

Pinacle: Soundbridge M1000

This module controls a Pinacle Soundbridge audio streamer over TCP-IP.



GENERAL INFORMATION

SIMPLWINDOWS NAME:	Pinacle Soundbridge.umc
CATEGORY:	Device Interface
VERSION:	V1.0
SUMMARY:	This module controls a Pinacle Soundbridge audio streamer over TCP-IP.
GENERAL NOTES:	<p>Servers:</p> <p>The Pinacle Soundbridge finds all shared media servers on your network. These servers can be seen by this module by pulsing the "List Servers" digital input. After you chose which server to connect to you can browse the library on that server and play the songs you'd like.</p> <p>Online Radio:</p> <p>One of the listed servers will state "Radio Stations". When connected to, this server lists all online radio stations the Pinacle can find. Off course the Pinacle has to be connected to the internet. To add more radio stations to this server, please use the "Roku Radio Snooper" software. You can download this software at www.rokulabs.com.</p> <p>Functionality:</p> <p>The module includes browsing by artist, album, genre, playlist and song. When browsing by either artist or album you can search for artists/albums containing a specific string.</p> <p>Feedback:</p> <p>The Soundbridge doesn't provide live feedback, so when controlling the unit via the IR-remote, it could well be that the feedback on this module might be out of sync. To prevent this from happening, you can poll the unit for current statuses. Two optional digital inputs have been added to take care of this polling.</p> <p>The "Poll" input will poll the unit for the currently playing song's information (Title, Artist, ...) and for the current song's index in the now playing list. This input needs to be pulse to poll once, so oscillators needs to be inserted outside the module.</p> <p>The "Poll_Time" input will poll the unit for the elapsed time of the current song. The module will then compare this elapsed time with the songs total time (acquired when polling for song information) and provide you with an 0% to 100% analog output, "Time_Progress". This can be driven to a slider to display a progress bar.</p> <p>When the "Poll_Time" input is pulsed every second, the module will know when the song's elapsed time is close to the song's total time. Whenever the song has finished the module will perform a poll-for-song-information automatically. Also, whenever the play/pause/stop/next/prev buttons or whenever a new song is selected from the browsing pane, the module will automatically poll for the new song's information. Therefore the demo program is programmed in such a way that the "Poll_Time" input is being pulsed automatically every second whenever the play feedback is high. This way it's not necessary to poll for song information using the "Poll" input as the module will take care of these polls at the correct time. The demo program however</p>



	<p>also includes a toggle button to turn on and off the "Poll" polling.</p> <p>In short, with absolutely no live feedback it is always possible that something is out of sync. However, using the module in exactly the same way as in the demo program will give you very good results with a minimum of serial (polling) communication.</p> <p>(NOTE: Some radio stations can be polled for the currently playing song. As you don't have a "total time" when listening to a radio station, the module will not be able to automatically poll for song information when the previous song has finished. Therefore, when listening to radio stations the "Poll" input needs to be pulsed to retrieve the current playing song.)</p>
CRESTRON HARDWARE REQUIRED:	Recommended 2-Series processor. X-series processor will work as well but doesn't support the progress bar.
SETUP OF CRESTRON HARDWARE:	<p>The demo program was written on a PRO2 with TPS-15.</p> <p>It uses a TCP-IP Client symbol to connect to the Pinnacle Soundbridge on port 5555.</p>
VENDOR FIRMWARE:	V2.5.174
VENDOR SETUP:	<p>Connect the Pincal Soundbridge to the same network as the media library you want to stream from. The demo program was tested with the new Microsoft Media Player 11. This media player has built in functionality to set up a shared media library. Go to Library-Sharing Media. If connected correctly the Pincal Soundbridge should show up in the following window. Just click it and choose "Allow". From that point on your Pincal Soundbridge should be able to find your PC's library whenever the PC is turned on. No need to run Media player.</p>

CONTROL:		
Rx	S	To be connected to the TCP-IP Client's Rx
[Poll]	D	Pulse to poll for current song information. Please read above for proper use.
[Poll_Time]	D	Pulse to poll for elapsed time. Please read above for proper use.
Play	D	Pulse to play
Pause	D	Pulse to pause
Stop	D	Pulse to stop



Previous	D	Pulse to go to the previous song in the current playing list
Next	D	Pulse to go to the next song in the current playing list
Repeat_One	D	Pulse to make the current song repeat
Repeat_All	D	Pulse to make the current playing list repeat
Repeat_None	D	Pulse to turn of repeat
Random_On	D	Pulse to generate a new now playing list with exactly the same songs in a random order.
Random_Off	D	Pulse to go back to the original now playing list
Browse_Push_X	D	Pulse to choose server, browse for songs, play a song in a new blank now playing list, add songs to the now playing list, play a certain song from the now playing list, remove songs from the now playing list, ... Functionality depends on what is displayed by the Browse_Line_X outputs. Minimum 5, maximum 10.
List_Servers	D	Pulse to get a list of servers. Note that when a server from that list is pushed, the unit will disconnect from the current server, and reconnect to the other. Therefore, whenever you push a server, you'll loose your current now playing list. If you wish always to connect to the same server, push a server only whenever either the Pinnacle or the Crestron has rebooted. I.e. whenever connection has been lost. In order to stay connected to the same server but go back to the root of your browsing choices (Artists, Albums, ...) please use the "Home" digital input.
First_Page	D	Pulse to go to the first page of your browsing query
Prev_Page	D	Pulse to go to the previous page of your browsing query
Next_Page	D	Pulse to go to the next page of your browsing query
Last_Page	D	Pulse to go to the last page of your browsing query
Home	D	Pulse to go to the root of your browsing choice (Artists, albums, ...)
Back	D	Pulse to go once step back in your browsing sequence.
Set_As_Current_Playlist	D	Pulse to perform a "Play all" function that will replace the current playing list by your last browsing query.
Get_Current_Playlist	D	Pulse to display the current now playing list



Clear_Current_Playlist	D	Pulse to clear the current now playing list and stop playing.
Search_String	S	Specify which string you want to search for.
Search	D	Pulse to search for results in your current browsing query that contain the string set by "Search_String". For example: to browse for U2, press "Browse By Artist", and then when the list of artists is displayed, set "U2" as search string and pulse this input.

FEEDBACK:

Tx	S	To be connected to the TCP-IP Client's Tx
Elapsed_Time	S	Displays the elapsed time of the currently playing song as "0:00:00". Please read above for proper use.
Total_Time	S	Displays the total time of the currently playing song as "0:00:00". Please read above for proper use.
Time_Progress	A	Displays the time progress of the currently playing song. 0d – 65535d.
Play_Fb	D	High when a song is playing. As this feedback isn't live and can't be polled for, it only changes when "Play", "Pause" or "Stop" is being pulsed on the Crestron module.
Pause_Fb	D	High when a song is paused. As this feedback isn't live and can't be polled for, it only changes when "Play", "Pause" or "Stop" is being pulsed on the Crestron module.
Stop_Fb	D	High when playback is stopped. As this feedback isn't live and can't be polled for, it only changes when "Play", "Pause" or "Stop" is being pulsed on the Crestron module.
Current_X	S	Displays current song/radio information.
Repeat_One_Fb	D	High when the current song is being repeated.
Repeat_All_Fb	D	High when the current now playing list is being repeated.
Repeat_None_Fb	D	High when repeat is off.
Random_On_Fb	D	High when a random now playing list has been generated.
Random_Off_Fb	D	High when random is off.



Browse_Push_Fb_X	D	Pulses when Browse_Push_X is pulsed. When showing the now playing list, these outputs display the currently playing song. Minimum 5, maximum 10.
Browse_Line_X	S	Feedback of servers, browsing options, songs and functionality. Minimum 5, maximum 10.
Path	S	Some servers hold a browse path which can be polled for. As Media player doesn't support this feature the "Path" output showed "/" at all time during testing.
Browse_Info	S	Shows which items are currently displayed on the Browse_Line_X outputs. For example "1-8 / 164", meaning Song 1 through 8 of a total of 164 songs.

PARAMETERS:

BrowseLines	A	Set how many browse lines you want to show on your interface. Minimum 5, maximum 10.

TESTING:

OPS USED FOR TESTING:	V3.155.1143
COMPILER USED FOR TESTING:	V2.08.26
SAMPLE PROGRAM:	Pinacle Soundbridge Demo Program.smw
REVISION HISTORY:	V1.0 Creation