line of the TCP/IP client symbol
[line1_text_in\$]	.....Text to display on line 1. Typically, this is the smaller and top most of the two lines.
[line2_text_in\$]	.....Text to display on line 2. Typically this is the larger and bottom most of the two lines.

## **DIGITAL OUTPUTS**

{{Connect_>>_TCP/IP_Client}}	.....Tie to the "Connect" input of the TCP/IP client
[player_connected_fb]	.....High when the Squeezebox Server reports that the player is connected
[player_power_on_fb]	.....High when the Squeezebox Server reports that the player's power is on
[player_power_off_fb]	.....High when the Squeezebox Server reports that the player's power is off
[player_mode_play_fb]	.....High when the player is reported to be playing
[player_mode_stop_fb]	.....High when the player is reported to be stopped
[player_mode_pause_fb]	.....High when the player is reported to be paused
[player_shuffle_off_fb]	.....High when the player is not shuffling
[player_shuffle_songs_fb]	.....High when the player is shuffling songs
[player_shuffle_albums_fb]	.....High when the player is shuffling albums
[player_repeat_none_fb]	.....High when the player is not repeating any songs
[player_repeat_one_fb]	.....High when the player is repeating one song
[player_repeat_all_fb]	.....High when the player is repeating all songs in a playlist
[browse_back_enable_fb]	.....High when it is possible to browse back a level
[scroll_first_enable_fb]	.....High when it is possible to scroll to the first screen of results
[scroll_previous_enable_fb]	.....High when it is possible to scroll to the previous page of results.
[scroll_next_enable_fb]	.....High when it is possible to scroll to the next page of results.
[scroll_last_enable_fb]	.....High when it is possible to scroll to the last page of results.
[line_select_play_..._fb]	.....High when selecting a song will cause the behavior described in for the corresponding [line_select_play...] digital input
[show_love/ban_controls]	.....High when extra controls for Pandora, Slacker, & Last.FM are needed. This drives the subpage for the "Love Track" & "Ban Track" buttons.
[scanning_database]	.....High when a database scan is in progress
[show_add_web_source_to_favorites_button]	.....High when the keyboard is visible and in the process of storing a web favorite
[favorite_added]	.....High for a few seconds after adding a favorite



[show_favorites_delete_controls_fb] .....	High when browsing the music library and permits the deletion of the selected stored "favorite"
[show_play_now_controls_fb] .....	High when browsing the music library and permits playing a music directory and adding items to the current playlist.
[show_playlist_controls_fb] .....	High to indicate that playlist management controls are available (when browsing or searching songs outside of an album or playlist). See the demo program for the suggested use of this signal.
[in_main_menu_fb] .....	High when you are on the main menu. This drives the subpage that contains the category artwork.
[line1...10_playing] .....	Feedback to indicate when the song on the line is playing.
[browsing_radio...lastfm_fb] .....	High when browsing the named service
[playing_radio...lastfm_fb] .....	High when playing the named service
<b>-DoublePressMenu</b>	
[dp_select_line1...10_fb] .....	Feedback to indicate when the selected line is active.
[dp_show_play_line_button] .....	High when the current service permits the "Play Now" functionality for the selected line
[dp_show_add_line_button] .....	High when the current service permits the "Add Line" functionality for the selected line
[dp_show_fav_delete_line_button] .....	High when the current service permits the "Delete Favorite" functionality for the selected line
<b>-SinglePressMenu</b>	
[sp_show_play_line1...10_button] .....	High when the current service permits the "Play Now" functionality for the line
[sp_show_add_line1...10_button] .....	High when the current service permits the "Add Line" functionality for the line
[sp_show_fav_delete1...10_line_button] .....	High when the current service permits the "Delete Favorite" functionality for the line
<b>-search_keys</b>	
[show_search_local_library_button] .....	High when the in the any location of the browse menu that permits the search of local media
[show_keyboard_fb] .....	High when doing a search within online music apps
[key_shift_fb] .....	High when the keyboard is "shifted"
[search_by_artist_fb] .....	High when searches would be conducted by artist name
[search_by_song_fb] .....	High when searches would be conducted by song name
[search_by_album_fb] .....	High when searches would be conducted by album name
[search_by_genre_fb] .....	High when searches would be conducted by genre name
[search_by_playlist_fb] .....	High when searches would be conducted by playlist name

## **ANALOG OUTPUTS**

[volume_level_fb] .....	Full range analog value containing the current volume level of the player
[track_time_elapsed_in_seconds] .....	Analog value representing the number of seconds that have elapsed in the currently playing track
[track_total_time_in_seconds] .....	Analog value representing the total number of seconds in the currently playing track
[track_progress_fb] .....	Full range analog value representing the percentage position of the current track
[scroll_position_fb] .....	Full range analog value representing the position (0-100%) within the currently displayed results
[line1...10_icon] .....	Used to drive the multistate graphics for the category art 0d=No Icon, 1d=Songs, 2d=Artists, 3d=Albums,

4d=Genres, 5d=Playlists, 6d=Radio & Sirius,  
 7d=Favorites, 8d=Rhapsody, 9d=Slacker,  
 10d=Podcasts, 11d=Pandora, 12d=Last.FM,

**SERIAL OUTPUTS**

{{TX\$\_>>\_TCP/IP\_Client}} .....Tie to TX\$ line of TCP/IP client symbol  
 [shuffle\_mode\$] .....Text with current shuffle mode  
 [repeat\_mode\$] .....Text with current repeat mode  
 [currently\_browsing\$] .....  
 [line1\_text\$...line10 .....Text associated with each line  
 [player\_name\$] .....Indicates the name of the player as assigned in the  
 Squeezebox Server software

[current\_albumcover\$] .....Album cover art address for dynamic graphic  
 [current\_track\_title\$] .....Title of the track that is currently playing. For Internet  
 Radio stations this is often the artist name AND title of  
 the current track.

[current\_track\_artist\$] .....Name of the artist that is currently playing. For  
 Internet Radio stations this is often the name of the  
 station or the URL of the file, if specified.

[current\_track\_album\$] .....Name of the album that is currently playing  
 [current\_track\_genre\$] .....Name of the station that is currently playing (This only  
 works for Pandora, Slacker, Sirius, and Internet Radio)

[current\_station\$] .....Name of the genre that is currently playing  
 [search\_string\$] .....Search String text entry field

**PARAMETERS**

Player ID.....Enter the player ID, typically the MAC address, of the  
 player that you would like to control. The MAC address  
 is case sensitive.

Ramp Time.....The time, in seconds, to ramp from 0 to 100% for  
 volume adjustments

Lines To Display .....The number of lines of information to output; the  
 minimum setting is six lines (6d), the maximum is ten  
 lines (10d)

Use Main Menu .....Used to enable and disable the Main Menu. This is  
 useful if you want to use the "browse\_..." digital inputs  
 instead of having to go to the main menu.

Main Menu Line 1...10 .....Allows customization of the main menu. Put items in  
 any order or remove specific items from the main  
 menu.

Server IP .....The IP address of the PC that Squeezebox Server is  
 running on.

Server Port.....The port number configured for Squeezebox Server.  
 The standard port number is 9000.

TCPIP Client Port.....The port number configured for the CLI  
 communications. The standard port number is 9090.

## Support

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This module is supported by ControlWorks Consulting, LLC. Should you need support for this module please email [support@controlworks.com](mailto: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.controlworks.com/customerlogin.aspx>.

### Distribution Package Contents

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The distribution package for this module should include the following files:

#### For this module:

Squeezecenter\_Demo\_Program\_12-1.smw.....Demo program for PRO2 processor  
Squeezecenter\_MC3\_Demo\_Program\_v12-1.....Demo program for MC3 processor  
Squeezecenter\_Player\_Control\_v12-1\_Help.pdf .....Help file for Player Control module  
Squeezecenter\_Player\_Control\_v12-1.umc.....Crestron User Module for Player Control  
cw\_squeezecenter\_player\_engine\_v12-1.usp .....SIMPL+ file used within the player control module  
cw\_squeezecenter\_engine\_v12-1.ush.....SIMPL+ header file  
cw\_squeezecenter\_main\_menu\_scroll\_v12-1.usp .....SIMPL+ file used within the player control module  
cw\_squeezecenter\_main\_menu\_scroll\_v12-1.ush.....SIMPL+ header file  
{small}squeezecenter\_DOUBLE\_PRESS\_Demo\_XPANEL\_EXE\_v12-1.vtp  
{small}squeezecenter\_SINGLE\_PRESS\_Demo\_XPANEL\_EXE\_v12-1.vtp  
{large}squeezecenter\_DOUBLE\_PRESS\_Demo\_XPANEL\_EXE\_v12-1.vtp  
{large}squeezecenter\_SINGLE\_PRESS\_Demo\_XPANEL\_EXE\_v12-1.vtp

#### For SystemBuilder Applications:

CW\_Squeeze\_SB\_Demo\_v12-1.sba.....SystemBuilder Archive for PRO2 processor  
SqueezeCenter\_Module\_System\_Builder\_help.pdf .....Help file for putting module in System Builder

## Revision History

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V12-1 steve@controlworks.com 2011.08.22

- Fixed problem that prevented searching Rhapsody and Creating Pandora stations properly
- Fixed a bug caused problems selecting items on the second page of the main menu
- Fixed a problem that caused an error to show in the error log related to a MID being ran in the S+ engine
- Removed the "SB\_USE\_ONLY" section of the module because it is no longer needed
- Moved the [tcp\_connect] and [tcp\_disconnect] signals to the top of the module

V12 steve@controlworks.com 2011.06.27

- Fixed problem with storing favorites
- Added parameter for Server Port so programmers can change if needed
- Removed the need for the "cw\_squeezecenter\_null\_string" module
- Fixed an issue with getting playlists to start playing in a shuffled manner
- Made module compatible with Prodigy processor programs built by SystemBuilder
- Changed the TCP/IP connection signals to prevent SystemBuilder issues

V11 steve@controlworks.com 2011.05.31

- Module is now compatible with 3-Series processors
- Added [current\_station\$] output for use with Pandora, Sirius, Slacker, and Internet Radio
- Added digital signals [browse\_favorites] through [browse\_sirius] to allow quick access to each category
- Added "Use Main Menu" parameter
- Built new small panel demo that highlights the use of the new "browse..." digital signals instead of a main menu
- GuiFX font package is now included with our smaller example UIs to give them a much more polished appearance. Check out GuiFX at [www.GuiFX.com](http://www.GuiFX.com)!

V10 steve@controlworks.com 2011.04.08

- Made module System Builder compatible
- Main menu is now scrollable and can be set to 1-10 lines
- Added the ability to have a double press or single press menu system (examples for both configurations are in the demo program)
- Keyboard now clears when being called for
- Consolidated the three modules into one
- Changed line minimum of 6 lines to 1 line
- Changed line maximum from 15 lines to 10 lines
- Changed "Add Fav" functionality so it first has you type the name you want stored when listening to any Internet music source. Storing a favorite from your local library does not require typing in a name.
- Changed "Server IP Address & Port" parameter to "Server IP" (no port # needed anymore for this parameter)
- Changed the way the system polls for track time and system status to make the module much less chatty
- Added "TCPIP Client Port" parameter (for album art retrieval and System Builder use)

- Removed "Time Update Interval" Parameter (no longer necessary)
- Removed "search\_cancel" digital output (no longer needed)
- Removed "line\_1...15\_play/add\_state" analog signals (no longer needed with new menu/UI layout)
- Updated album art retrieval so it now works properly with Squeezebox Server 7.5
- Updated UI to be more user friendly
- Combined all keyboards into one
- Fixed scrolling issue in Rhapsody and Napster
- Fixed issue where it was not possible to scroll through station options when creating a new station
- Fixed a bug that caused issues when adding songs from search results to the playlist

V9 steve@controlworks.com 2009.11.19

- Added Media Fly Support
- Added Napster Support
- Added SIRIUS Radio to Main Menu Parameters since it is no longer located within the Internet Radio menu structure
- Added ability to search within Mediafly and Napster
- Added ability to create a station in Last.FM
- Removed parameter used to define one or more players (no longer needed)
- Updated album art retrieval so it now works reliably with multiple players
- Combined all music services keyboards into one
- Fixed some bugs that popped up with Squeezebox Server v7.4
- Added "RandomPlay" commands for tracks, albums, contributors, and year.

V8 steve@controlworks.com 2009.07.06

- Consolidated a large portion of the S+ code to make the module more efficient
- Added Last.FM support
- Added ability to search within Rhapsody
- Added ability to create a station within Pandora
- Added ability to create a station within Last.FM
- Added "scan\_database" input to add the ability to rescan the library
- Added "scanning\_database" output to give feedback for when a scan is in progress
- Added "cur\_station\_playlist\$" output which provides the current station or playlist
- Added parameter to give options for the song progress update time so if just a progress bar is being used the polling frequency can be reduced.
- Added "close\_keyboard" digital signal to provide an easy way to hide the keyboard subpages
- Added "add\_to\_favorites" digital signal to provide a way for the players without IR control to save the currently playing song to favorites.
- Changed "[show\_pandora\_controls]" to "[show\_love/ban\_controls]" and "[pandora\_thumbs\_up] & [pandora\_thumbs\_dwn]" to "[love\_track] & [ban\_track]" so these commands can now also be used with Slacker and Last.FM
- Fixed "add\_to\_favorites" so it now stores the current playlist or station name if available.
- Fixed some bugs that popped up in Slacker with the latest CLI change
- Fixed odd scrollbar behavior
- Fixed buggy "Browse Back" functionality
- Fixed bug that prevented scrolling within Internet Radio sections
- Changed Fonts to more commonly used fonts that are already installed on most PCs

- Updated UI to provide new functions/buttons and separate keyboard subpages for Search, Rhapsody, & Pandora

V7 steve@controlworks.com 2008.09.22

- Fixed bug that prevented using Internet Radio with SqueezeCenter 7.0.1 and up
- Fixed false scroll bar feedback readings when at top of list
- Fixed bug where scrolling of Genres stopped working
- Fixed bug where Live365 stopped working
- Made the main menu configurable (See Parameters)
- Added cover art support for any service providing it
- Added Rhapsody support
- Added Slacker support
- Added Podcast support
- Added Pandora support
- Added Category Icons to the GUI (Multi-Mode images)
- Updated the look of the example GUI

V6 steve@controlworks.com 2008.06.12

- Fixed issue where tracks would be arranged alphabetically instead of by track once the list was scrolled

V5 steve@controlworks.com 2008.03.13

- Changed module name to SqueezeCenter due to the change of software name
- Added ability to clear the current Queue
- Added ability to play an entire artist, album, genre, playlist
- Added ability to add an artist, album, genre, playlist, or track to current playlist
- Added dynamic graphic generation for current playing song
- Added ability to browse, select, and delete "favorites"
- Fixed issue where title and artist were not properly displayed for radio stations

V4 lincoln@controlwoks.com 2008.01.11

- Added documentation for browse\_genres, search by genres, line\_select feedback, and playlist\_controls\_enable\_fb

V4 lincoln@controlworks.com 2007.05.10

- Added [scroll\_slider] input to allow arbitrary scrolling
- Added "please wait" notification when requesting results from an Internet radio plugin.
- Corrected behavior when scrolling through playlists
- Revised behavior of Live365 radio support. Note that at this time Live365 can not be reliably supported.

V3 lincoln@controlworks.com 2007.02.20

- Added Transporter digital input selection
- Changed behavior when parsing responses for Internet Radio to increase Podcast reliability
- Removed note about searching for playlists since problem seems to be resolved in SlimServer version 6.5.1 (windows)

V2 lincoln@controlworks.com 2006.11.01

- Added Internet Radio Support\*

- Added ability to browse tracks within playlists\*

- Added ability to select tracks from playlists (now same behavior as when an album is selected)\*

- Noted problem with searching for playlists in 6.5.0

- \*- These changes require SlimServer Version 6.5.0 or later (Windows)

V1 lincoln@controlworks.com 2006.10.08

- Initial release

## **Development Environment**

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This version the 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.

<b>Logitech Software</b>	<b>Software Version</b>
Squeezebox Server	7.6.0
<b>Crestron Hardware</b>	<b>Firmware Version</b>
Crestron PRO2 Processor	4.003.0015
Crestron MC3 Processor	1.001.0012
<b>Software</b>	<b>Software Version</b>
Crestron SIMPL Windows	3.02.04
Crestron Vision Tools Pro-e	4.4.12
Crestron Database	27.00.010.00
Device Database	36.00.009.00
Crestron Symbol Library	743
Crestron Device Library	743



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