





GENERAL INFORMATION		
SIMPLWINDOWS NAME:	High Resolution Audio Hdd Player v1.00.10.umc	
CATEGORY:	Audio	
VERSION:	1.00.10	
SUMMARY:	This programming establishes an Simpl windows interface for the Sony High-resolution Audio Player, HAP-Z1ES	
GENERAL NOTES:	This programming uses http and udp transports to control, receive feedback of the device's state and audio properties, and to create a menu for interacting with the device's audio library.	
CRESTRON HARDWARE REQUIRED:	C2I-*ENET*	
SETUP OF CRESTRON HARDWARE:		
VENDOR FIRMWARE:	0017310R	
VENDOR SETUP:	N/A	
CABLE DIAGRAM:	Ethernet	

CONTROL:		
Ip_Address	S	Set the IP Address used to communicate with the device, in a decimal delimited sequence. This value must be present at startup or after trigger of Change_Ip example: 172.30.161.10
Change_lp	D	Use to change the IP Address to that of Ip_Address any time after program start.
Power	D	Use to toggle the device power On <> Off.
Power_On	D	Use to power the device On.
Power_Off	D	Use to power the device Off.
Play_Pause_Track	D	Use to toggle between play pause.
Next_Track	D	Use to change the currently playing track to the next track in the play queue if available.
Previous_Track	D	Use to change the currently playing track to the previous track in the play queue if available.
Repeat	D	Use to cycle through the Repeat states, Off > All > One >







Repeat_Off	D	Use to set the repeat function to Off.
Repeat_All	D	Use to set the repeat function to All.
Repeat_One	D	Use to set the repeat function to One.
Shuffle	D	Use to cycle through the Shuffle states, Off > Album > Track >
Shuffle_Off	D	Use to set the shuffle function to Off.
Shuffle_Album	D	Use to set the shuffle function to Album.
Shuffle_Track	D	Use to set the shuffle function to Track.
Mark_Playing_Track	D	Use to cycle through the track mark states, Favorite > Dislike > Unmarked >
Mark_Playing_Track_Favorite	D	Use to mark the currently playing track as a Favorite.
Mark_Playing_Track_Disliked	D	Use to mark the currently playing track as a Disliked.
UnMark_Playing_Track	D	Use to clear any mark of favorite or Disliked.
DsdRemastering	D	Use to toggle between Dsd Remastering On <> Off.
DsdRemastering_On	D	Use to set the Dsd Remastering function to On.
DsdRemastering_Off	D	Use to set the Dsd Remastering function to Off.
Dsee	D	Use to toggle between Dsee Auto <> Off
Dsee_Auto	D	Use to set the Dsee function to Auto.
Dsee_Off	D	Use to set the Dsee function to Off.
GaplessPlayback	D	Use to toggle between Gapless Playback On <> Off.
GaplessPlayback_On	D	Use to set the Gapless Playback function to On.
GaplessPlayback_Off	D	Use to set the Gapless Playback function to Off.
Oversampling	D	Use to toggle between Oversampling Precise <> Normal.
Oversampling_Precision	D	Use to set the Oversampling function to Precise.
Oversampling_Off	D	Use to set the Oversampling function to Normal.
VolumeNormilization	D	Use to toggle between Oversampling Auto <> Off.







VolumeNormilization_Auto	D	Use to set the Volume Normalization to Auto.
VolumeNormilization_Off	D	Use to set the Volume Normalization to Off.
CoaxialInput	D	Use to set the input to Coaxial.
LineIn1Input	D	Use to set the input to LineIn1.
LineIn2Input	D	Use to set the input to LineIn2.
OpticalInput	D	Use to set the input to Optical.
Menu_Home	D	Use to set the menu system to the root.
Menu_Back	D	Use to ascend a level in the menu system.
Menu_Next	D	Use to navigate to the Next of Max_Menu_Size menu items if available.
Menu_Previous	D	Use to navigate to a previous set of Max_Menu_Size menu items if available.
Max_Menu_Size	Α	Sets the max size of the menu system upon trigger of Resize_Menu . Possible values are 1 to 100. This value has a default of 10.
Resize_Menu	D	Sets the menu system to the size of Max_Menu_Size.
Select_n	D	Selects the desired <i>nth</i> line of the menu system. Press and hold functionality is possible depending on the current menu.

FEEDBACK:		
Power_is_On	D	Indicates the device is on.
Paused	D	Indicates the device is Paused.
Playing	D	Indicates the device is Playing.
Stopped	D	Indicates the device is Stopped.
Repeat_is	Α	Associates an analog value to the current Repeat state. 0 = Off, 1 = All, 2 = One.
Repeat_is_Off	D	Indicates the repeat function is off.
Repeat_is_All	D	Indicates the repeat function is All.
Repeat_is_One	D	Indicates the repeat function is one.





Shuffle_is	Α	Associates an analog value to the current Shuffle state. 0 = Off, 1 = Album, 2 = Track.
Shuffle_is_Off	D	Indicates the shuffle function is off.
Shuffle_is_Album	D	Indicates the shuffle function is Album.
Shuffle_is_Track	D	Indicates the shuffle function is Track.
DsdRemastering_is_On	D	Indicates the Dsd Remastering function is On or Off.
Dsee_is_Auto	D	Indicates the Dsee function is Auto or Off.
GaplessPlayback_is_On	D	Indicates the Gapless Playback function is On or Off.
Oversampling_is_Precision	D	Indicates the Oversampling function is Precise or Normal.
VolumeNormilization_is_Auto	D	Indicates the Volume Normalization is Auto or Off.
Source_Type_None	D	Indicates there is no current source.
Source_Type_HDD	D	Indicates the current source is the hard disc drive.
Source_Type_Radiko	D	This source is not currently supported by the device.
Source_Type_TuneIn	D	Indicates the current source is TuneIn.
Source_Type_VTuner	D	This source is not currently supported by the device.
Source_Type_Coaxial	D	Indicates the current source is Coaxial.
Source_Type_LineIn1	D	Indicates the current source is LineIn1.
Source_Type_LineIn2	D	Indicates the current source is LineIn2.
Source_Type_Optical	D	Indicates the current source is Optical.
Playing_Track	S	Indicates the name of the current playing track.
Playing_Track_Album	S	Indicates the album of the current playing track.
Playing_Track_Artist	S	Indicates the artist of the current playing track.
Playing_Track_Genre	S	Indicates the genre of the current playing track.
Playing_Track_Image_Url	S	Indicates the album image url of the current playing track.
Playing_Track_Release_Date	S	Indicates the release date of the current playing track.





Playing_Track_Duration_Seconds	Α	Indicates the current track's duration in seconds.
Playing_Track_Duration_Formatted	S	Indicates the current track's duration in the HH:MM:SS format.
Playing_Track#	S	Indicates the current track's number on the released media.
Playing_Track_Disc#	S	Indicates the current track's number on the released disc.
Playing_Track_Play#	S	Indicates the number of times the current track has been played.
Codec_Type	S	Indicates the codec type used for the current track's playback.
Codec_Sample_Rate	Α	Indicates the sample rate the current track was encoded at.
Codec_Bit_Rate	Α	Indicates the bit rate the current track was encoded at.
Codec_Bit_Width	Α	Indicates the bit width the current track was encoded at.
Playing_Position_in_Queue	Α	Indicates the current playing track's position in the play queue.
Menu_Back_Available	D	In regards to the current displayed menu, this indicates the Menu Back function is available.
Menu_Next_Available	D	In regards to the current displayed menu, this indicates there are additional items further in the listing available to fetch for display.
Menu_Previous_Available	D	In regards to the current displayed menu, this indicates there are additional items prior in the listing available to fetch.
Max_Menu_Size_is	Α	Indicates the menu system's maximum menu size possible for display and interaction. Additional items are to be accessed with the Next/Previous commands.
Menu_Valid_Item_Count	Α	Indicates the valid menu count of the current menu displayed. (When the number of items is less than the Max_Menu_Size).
Menu_Header	S	Indicates the head title of the current menu in the menu system.
Menu_SubHeader	S	Indicates the path (breadcrumb trail) of the current in the menu system.
Menu_Footer	S	Indicates information regarding the position of the current displayed menu items in the overall menu listing.
Select_n_fb	D	Indicates Select_n pressed/hold feedback.
Line_n	S	Indicates the primary text of the corresponding item, in the currently displayed portion of the menu system.
SubLine_n	S	Indicates the secondary text of the corresponding item, in the currently displayed portion of the menu system.









Image_n	S	Indicates the album image url of the corresponding item in the currently displayed portion of the menu system.
lmage_ <i>n</i> _Enabled	D	Indicates that there is a valid album image url for the corresponding item in the currently displayed portion of the menu system. (Without this there is no way to erase/remove/blank the corresponding image object)
Favorite_State_n	Α	Indicates the Marked state of the corresponding

Parameters:		
Press	N	Influences the behavior of menu item 'press' when selecting playable content. Play Now: Sets the item as the play queue and playback begins immediately. Queue Next: Sets the item as the next item in the play queue. If the play queue is empty, performs the 'Play Now' action. Queue at End: Sets the item as the last item in the play queue. If the play queue is empty, performs the 'Play Now' action. Play list from selection: When used on a list containing individual 'tracks', sets the list as the play queue, and begins playback from the selected item immediately. This parameter has no effect on the Play Queue.
Hold	N	Influences the behavior of menu item 'press' when selecting playable content. Play Now: Sets the item as the play queue and playback begins immediately. Queue Next: Sets the item as the next item in the play queue. If the play queue is empty, performs the 'Play Now' action. Queue at End: Sets the item as the last item in the play queue. If the play queue is empty, performs the 'Play Now' action. Play list from selection: When used on a list containing individual 'tracks', sets the list as the play queue, and begins playback from the selected item immediately. This parameter has no effect on the Play Queue.







TESTING:	
OPS USED FOR TESTING:	MC3: v1.501.0013
SIMPL WINDOWS USED FOR TESTING:	SIMPL Windows: 4.03.24 SIMPL+ 4.03.16
DEVICE DB REQUIRED:	75.07.002
CRES DB USED FOR DEVELOPMENT:	57.00.003
SYMBOL LIBRARY USED FOR DEVELOPMENT:	
SAMPLE PROGRAM:	High Resolution Audio Hdd Player v1.00.00.smw
REVISION HISTORY:	v1.00.10 - Initial release