

Kaleidescape Programming Manual for Savant

Rev. 1, December 2021

Strato Custom Profile version - 14.25

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1 Overview

1.1 Introduction

This programming manual provides an overview of the Kaleidescape control profile and touch panel UI designed for Savant controllers. It explains everything a Savant programmer needs to know to successfully integrate a Kaleidescape system into any Savant project. The profile described in this document is a custom profile based on the most recent Savant profile released. This profile includes custom functions, state variables and Kaleidescape App Volume Control. This profile may not be supported by Savant. If you have basic control issues use the Savant release of the profile to troubleshoot with Savant, if required.

1.2 Before You Begin

Before you begin, please read through this document and make sure you have all the necessary equipment and information ready to complete the deployment.

The following Savant documents may be useful while using this deployment guide:

- 1. Savant® Pro Host Deployment Guide Document Number 009-1776-02
- 2. Savant® Rack Mountable Hosts Deployment Guide Document Number 009-1914-00
- 3. Automator Best Practices RacePoint Blueprint[™] Programming Guide
- 4. State Triggers RacePoint Blueprint Programming Guide

2 Kaleidescape Player Setup

In this example we will be using TCP/IP control from Savant. The Kaleidescape players will need to be set to a static IP address to ensure consistent control. The recommended setup would be using static IP reservations at the router level to avoid IP conflicts and DNS issues.

Network Requirements:

A Gigabit Ethernet network is recommended and is required when there is more than one Kaleidescape component. Connect Strato components using a shielded Ethernet cable. The built-in Wi-Fi may be used when a Strato S player is used as a single-component standalone system.

2.1 Network Setup via the Browser Interface

Wired network connection (recommended).

Note: if you assigned an IP address via a static reservation in your router, you can skip to step 3.

1. Select **Settings** from the top menu, then select **Components** and then **Settings** for the component you want to set up.

kaleidescape					
		Movies	History	Settings	
	[General	Component	s Passcode	•
Movie Playe	r with Storage				
Device Type :			Ca	apacity :	3.9TB
Device Name :			A	vailable Storag	
Serial Number :				ard Drive mperature :	^{39 c} Help
IP Address :					
MAC Address :					
OK Settings	Restart				

2. Select the **Network** tab from the menu. In most cases, the Strato player will automatically obtain an IP address from a DHCP server. Set your static IP, in this example the IP will be 10.0.0.80. Click OK.

Note - If you use this method to set a static IP address, please be aware of the following items:

- a. Make sure your static IP is unique on your network
- b. Be sure to set your Gateway and DNS properly if not done properly the player may experience issues with accessing the internet.

Video Audio Network Cor	itrol									
Wi-Fi Network Configu	iration									
 Enable Wi-Fi Connection 										
Use automatic IP assignment by DHCP if p control system requires fixed IP addresses DHCP server. If the DHCP server does not										
Current Network Configuration										
Using Ethemet Interface										
IP Address										
Subnet Mask	Subnet Mask 255.255.0									
Default Gateway										
Alternate DNS Server 1										
Alternate DNS Server 2										
Obtain IP configuration automatic	Illy using DHCP									
IP Address	10 . 0									
Subnet Mask	255 . 25									
Default Gateway	10 . 0									
Alt. DNS Server 1	75 . 75									
Alt. DNS Server 2	75 . 75					(optional)				

- 3. Select the **Control** tab
- 4. The Control Protocol Device ID should be set to 'None'.

protocol. Be careful not to assign ti	ID) may be assigned to this component. The CPDID allows indirect access through the control the same CPDID to more than one component in the same system.
Control Protocol Device ID	
	fferent infrared (IR) code sets. Mark the checkboxes corresponding to the code sets that you
wish to use.	
 Kenwood Toshiba 	
 Tosniba 	
	air of buttons for skipping chapters and for paging through lists. If the remote control used with nds of buttons, but the button behavior appears to be reversed, choose Use Default Paging
	ids of buttons, but the button behavior appears to be reversed, choose use behavit raging
Button Behavior below.	
	Behavior

Savant Profile notes:

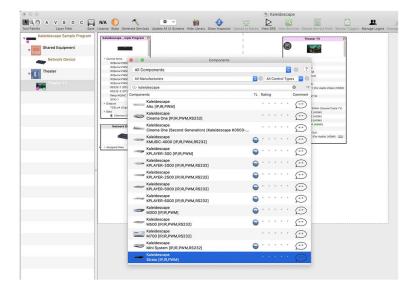
This device must have its Device ID set to 'None' or '1' depending on what your system allows (sometimes a restart of the Kaleidescape system is required for this to take FULL effect). This setting can be found in the Web Browser's Component Settings page. This profile assumes both feedback and control will come through as Device ID 1, so if a different Number (such as 3) begins each feedback message when looking at through RPMTerminal, it's likely this is set as the number you see.

3 Savant Deployment

This section explains how to deploy a Kaleidescape Strato player for control using TCP/IP and how to customize the Savant Pro App and handheld remotes.

3.1 Control Deployment

1. Open the library and search for *Kaleidescape*. Place the **Kaleidescape Strato** profile into your User Zone or Shared Equipment Zone, depending on your system configuration. Give the player a unique name. In this example we will be using a User Zone named "Theater," with a TV for the display and a name of "Theater Strato" for the player.



 Place the Strato Player on to the Blueprint layout and connect the Network(ethernet) under Control Ports to a network device. This will prompt you to enter the IP of the Strato Player that was statically assigned to the player.

NO AVSDC			Kaleidescape
Tool Palette Layer Filter Save	License State Generate Services Update / Kaleidescape Sample Program	All UI Screens Show Library Show Inspector Upload to Master Vie	w SRS View Services Review Service Prefs Review Triggers Manage Logins
Shared Equipment			
Network Device	Control Ports IR(Serial PWM) Output 1 IR(Serial PWM) Output 2	v Control Ports ≇⊷⊗ IR	+ Control Ports ≸+© IR
Theater	IR(Serial PWM) Output 2 2 4 1 IR(Serial PWM) Output 3 241 IR(Serial PWM) Output 4 241 IR(Serial PWM) Output 5 241	MANE Seria/PWM METWORK (Ethernet) Voltputs	Serial Control MMS Serial WMM LAN (Ethernet) v Assigned inputs
Theater TV	IR(Serial PWM) Output 6 III RS232-1 (RTS/CTS) II RS232-2 (RTS/CTS) III	DIGITAL AUDIO HDMI (HDMI)	* RAP-X1 (EDMIA) * RAP-X1 (EDMIA) * Inputs * Inputs
Theater Strato	Relay NO/NC 1 GPIO 1 * Outputs		
	TOSLink (Digital Optical)		CABLE/ANTENNA (Coaxia/ Cable TV)
	Network Device 😑	IP connections need host address	
	Assigned Data	10.0.80	HDM() (III)
	• Assigned Data		Cancel
	0	1	

3. Connect the **HDMI Video (HDMI)** to your TV or other display device or video matrix you may be using. The Audio HDMI, Optical and Coaxial outputs may be used for connections to an audio controller.

		9	Kaleidescape
Tool Palette Layer Filter Save			ew SRS View Services Review Service Prefs Review Triggers Manage Logins
Kaleidescape Sample Program	Kaleidescape Sample Program \Theta	Theater Strato \varTheta	Theater TV 😑
Shared Equipment		•	
Network Device	* Control Ports IR(Serial PWM) Output 1 (1)	v Control Ports ≢⊷⊛ IR	v Control Ports ≢⊨⊛ IR
Theater	IR(Serial PWM) Output 2 2 4 IR(Serial PWM) Output 3 4 IR(Serial PWM) Output 4 24 IR(Serial PWM) Output 5 24	M//& Seria/PWM NETWORK (Ethernet) V Outputs	Serial Control MNS: SerialPWM ML AN (Ethernet)
Theater TV	IR(Serial PWM) Output 5	DIGITAL AUDIO HDMI (HDMI)	 * Assigned inputs * FM-?-K1 (HOM4) HDM1 1 (For Audio Video) (HDM0)
Theater/Strate	Assigned Data Assigned Data Assigned Data		Induit Induit Induit Source Sourc
		0	
		L. D	

4. In Blueprint, go to **Tools** > **Branding Icons**. Select **`Kaleidescape**' for the Strato Player. This will change the default logo to the Kaleidescape Logo on the Pro App UI. Save.

Component Name	Туре	Brand	
Theater TV	Multiple	-Select the Brand to Display-	0
Theater Strato	Media Server	Kaleidescape	0
These settings o	nly affect the service i	cons that are displayed for the Cable, Satelli	te,
		cons that are displayed for the Cable, Satelli Provider will still need to be set in the Savant	

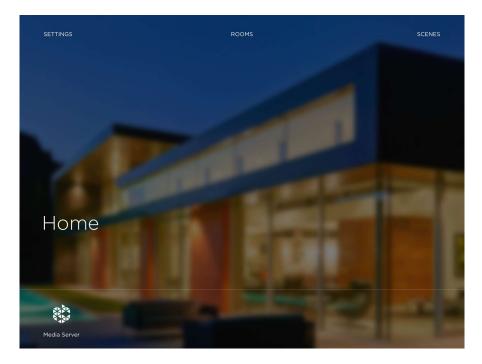
5. Generate Services and check your Strato services for correct service paths. Close this window.

							0	Service Resourc	es Service Requests	
e Show	Keypad	Realized Services	Alias	Index	Icon	UI Mapping		Resource		
		General Programmable Service Request	s Kaleidescape Sam				0	▼ Audio		
1 🛛	S	Media Player Service	Theater Strato	1 0			0	Theate		
		Media Player Service	Theater TV				0	Media Pla	yer Source	
		Background	Background					🔻 🚍 Theate	r TV	
1		Categories (Pad1 Theme)	Categories					Volume Co	ontrol Function	
		Categories	Categories					Amplifier I	Function	
3		Favorites (Pad1 Theme)	Favorites					Stereo Sp	eakers Sink	
		Favorites	Favorites					▼ Video		
3		Help Icon	Help Icon					🔻 🛄 Theate	r Strato	
1		Web Info	Information					Media Pla	yer Source	
		Media Player Audio Service	Theater TV				0	🔻 🚍 Theate	r TV	
		Remote Settings	Remote Settings					AV Monito	or Sink	
3		Systems	Systems							
		Truelmage	Truelmage						0	
3		Web Browser	Web Browsing					Source Zone:	Theater	
		Fan Control Service	Kaleidescape Sam				0	▼ Outputs		
		Media Player Audio Service	Theater Strato				0		e: HDMI Audio	
								Name	e: HDMI VIDEO	

6. Save and upload the configuration to the host.

3.2 Savant Pro App Deployment

By default, Savant names the Kaleidescape service Media Server. To change this, modify the file after services have been generated.

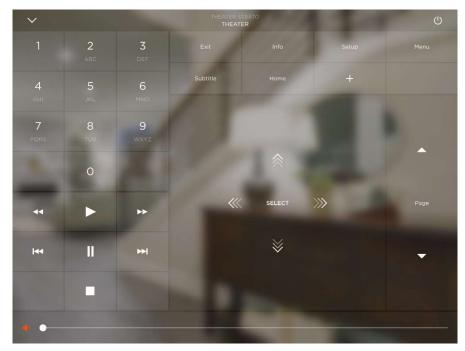


1. Go to Tools > Review > Savant App Preferences...

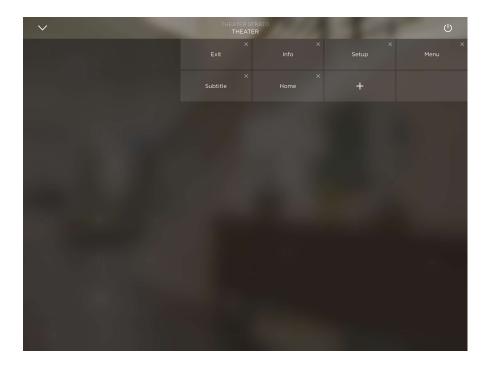
2. Change the Alias of the '**Media Server**' to what you want the client to see on the Pro App. Click done and upload your changes.

	Defaults	Aliases	
= *	Fans	Fans	
=	▼Media Server	Kaleidesc	ape
=	Theater Strato	Theater Stra	to
Home Screen Te	ext: Home		Use Custom Order
Show Service	e Dock on Rooms View		
?			Cancel Done

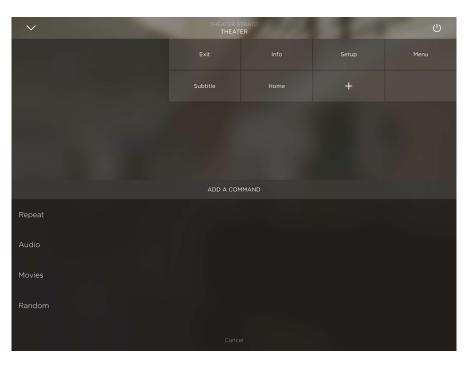
The default UI provides some buttons that may not be desirable to have. These buttons can be moved, deleted and added back directly on the UI.



1. To Move or Delete the default buttons, **press and hold** a button until all the buttons change state and are isolated. You can now move or delete them. Press and hold a button again to move it. Tap anywhere on the empty space to exit this mode.

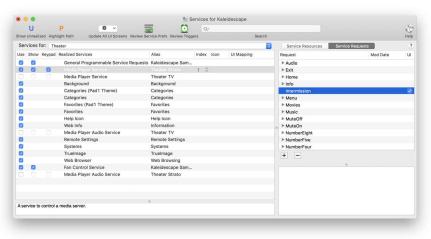


- To add a button, press the '+' button. The current profile will allow the addition of the following buttons to the UI. Custom buttons can be added which are covered in <u>5.1 Adding a</u> <u>custom button to the Pro App and Remotes</u>.
 - a. Repeat
 - b. Audio
 - c. Movies
 - d. Random
 - e. Music



Savant handheld remotes: Some remotes do not have hard buttons for skip forward and skip back transport controls. To use buttons Channel Up and Channel Down on the remotes for these function follow these steps:

- 1. Open **View Services** for your blueprint project and go to your zone that has the Strato player. If View Services is not available you may have to generate services first.
- 2. Select your Strato player service and select **Service Requests** on the right side.
- 3. Add a new service request by clicking on the `+'.



- 4. Name the service request **ChannelAnalogUp**, case sensitive.
- 5. Double click your new service request to open it in Automator.
- 6. Search for your Strato player and double click on it or drag it to the workflow.
- 7. Select '**Media_server**' for the Function.
- 8. Select '**Media Player Source**' for the resource
- 9. Select '**SkipUp**' from the **Action** dropdown list.

rary Media		X			Record St	ep Stop I
Library	Activate Fonts	🔻 💙 Theater Str	ato			
Calendar Contacts Con	Add Attachments to Front Message Add Configuration Profile Add Configuration Profile Add Configuration Profiles Add Configuration Add Configuration Profiles Add Configuration Profiles Add Configuration Profiles Add Configuration Add Configuration	Function: Resource: Action Arguments:	Media_server Kaleidescape Media_server © Media Pilayer Source © Name Add Remove Wait for component to respond ns	Action: SkipUp Value		
X Other	X Apply SQL					
Most Used Recently Added	Apply System Couration Settings Ask for Confirmation	Log				Duration
	onts passed from the previous action.					
Input: Font Bo	iok typeface iok typeface					

- 10. Save your workflow and create a new service.
- 11. Name the new service request **ChannelAnalogDown**, case sensitive.
- 12. Double click your new service request to open it in Automator.
- 13. Search for your Strato player and double click on it or drag it to the workflow.
- 14. Select 'Media_server' for the Function.
- 15. Select 'Media Player Source' for the resource
- 16. Select 'SkipDown' from the Action dropdown list.

Library Media Actions Variables Variables Library Contacts Developer Files & Folders Internet Mail Mail Mail	C. Name Add Attachments to Front Message Add Attachments to Front Message Add Color Profiles Add Conf profiles Add Conf or Profiles Add Packages ast-install Scripts Add Add Packages ast-install Scripts Add Add Thumhail Icon to Image Files Add Thumhail Con to Image Files Add Th	▼ V Theater Strato Component: Media_server Kaleldescape Function: Media_server © Resource: Media Player Source © Action: Skipt Action Arguments: Name Value	Record Step Stop R
 Music PDFs Photos Presentations System Text Utilities Other Most Used Recently Added 	Add to Fort Library Add Liber Account Add Liber Account Add Liber Account Add Liber Account Apple Versioning Tool Apple Versioning Tool Apple Versioning Tool Apple Vorsion Profile to Images X Apply Quartz Coter to Image Files X Apply Quartz FIEL/DPD Documents X Apply System Couration Settings Ask for Confirmation Add Confirmation	Ad Remove Wait for component to respond Results Options	Duration
Activate Fo	onts onts passed from the previous action. pok typeface	8	

17. Save and upload the changes.

4 Savant Triggers and Automation

This section demonstrates the use of the Savant State values from the Kaleidescape player profile to automate environmental elements such as lighting, masking and other 3rd party devices. Please refer to the **State Triggers - RacePoint Blueprint Programming Guide** on Savant's dealer portal for more detail on triggers and state values.

The following section is an overview of suggested automations for an immersive home cinema experience.

Customizing the Cinema Experience

- 1. **Start up the Theater -** Lighting zones are set such that physical navigation of the space is still relatively easy, and features and accents of the room are highlighted
 - a. Any lighting zone affecting the screen and perceived contrast brought to 10% or lower
 - b. Any step or pathway lighting zone brought to 70%
 - c. Any cove, column or accent lighting zone brought to 60%
 - d. All downlight/reading zones brought to 30%
 - e. Scene fades at 5-10 seconds
 - f. Close Shades if present
 - g. HVAC adjusted for movie watching
 - h. Kaleidescape user interface on screen
- Select and Start a movie Based on owner preference, this near dark experience allows family and friends to become lost in the movie, as the director intended; some minimal pathway lighting is provided
 - a. Any lighting zone affecting the screen and perceived contrast brought to 0%
 - b. Any step or pathway lighting zone brought to 10%
 - c. Any cove, column or accent lighting zone brought to 0%
 - d. All downlight/reading zones brought to 0%
 - e. Scene fades at 5-10 seconds
 - f. Screen Masking Adjustments if required
- **3. Intermission On or Pause** A quick break, this lighting scene again focuses on physical navigation of the space while maintaining most of the ambiance
 - a. Any lighting zone affecting the screen and perceived contrast brought to 10% or lower
 - b. Any step or pathway lighting zone brought to 60%
 - c. Any cove, column or accent lighting zone brought to 20%
 - d. All downlight/reading zones brought to 20%
 - e. Scene fades at 20 seconds
- 4. Intermission Off or Un-Paused Quickly returns the room back to dark immersive experience
 - a. Any lighting zone affecting the screen and perceived contrast brought to 0%
 - b. Any step or pathway lighting zone brought to 10%
 - c. Any cove, column or accent lighting zone brought to 0%
 - d. All downlight/reading zones brought to 0%
 - e. Scene fades at 3 seconds
- 5. Start of End Credits Slowly returns us back to lighting levels similar to our intermission look; credits and in-credits movie scenes are allowed to run in good contrast, physical navigation of the space is again made possible and features and accents of the room are highlighted
 - a. Any lighting zone affecting the screen and perceived contrast brought to 10% or lower

- b. Any step or pathway lighting zone brought to 60%
- c. Any cove, column or accent lighting zone brought to 20%
- d. All downlight/reading zones brought to 20%
- e. Scene fades at 15 seconds or more
- 6. End of Movie and Return to On Screen Display Some additional lighting could be brought up while viewers decide whether to watch some special features or scenes from other movies. Masking/Lens may adjust, depending on CinemaScape mode.

7. Finished Watching Movies

- a. Turn off Control System Put the Kaleidescape Strato player into standby
- b. Close the proscenium curtains
- c. Open any shades
- d. Adjust the HVAC
- e. Lighting should adjust to pre-show levels Some delay can be programmed to turn off lights, or a switch needs to be provided near the door

Using Savant State Values to Automate the Cinema Experience

Using the following Savant state values built into the profile, triggers can be set up to automate lighting, masking and other 3rd party devices. These examples are only a few of the many values that can be used in triggers to automate your experience.

- 1. CurrentPlayStatus state of movie playback string
 - a. Play
 - b. Stop
 - c. Pause
- 2. **IsInEndingCredits** Movie is in the Ending credits *boolean*
- 3. IsInIntermission Movie is in Intermission boolean
- 4. CurrentAspectRatio the aspect ratio of the video content string
 - a. 1.33 4:3
 - b. 1.66 European widescreen
 - c. 1.78 16:9
 - d. 1.85 Widescreen
 - e. 2.35 Cinemascope

Other Savant state variables useful for automation:

IsInKScapeInterface - state of the player on screen - *boolean* IsInMainContent - state of the player on screen - *boolean* Movie Title - Name of Movie playing - *string* CinemascapeMode - current Cinemascape mode - *string* CinemascapeMask - current aspect ratio of the masking - *string* CurrentTopMaskRelative_(0.1percent) CurrentBottomMaskRelative_(0.1percent) CurrentTopMaskAbsolute_(0.1percent) CurrentBottomMaskAbsolute_(0.1percent) CurrentTopMaskCalibrated_(0.1percent) CurrentBottomMaskCalibrated_(0.1percent) CurrentBottomMaskCalibrated_(0.1percent) CurrentAspectRatio_Conservative

4.1 Savant Triggers Deployment - CurrentPlayStatus

1. Open **Review Triggers** in Blueprint. Click the `+' to add a new trigger and name it.

Triggers		Description						
Enable Group/Trigger								
Default		+						
		0						
			0					
When any of these states change value, eval	uate the Rules							
State Name	State Scop	,						On Set
		Define and	select a trigger first.					
			55					
			0					
Match the following rule								
if (rules)								
State Name	State Scope		Data Type	Test Condition	Value		Offs	et
		Define and	i select a trigger first.					
and or not (->)<-			¢.					
Run the following actions: Once	0		0					
then								
Request/State/Scene	Service/Scop				Arguments/Data Type	Value	After Delay	Override
		Define and	l select a trigger first.					
			0					
else								
Request/State/Scene	Service/Scop				1		After Delay	August 4
Request/State/Scene	Service/Scop				Arguments/Data Type	Value	After Delay	Override
		Define and	i select a trigger first.					
								_
? Programming View				Export All	Import	<i>s</i> ≥	Cancel	Save

- 2. Click the **Services icon** in the lower right corner to open the services window.
- Locate the player under Component and select it. Use the lower search bar to search for currentplaystatus under State Name. Drag 'CurrentPlayStatus' to the 'if (rules)' section. This will automatically add an entry to the section above.

Triggers	De	scription								
Enable Group/Trigger										
▼Default	(+)						RS for Kaleidescape			_
 Strato Current Status Play 	+ -			•••						
					Service	Zone	Component 0	Other Sc	enes	?
				Component Nar	ne					
					pe Sample Progra		ointMedia_host)			
					pe Sample Progra	ım (Main)				
When any of these states change value, eva	luate the Rules				(HD_monitor) ato (Media_serve	r)				
State Name	State Scope			Theater Su	aro (media_aei re	17				
CurrentPlayStatus	Theater Strato.Media_s	erver								
				Q search te	rm(s)					
						_				
Match the following rule							quests States			
if (rules)				State Name					T	pe
State Name	State Scope		Data Type	CurrentPlay	Status				st	tring
CurrentPlayStatus	Theater Strato.Media.server		string	1						
CurrentPlayStatus	Theater Strato.media_server		string							
and or not (+>)++										
Run the following actions: Once	0									
then										
Request/State/Scene	Service/Scope									
		a state or request here	e for a "then" action							
							0			
				Q currentpl	aystatus		0			
else Request/State/Scene	Service/Scope				Arguments/Data 1		lue A	fter Delay	a sector l	
Request/state/scene		a state or request her	a des a delesa sertes		Arguments/bata	type va	iue r	nter Delay	Overnoe	
	Draj	a state or request her	e for a reise action							
? Programming View			Export	Selection	Import		\$ 9 ⊵ C	ancel	Save	

4. Close the services window and change the test condition to **`contains**' or **`is equal**' and **``Play**" for the value.

Triggers		Description							
Enable Group/Trigger									
▼Default	(+								
Strato Current Status Play		O.							
Strato Current Status Sto		31							
Strato Current Status Pau Strato Current Location In		2							
Strato Current Location in	termission								
When any of these states change va	lue, evaluate the Rules								
State Name	State Scope							On Set	
CurrentPlayStatus	Theater Strat	o.Media_server							-
Match the following rule									
if (rules)									
State Name	State Scope		Data Type	Test Condition	Value		off	ω.	
CurrentPlayStatus	Theater Strato, Media_server		string	contains	value		0	iei	-
Guirentenyotatus	meater 30 act, weblag_server		song	Contains			0		
and or not (or)e-									
Run the following actions: Once	0								
then									
Request/State/Scene	Service/Scope				Arguments/Data Type	Value	After Delay	Override	
		Drag a state or reque	st here for a "then" action	i .					
else									
Request/State/Scene	Service/Scope				Arguments/Data Type	Value	After Delay	Overricle	
		Drag a state or reque	st here for a "else" actior	u.					
						17923 (1272)			_
? Programming View			Expl	ert Selection	Import	\$ ≥	Cancel	Save	

- 5. Place your lighting, shade or other 3rd party service in the **'Then**' section. In this example "Play" will send a command to a Lutron Lighting controller to press and release a Lutron button that is already programmed for the lighting scene desired for watching a movie.
- 6. Click the **Services icon** and search for your lighting controller under the **Service** tab. Drag the desired control request to the '**Then**' section. In this example, enter the values required for the lighting controller, Lutron Device ID, Lutron Button number and Lutron LED ID Number.

Triggers		Description							
Enable Group/Trigger									
▼Default	(+)								
Strato Movie is Playing	+ -								
Strato Movie is Stopped	(t)-)	,							
Strato Movie is Paused	+ -								
Strato Movie is in Ending Credit									
Strato Movie is in Intermission	+ -								
Strato Movie is 16x9 ratio	(±)-)								
Charles Manda la 6.05 anda									_
When any of these states change value,	evaluate the Rules								
State Name	State Scope							On Set	
CurrentPlayStatus	Theater Strato.Med	ia_server							-
Match the following rule									
if (rules)									
State Name	State Scope		Data Type	Test Condition	Value			Offset	
CurrentPlayStatus	Theater Strato.Media_server		string	is equal	😋 Play			0	-
and or not (->)<- Run the following actions: Once	0								
then									
Request/State/Scene	Service/Scope			Ar	guments/Data Type	Value	After De	Override	
* ButtonPressAndRelease	Theater-Lighting Con	troller-Lighting_controller-1	-Lighting Control Serv	ice			0		E -
	Lutron Device ID (1-9	999)		Ad	dress1	1			
	Lutron Button Numbe	r (1-100)		Ad	dress2	1			
	Lutron LED ID Numbe	r		Ad	dress3	81			
else									
Request/State/Scene	Service/Scope			An	guments/Data Type	Value	After De	Override	
? Programming View			Export Select	tion Impo	rt	S	Cancel	Save	

S	ervice	Zone	Compone	ent	Other	Sce	enes			?
Zone	Servic	е Туре		Con	nponent		Logic	al Component	Variar	t ID
Theater	HVAC	Service	9	Liał	nting Cont	roller	HVA	C_controller	1	
Theater	Gene	ral Prog	rammabl	-	eidescape				1	
Theater			Service				Light	ting_controller	1	
Theater	Lighti	ing Cont	rol Service	Ligh	nting Cont	roller	Light	ting_controller	1	
Theater	Door	Lock Se	rvice	Ligh	nting Cont	roller	Light	ting_controller	1	
Theater	Fan C	ontrol S	ervice	Kale	eidescape	s	Race	PointMedia_host	1	
Theater	Fan C	ontrol S	ervice	Ligh	nting Cont	roller	Light	ting_controller	1	
Theater	Media	a Player	Service	The	eater Strat	to	Med	ia_server	1	
Theater	Shade	e Contro	Service	Ligh	nting Cont	roller	Light	ting_controller	1	
Request								Modification	Date	U
			quests	State						
KOOMLIGNTSUTT								mounoution	T	
RoomSetBrightness									+	$\cdot \otimes$
PowerOnTransitionOnly	,								+	0
ButtonRelease									- (+	$\cdot \otimes$
PowerOn									+	0
ButtonPressAndReleas	е								+	
_RoomIncrementBrigh	tness								+	
ButtonPress									(+	
									+	
ButtonHold									(+	
ButtonHold SwitchOff										

7. **CurrentPlayStatus** can be used for "**Play**", "**Stop**" and "**Pause**". Case sensitive values.

4.2 Savant Triggers Deployment - IsInEndingCredits

Follow steps 1 and 2 from above. Locate the player under **Component** and select it. Use the lower search bar to search for *IsInEndingCredits* under State Name. Drag
 `IsInEndingCredits' to the **`if (rules)**' section. This will automatically add an entry to the section above.

			SRS for Kaleidesc	ape			
	Service	Zone	Component	Other	Scenes		(1
Component Name							
Kaleidescape Sa Kaleidescape Sa Theater TV (HD	mple Progra			t)			
Theater Strato (I	Media_serve	r)					
0							
Q search term(s)			0				
		R	equests State	s			
State Name						Туре	
IsInEndingCredits						boolean	
			0				
Q isinendingcred	its		8				

2. Close the services window and change the test condition to 'is true'.

Triggers	3		Description				
Enable 0	Group/Trigger						
	▼Default	+					
	Strato Movie is Playing	+-	2				
	Strato Movie is Stopped	+-	20				
	Strato Movie is Paused	+ -					
	Strato Movie is in Ending Credits	+ -	2				
				0			
When a	ny of these states change value, eval	uate the Rules					
State Nar	ne	State Scope					On Set
IsInEr	ndingCredits	Theater Strato.	Aedia_server				\Box Θ
				0			
Match t	he following rule						
if (rule	es)						
State Nar	ne	State Scope		Data Type	Test Condition	Value	Offset
IsInEr	ndingCredits	Theater Strato.Media_server		boolean	is true	0	o 😑
and	or not (->)<-						

3. Place your lighting, shade or other 3rd party service in the '**Then**' section.

4.3 Savant Triggers Deployment - IsInIntermission

Follow steps 1 and 2 from above. Locate the player under Components and select it. Use the lower search bar to search for *IsInIntermission* under State Name. Drag
 `IsInIntermission' to the `if (rules)' section. This will automatically add an entry to the evaluation section above.

			SRS for Kaleidesc	ape			
	Service	Zone	Component	Other	Scenes		3
Component Name							
Kaleidescape S Kaleidescape S Theater TV (HE Theater Strato	Cample Progra D_monitor)	m (Main)		t)			
Q search term(s	s)						
itate Name		Ro	quests State	s		Type	
IsInIntermission						boolean	
			0				

- 2. Close the services window and change the test condition to 'is true'.
- 3. Place your lighting, shade or other 3rd party service in the '**Then**' section.
- This trigger will work from the Intermission button on the Kaleidescape App or if you add a custom button to Savant for Intermission Control. Reference <u>5.1 Adding a custom button to</u> <u>the Pro App and Remotes</u>.

Triggers			Description				
Enable Group/Trigger							
▼Default		+					
Strato Movie is Playing		+-					
Strato Movie is Stopped		+					
Strato Movie is Paused		+ -					
Strato Movie is in Ending		+-					
Strato Movie is in Interm	ission	€ €					
) :			
When any of these states change	value, evaluate the Rules						
State Name		State Scope					On Set
IsInIntermission		Theater Strato.Med	dia_server				
-			0				
Match the following rule							
if (rules)							
State Name	State Scope			Data Type	Test Condition	Value	Offset
IsInIntermission	Theater Strate	.Media_server		boolean	is true	٥	o —
and or not (->)<-	•						

4.4 Savant Triggers Deployment - CurrentAspectRatio

- Note: If you are using the CinemaScape feature, use *CinemascapeMask* instead of *CurrentAspectRatio*, but the rest of these steps apply.
- Follow steps 1 and 2 from above. Locate the player under Components and select it. Use the lower search bar to search for *currentaspectratio* under State Name. Drag
 `*CurrentAspectRatio*' to the `if (rules)' section. This will automatically add an entry to the section above. Close the services window and change the test condition to `contains' or `is equal' and `1.78' for the value.
- 3. Place your lighting, shade or other 3rd party service in the **`Then**' section.

Triggers		Description			
Enable Group/Trigger					
▼Default	(+)				
Strato Movie is Playing	+-				
Strato Movie is Stopped	+				
Strato Movie is Paused	+ -				
Strato Movie is in Ending Cred					
Strato Movie is in Intermission	• + -				
Strato Movie is 16x9 ratio	+ -				
11/1		0			
When any of these states change value					
State Name	State Scope				On Set
CurrentAspectRatio	Theater Strato.Med	dia_server			
		<u></u>			
Match the following rule					
if (rules)					
State Name	State Scope	Data Type	Test Condition	Value	Offset
CurrentAspectRatio	Theater Strato.Media_server	string	is equal	1.78	o
and or not (->)<-					

- 4. Create a trigger for each of the following to track the ratio for each movie. Use this trigger to automate your masking and lens if applicable.
 - a. 1.33 4:3
 - b. 1.66 European widescreen
 - c. 1.78 16:9
 - d. 1.85 Widescreen
 - e. 2.35 Cinemascope

Other Savant state values that can be used for masking automation

CinemascapeMode - Identifies the CinemaScape mode currently active

- a. No Mode
- b. 2.35 Anamorphic
- c. 2.35 Letterbox
- d. 2.35 Native

CinemascapeMask - Provides aspect ratio when a player is in CinemaScape mode

- a. 1.33
- b. 1.66
- c. 1.78
- d. 2.37
- e. 2.40

CurrentTopMaskRelative_(0.1percent)

CurrentBottomMaskRelative_(0.1percent) - Indicates top and bottom trim values, relative to the aspect ratio. Positive values indicate adjustment towards the center of the screen, negative toward the edge. For example, +010 means adjust a mask inward by 1% of the screen height, and - 005 means adjust the mask outward by 0.5% of the screen height. The value always includes a plus or minus sign. These values do not apply when using CinemaScape.

CurrentTopMaskAbsolute_(0.1percent)

CurrentBottomMaskAbsolute_(0.1percent) - Describes the position for the top and bottom masks in absolute terms, measured from the top and bottom of the screen, respectively. For example, a value of 0200, means that the corresponding mask should be located 20% from the top of the screen. These values do not apply when using CinemaScape.

CurrentTopMaskCalibrated_(0.1percent)

CurrentBottomMaskCalibrated_(0.1percent) - Contains masking positions calculated by the movie zone based on values entered in the Calibrate Masking page accessed through the **CalibrateMasking**

command. These fields return the top and bottom trim values as a zero-padded, five-digit number between 00000 and 99999.

CurrentAspectRatio_Conservative - Has the same possible values as the *currentaspectratio* state value, but represents a more conservative estimate of the image aspect ratio. This value never goes too far into the actual picture. **Note:** This value is designed for 16:9 and 4:3 screens that have top and bottom masks without trim capability. This field should not be used on 2.35:1 screens with side masks, because it can cause the masks to move too far into the picture.

5 Custom Buttons

This section covers adding a custom button that is not on the UI by default. Intermission, for example, can be added as a custom button to the UI. Complete this section and then refer back to 3.2 Savant Pro App Deployment to add the buttons to the UI.

5.1 Adding a Custom Button to the Pro App and Remotes

- 1. Open **View Services** for the Blueprint project and go to your zone that has the Strato player. If View Services is not available, you may have to generate services first.
- 2. Select your Strato player service and select **Service Requests** on the right side.
- 3. Add a new service request by clicking on the `+'. Name your new service request what you want it to display as on the Pro App and handheld remotes.
- 4. Check the UI checkbox. This will add this new button to the `+' list on the Kaleidescape control UI. The buttons will automatically be added to the handheld remotes.

Ser	vices f	or: Thea	iter		0	Service Resources Service Requests	?
lse	Show	Keypad F	Realized Services	Alias Index I	con UI Mapping	Request Mod Da	ite UI
~			General Programmable Service Requests	Kaleidescape Sam		▶ Audio	
2		2		Theater Strato 1 C		▶ Exit	
			Media Player Service	Theater TV		► Home	
1			Background	Background		▶ Info	
1			Categories (Pad1 Theme)	Categories		Intermission	2
~			Categories	Categories		▶ Menu	
1			Favorites (Pad1 Theme)	Favorites		► Movies	
/			Favorites	Favorites		▶ Music	
1			Help Icon	Help Icon		▶ MuteOff	
~			Web Info	Information		MuteOn	
			Media Player Audio Service	Theater TV		▶ NumberEight	
~			Remote Settings	Remote Settings		▶ NumberFive	
1			Systems	Systems		▶ NumberFour	
/			Truelmage	Truelmage		+ -	
1			Web Browser	Web Browsing			
1			Fan Control Service	Kaleidescape Sam		a	
			Media Player Audio Service	Theater Strato			
			media server.				

- 5. Double-click the new service request to open it in Automator.
- 6. Search for your Strato player and double click on it or drag it to the workflow.
- 7. Select '**Media_server**' for the Function.
- 8. Select '**Custom**' for the resource
- 9. Select your new button from the **Action** dropdown list.

		Intermission,workflow — E			
ibrary Media					Record Step Stop
Actions Variables Q Strato	Theater St				
🛗 Library 🚺 Theater Strato	Theater St	rato			
Calendar	Component:	Media_server Kaleidescape Strato			
Contacts X Developer	Function:	Media_server			
X Developer	Resource:	Custom	Action: IntermissionToggle	0	
M Fonts	Action Arguments:	Name	Value		
loternet		Name	VELOP		
🛃 Meil					
Movies					
Music		Add Remove			
📴 PDFs 📰 Photos		Wait for component to respond			
T Presentations	Results Opti	0.04			
System	Results Optin	ona			
Text					
X Utilities					
× Other					
Most Used Recently Added					
Recently Added					
	Log				Duration
💙 Theater Strato					
This action instructs the Theater Strato to perform the selected control command.					
Input: Anything Result: Anything					
l× ⊡					

10. Save your workflow and upload. You can now add the new button on the Pro App once your Strato service is activated. These custom buttons will show up on the handheld remotes once you select the service.

Current buttons available on Savant Pro App

Savant	Kaleidescape Control Protocol Command
Exit	CANCEL:
Info	DETAILS:
Setup	GO_SYSTEM_STATUS:
Menu	DVD_OR_KALEIDESCAPE_MENU:
Subtitle	SUBTITLES_NEXT:
Home	KALEIDESCAPE_MENU_TOGGLE:
Repeat	MUSIC_REPEAT_TOGGLE:
Audio	AUDIO_NEXT:
Movies	GO_MOVIE_LIST:
Random	MUSIC_RANDOM_TOGGLE:
Music	GO_MUSIC_LIST:
Other commands in the Sav	Ant profile that may be useful
Action name:	INTERMISSION_TOGGLE:
IntermissionToggle	INTERMISSION_ON:
IntermissionOff	INTERMISSION_OFF:
AlphabetizeCoverArt	ALPHABETIZE_COVER_ART:
GoMovieCollection	GO_MOVIE_COLLECTIONS:
GoMovieCoverArt	GO_MOVIE_COVERS:
ShuffleCoverArt	SHUFFLE_COVER_ART:
SendcCharacter	KEYBOARD_CHARACTER: (from 'a' to 'Z' , use \: for ':')
Store	GO_MOVIE_STORE

6 Troubleshooting

This section covers troubleshooting Kaleidescape player controls and triggers using System Monitor and RPMterminal.

6.1 No control over IP

1. If you do not have control over IP, make sure the player IP is the same as in Blueprint. In Blueprint, highlight the **Network(ethernet)** connection and select **Show Inspector**. Check the Host address field for your IP address. If you do not see the IP information make sure to drag open the sections using the dots.

			aleidescape	
	🗐 N/A 😑 🔨	* 🍿 🔮 🍕	Master View SRS View Services Review Service Prefs Review Triggers Manag	L 58
	Save cicense state Generate services opcar	e Air of Screens, Show Library Hoe inspector, optical o	s master stew and stew activities neview activitie Preis neview inggers manag	z cogins manage cignon
Kaleidescape Sample Pro	Kaleidescape Sample Program \varTheta	Theater Strato	😑 🕤 🗧 Inspecting "Data"	
Shared Equipment				
×			C Edit Device Screens Hide Details	+
Network Device	* Control Ports	* Control Ports	Output Connector	?
-	IR(Serial PWM) Output 1 (2001) IR(Serial PWM) Output 2 (2001)	1-8 R		
Theater	IR(Serial PWW) Output 2 001	ANN® SerialPWM	Theater Strato	
▼ []	IR(Serial PWW) Output 4 @##	Outputs		
	IR(Serial PWM) Output 5	DIGITAL AUDIO HDMI (HDMI)		
Theater TV	R(Serial PWM) Output 6 III RS232-1 (RTS/CTS)	HDMI VIDEO (HDMI)	NETWORK	
O	R\$232-1 (R15/C15)	DIGITAL AUDIO OPTICAL (Digital Optical)		
Theater Strato	Relay NO/NC 1	DIGITAL AUDIO COAXIAL (Digital Coaxial)		
-	GPID 1 DIS			
	* Outputs			
	TOSLink (Digital Optical)	1		
	Ethernet (Ethernet)	1		
	Network Device \varTheta			
	Herwork Device		Input Connector	
		L	Network Device	
	Manager and State			
	+ > Assigned Data		Port 1: Ethernet Port 1	
		1		
	0			
		I.		
		1		
		1	0	
		L	Wire: Data	
		1	Wire Name:	
		1	Wire Length: 0	
		l,	Units: Inches	0
		I	Notes:	
			Control Type: Ethernet	
			Host address: 10.0.0.80	
			Control port: 10,000	
			+ - Show user defined properties Show Data Table	

- 2. If the IP is correct, login to the player web interface and make sure the Device ID is set to '**None**' or '**1**'.
- 3. If this is all correct, the next step would be to check the RPMterminal and make sure you are sending and receiving data.
 - a. Open System Monitor.
 - b. Double click on your host or highlight and click Connect.
 - c. Go to **Component Status** on the left menu.
 - d. Select your player from the list of devices.

Controlled Component Stat	us
Connection Status:	Connected
Controller Device Name:	Kaleidescape Sample Program
Control Port Name:	Ethernet
Bytes Sent:	292
Messages Sent:	12
Bytes Received:	487
Messages Received:	15
Receive Response Timeouts:	0
Last Message Sent:	01/1/LEAVE_STANDBY: (<30312f31 2f4c4541 56455f53 54414e44 42593a0d>)
Last Message Received:	01/!/000:SYSTEM_READINESS_STATE:2:/69 (<30312f21 2f303030 3a535953 54454d5f 5245
Terminal Connection Status:	Not Connected
Component Profile:	kaleidescape_strato.xml (1.4)
Configured Control Info:	10.0.80
system is required for this to take Profile assumes both feedback ar	ID set to 'None' or '1' depending on what your system allows (sometimes a restart of the Kaliedescape FULL affect - current Song info). This setting can be found in the Web Browser's Installer page. This d control will come through as DeviceID 1, so if a different Number (such as 3) begins each feedback RPMTerminal, it's likely this is set as the number you see.
The device can also be com	send the Strato into Standby. Conversely PowerOn will leave standby mode. manded to enter standby using the custom "DevicePowerOff" action. ====== Change Log ===================================
Critical Version: 1.3 Change:	Modified power commands to enter and leave standby mode. Updated notes. Risk: Low Importance:
Critical	Swapped the IP commands for Info and Display, so that the Info command functionality matches that of

- e. On the right side, make sure **Connection Status** says **Connected**. If Connection Status is Connected but your controls still do not work, continue to the next step.
- f. While you still have your player selected click on **Launch Terminal** in the lower right to open the RPMterminal.

	RPM Terminal
	MIXED 🖸 🎆 🃠 🐼
	Mode Command Clear Settings
Time	Message
10:10:44.588	Starting control software for (Theater Strato)
10:10:45.164	Control software started successfully.
10:10:45.656	Remote Device Manufacturer: Kaleidescape
10:10:45.656	Remote Device Model: Strato
10:10:45.656	Remote Device Profile Version: kaleidescape_strato.xml (1.4)
10:10:45.656	Remote Device Control Port: Ethernet, IP (ip address: 10.0.0.80, port: 10000), Kaleidescape Sample Program
10:10:45.657	Remote Device Controller: S2 Rack Mount Host, 1.1:1
10:10:45.657	Remote Device Racepoint OS: 9.3.4:1
10:10:45.658	Remote Device Host: Linux Kernel 4.1.15-rt18+pro-9, i.MX6 Dual, Smart Host-S2
	Submit
[Submit Repeat

- g. Make sure the player is responding to Savant commands. Using RPMTerminal you can watch the commands being sent and the Kaleidescape player responding. You can also check the IP once the RPMTerminal opens. If you still do not have control, use the Kaleidescape App to control the player and watch the terminal for responding information. Make sure the player is using ID 1, "01/1/000:" If not make sure the player ID is correct.
- h. In RPMterminal the gray strings are commands being sent from Savant to the player and the orange strings are coming from the player to Savant.

	RPM Terminal							
	MIXED 🗿 🏜 角 🖾							
	Mode Command Clear Setting:							
Time	Message							
10:11:49.839	Starting control software for (Theater Strato)							
10:11:50.394	Control software started successfully.							
10:11:50.913	Remote Device Manufacturer: Kaleidescape							
10:11:50.914	Remote Device Model: Strato							
10:11:50.914	Remote Device Profile Version: kaleidescape_strato.xml (1.4)							
10:11:50.914	Remote Device Control Port: Ethernet, IP (ip address: 10.0.0.80, port: 10000), Kaleidescape Sample Program							
10:11:50.915	Remote Device Controller: S2 Rack Mount Host, 1.1:1							
10:11:50.916	Remote Device Racepoint OS: 9.3.4:1							
10:11:50.916	Remote Device Host: Linux Kernel 4.1.15-rt18+pro-9, i.MX6 Dual, Smart Host-S2							
10:11:58.030	01/1/LEAVE_STANDBY:\h0D							
10:11:58.072	01/1/LEAVE_STANDBY:\h0D							
10:11:58.104	01/1/000:/89\h0D\h0A01/!/000:DEVICE_POWER_STATE:1:1:/49\h0D\h0A							
10:11:58.135	01/!/000:VIDEO_MODE:00:00:13:/60\h0D\h0A01/!/000:VIDEO_COLOR:01:00:00:/01\h0A01/1/000:/89\h0D\h0A							
1	Submit							
Ľ	Repeat							

6.2 Using System Monitor to track Savant system states

- 1. Open System Monitor.
- 2. Double click on your host or highlight and click Connect.
- 3. Select **System State** on the left.
- 4. Use the search bar on the right to search for your Strato or system state you want to watch.

•••	Kale	idescape Sample Program - 10.0.0.157 (Host)						
		System Status Online						
Disconnect								
GENERAL				? Qatrato 6				
System Dashboard	State Values	State Varues						
Controller Info	State Name A	State Value	State Type					
Processes Diagnostic Reports System Licenses Configuration Info	Theater Strato Media_server CurrentTriteElapsedMinute	00	String					
	Theater Strate Media server CurrentTitleElapsedSecond	00	String					
	Theater Strate. Media_server.CurrentTitleLengthHours	0	String					
	Theater Strate Media, server CurrentTitleLengthMinutes	00	String					
Host Claiming	Theater Strate Media server Current Title Levath Seconds	00	String					
ONTROL	Theater Strate Media, server CurrentTitleName	1/59	String					
	Theater Strato Media, server CurrentTopMaskAbsolute. (0, Tpercent)	0000	String					
System State	Theater Strato Media, server CurrentTopMaskCalibrated_(0.1percent)	00000	String					
Service Events	Theater Strato Media server/CurrentTopMaskRelative (0. tpercent)	+000	String					
Services	Theater Strate Media_server/sinEndingCredits	0	Number					
X Component Status	Theater Strate Media, server/sin/termission	0	Number					
W.	Theater Strato Media server/sinKScapeinterface	1	Number					
Audio Controls	Theater Strato Media, server/sinMainContent	0	Number					
	Theorem Strate Media, server isMuted	0	Boolean					
Video Controls	Theater Strato Media, server /sPowered		Number					
AV Connections	Theater Strate.Media,server/sScreenSaverActive	1	Number					
EDID Settings	Theater Strate Media, server Paused	0	Number					
Sonos Info	Theater Strate.Media_server.SVC_AV_EXTERNALMED(ASERVER.Group/volume	0	Namber					
UPnP Discovery	Theater Strato.Media_server.UnusedStatusData	39	String					
	Theater Theater Strato.Group/Johame		Namber					
	Theater Theater Strato, Media, server, 1, SVC, AV, EXTERNAL VEDIASERVER, CurrentMuteStatus	0	String					
	Theater Theater Strate Media_server.1.SVC_AV_EXTERNAL MEDIASERVER CurrentStation	011	String					
	Theater Theater Strato. Media, server, 1, SVC, AV, EXTERNAL MEDIASERVER, CurrentVolume	0	String					
	Theater Strate Media_Server.1.SVC_AV_EXTERNALMEDIASERVER.Current/volume	0	Number					
	Theater Theater Strato. Media_server.1.SVC_AV_EXTERNAL/MEDIASERVER.Service/sActive	0	Number					
	Theater Theater Strato, Media, server, 1, SVC, AV, EXTERNAL/VED ASERVER, ServiceState	inactive	String					
	Theater Theater Strato.Media_server.1.SVC_W_WEBACTIVEAUDIOSERVER.ServiceIsActive	0	Number					
	Theater Theater Strate, Media, server, 1, SVC, AV, WEBACTIVEAUDIOSERVER, ServiceState	inactive	String					
	Theater Theater Strate.Media_server.1.SVC_AV_WEBACTIVEVIDEOSERVER.ServiceIsActive	0	Number					
	Theater Theater Strate. Media_server.1.SVC_AV_WEBACTIVEVICEOSERVER. ServiceState	inactive	String					
	TRAVELTRAVE SPACAREDA_SERVELT.SYG_AC, RESACTIVE VICEOSERVER.SERVICESARE	INSCOME.	street					
	State Receivers							
	soap.udp://127.0.0.1/41378							
	soap.udp://127.0.0.1.56197							
	soap.udp.)/127.0.0.1:36335							
	sosp.udp://127.0.0.1/68243							
	soap.udp.//127.0.0.1:41648							
	soap.udp://127.0.0.1/51243							
	soap.udp://127.0.0.1:37385							
	soan.ude//127.0.0.1:44669							
	?							

5. Find your system state in the list and watch your state values to see if it changes value as you control your Savant system.

7 Kaleidescape App Volume Control

This section covers programming triggers and workflows to allow the use of the Kaleidescape App to control volume and mute of the Savant system. The audio controller for the Savant zone will require IP or RS-232 control due to the *SetVolume* command being used. If the system is not capable of IP or 232, a volume up and volume down command can be used for simple volume ramping of the audio controller. You will need to adjust the VolumeCapabilities state variable to accommodate the setup needed.

Each profile that is placed in Blueprint will create its own state variables to use for each player. Follow the example to create User State Variables and new triggers to allow for the Kaleidescape App to control the Savant zone volume and mute associated with each Strato player. Additional triggers will be added to send feedback to the Kaleidescape app for volume level feedback and mute status.

7.1 Player State Variables

By default this profile will not allow volume control from the Kaleidescape App. The default *VolumeCapabilities* state variable will need to be set for each player that will use Kaleidescape App volume controls.

- 1. Inspect the Strato player
- Drop down the 'Show:' menu and select State Variables.
- Change the *initial value* of the VolumeCapabilities to 30. See below for values.

The sum of capabilities of the audio system:

0 No volume control or feedback
1 Volume up/down control
2 Mute Control
4 Volume level feedback
8 Mute feedback
16 Volume level set

Edit Device	creens Hide Details	
0 14.08		
Class: Media	- Canada	
Manufacturer: Kaleic	descape	
Model: Strate		
Device Name: Thea	ter Strato	
Notes:		
Show: State Variable	s 😋 ?	
	e	
	VolumeCapabilities	

For example, if the control system supports adjusting the volume level up and down, supports mute, and can report feedback for the volume level and mute, the flag would be set to: 1+2+4+8 = 15

7.2 User State Variables

- 1. In Blueprint, go to **Tools > Review > User State Variables...**
- 2. Create 2 new states. **AppVolumeFB** and **integer 2**.

User Defin	ed States		
Name	Туре	Initial Value	
AppVolumeFB	integer	0	(I)(+)
Theater.CurrentVolume			
		٥	
userDefined.Integer 2			
Integer 2	integer	2	Σ+
		0	
Description			
?		Export All Import	▷ Cancel Save

- 3. Integer 2 will be a '**Type**' of **integer** and '**Initial Value**' will be **2**.
- 4. AppVolumeFB will be a '**Type**' of **integer**. It will also need to be calculated, press the icon

 Σ to add new states.

- 5. Using the services icon to find the state *CurrentVolume* for the Savant Strato zone. Drag it to the first state of the AppVolumeFB.
- 6. Drag the **Integer 2** variable from the list to the second state of the AppVolumeFB.
- 7. Change the calculation type to `*'.

7.3 Custom Workflows

- 1. Create a new workflow. In this example it is named **App Volume String to Savant**. This workflow will only be needed if your VolumeCapabilities is set to use the *Volume Level Set*.
 - a. Add a 'Savant Action Argument Setter'
 - i. Action Argument Name VolumeValue
 - ii. Value Theater Strato.Media_server.AppVolumeSavant (this will vary on how you named your Strato in Blueprint. This can be found in System States using System Monitor)
 - b. Add the device from Blueprint that is controlling the volume for the Savant zone.
 - i. Function HD_Monitor
 - ii. Resource VOLUMECONTROL Function
 - iii. Action SetVolume
 - iv. Save and close this window

lbrary Media	P				Record Step Stop Ri
Attimes Variables Variable	Action Argument Value These Strate Argument Results Option V These Strate Arguments Gengoneen: Function Action Arguments	Iddia_server.AppVolumeSavant ons HD_monitor Sony XBR-65X850C HD_mostor VOLLMECONTROL Function VolumeValue Add Remove Wail for component to respond	Action: SerVolume Value Arg Value	Value Source State Center	Duration
Savant Action Argument Setter					
argument with this action overrides and argument passed in. Input: (Files/Folders) None Result: (Files/Folders) None	-				
¢~ ⊡	8				

- 2. Create a new workflow. In this example it is named **Savant to App Volume FB**. This workflow will only be needed if your VolumeCapabilities is set to use the *Volume Level Feedback*.
 - a. Add a 'Savant Action Argument Setter'
 - i. Action Argument Name ZoneVolume
 - ii. Value userDefined.AppVolumeFB (this is the user state variable)
 - b. Add your Strato device.
 - i. Function Media_server
 - ii. Resource custom
 - iii. Action Set_UI_Volume_FB
 - iv. Save and close this window

		8	Savant to App Volume Fi			
ibrary Media						Record Step Stop
Actions Variables						needa otep otop
Library	Alert Action	V Savant Acti	on Argument Setter			
📆 Calendar	Kaleidescape Sample Program	Action Argument N	lamo		Value Source	
Contacts	V Lighting Controller	-	alen me			
X Developer	Manage Service Resources	zoneVolume			State Center	0
🔛 Files & Folders	Savant Action Argument Setter	Value				
Fonts	Savant State Setter	userDefined.App/	/olumeFB			
😨 Internet 🛃 Mail	Send DIS Command Send Internal Command					
Mail	Send Service Request	Results Optio	ns			
Music	Service State Change					
PDFs	Switch Screen	🔻 🏹 Theater Str	ato			
Photos	Theater Strato					
T Presentations	Theater TV	Component:	Media_server Kaleidescape			
System		Function:	Media_server	0		
Text		Resource:	Custom	Action: Set	UL_Volume_FB	
🗙 Utilities		Action Arguments:	Name	Value		
X Other			zoneVolume	Arg Value		
Most Used			zonevolume	Arg value		
Recently Added						
			Add Remove		Zone Volume	
			Wait for component to respon			
			wait for component to respon	0		
		Results Optio	ns			
		Log				Duration
💙 Savant Actio	n Argument Setter					
	nt component actions. Setting an rrides and argument passed in.					
Input: (Files/Fold Result: (Files/Fold						
¢~ ⊡						

- 3. Create a new workflow. In this example it is named **Send Mute OFF FB**. This workflow will only be needed if your VolumeCapabilities is set to use *Mute Feedback*.
 - a. Add the Strato device.
 - i. Function Media_server
 - ii. Resource Custom
 - iii. Action Set_UI_Mute_Off_FB
 - iv. Save and close this window

	Send Mute OFF FB.workflow	
Library Media		Record Step Stop Run
Actions Verlades Construction ILbray Usard V Addressage Sample Program ILbray V Addressage Sample Program V IDbray V Manage Sarvia Resources V IF rise & Folders Sample Sarvia Resources V Manage Sarvia Resources IF rise & Folders Sample Sarvia Resources Sample Sarvia Resources Sample Sarvia Resources IF rise & Totts Sample Sarvia Resources Sample Sarvia Resources Sample Resources IF rise & Totts Sample Sarvia Resources Sample Resources Sample Resources IF rise & Totts Sample Resources Sample Resources Sample Resources IF rise & Totts Sample Resources Sample Resources Sample Resources If rise & Totts Sample Resources V Treater TV Visitions Visitions V Treater TV Visitions Norther Norther Norther	V Theater Strate Component: Media,server Kaledioscope Function Media,server Resource Caston Caston	×
		Duration
Theater Strato		
This action instructs the Theater Strato to perform the selected control command. Input: Anything		
Result: Anything	8	

- 4. Create a new workflow. In this example it is named **Send Mute ON FB**. This workflow will only be needed if your VolumeCapabilities is set to use *Mute Feedback*.
 - a. Add the Strato device.
 - i. Function Media_server
 - ii. Resource Custom
 - iii. Action Set_UI_Mute_On_FB
 - iv. Save and close this window

Library Media	Send Mute ON FB:workflow	Record Step Stop Ru
Actions Variables Q Name	▼ V Theater Strato	
Itary Actriction Calcody Calcody	Component: Media, server Kaladescape Function: Media, server © Action Arguments: Action Arguments: Main for component to respond Results Options	
		Duration
V Theater Strato		
This action instructs the Theater Strato to perform the selected control command. Input: Anything Result: Anything		
☆< ♡		

7.4 Triggers

- 1. Create a new trigger. In this example it is named **Kaleidescape App Volume Control**. This trigger will monitor the volume from the Kaleidescape App. Once it changes state Savant will use the current volume value and send it to your audio controller for the Savant zone. This trigger will only be needed if your VolumeCapabilities is set to use *Volume Level Set*.
 - a. Evaluate Theater Strato.Media_server.AppVolumeSavant
 - b. If Theater Strato.Media_server.AppVolumeSavant / Test Condition changes
 - c. Then App Volume String to Savant (custom workflow)

Enable Group/Trigger			Description							
Strato Movie is 2.35	ratio	+-								
Kaleidescape App Vo		⊕ ⊖∘								
Kaleidescape App Mi		+ -								
Kaleidescape Mute F		+ - + -								
Kaleidescape Volume	e FB to App	(+-)		0						
When any of these states chan	ge value, evaluate the Rules									
State Name	State Sc								On Set	
AppVolumeSavant	Theater	Strato.Media	_server							e
Match the following rule				0						
if (rules)										
State Name	State Scope			Data Type	Test Condition	. v	alue	Off	tet	
AppVolumeSavant	Theater Strato.Media_ser	to Media server		integer				0		-
and or not (->)<-									
				•						
Run the following actions: Once		cope		•		Arguments/Data T	ype Value	After Delay	Override	
Run the following actions: Once	e Service/Se		ample Program1-	• General Programmable S	ervice Requests	Arguments/Data T	ype Value	After Delay O		(E)-
Run the following actions: Once then Request/State/Scene	e Service/Se		ample Program1-	• General Programmable S	ervice Requests	Arguments/Data T	ype Value			(E) -
Run the following actions: Once then Request/State/Scene	e Service/Se		ample Program1-		ervice Requests	Arguments/Data T	ype Value			(E) -
Run the following actions: Once then Request/State/Scene App Volume String to Savant	e 😒 Service/S4	aleidescape Sa	ample Program1-		ervice Requests	Arguments/Data T Arguments/Data T				E)-
Run the following actions: Once then Request/State/Scene App Volume String to Savant else	e Service/S Service/S Theater-H	aleidescape Sa						0		E)-

2. Create a new trigger. In this example it is named **Kaleidescape App Mute Toggle**. This trigger will monitor the mute toggle command from the Kaleidescape App. Once it changes

state Savant will use the current mute status to mute or unmute the audio controller. This trigger will only be needed if your VolumeCapabilities is set to use *Mute Control*.

- a. Evaluate Theater Strato.Media_server.AppToggleMute / Check On Set
- b. If Theater Strato.Media_server.AppToggleMute / Test Condition is equal / Value Toggle Mute & Theater IsMuted / test Condition - is true
- c. *Then* **MuteOff** (direct audio controller mute off workflow)
- d. *Else* **MuteOn** (direct audio controller mute on workflow)

Triggers				Description							
Enable Gro	up/Trigger										
	Strato Movie is 2.35 ratio		÷ -								
	Kaleidescape App Volume Cont	trol	÷ -	•							
V	Kaleidescape App Mute Toggle		+ -								
	Kaleidescape Mute FB to App		+ -								
	Kaleidescape Volume FB to App	p	+ -								
When env	of these states change value,	eveluete the Pul									
State Name	of these states change value,	evaluate the Rul	State Scope							On Set	
										On set	
AppTog	gleMute		Theater Strato.Med	lia_server							
Match A	of the following rules:										
if (rules)											
State Name		State Scope			Data Type	Test Condition			Offs	iet	
AppTog	gleMute	Theater Strato	Media_server		string	is equal	C Toggi	Mute	0		
IsMuted		Theater			boolean	is true	Q		0		e
and or	not (->)<-										
Run the foll	lowing actions: Once	0			0						
then											
Request/Sta	te/Scene		Service/Scope				Arguments/Data Type	Value	After Delay	Override	
MuteOff			Theater-Theater Strate	o-Media server-1-M	edia Plaver Service				0		Ε
mateon					eala r layer del rice				ů.		
else											
Request/Sta			Service/Scope				Arguments/Data Type	Value	After Delay	Override	
MuteOn			Theater-Theater Strate	o-Media_server-1-M	edia Player Service				0		(E) -
(?)	Programming View				Export Se	election	Import	\$ Þ	Cancel	Sav	ie i

- 3. Create a new trigger. In this example it is named **Kaleidescape Mute FB to App**. This trigger will monitor the mute status of the Savant zone. Once it changes state Savant will use the current mute status to send the Kaleidescape App mute feedback. This trigger will only be needed if your VolumeCapabilities is set to use *Mute Feedback*.
 - a. Evaluate Theater IsMuted
 - b. If Theater IsMuted / Test Condition is true
 - c. Then Send Mute ON FB (custom workflow)

d. Else - Send Mute OFF FB (custom workflow)

Triggers				Description							
Enable Gro											
ŏ	Suato Movie IS 1045 Tatio		÷ -								
	Strato Movie is 2.35 ratio		+ -	0							
-	Kaleidescape App Volume Contr Kaleidescape App Mute Toggle	0	÷ -								
	Kaleidescape App Mute Toggle Kaleidescape Mute FB to App		θΘ								
Ū.	Kaleidescape Volume FB to App		+ -								
When any	y of these states change value, e	valuate the Ru	les								
State Name		randario trio rea	State Scope							On Set	
IsMuted			Theater							OI Dec	-
Ismuteu			meater								
Match the	following rule				•						
if (rules))										
State Name	•	State Scope			Data Type	Test Condition	value		Off	set	
IsMuted	t i	Theater			boolean	is true	0		0		e
and o	or not (->)<-										
	llowing actions: Once	0									
then	in the second seco										
Request			Service				Arguments	Value	After Delay	Override	
	lute ON FB								0		Ε -
					0						
else											
	ate/Scene		Service/Scope				Arguments/Data Type	Value	After Delay	Override	
Request/Sta				Concels Deserves 4	-General Programmable S	Convice Requests			0		E -
Request/Sta Send M	lute OFF FB		Theater-Kaleidescape	Sample Program I	-General Programmable :	service nequests			U		

- 4. Create a new trigger. In this example it is named **Kaleidescape Volume FB to App**. This trigger will monitor the volume status of the Savant zone. Once it changes state Savant will use the current volume status to send the Kaleidescape App volume feedback. This trigger will only be needed if your VolumeCapabilities is set to use *Volume Level Feedback*.
 - a. Evaluate Theater.CurrentVolume
 - b. If Theater CurrentVolume / Test Condition changes
 - c. Then Savant to App Volume FB (custom workflow)

Triggers					Description									
Enable Gri	oup/Trigger													
	Strato Movie is 16x9 ratio			+ -										
	Strato Movie is 2.35 ratio			+-										
	Kaleidescape App Volume Co	ontrol		+-										
	Kaleidescape App Mute Tog	gle		+-										
	Kaleidescape Mute FB to Ap	p		+-										
	Kaleidescape Volume FB to A	App		+ -		0								
When an	y of these states change value	e, evaluate the Ru	ules			•								
State Name	2		State Scope	2									On Set	
Curren	tVolume		Theater											e
						0								
Match the	e following rule													
if (rules)													
State Name	,	State Scope					Data Type	Test Conditio		Value		Off	set	
Curren	tVolume	Theater					integer	changes	_	0		0		е
and	or not (->)<-					0								
Run the fo	llowing actions: Once	•												
then														
Request/St	ate/Scene		Service/Scop	e					Arguments/I	Data Type	Value	After Delay	Override	
Savant	to App Volume FB		Theater-Kale	eidesca	e Sample Program1	1-General Pr	ogrammable S	ervice Request	s			0		E -
						0								
else Request/St	ate/Scene		Service/Scop	0					Arguments/I	Data Tupo	Value	After Delay	Ouerride	
nequest/St	aver accerte		Jervice/Scop		Drag a state or req	uast have fo	r a "elce" act	lion	Arguments/I	vera i Abe	49106	Arter Delay	Sverride	
					pray a state of req	wear nere ro								
?	Programming View						Export Se	alastian	Import		\$ ≥	Cancel	Save	

- 5. Create a new trigger. In this example it is named **Kaleidescape Volume Up**. This trigger will monitor the volume up command from the Kaleidescape App. This trigger will only be needed if your VolumeCapabilities is set to use *Volume up/down control*.
 - a. Evaluate Theater Strato.Media_server.AppVolumeUp / Check On Set
 - b. *If* **Theater Strato.Media_server.AppVolumeUp** / *Test Condition* **is equal** / *Value* **Up**
 - c. Then VolumeUp (direct audio controller volume increase workflow)

	5			Description					
Enable G	Group/Trigger								
	Ou ato movie is 2.50 ratio		÷						
	Kaleidescape App Volume Cor		+						
	Kaleidescape App Mute Toggle	e	+						
	Kaleidescape Mute FB to App			31					
	Kaleidescape Volume FB to Ap Kaleidescape Volume Up	op		Ð					
	Kaleidescape Volume Op Kaleidescape Volume Down								
					0				
When a	ny of these states change value,	evaluate the Rule	s						
State Nar	ne		State Scope					On	Set
AppV	olumeUp		Theater Strato.	Media_server				C	2 E
Match t	he following rule								
Match th	-				0				
	es)	State Scope			• Data Type	Test Condition	Value	Offset	
if (rule State Nar	es)	State Scope Theater Strato.N	Aedia_server			Test Condition	Value	Offset	
if (rule State Nar	rs) ne		/ledia_server		Data Type				e
if (rule State Nar AppVr	rs) ne		Aedia_server		Data Type string				e
if (rule State Nar AppVi	rs) me olumeUp		Aedia_server		Data Type				
if (rule State Nar AppVi	ne olumeUp or not (->)<-	Theater Strato.N	Aedia_server		Data Type string				
if (rule State Nar AppV and Run the f then	ne olumeUp or not (->)<-	Theater Strato.M	/ledia_server		Data Type string	is equal			
if (rule State Nar AppV and Run the f then	rs) ne or not (-> I<- following actions: Once	Theater Strato.M	vice/Scope	to-Media_server-1-M	Data Type string	is equal	C Up	0	
if (rule State Nar AppV and Run the f then Request/	rs) ne or not (-> I<- following actions: Once	Theater Strato.M	vice/Scope	to-Media_server-1-M	Data Type string	is equal	C Up	0 After De Overr	ide
if (rule State Nar AppV and Run the f then Request/	rs) ne or not (-> I<- following actions: Once	Theater Strato.M	vice/Scope	to-Media_server-1-M	Data Type string	is equal	C Up	0 After De Overr	ide

- 6. Create a new trigger. In this example it is named **Kaleidescape Volume Down**. This trigger will monitor the volume down command from the Kaleidescape App. This trigger will only be needed if your VolumeCapabilities is set to use *Volume up/down control*.
 - a. Evaluate Theater Strato.Media_server.AppVolumeDown / Check On Set
 - b. *If* **Theater Strato.Media_server.AppVolumeDown** / *Test Condition* **is equal** / *Value* **Down**
 - c. Then VolumeDown (direct audio controller volume decrease workflow)

Triggers		Description					
Enable Group/Trigger							
Kaleidescape App Volume		+ -					
Kaleidescape App Volume							
Kaleidescape App Mute To Kaleidescape Mute FB to A	AAle	+ - 1					
Kaleidescape Volume FB to A		÷ –					
Kaleidescape Volume Up		+ -					
Kaleidescape Volume Down	n (4	+-					
When any of these states change val							
State Name	State Scope					On Set	
AppVolumeDown	Theater Strate	o.Media_server					
Match the following rule							
if (rules)							
State Name	State Scope		Data Type	Test Condition	Value	Offset	
AppVolumeDown	Theater Strato.Media_server		string	is equal	Oown	0	Ξ
and or not (->)<-							
Run the following actions: Once	0						
then							
Request/State/Scene	Service/Scope			Arguments/D	ata T Value	After De Override	
VolumeDown	Theater-Theater Str	rato-Media_server-1-Media Pla	yer Service			0	E -

8 Appendix

Savant Command - *resource_component_actions*

Kaleidescape Control Command

Movies01/1/GO_MOVIE_LIST:Music01/1/GO_MUSIC_LIST:Audio01/1/AUDIO_NEXT:Menu01/1/DVD_OR_KALEIDESCAPE_MENU:Setup01/1/GO_SYSTEM_STATUS:Info01/1/STATUS_AND_SETTINGS:Subtitle01/1/SUBTITLES_NEXT:PageUp01/1/SUBTITLES_NEXT:PageUp01/1/PAGE_DOWN:ScanUp01/1/SCAN_FORWARD:ScanUp01/1/SCAN_FORWARD:ScanDown01/1/SCAN_FORWARD:SkipUp01/1/NEXT:SkipDown01/1/NEXT:SkipDown01/1/PAGE_UP:Page01/1/NEXT:SkipDown01/1/SCAN_FORWARD:ScanDown01/1/SCAN_FORWARD:ScanDown01/1/SCAN_FORWARD:SkipDown01/1/NEXT:SkipDown01/1/NEXT:SkipDown01/1/NEXT:NumberZero01/1/PAUSE:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberTwo01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberFour01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:3:NumberFive01/1/KEYBOARD_CHARACTER:5:NumberFive01/1/KEYBOARD_CHARACTER:5:NumberFive01/1/KEYBOARD_CHARACTER:5:NumberFive01/1/KEYBOARD_CHARACTER:5:NumberFive01/1/KEYBOARD_CHARACTER:5:NumberFive01/1/KEYBOARD_CHARACTER:5:NumberFive01/1/KEYBOARD_CHARACTER:5:NumberFive01/1/KEYBOARD_CHARACTER:5:NumberFive01/1/KEYBOARD_CHARACTER:5: <t< th=""><th>Home</th><th>01/1/KALEIDESCAPE_MENU_TOGGLE:</th></t<>	Home	01/1/KALEIDESCAPE_MENU_TOGGLE:
Audio01/1/AUDIO_NEXT:Menu01/1/DVD_OR_KALEIDESCAPE_MENU:Setup01/1/GO_SYSTEM_STATUS:Info01/1/STATUS_AND_SETTINGS:Subtitle01/1/SUBTITLES_NEXT:PageUp01/1/PAGE_UP:PageDown01/1/PAGE_DOWN:ScanUp01/1/SCAN_FORWARD:SkipUp01/1/SCAN_REVERSE:SkipUp01/1/PAGE_UD:Pay01/1/PAGE_DOWN:ScanDown01/1/SCAN_REVERSE:SkipUp01/1/SCAN_REVERSE:SkipUp01/1/NEXT:SkipDown01/1/PAUSE:Stop01/1/PAUSE:Stop01/1/FARCTER:0:NumberZero01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:3:NumberFive01/1/KEYBOARD_CHARACTER:4:	Movies	01/1/GO_MOVIE_LIST:
Menu01/1/DVD_OR_KALEIDESCAPE_MENU:Setup01/1/GO_SYSTEM_STATUS:Info01/1/STATUS_AND_SETTINGS:Subtitle01/1/SUBTITLES_NEXT:PageUp01/1/PAGE_UP:PageDown01/1/PAGE_DOWN:ScanUp01/1/SCAN_FORWARD:ScanDown01/1/SCAN_FORWARD:SkipUp01/1/SCAN_REVERSE:SkipUp01/1/PAGE_UOIS:Play01/1/PREVIOUS:Play01/1/PREVIOUS:Stop01/1/PAGE_OUMI:NumberZero01/1/FCAN_REVERSE:NumberTwo01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:3:NumberFive01/1/KEYBOARD_CHARACTER:4:	Music	01/1/GO_MUSIC_LIST:
Setup01/1/GO_SYSTEM_STATUS:Info01/1/STATUS_AND_SETTINGS:Subtitle01/1/SUBTITLES_NEXT:PageUp01/1/SUBTITLES_NEXT:PageDown01/1/PAGE_UP:PageDown01/1/PAGE_DOWN:ScanUp01/1/SCAN_FORWARD:ScanDown01/1/SCAN_FORWARD:SkipUp01/1/SCAN_REVERSE:SkipDown01/1/NEXT:SkipDown01/1/PREVIOUS:Play01/1/PREVIOUS:Play01/1/PAUSE:Stop01/1/PAUSE:Stop01/1/SCAN_CHARACTER:0:NumberZero01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:4:	Audio	01/1/AUDIO_NEXT:
Info01/1/STATUS_AND_SETTINGS:Subtitle01/1/SUBTITLES_NEXT:PageUp01/1/PAGE_UP:PageDown01/1/PAGE_DOWN:ScanUp01/1/SCAN_FORWARD:ScanDown01/1/SCAN_FORWARD:ScanDown01/1/SCAN_REVERSE:SkipUp01/1/NEXT:SkipDown01/1/PREVIOUS:Play01/1/PREVIOUS:Pause01/1/PAUSE:Stop01/1/SCAN_CHARACTER:0:NumberZero01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:4:	Menu	01/1/DVD_OR_KALEIDESCAPE_MENU:
Subtitle01/1/SUBTITLES_NEXT:PageUp01/1/PAGE_UP:PageDown01/1/PAGE_DOWN:ScanUp01/1/SCAN_FORWARD:ScanDown01/1/SCAN_FORWARD:ScanDown01/1/SCAN_REVERSE:SkipUp01/1/SCAN_REVERSE:SkipDown01/1/NEXT:SkipDown01/1/PAGE_UDUS:Play01/1/PAUSE:Stop01/1/PAUSE:Stop01/1/STOP:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberTwo01/1/KEYBOARD_CHARACTER:1:NumberThree01/1/KEYBOARD_CHARACTER:2:NumberFour01/1/KEYBOARD_CHARACTER:3:NumberFive01/1/KEYBOARD_CHARACTER:4:	Setup	01/1/GO_SYSTEM_STATUS:
PageUp01/1/PAGE_UP:PageDown01/1/PAGE_DOWN:ScanUp01/1/SCAN_FORWARD:ScanDown01/1/SCAN_REVERSE:SkipUp01/1/SCAN_REVERSE:SkipDown01/1/NEXT:SkipDown01/1/PREVIOUS:Play01/1/PREVIOUS:Stop01/1/PAUSE:Stop01/1/FAUSE:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberTwo01/1/KEYBOARD_CHARACTER:1:NumberThree01/1/KEYBOARD_CHARACTER:2:NumberFour01/1/KEYBOARD_CHARACTER:3:NumberFive01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:4:	Info	01/1/STATUS_AND_SETTINGS:
PageDown01/1/PAGE_DOWN:ScanUp01/1/SCAN_FORWARD:ScanDown01/1/SCAN_REVERSE:SkipUp01/1/NEXT:SkipDown01/1/PREVIOUS:Play01/1/PREVIOUS:Stop01/1/PAUSE:Stop01/1/STOP:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberTwo01/1/KEYBOARD_CHARACTER:1:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFhree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:4:	Subtitle	01/1/SUBTITLES_NEXT:
ScanUp01/1/SCAN_FORWARD:ScanDown01/1/SCAN_REVERSE:SkipUp01/1/NEXT:SkipDown01/1/PREVIOUS:Play01/1/PREVIOUS:Play01/1/PLAY:Pause01/1/PAUSE:Stop01/1/STOP:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberTwo01/1/KEYBOARD_CHARACTER:1:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:4:	PageUp	01/1/PAGE_UP:
ScanDown01/1/SCAN_REVERSE:SkipUp01/1/NEXT:SkipDown01/1/PREVIOUS:Play01/1/PREVIOUS:Pause01/1/PAUSE:Stop01/1/FAUSE:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberOne01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:3:NumberFive01/1/KEYBOARD_CHARACTER:4:	PageDown	01/1/PAGE_DOWN:
SkipUp01/1/NEXT:SkipDown01/1/PREVIOUS:Play01/1/PLAY:Pause01/1/PAUSE:Stop01/1/STOP:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberOne01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:4:	ScanUp	01/1/SCAN_FORWARD:
SkipDown01/1/PREVIOUS:Play01/1/PLAY:Pause01/1/PAUSE:Stop01/1/STOP:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberOne01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:5:	ScanDown	01/1/SCAN_REVERSE:
Play01/1/PLAY:Pause01/1/PAUSE:Stop01/1/STOP:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberOne01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:5:	SkipUp	01/1/NEXT:
Pause01/1/PAUSE:Stop01/1/STOP:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberOne01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:5:	SkipDown	01/1/PREVIOUS:
Stop01/1/STOP:NumberZero01/1/KEYBOARD_CHARACTER:0:NumberOne01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:5:	Play	01/1/PLAY:
NumberZero01/1/KEYBOARD_CHARACTER:0:NumberOne01/1/KEYBOARD_CHARACTER:1:NumberTwo01/1/KEYBOARD_CHARACTER:2:NumberThree01/1/KEYBOARD_CHARACTER:3:NumberFour01/1/KEYBOARD_CHARACTER:4:NumberFive01/1/KEYBOARD_CHARACTER:5:	Pause	01/1/PAUSE:
NumberOne 01/1/KEYBOARD_CHARACTER:1: NumberTwo 01/1/KEYBOARD_CHARACTER:2: NumberThree 01/1/KEYBOARD_CHARACTER:3: NumberFour 01/1/KEYBOARD_CHARACTER:4: NumberFive 01/1/KEYBOARD_CHARACTER:5:	Stop	01/1/STOP:
NumberTwo 01/1/KEYBOARD_CHARACTER:2: NumberThree 01/1/KEYBOARD_CHARACTER:3: NumberFour 01/1/KEYBOARD_CHARACTER:4: NumberFive 01/1/KEYBOARD_CHARACTER:5:	NumberZero	01/1/KEYBOARD_CHARACTER:0:
NumberThree 01/1/KEYBOARD_CHARACTER:3: NumberFour 01/1/KEYBOARD_CHARACTER:4: NumberFive 01/1/KEYBOARD_CHARACTER:5:	NumberOne	01/1/KEYBOARD_CHARACTER:1:
NumberFour 01/1/KEYBOARD_CHARACTER:4: NumberFive 01/1/KEYBOARD_CHARACTER:5:	NumberTwo	01/1/KEYBOARD_CHARACTER:2:
NumberFive 01/1/KEYBOARD_CHARACTER:5:	NumberThree	01/1/KEYBOARD_CHARACTER:3:
	NumberFour	01/1/KEYBOARD_CHARACTER:4:
NumberSix 01/1/KEYBOARD_CHARACTER:6:	NumberFive	01/1/KEYBOARD_CHARACTER:5:
	NumberSix	01/1/KEYBOARD_CHARACTER:6:

NumberSeven	01/1/KEYBOARD_CHARACTER:7:
NumberEight	01/1/KEYBOARD_CHARACTER:8:
NumberNine	01/1/KEYBOARD_CHARACTER:9:
Repeat	01/1/MUSIC_REPEAT_TOGGLE:
Random	01/1/MUSIC_RANDOM_TOGGLE:
OSDCursorUp	01/1/UP:
OSDCursonDown	01/1/DOWN:
OSDCursorLeft	01/1/LEFT:
OSDCursorRight	01/1/RIGHT:
Select	01/1/SELECT:
Exit	01/1/CANCEL:

Savant Command - custom_component_actions

Kaleidescape Control Command

DevicePowerOff	01/1/ENTER_STANDBY:
DevicePowerOn	01/1/LEAVE_STANDBY:
PowerToggle	01/1/PAUSE:
PauseOn	01/1/PAUSE_ON:
PauseOff	01/1/PAUSE_OFF:
KaleidescapeMenuOn	01/1/KALEIDESCAPE_MENU_ON:
KaleidescapeMenuOff	01/1/KALEIDESCAPE_MENU_OFF:
DVDMenu	01/1/DVD_MENU:
DVDTopMenu	01/1/DVD_TOP_MENU:
DVDResume	01/1/DVD_RESUME:
NextAngle	01/1/ANGLE_NEXT:
Aspect	01/1/GET_ASPECT_RATIO:
Replay	01/1/REPLAY:
ShuffleCoverArt	01/1/SHUFFLE_COVER_ART:

ParentalControlSafeLevel	01/1/SAFE_LEVEL:
ParentalControlDefaultLevel	01/1/DEFAULT_LEVEL:
SetFavoriteSceneStart	01/1/SET_FAVORITE_SCENE_START:
SetFavoriteSceneEnd	01/1/SET_FAVORITE_SCENE_END:
GoMovieCoverArt	01/1/GO_MOVIE_COVERS:
GoMovieCollection	01/1/GO_MOVIE_COLLECTIONS:
GoParentalControl	01/1/GO_PARENTAL_CONTROL:
IntermissionToggle	01/1/INTERMISSION_TOGGLE:
IntermissionOn	01/1/INTERMISSION_ON:
IntermissionOff	01/1/INTERMISSION_OFF:
GoScreenSaver	01/1/GO_SCREEN_SAVER:
StopScreenSaver	01/1/STOP_SCREEN_SAVER:
Display	01/1/DETAILS:
DisplayOff	01/1/DETAILS:
DisplayToggle	01/1/DETAILS:
GoMusicCovers	01/1/GO_MUSIC_COVERS:
GoMusicCollections	01/1/GO_MUSIC_COLLECTIONS:
GoNowPlaying	01/1/GO_NOW_PLAYING:
Req-ProtocolVersion	01/1/GET_PROTOCOL:
Req-Time	01/1/GET_TIME:
Req-NetworkSetting	01/1/GET_NETWORK_SETTINGS:
SetNetworkSetting	01/1/SET_NETWORK_SETTINGS:
Req-SystemCapabilities	01/1/GET_SYSTEM_CAPABILITIES:
Req-AvailableDevices	01/1/GET_AVAILABLE_DEVICES:
Req-DeviceInfo	01/1/GET_DEVICE_INFO:
Req-EnableEvents	01/1/ENABLE_EVENTS:
Req-DisableEvents	01/1/DISABLE_EVENTS:

Req-FriendlyName	01/1/GET_FRIENDLY_NAME:
SetFriendlyName	01/1/SET_FRIENDLY_NAME:
OSDCursorUp_Release	01/1/UP_RELEASE:
OSDCursorDown_Release	01/1/DOWN_RELEASE:
OSDCursorLeft_Release	01/1/LEFT_RELEASE:
OSDCursorRight_Release	01/1/RIGHT_RELEASE:
OSDCursorUp_Press	01/1/UP_PRESS:
OSDCursorDown_Press	01/1/DOWN_PRESS:
OSDCursorLeft_Press	01/1/LEFT_PRESS:
OSDCursorRight_Press	01/1/RIGHT_PRESS:
PageUp_Release	01/1/PAGE_UP_RELEASE:
PageDown_Release	01/1/PAGE_DOWN_RELEASE:
PageUp_Press	01/1/PAGE_UP_PRESS:
PageDown_Press	01/1/PAGE_DOWN_PRESS:
SetPosition	01/1/POSITION_SELECT:
SendcCharacter	01/1/KEYBOARD_CHARACTER:
Backspace	01/1/BACKSPACE:
Req_FilterList	01/1/FILTER_LIST:
AlphabetizeCoverArt	01/1/ALPHABETIZE_COVER_ART:
GoParentalControl	01/1/GO_PARENTAL_CONTROL:
PlayScript	01/1/PLAY_SCRIPT:
Store	01/1/GO_MOVIE_STORE:
CalibrateMasking	01/1/GO_CALIBRATE_MASKING:
CalibrateMaskingOverscan	01/1/GO_CALIBRATE_MASKING_OVERSCAN:
SetScreenMask	01/1/SET_SCREEN_MASK:
PreviousAngle	01/1/ANGLE_PREVIOUS:
StatusAndSettings	01/1/STATUS_AND_SETTINGS:

ShowNavigationOverlay	01/1/SHOW_NAVIGATION_OVERLAY:
StartChapterEntry	01/1/START_CHAPTER_ENTRY:
StartDVDTitleEntry	01/1/START_DVD_TITLE_ENTRY:
StartSendNumberToDVDEntry	01/1/START_SEND_NUMBER_TO_DVD_ENTRY:
StopOrCancel	01/1/STOP_OR_CANCEL:
PageUpOrPrevious	01/1/PAGE_UP_OR_PREVIOUS:
PageUpOrPreviousPress	01/1/PAGE_UP_OR_PREVIOUS_PRESS:
PageUpOrPreviousRelease	01/1/PAGE_UP_OR_PREVIOUS_RELEASE:
PageDownOrNext	01/1/PAGE_DOWN_OR_NEXT:
PageDownOrNextPress	01/1/PAGE_DOWN_OR_NEXT_PRESS:
PageDownOrNextRelease	01/1/PAGE_DOWN_OR_NEXT_RELEASE:
PageUpOrNext	01/1/PAGE_UP_OR_NEXT:
PageUpOrNextPress	01/1/PAGE_UP_OR_NEXT_PRESS:
PageUpOrNextRelease	01/1/PAGE_UP_OR_NEXT_RELEASE:
PageDownOrPrevious	01/1/PAGE_DOWN_OR_PREVIOUS:
PageDownOrPreviousPress	01/1/PAGE_DOWN_OR_PREVIOUS_PRESS:
PageDownOrPreviousRelease	01/1/PAGE_DOWN_OR_PREVIOUS_RELEASE:
GetCameraAngle	01/1/GET_CAMERA_ANGLE:
GetMovieLocation	01/1/GET_MOVIE_LOCATION:
GetPlayStatus	01/1/GET_PLAY_STATUS:
GetPlayingTitleName	01/1/GET_PLAYING_TITLE_NAME:
SetStatusCuePeriod	01/1/SET_STATUS_CUE_PERIOD:
GetUIStatus	01/1/GET_UI_STATE:
GetHighlightedSelection	01/1/GET_HIGHLIGHTED_SELECTION:
GetUserInput	01/1/GET_USER_INPUT:
GetScreenMask	01/1/GET_SCREEN_MASK:
GetVideoMode	01/1/GET_VIDEO_MODE:

GetContentDetails	01/1/GET_CONTENT_DETAILS:
Set_UI_Volume_FB	01/1/SEND_EVENT:VOLUME_LEVEL=
Set_UI_Mute_ON_FB	01/1/SEND_EVENT:MUTE_ON_FB:
Set_UI_Mute_OFF_FB	01/1/SEND_EVENT:MUTE_OFF_FB:
GetCinemascapeMask	01/1/GET_CINEMASCAPE_MASK:
GetCinemascapeMode	01/1/GET_CINEMASCAPE_MODE:
SetCinemascapeMode	01/1/SET_CINEMASCAPE_MODE:
CHILD_OSDCursorDown_Press	01/1/CHILD_DOWN_PRESS:
CHILD_OSDCursorDown_Release	01/1/CHILD_DOWN_RELEASE:
CHILD_OSDCursorDown	01/1/CHILD_DOWN:
CHILD_OSDCursorUp_Press	01/1/CHILD_UP_PRESS:
CHILD_OSDCursorUp_Release	01/1/CHILD_UP_RELEASE:
CHILD_OSDCursorUp	01/1/CHILD_UP:
CHILD_OSDCursorLeft_Press	01/1/CHILD_LEFT_PRESS:
CHILD_OSDCursorLeft_Release	01/1/CHILD_LEFT_RELEASE:
CHILD_OSDCursorLeft	01/1/CHILD_LEFT:
CHILD_OSDCursorRight_Press	01/1/CHILD_RIGHT_PRESS:
CHILD_OSDCursorRight_Release	01/1/CHILD_RIGHT_RELEASE:
CHILD_OSDCursorRight	01/1/CHILD_RIGHT:
CHILD_OSDCursorSelect	01/1/CHILD_SELECT:
CHILD_ShuffleCoverArt	01/1/CHILD_SHUFFLE_COVER_ART:
CHILD_Play	01/1/CHILD_PLAY:
CHILD_Pause	01/1/CHILD_PAUSE:
CHILD_Stop	01/1/CHILD_STOP:
CHILD_GetChildModeState	01/1/GET_CHILD_MODE_STATE:
CHILD_EnterChildMode	01/1/ENTER_CHILD_MODE:
CHILD_LeaveChildMode	01/1/LEAVE_CHILD_MODE: