



Christie CineLife+ IMB-S4 Cinema Server Configuration

For Optimizer Installation

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Optimizer Configuration

Configure the Optimizer Settings by using the Configurations button from the Menu Bar.


Select Settings:

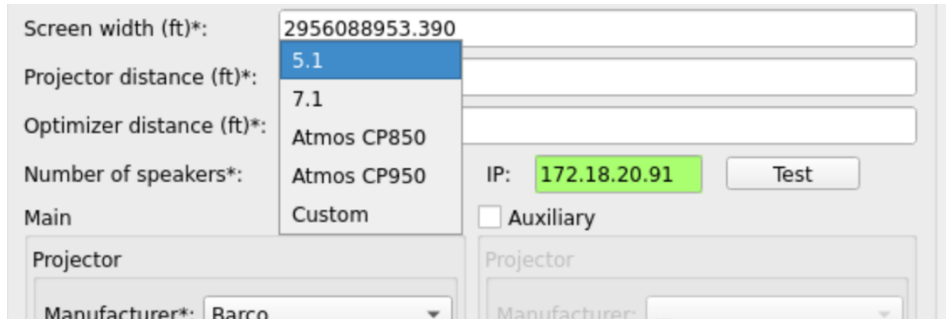
Site Specific Configurations:

- General
 - Optimizer Name
 - Units
- Room Configurations > Room Manager
- Tolerances > Site Specific Tolerances
- Calibration
 - SMTPE Seat Enabled - If Calibrated with Ultimate
 - Luminance Coefficient - If Calibrated with Spectro
 - Audio active reference active once recorded and saved
 - Microphone calibration file using mic serial number: [LINK](#)
- Network Settings
 - Static IP
 - Network Address
 - Subnet Mask
 - Gateway
 - DNS Server
 - NTP Server Optional
 - **Click Save and Reboot**
- Installation settings
 - Camera Orientation - Right Side Up/UpSide Down
 - Playlist version: Version 5 preferred
 - Projector Display Resolution: 2K or 4K
 - Screen Format: Flat or Scope
 - Manual Geometry Detection Geometry: Optional based on configuration
 - SNMP Trap: Configure server and IP

Configure Room Settings

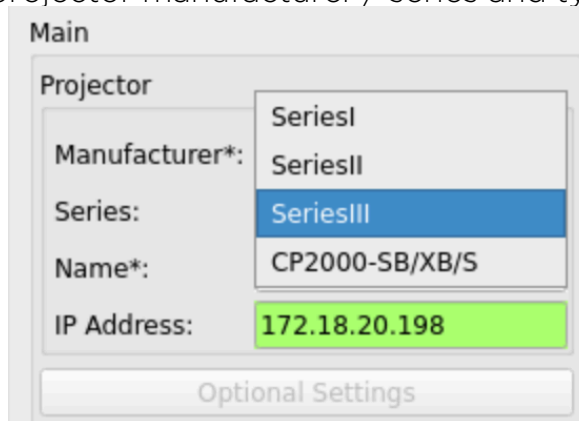
For a Christie CineLife+ IMB-S4, you will need to configure the room settings as follows:

1. Select the Configurations > Settings > Room manager.
2. Click the  icon to add a new room to the configuration.
3. Add required information
 - a. Type the detailed information for the theatre group, theatre name, and room name into the field.
 - b. Screen width and throw are required but not used.
4. Select the number of speakers in the auditorium.

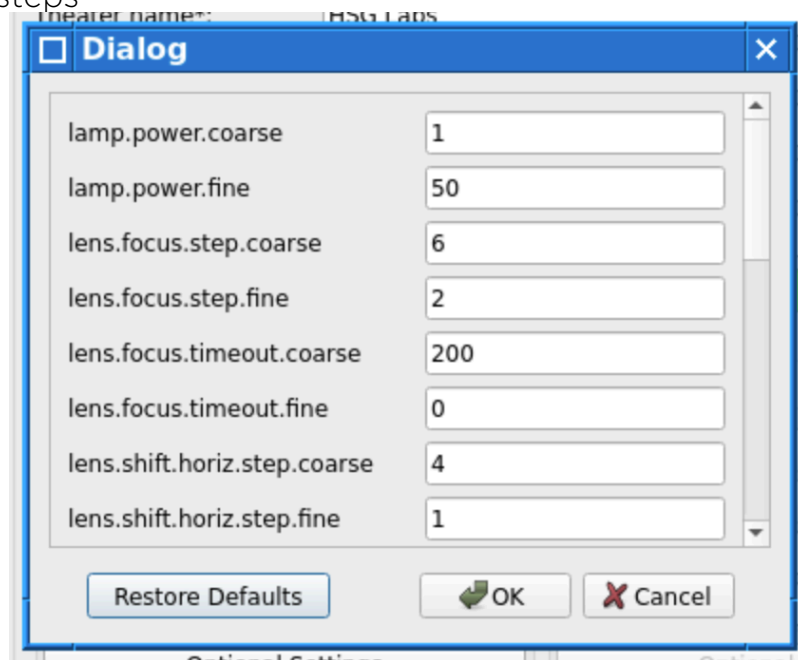


Note: To enable Atmos audio features, an Atmos license is required. Please speak to your salesperson. If Atmos is selected the IP address should be filled.

5. Select the correct projector manufacturer / series and type in the IP address.

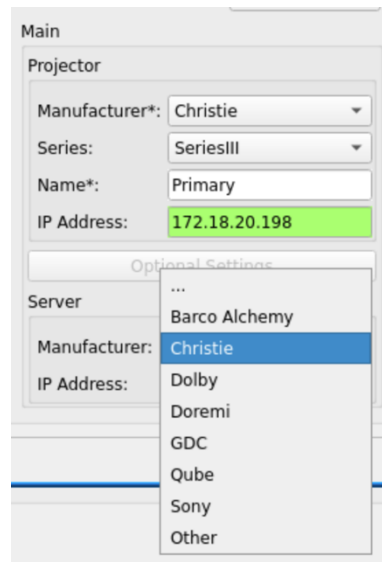


6. Optional Settings – Select to adjust the lens control speed and fine/coarse adjustment steps

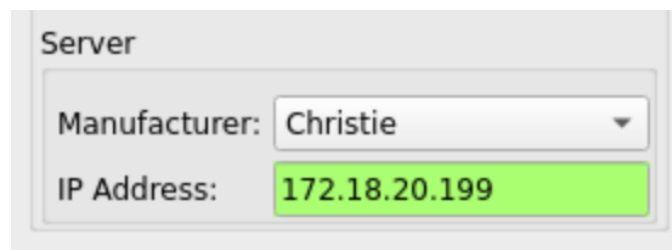


Default Settings

7. Select the *Christie* server



8. Type the IP address of the server



9. Auxiliary Projector is not required
10. Select Save to save Room
11. Select Save to Save Configuration

Device and Macro configuration

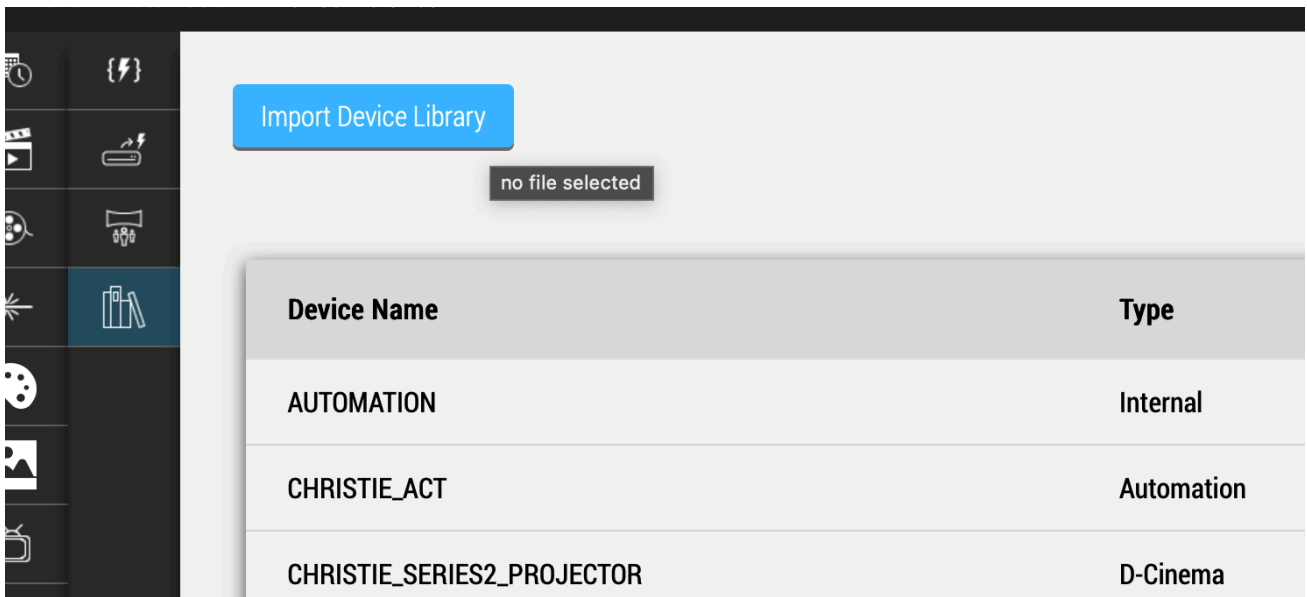
Connect via a browser to the web interface to the server.

Note: For support on this section, beyond the defined configuration, please contact Christie support.

Add the HSG Labs Optimizer library

To be able to create the control macro a product specific library has to be imported.

1. From the dropdown menu select **Automation** and then **Device Libraries**
2. Click **Import Device Library**

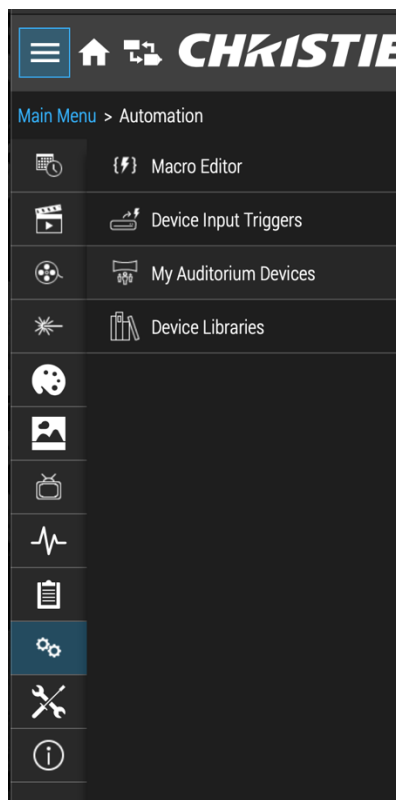


3. Select the library HSGLABS_OPTIMIZER.xml to import it. Verify that the library is in the list.

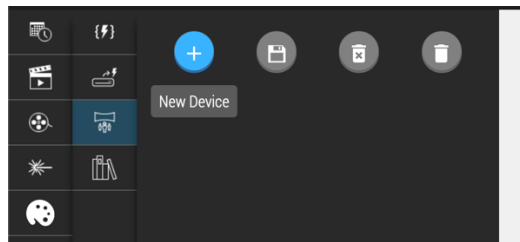
Add the HSG Labs device

To allow the SMS Player to communicate to the HSG Labs device a new device type should be created.

1. From the dropdown menu select **Automation** then **My Automation Device**



2. Press **New device** button

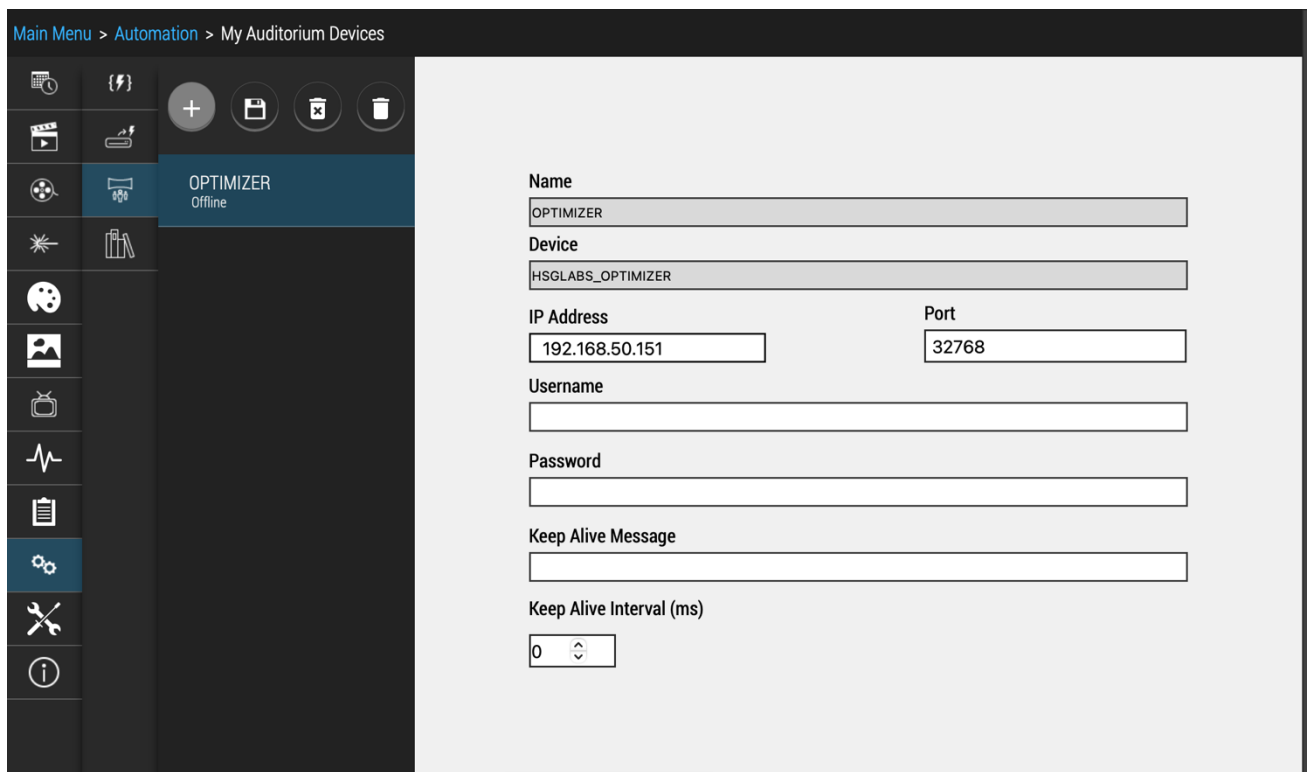


4. Give a name like OPTIMIZER to the device and select the device type as HSGLABS_OPTIMIZER

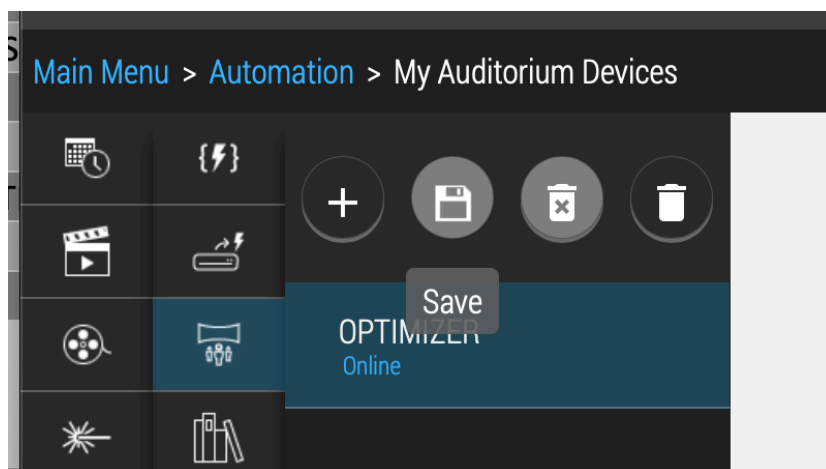
A screenshot of a 'New Device' configuration dialog. The dialog has a dark background and contains the following fields:

- Name:** A text input field containing 'OPTIMIZER'.
- Device Type:** A dropdown menu with 'All' selected.
- Select Device:** A list of device names: JNIOXR16, MYSTIQUE_OPERATE, SKA_3D, QALIF, and HSGLABS_OPTIMIZER. The 'HSGLABS_OPTIMIZER' option is highlighted in blue.
- Buttons:** 'Add' and 'Cancel' buttons at the bottom right.

5. Complete the configuration with the correct IP Address and hit **Save** button



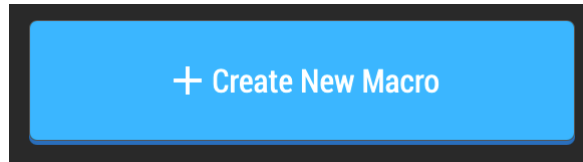
- Once the save button is pressed the SMS Server will connect to the device and if it is reachable it will display the Online text.



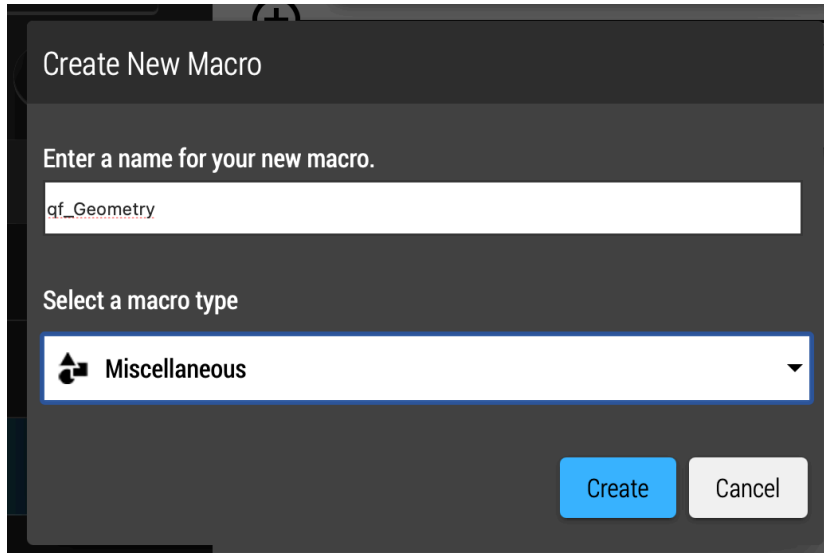
Add the Cues

Cues are messages sent to the device from the SMS Player that allows to send action commands. In the following example is how a typical cue is configured.

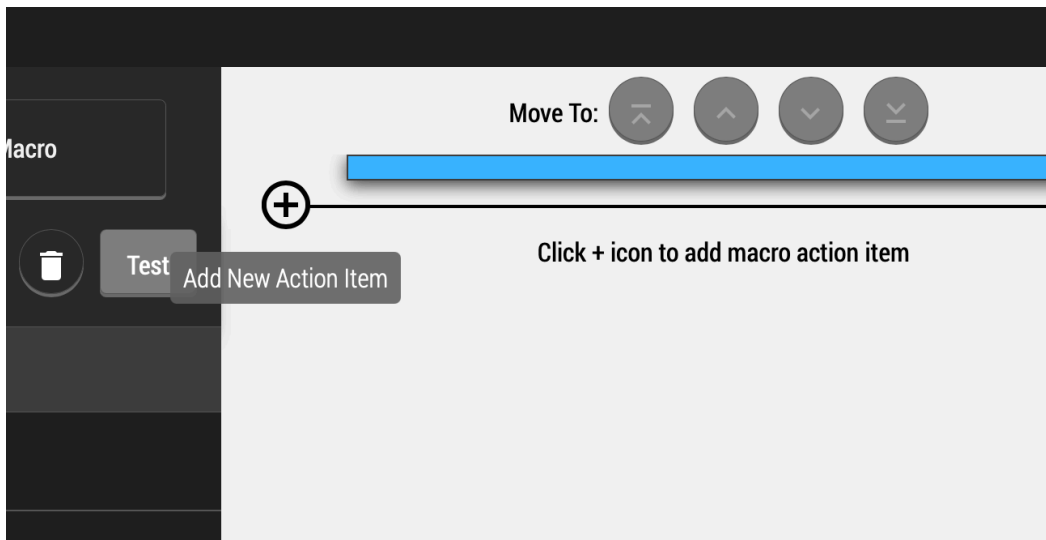
- From the **Automation** menu select **Macro Editor**
- Press **Add Macro** button



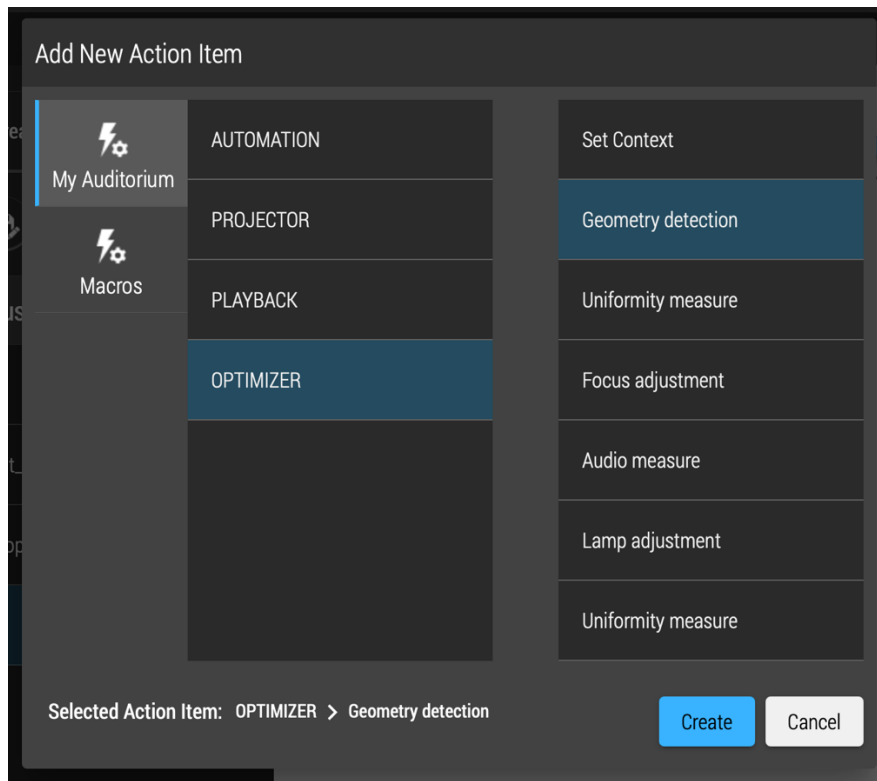
3. In this example give the name **geometry** to the macro and press **Create**



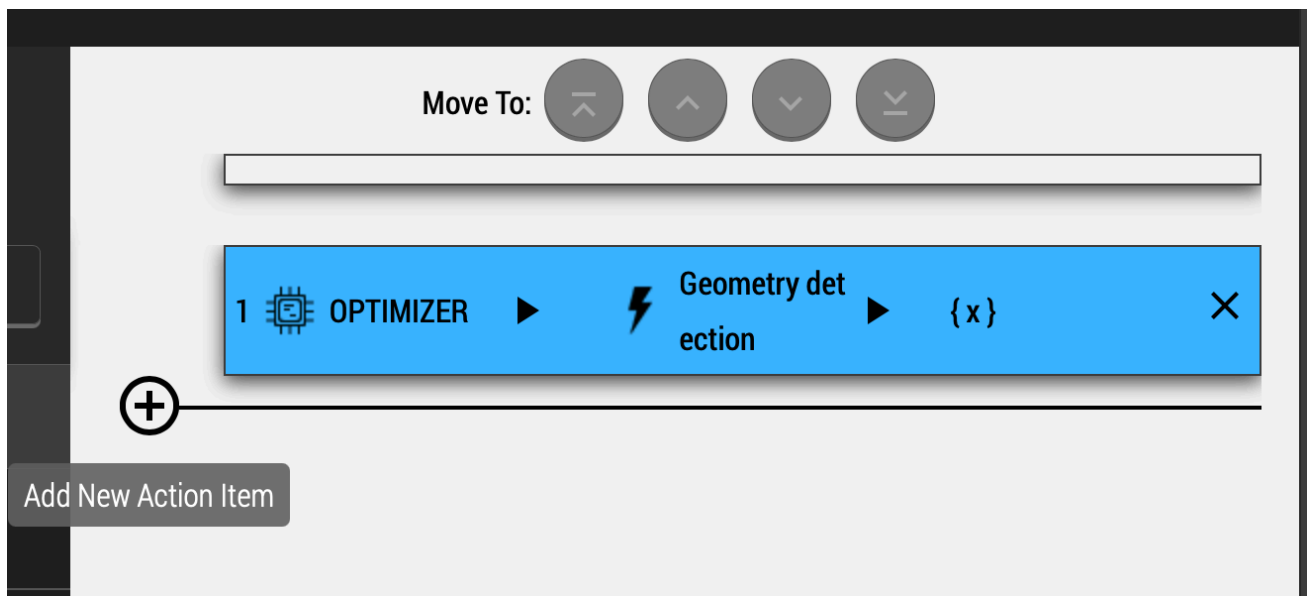
4. With geometry macro selected on the left side of the window press the + button to add an macro action.



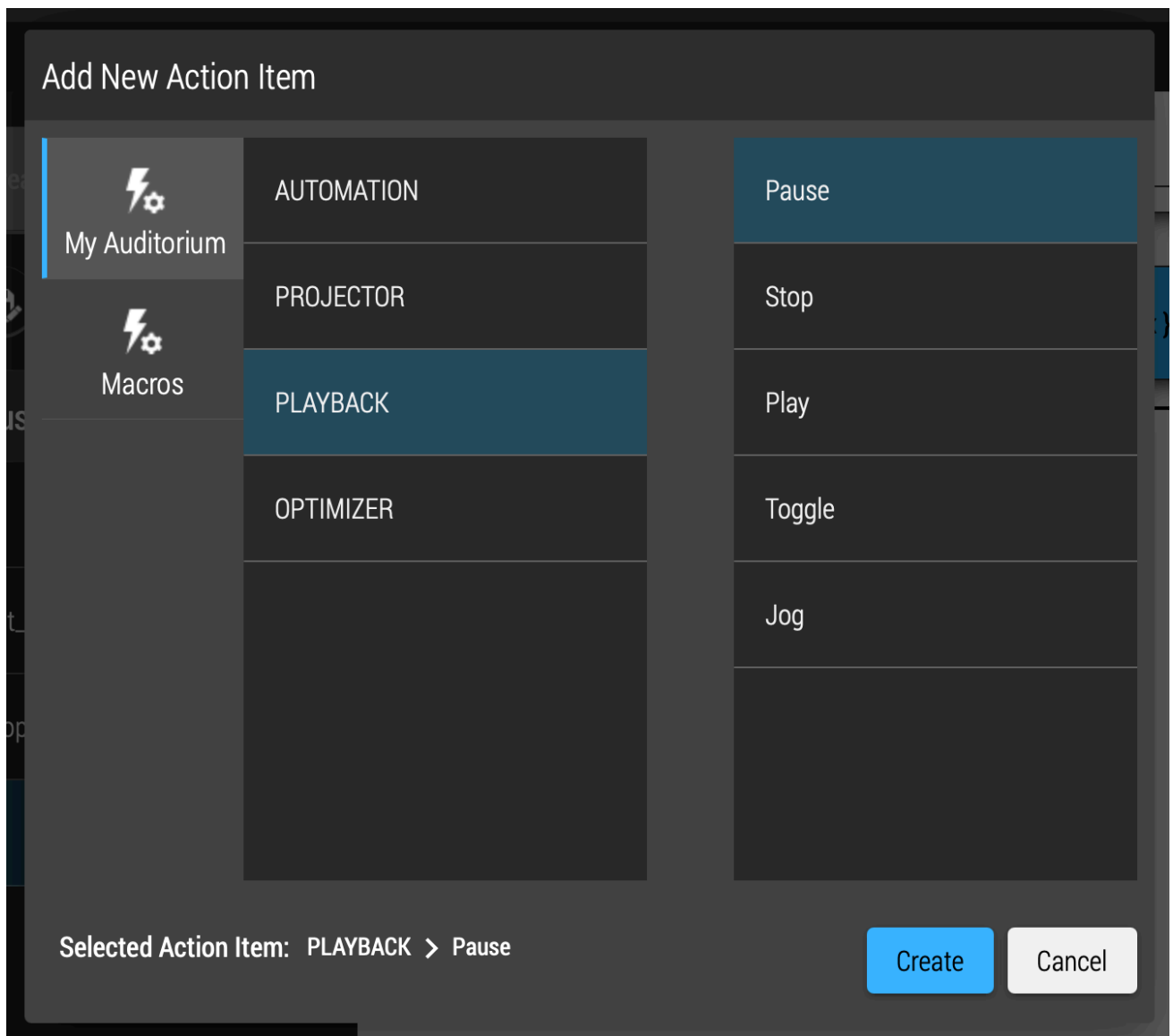
5. Select **OPTIMIZER** device and select **Geometry detection** action.



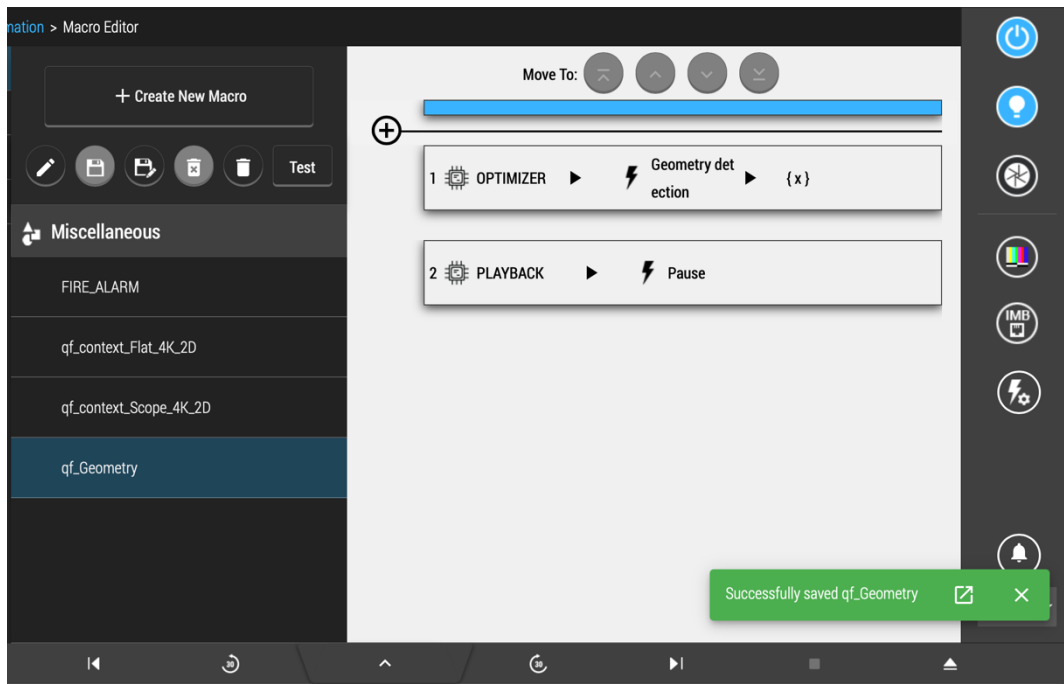
5. This will add the action in the command list. Click again on the + button to add the pause command.



6. Select PLAYBACK and Pause command



7. Confirm by pressing **Create** button
8. When done click on the save icon. A bottom right green message will show the Successfully save.



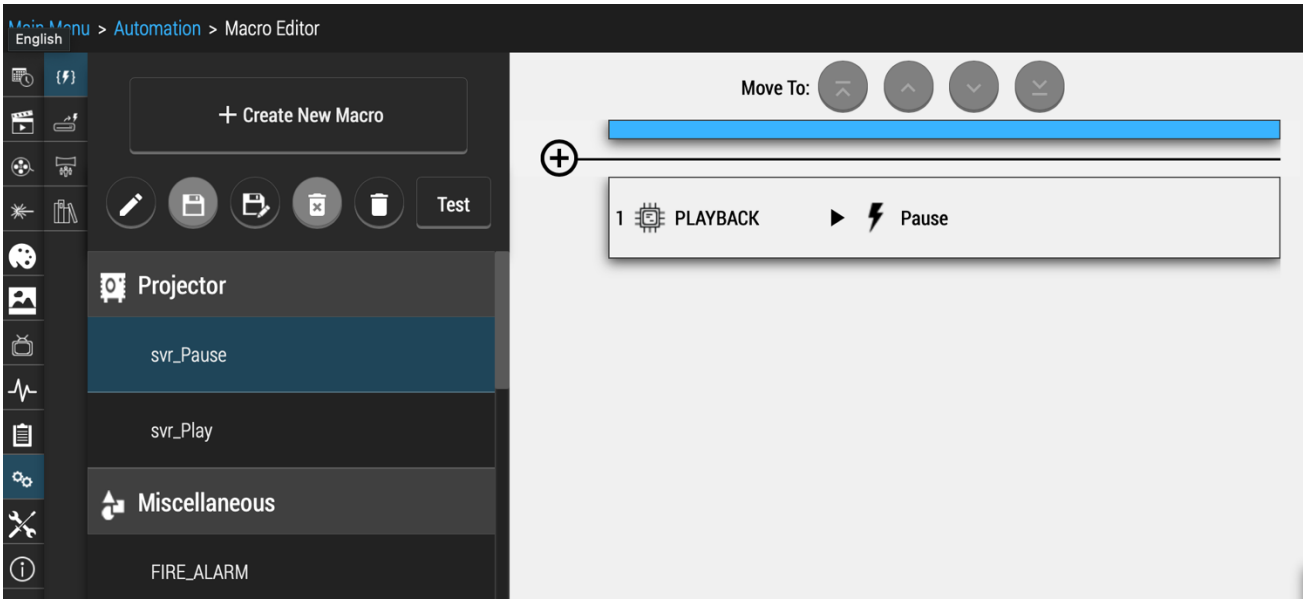
Configure all macros

Repeat those operations for all the required macros:

Macro Name	HSG Labs API string	Notes
qf_geometry	[Geometry --Check --QfAck]	
qf_uniformity	[Uniformity --Start --QfAck]	
qf_context-Flat-4K-2D	[OperatingContext --Type Flat --Resolution 4K --Mode 2D]	No pause needed in the macro
qf_context-Scope-4K-2D	[OperatingContext --Type Scope --Resolution 4K --Mode 2D]	No pause needed in the macro
qf_focus	[Focus --Start --QfAck]	
qf_audio	[Audio --Start --QfAck]	The pause is needed on a black after the audio pattern
qf_audio (ATMOS)	[Audio --Start --QfAck]	The pause is require just after the audio macro send
qf_lamp-2D	[Lamp --Start --Mode 2D --QfAck]	
qf_lamp-3D	[Lamp --Start --Mode 3D --QfAck]	

Server Pause

The server pause cue is required as a player command to be used with the Audio Recording macro for processing the audio compare function after the audio 5.1ch or 7.1ch command is recorded. This is attached to a following 5 second black clip.

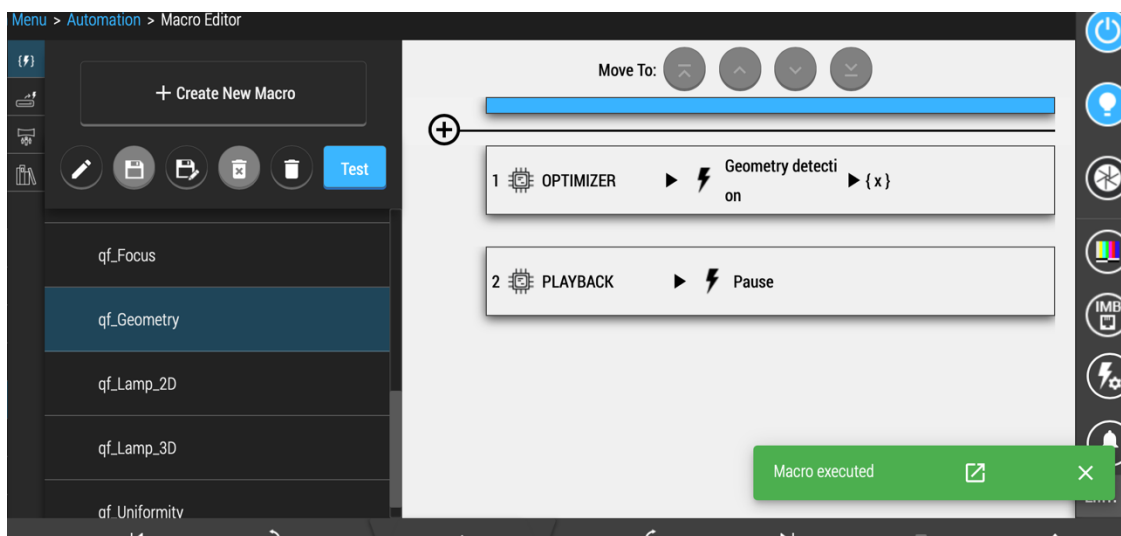


Communication test

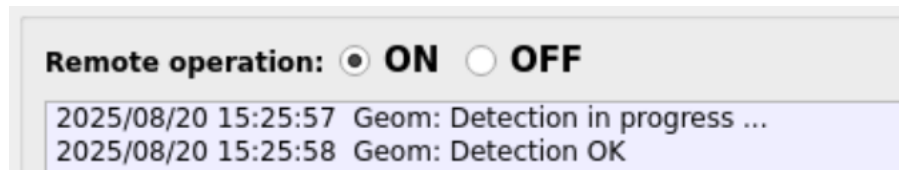
To test the communication, ensure the Optimizer has the remote mode enabled:



1. On the SMS Player from the **Automation** menu select **Macro Editor**
2. Select the geometry macro and click on **Test** button. The SMS Player will execute the macro and send the information to the server.



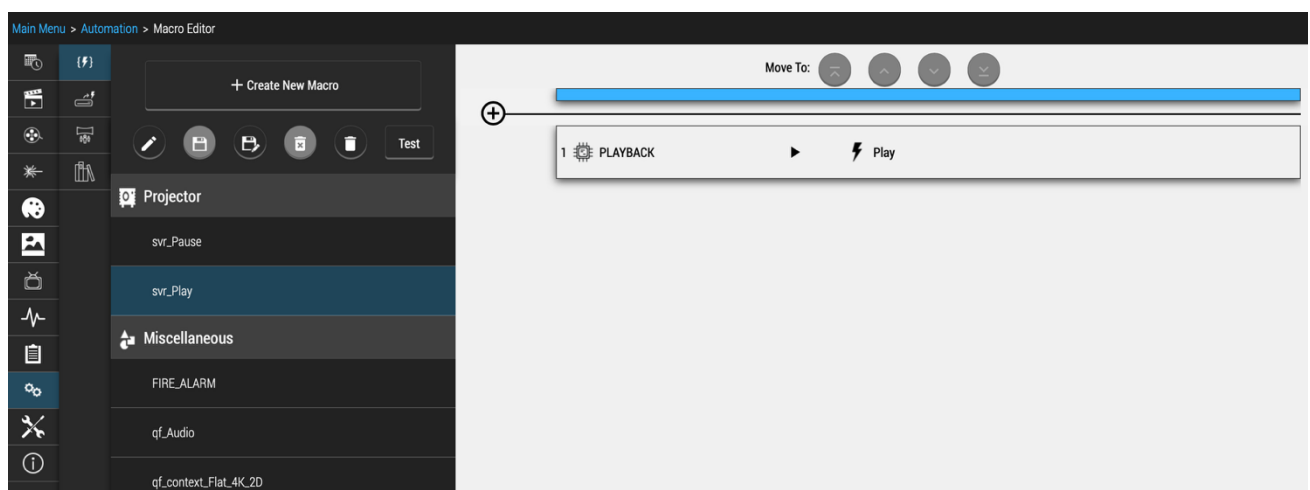
Note: The server will popup a green message confirming the macro execution. Check the optimizer interface that should show the take geometry request.



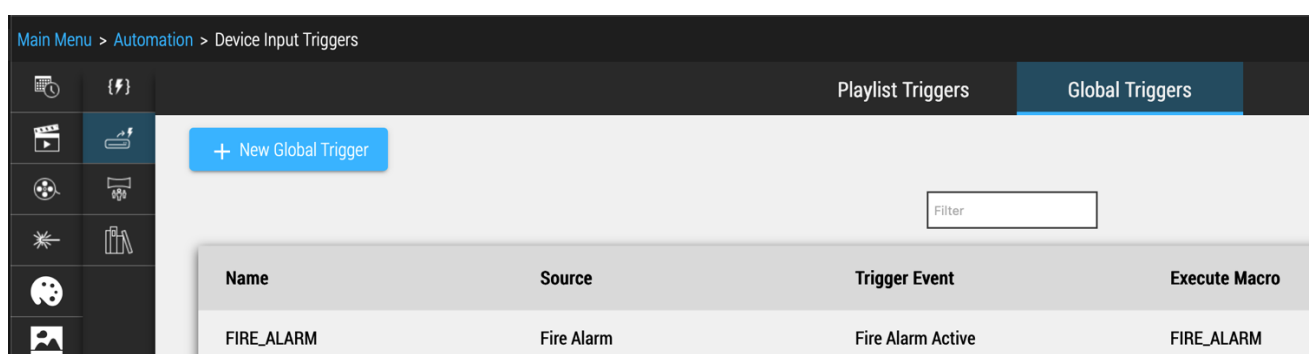
Note: Even if the Geometry is not detected correctly the important part here is that the message is received from the Optimizer.

Acknowledge trigger

To be able to resume the playback once the HSG Labs device has performed the operation is required to wait the Acknowledge signal from the device and resume the playback. To perform this operation is required to have a resume playback cue.



1. From the menu **Automation** select **Device Input Trigger** and click on **+ New Global Trigger** from the go to **Global Triggers** tab



2. Fill as per below and press **OK** button

New Global Trigger

Name

Source

Trigger Event

Select macro to run on trigger detection

Macro Name
qf_Lamp_3D
qf_Uniformity
svr_Pause
svr_Play

Main Menu > Automation > Device Input Triggers

Playlist Triggers | **Global Triggers**

+ New Global Trigger

Filter

Name	Source	Trigger Event	Execute Macro	Edit	Delete
FIRE_ALARM	Fire Alarm	Fire Alarm Active	FIRE_ALARM		
QFACK	Received Message	Qf-Ack	svr_Play		

Required DCP Content

The required content needed for the Optimizer operation is listed below:

Macro Name	Pattern name
qf_geometry	QF-GeomQO-5.0_TST_X_XX_HT
qf_uniformity	QF-White-2.0_TST_X_XX_HT
qf_context-Flat-4K-2D	Server black pattern
qf_context-Scope-4K-2D	Server black pattern
qf_focus	QF-Checkerboard-2.0_TST_X_XX_HT
qf_audio	HSG-Audio_TST-1_C_71_2K
qf_audio (ATMOS)	Server black pattern
qf_lamp-2D	QF-White-2.0_TST_X_XX_HT
qf_lamp-3D	QF-White-2.0_TST_X_XX_HT

The content is available for download via an FTP client like Filezilla using the following credentials:

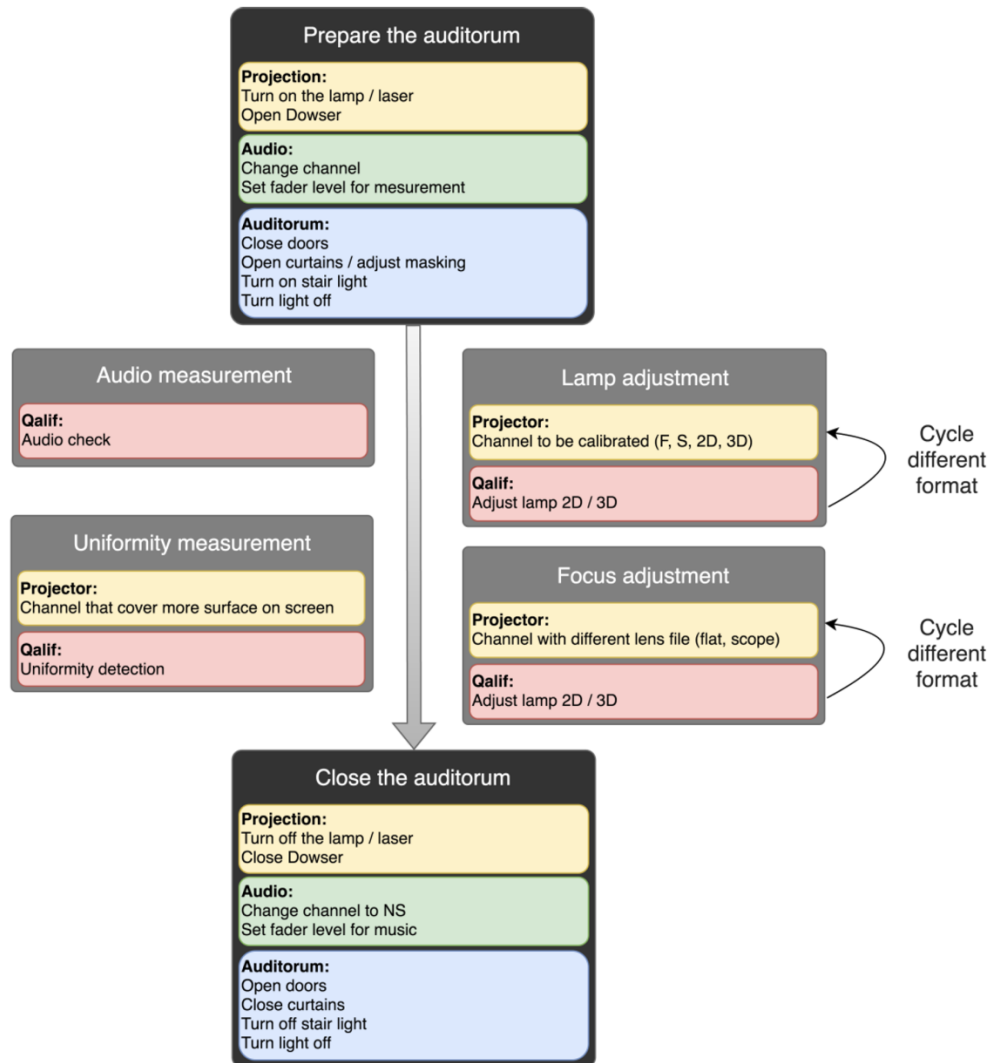
Address: ftp.active.ht
Port: 2121
User: capartner
Password: partner
Remote folder: /public/

Playlist Configuration

The operation of the Optimizer when controlled remotely is done via a SMS player activating specific macros during specific content to trigger an event. These events tell the Optimizer which pattern is displayed and what featured to measure. The instructions below define one option for a playlist to operate the Optimizer. Many playlists can be created with different operational functions and frequency of use requirements.

Recommendations

- Determine the frequency of each operation; daily, weekly, monthly.
- Determine the best time to schedule the play list to run, before or after last show.
- Before each calibration session the room should be setup in Movie mode:
 - Lighting / Stair light / Doors
 - Projector Lamp on & Warm-up
 - Projector Channel macro (Flat or Scope)
 - Audio Channel & Volume



- Before every calibration sequence and projector format macro change remember to set the operating context and to detect the geometry correctly.
- The Geometry must be checked at the first operation and before each format change to be able to correctly identify where the images are located with reference to the device camera.
- Is preferable to Set up Luminance prior to measuring the uniformity luminance of the screen. Luminance adjustment suggested only on Xenon projectors for colorimetry reasons.
- For audio:
 - The reference should be recorded at device installation and after each audio system calibration.
 - The volume level during the check should be set to the same level as the reference was recorded (i.e.: 7.0).

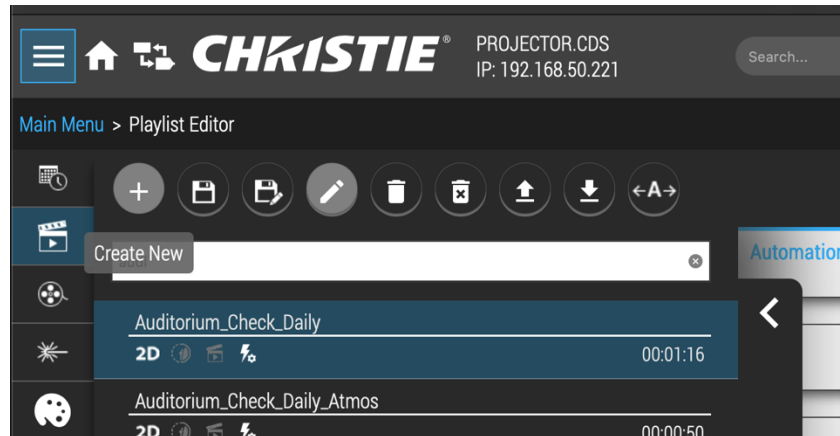
Frequency

Operation	Suggested Frequency
Set operating Context	Before every calibration sequence / format change
Geometry detection	Before every calibration sequence / format change

Uniformity measurement	Daily after the last show in the format that cover more surface on the screen
Light adjustment	Daily after the last show for used scope and flat channel
Focus adjustment	Weekly after the last show for every lens file used on projector
Audio measurement	Daily after the last show when the speaker are warmed up

Playlist creation

1. Login to the Dolby IMS3000 via the HTTP interface and open the playlist editor: Cinelister > Editor from the left menu



2. Drop the following listed content from the left panel to the right one.

- ✓ [Room preparation actions]
- ✓ Black (10 seconds)
- ✓ QF-GeomQO-5.0_TST_X_XX_HT
- ✓ QF-White-2.0_TST_X_XX_HT
- ✓ Black (5 seconds)
- ✓ *HSG-Audio_TST-1_C_71_2K or black (Dolby Atmos enabled)*
- ✓ Black (5 seconds)
- ✓ [Room close actions]

Note: Ensure to use the correct pattern format according to the projector format.

- C for Flat and HD formats
- S for Scope

3. Add in the cues to each content. Each time a cue is added to the content we suggest that is setup with at least 1 second from the beginning of the clip and each cue on the same pattern should be separated by at least 1 second offset.

Add Automation

Name:
qf_Geometry

Offset Type:
After Clip Start

Offset Time:

Hours	Minutes	Seconds
+ 00	00	01

Add Cancel

Playlist example: Check

1	Trans Black-RB-30sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV SCOPE 2D SUBS CC 2K ATMOS HFR EDR 00:00:30
	Pjt_Lamp_On 00:00:01 After Clip Start
	Pjt_Macro_Flat 00:00:03 After Clip Start
	qf_context_Flat_4K_2D 00:00:08 After Clip Start
	Lights_Off 00:00:01 Before Clip End
2	Test QF-Geom-2.0_TST_C_2K_HT 2D SUBS CC 2K ATMOS HFR EDR 00:00:05
	qf_Geometry 00:00:02 After Clip Start
3	Test QF-White-2.0_TST_C_2K_HT 2D SUBS CC 2K ATMOS HFR EDR 00:00:05
	qf_Uniformity 00:00:03 After Clip Start
4	Trans Black-RB-05sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV SCOPE 2D SUBS CC 2K ATMOS HFR EDR 00:00:05
	qf_Audio 00:00:03 After Clip Start
5	Test QF-Audio_TST_C_2K_8CH_HT 2D SUBS CC 2K ATMOS HFR EDR 00:00:26
6	Trans Black-RB-05sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV SCOPE 2D SUBS CC 2K ATMOS HFR EDR 00:00:05
	svr_Pause 00:00:03 After Clip Start

Playlist example: Check with Dolby ATMOS processor

For Dolby Atmos processor configuration the Optimizer will communicate directly with the CP850 or CP950 to activate the pink noise generator. This will allow the Optimizer to control the sequence and record the audio as expected. The audio pattern is not required for this operation but the pause command is required after the audio macro. In some integration is suggested to create a specific ATMOS cues on the SMS Server that already contain the pause command.

The screenshot displays a vertical timeline with five clips, each with associated Atmos cues:

- Clip 1:** Trans, Black-RB-30sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV (00:00:30). Cues: Pjt_Lamp_On (00:00:01 After Clip Start), Pjt_Macro_Flat (00:00:03 After Clip Start), qf_context_Flat_4K_2D (00:00:08 After Clip Start), Lights_Off (00:00:01 Before Clip End).
- Clip 2:** Test, QF-Geom-2.0_TST_C_2K_HT (00:00:05). Cue: qf_Geometry (00:00:02 After Clip Start).
- Clip 3:** Test, QF-White-2.0_TST_C_2K_HT (00:00:05). Cue: qf_Uniformity (00:00:03 After Clip Start).
- Clip 4:** Trans, Black-RB-05sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV (00:00:05). Cues: qf_Audio (00:00:02 After Clip Start), svr_Pause (00:00:04 After Clip Start).
- Clip 5:** Trans, Black-RB-05sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV (00:00:05).

Or configure a specific Atmos cues























The screenshot shows the Macro Editor interface. On the left is a list of macros categorized into 'Projector' and 'Miscellaneous'. The 'Projector' category includes: Lights_On, Pjt_Lamp_Off, Pjt_Lamp_On, Pjt_Macro_Flat, svr_Pause, and svr_Play. The 'Miscellaneous' category includes: FIRE_ALARM, qf_Audio, qf_Audio_Atmos (highlighted), and qf_context_Flat_4K_2D.

The main window shows a configuration for a cue. It has a 'Move To' section with four circular buttons. Below it, two cue items are listed:

- 1 OPTIMIZER Audio measure (x)
- 2 PLAYBACK Pause (highlighted in blue)

Trans	
1	<p>Black-RB-30sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV</p> <p>SCOPE 2D SUBS CC 2K ATMOS HFR EDR 00:00:30</p> <p> Pjt_Lamp_On 00:00:01 After Clip Start</p> <p> Pjt_Macro_Flat 00:00:03 After Clip Start</p> <p> qf_context_Flat_4K_2D 00:00:08 After Clip Start</p> <p> Lights_Off 00:00:01 Before Clip End</p>
Test	
2	<p>QF-Geom-2.0_TST_C_2K_HT</p> <p>2D SUBS CC 2K ATMOS HFR EDR 00:00:05</p> <p> qf_Geometry 00:00:02 After Clip Start</p>
Test	
3	<p>QF-White-2.0_TST_C_2K_HT</p> <p>2D SUBS CC 2K ATMOS HFR EDR 00:00:05</p> <p> qf_Uniformity 00:00:03 After Clip Start</p>
Trans	
4	<p>Black-RB-05sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV</p> <p>SCOPE 2D SUBS CC 2K ATMOS HFR EDR 00:00:05</p> <p> qf_Audio_Atmos 00:00:02 After Clip Start</p>
Trans	
5	<p>Black-RB-05sec_XSN_S_XX-XX_INT-TL_2K_BUG_20111103_BUG_OV</p> <p>SCOPE 2D SUBS CC 2K ATMOS HFR EDR 00:00:05</p>

Playlist example: Focus

1	Trans	Black-RB-30sec_XSN_S_XX-XX_INT-TL_2K_BUG_2011...	SCOPE 2D SUBS CC 2K ATMOS HFR	00:00:30
	 	Pjt_Lamp_On	00:00:01 After Clip Start	
	 	Pjt_Macro_Flat	00:00:03 After Clip Start	
	 	qf_context_Flat_4K_2D	00:00:08 After Clip Start	
	 	Lights_Off	00:00:01 Before Clip End	
2	Test	QF-Geom-2.0_TST_C_2K_HT	2D SUBS CC 2K ATMOS HFR	00:00:05
	 	qf_Geometry	00:00:02 After Clip Start	
3	Test	QF-Checkerboard-3.0_TST_C_2K_HT	2D SUBS CC 2K ATMOS HFR	00:00:15
	 	qf_Focus	00:00:03 After Clip Start	
4	Trans	Black-RB-05sec_XSN_S_XX-XX_INT-TL_2K_BUG_2011...	SCOPE 2D SUBS CC 2K ATMOS HFR	00:00:05
	 	Pjt_Macro_Scope	00:00:01 After Clip Start	 
	 	qf_context_Scope_4K_2D	00:00:04 After Clip Start	
5	Test	QF-Geom-2.0_TST_S_2K_HT	SCOPE 2D SUBS CC 2K ATMOS HFR	00:00:05
	 	qf_Geometry	00:00:03 After Clip Start	
6	Test	QF-Checkerboard-2.0_TST_S_2K_HT	SCOPE 2D SUBS CC 2K ATMOS HFR	00:00:05
	 	qf_Focus	00:00:03 After Clip Start	

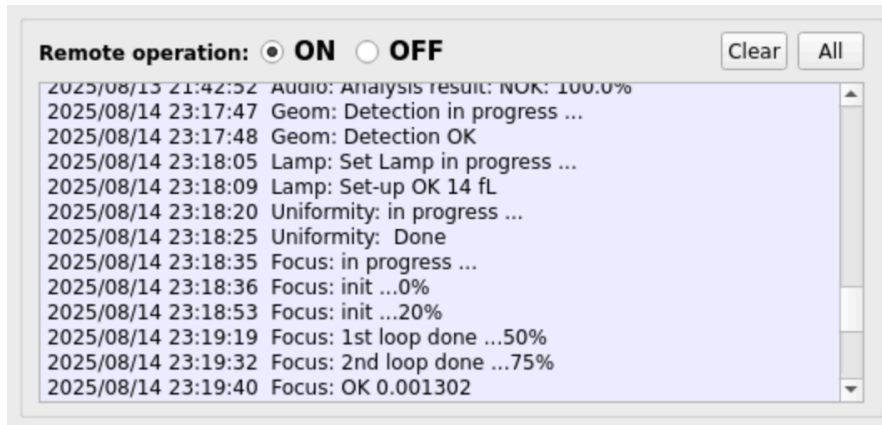
Playlist example: Lamp

1	<p>Trans</p> <p>Black-RB-30sec_XSN_S_XX-XX_INT-TL_2K_BUG_2011...</p> <p>SCOPE 2D SUBS CC 2K ATMOS HFR 00:00:30</p>
	<p> Pjt_Lamp_On 00:00:01 After Clip Start</p>
	<p> Pjt_Macro_Flat 00:00:03 After Clip Start</p>
	<p> qf_context_Flat_4K_2D 00:00:08 After Clip Start</p>
	<p> Lights_Off 00:00:01 Before Clip End</p>
2	<p>Test</p> <p>QF-Geom-2.0_TST_C_2K_HT</p> <p>2D SUBS CC 2K ATMOS HFR 00:00:05</p>
	<p> qf_Geometry 00:00:02 After Clip Start</p>
3	<p>Test</p> <p>QF-White-2.0_TST_C_2K_HT</p> <p>2D SUBS CC 2K ATMOS HFR 00:00:05</p> <p><input type="button" value="X"/> <input type="button" value="↔"/></p>
	<p> qf_Lamp_2D 00:00:02 After Clip Start</p>
4	<p>Trans</p> <p>Black-RB-05sec_XSN_S_XX-XX_INT-TL_2K_BUG_2011...</p> <p>SCOPE 2D SUBS CC 2K ATMOS HFR 00:00:05</p>
	<p> Pjt_Macro_Scope 00:00:01 After Clip Start</p>
	<p> qf_context_Scope_4K_2D 00:00:04 After Clip Start</p>
5	<p>Test</p> <p>QF-Geom-2.0_TST_S_2K_HT</p> <p>SCOPE 2D SUBS CC 2K ATMOS HFR 00:00:05</p>
	<p> qf_Geometry 00:00:03 After Clip Start</p>
6	<p>Test</p> <p>QF-White-2.0_TST_S_2K_HT</p> <p>SCOPE 2D SUBS CC 2K ATMOS HFR 00:00:05</p>
	<p> qf_Lamp_2D 00:00:02 After Clip Start</p>

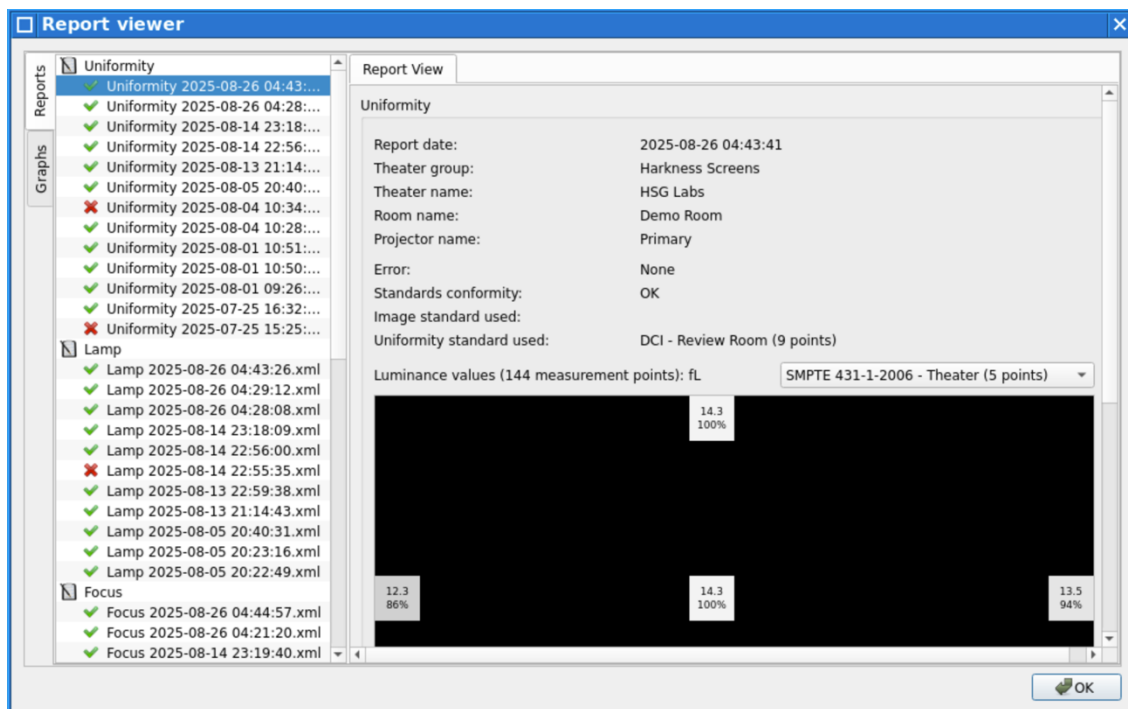
Playlist Test

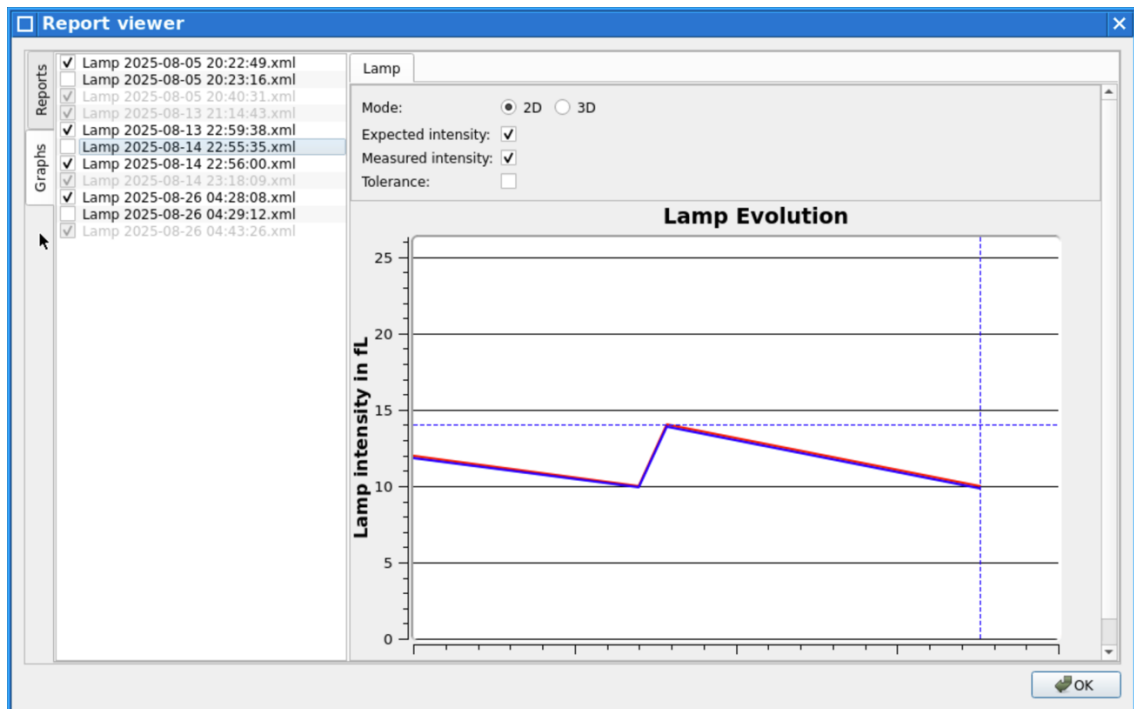
Once the playlist is saved it can be tested. Ensure Optimizer is configured in remote operation and run the playlist.

The Display log on the Optimizer show the remote operation log and details as showed in the example here below.



History data can be checked via the History menu on the optimizer or via NOC monitoring software if configured.





-- End of Document--