

User Manual For QMS-1000 Quality Management System Document Version 4.0.2.02

Software Version 4.0.2700

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Powering your digital cinema experience

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1. Introduction

QMS-1000 Quality Management System is designed for cinema auditorium quality control. It manages the quality of projection and audio by measuring and analyzing the luminance, chromaticity and sound pressure level in the cinema hall. These measurements are used for comparison against benchmark values to ensure that the auditorium is operating in optimum condition. They also enable users to identify poorly calibrated lamps, lamps nearing end of life, projector color problems, defective audio components etc. QMS is an integrated part of the GDC Theatre Management System.

1.1 Operating Requirements

TMS software with QMS-1000 enabled must be installed into the Windows PC before it can work with the QMS-1000 sensor device. There will be a quality tab enabled in TMS software. Operating Requirements:

- TMS software (with QMS-1000 enabled) installed in Windows PC
- QMS-1000 sensor device, USB Power Adapter, Network Cable
- Sensor device mounting kit

1.2 Overall Function

QMS-1000 sensor device must be physically mounted on the rear wall or in the centre location in the cinema hall. It should be setup in a network environment and linked to all digital cinema equipment including the TMS/QMS and NOC.



Sensor Device:

• Measures the screen brightness, color values and hall sound pressure level.

TMS/QMS:

Initializes the testing process, starts playback of standard test contents on server, displays and records the test results.
 <u>GDC-NOC:</u>

Retrieves and monitors theater QMS tests, exports test results data.

1.3 Tests Environment and Benchmark Values

From TMS/QMS, tests are executed and compared against SMPTE standard or optimal projection values. The test results can be saved and send from QMS/TMS to NOC to inform the user that the results are passed, warning or critical levels.

For SMPTE Standard Test Setup

The sensor device must be physically mounted in the centre location in the cinema hall, sensor location must be set to "center" in TMS/QMS software, and when the test is being carried out, the benchmark values will be fixed to the SMPTE standard values and these values cannot be changed, and the test will be benchmarked according to it.



For Optimal Projection Values Test Setup

The sensor device must be mounted in the rear location in the cinema hall, sensor location must be set to "rear" in TMS/QMS software when the first test is being carried out, it can be saved and set as the first benchmark values, which are considered as the optimal values and periodically when the test is being run, it could be used to compare against this benchmark values.



2. Sensor Device Setup

The sensor device must be installed and calibrated properly physically before it can be used. It must also be added and configured in TMS software.

2.1 Packing List

Check and ensure that the sensor device packing list contains items1 to 3. For mounting kit packing list, the tools may vary. Please check on the packing list in the box to confirm that all items are present.

No	Name	Quantity	Photo
1	Sensor Device	1	
2	AC Power Adapter and Cable	1	
3	Network Cable	1	

No	Name	Quantity	Photo
1	Directional Mount	1	
2	Secure Board	1	
3	Base Plate	1	
4	Black Screw	1	

Mounting Kit Packing List

2.2 Sensor Device Configuration

To setup the sensor device configurations and IP address, connect USB power adapter and network cable to it, and connect the other end of network cable to laptop, load a web browser on a windows PC, enter http://169.254.1.6 in the address bar and the main page will be loaded.



Click the "Config" link to login to the Configuration Page. When prompt, enter the IP address of the sensor, the user name and password (User Name: admin Password: ultra)

A use	rname and password are being requested by http://10.128.1.107. The site says: "Protected
User Name:	admin
Password:	•••••
	OK Cancel
_	Calice

From Configuration page, select and click the Check Boxes to show the measured data on SPL, Luminance, Chromaticity and Temperature according to user preference, click "Save User Data" to save settings.

Web Display Configuration

Select data source for each row of "light table" and the name to be displayed for that row of data. Enter a string for each column of historic data. Use
 to break headers into multiple lines as required.

Light Table					SPL Table	
Data Source Row Name			Column Name Colum		Column Name	
1: Luminance fL	-	1: Luminance	1:	LIVE	1:	: LIVE 8:
2: x	•	2: x	2:		2:	9:
3: y	•	3: y	3:		3:	10:
4: CCT	•	4: CCT	4:		4:	11:
5: none	•	5: Temperature	5:		5:	12:
6: Luminance fL	•	6: Luminance fL	6:		6:	13:
7: none	-	7:	7:		7:	14:
SPL daily maximum limit (log in red if exceeded): 100.0						
Save User Data						

Enter Auditorium Data by keying in the Theater Name, Theatre Number, Screen Number and Comments, click "Save Auditorium Data" to save the settings.

Auditorium Data					
Theater Name: SG					
Theater Number: 486349					
Screen Number: 1					
Comments: QMS-1000 configured on					
Save Auditorium Data					

Enter Network Configurations data by keying in the Host Name, IP Address, Gateway and Subnet Mask, click "Save IP Config and Reboot" to save settings. The IP address will need to be noted for entering TMS software later.

Network Configuration and Time						
MAC Address: 00:23:FC:06:00:7B						
Host Name: SENSOR						
IP Address: 10.11.11.12						
Gateway: 10.11.12.1						
Subnet Mask: 255.255.255.0						
Save Config						
After hitting Save, you will need to put the new IP address						
in your browser if you changed the IP address.						

Enter NTP Configuration, and below it, Sensor Hardware information is shown.

NTP Configruation						
NTP IP Address:	174.143.207.	151				
Time Zone Offset	from UTC	(hours)	s): -8.000000			
Standard Time Al	breviation:	SGT				
DST (Summer Tit	me) Abbrev	iation:	SGT			
DST (Summer Tit	me) Observe	ed: no) 🔻			
Save NTP Data						
Serial Number: 0123						
Board Revision: C						
Firmware Version: 130612						
Bootloader Version: 120530						

2.3 Mounting Sensor Device

Sensor device must be mounted to the center or rear location in the cinema hall. Use the mounting kit provided to mount the sensor device.

Step 1: Secure the Screw, Base Plate and Directional Mount together and assemble them into the base bracket as shown below.



Step 2: Install Sensor Device onto the Secure Board.

	Parts	Installation Steps	Result
Step 2			

Step 3: Install components from Step 1 and 2 together to get the final assembly part.

	Parts	Installation Steps	Result
Step 3			

Step 4: Connect the network cable and power cable to the final assembly part.

	Parts	Installation Steps	Result
Step 4			

Step 5: Screen Distance Calibration with Sensor Device. Make sure that projector is on and load cross test pattern on projector. On the Touch Screen Panel of projector, select "Control" -> "Test Pattern"-> "Cross Diagram".

	DP2K-20C-1190055357	BRRCO
Burrangel sectors	Not partners Automotives Tech partners Antonio Automotives Tech Stati Agreent Partners Constructions Constr	Prests Prests Service
Conctat. (2) there (2) Seta (2) Terret (2) Terret (2) Terret	NetPrincipality Name and a line of the lin	Configuration Configuration Disonettic Distabilition Se Paintenance
Server Technolan	Ceventel - 19438-323 0422-300	Communietor

Step 6: After loading test pattern, adjust and make sure that the test pattern fully filled the screen as shown below.



Step 7: Turn on the switch of the LEDS, 2 red LEDS will be projected on screen.





Step 8: Adjust the focus to make it look sharp. Loosen the knob, and turn left/right to adjust the focus, when the display is sharp, tighten the knob.



Step 9: Loosen the circle round knob, adjust the knobs and make sure that the distance of the 2 red LEDs is equally far apart as shown below and tighten the knobs.



Loosen the knob, adjust and make sure the distance is equally far apart and tighten the knobs.



3. TMS Setup

TMS software with QMS-1000 will have a Quality tab in the graphical user interface which allows cinema auditorium quality control.

MS File	View	Tools	Help		
Profi	e Date	Screen	Luminance Chromaticity Sound Status	Luminance (fL)	🕅 Benchma
				20 -	
				15 -	
				10	
				3	
		Chromaticity (x y)			
		Ē			
		0.6 E			
		04			
		0.2			
		E			
				Sound (dB)	
				100 -	
				90 -	
		80			
				60 -	
				50 -	
	_			40 -3	
Profile	Set a	II profiles	to: flat 🔻 Test All		Details
			A 🗞 🕻		
Î	I H	2	105 5 CB Free	0 22 × 1/1 1/1	- 1/1

The supported tests and setup include:

Mode	Single Projector	Dual Projector
2D	Lising 1 projector	Using 1 projector
2D	Using i projector	Using 2 projectors
3D	Using 1 projector	Using 2 projectors

The sensor device will need to be added to TMS software, test contents are needed to be ingested into playback servers, and correct naming SPLs must be created in the playback servers.

3.1 Add Sensor Device to TMS

For sensor device to work with TMS software, it must be added as a device and linked to a screen in TMS. From TMS software, select Screen -> Add Devices -> Analyzer

4 GDC-TMS								
TMS File View Tools	Help							
Screen	Device							5-11P
A Hall 1 Hall 2		Name	Model	Туре	τp	Port		
Add Devices Add Devices Add Devices Add Devices					•			
🐦 Analyzer								
Automation	_		95.5 GB Free	45	✓ 1/1	1/1	2 1/1	all'

Select the Device Model, enter the ID, Name, IP address and Port number, and select the Device which linked to the server, and click "OK".

Type:	Analyzer	Model:	LSS100	•
ID:	Ĩ.	Name:		
IP:	1	Port:	10001	A V
UID:	1	Password:	-	

An entry will be shown below that the Analyzer is successfully linked to selected screen.



3.2 Import and Distribution of Test Contents and KDM

Below table shows all test contents needed in the server. Connect external hard disk drive with contents and ingest all contents into the server.

No	Content Name
1	QMS-CAL_TST-2D_F_2K_GDC_20150803_OV
2	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV
3	QMS-CAL_TST-3D_F_2K_GDC_20150803_OV
4	QMS-CAL_TST-3D_S_2K_GDC_20150803_OV
5	QMS-CHK_TST-2D_F_71_2K_GDC_20150803_OV
6	QMS-CHK_TST-2D_S_71_2K_GDC_20150803_OV
7	QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV
8	QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV
9	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV
10	QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV
11	QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV
12	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV
13	QMS-CHK-DUAL-2_TST-2D_F_71_2K_GDC_20150803_OV
14	QMS-CHK-DUAL-2_TST-2D_S_71_2K_GDC_20150803_OV

Import test contents into TMS using external Hard Disk Drive. Click the Content Tab to go into the Content Management Interface.

						MANA	IGE				2010	- 124		
L Med	ia in Theatre	•									2	\$ ٩		
D D	Kind	Name								Duration	*			
4	TRAILER	UP_TLR-3P	R-3D_F_EN-XX_U	S-GB_51_2K_	DI_2009021	8_TDC_i3	D-gb		1	00:02:30				
1	ADVERTISEMENT	XPAND_LC	GO_FLT_3D							00:00:22				
•	ADVERTISEMENT	Missy-Ellic	BD_ADV-1_F_E	N-XX_US_51_	2K_DI_2008	0130_FKI	_i3D-g			00:04:03				
	FEATURE	Beowulf 30	Raw Bottom S	ubtitles						00:01:54				
4	FEATURE	JUSTIN-BI	BER-NSN-3D_F	TR_F_EN-XX_	OV_51_2K_	PC_20110	126_TDC_i	3D)	01: <mark>44:58</mark>				
	TRANSITIONAL	3D-GLASS	SES-ON_XSN-2_F_EN-XX_US-G_51_2K_DI_20080118_FOTOKEM_i3D-r LOGO_F_51_2K_20081114_TDC_i3D D_A_FRAMING_2048x858_2.39 L_TST_3D_F_2K_GDC_20131106_OV						t	00:00:07				
	ADVERTISEMENT	TDC-3D_LO	3D_LOGO_F_51_2K_20081114_TDC_i3D E_3D_A_FRAMING_2048x858_2.39						1	00:00:20				
	TEST	SCOPE_3D	E_3D_A_FRAMING_2048x858_2.39 CAL_TST-3D_F_2K_GDC_20131106_OV							00:00:20				
•	TEST	QMS-CAL	5_UGO_F_J1_2A_20061114_T0C_ISD = 3D_A_FRAMING_2048x858_2.39 CAL_TST-3D_F_2K_GDC_20131106_OV _Test29_F_71_2K_20130523_GDC_OV					1	00:00:10					
	TEST	USL3D_Tes	t29_F_71_2K_201	30523_GDC_	ov					00:03:06	-			
	CENTIIDE	2D comp							-	00.14.40	•			
II CP	features tra	ilers ad	vertisement	policies	teaser	test	rating	others	DCP	SPL	KDM	4	m	
								Canad Canador Strate State				s issues	1022	_
K	nd Name Transfer St	atus Rem	nark											
_)													
Rem	ove •													
rich														
maCa	pport													

Click File -> Ingest DCP/KDM at the Menu Tab on the top left of the window.

File
Ingest DCP/KDM
Ingest SPL

DCP/KDM Import window will pop up. Locate the drive that contains the test contents. Click the DCP, then click "Ingest Checked" button to ingest the test contents.

Title	Size Ingest ?		TMS
			191.7 GB tree of 465.4 GB
	S DCP QMS-CAL_TST-2D_F_2K_GDC_20150803_0V QMS-CAL_TST-3D_F_2K_GDC_20150803_0V QMS-CAL_TST-3D_F_2K_GDC_20150803_0V QMS-CAL_TST-3D_S_2K_GDC_20150803_0V QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_0V QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_0V QMS-CHK-DUAL-2_TST-2D_F_71_2K_GDC_20150803_0V QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_0V QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_0V	Local FTP	

Click the subtrom at the bottom of TMS window. Import Display window will pop up and show the ingest status of the test contents.

		Kind	Name	Status	Remark	
0	Î	KDM	KDM_QMS-CAL_TST-2D_F_2K_GDC_20150803_OV_E00058	FINISHED		
0	1	PKL	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV	FINISHED		
0	1	KDM	KDM_QMS-CAL_TST-2D_S_2K_GDC_20150803_OV_E00058	FINISHED		
0	1	KDM	KDM_QMS-CAL_TST-2D_S_2K_GDC_20150803_OV_E00058	FINISHED		
0	1	PKL	QMS-CAL_TST-3D_F_2K_GDC_20150803_OV	FINISHED		
ø	1	KDM	KDM_QMS-CAL_TST-3D_F_2K_GDC_20150803_OV_cert_Dol	FINISHED		
•	1	KDM	KDM_QMS-CAL_TST-3D_F_2K_GDC_20150803_OV_E00058	FINISHED		
0		KDM	KDM_self_QMS-CAL_TST-3D_F_2K_GDC_20150803_OV_Dvs	FINISHED		

N ST Q	lame MS-CAL_TST-3D_F_	2K GDC 2015080							ONE	
ST Q	MS-CAL_TST-3D_F_	2K GDC 2015080				L	uration		CAL TET 2D E 2K	CDC
CT O		21 000 2010000	LOV			0	0:00:10		20150803_0V	_GDC_
JI Q	MS-CAL_TST-3D_S	2K_GDC_20150803	_ov			0	0:00:10		HUTD & COLOOD	
ST Q	MS-CHK-DUAL_TST	-3D_F_71_2K_GD0	_20150803_OV			0	0:03:07	-	b223-47a7-8bc7-	
ST Q	MS-CHK-DUAL_TST	-3D_S_71_2K_GD0	20150803_OV			0	0:03:07	=	c85e0ea5916f	
ST Q	MS-CHK_TST-3D_F	71_2K_GDC_2015	0512_OV			0	0:01:41		TYPE: test	0
ST Q	QMS-CHK_TST-3D_S_71_2K_GDC_20150803_0V 00:01:41 OMS-CAL_TST-2D_F_2K_GDC_20150803_0V 00:00:10								TI DATE ON	
ST Q	QMS-CAL_TST-2D_F_2K_GDC_20150803_OV 00:00:10							1 Ineatre_store		
ST Q	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV 00:00:10									
ST Q	MS-CHK-DUAL-1_T	ST-2D_F_71_2K_G	DC_20150803_0	VC		0	0:03:07			
ST Q	MS-CHK-DUAL-1_T	ST-2D_S_71_2K_G	DC_20150803_0	DV V		0	0:03:07	_		
ςτ ∩		CT 2D E 71 2V G	DC 20150902.0	11/2		0	0.01.41	+		
atures traile	rs advertisem	ent policies	teaser t	est rating	others	DCP	SPL	KDM	۱ m	
						-				_
	ST Q ST Q ST Q ST Q ST Q ST Q ST Q ST Q	ST QMS-CHK-DUAL_TST ST QMS-CHK-DUAL_TST ST QMS-CHK_TST-3D_F ST QMS-CHK_TST-3D_F ST QMS-CAL_TST-2D_F ST QMS-CAL_TST-2D_S ST QMS-CHK-DUAL-1_T ST QMS-CHK-DUAL-1_T ST QMS-CHK-DUAL-1_T T QMS-CHK-DUAL-1_T T QMS-CHK-DUAL-1_T T QMS-CHK-DUAL-1_T T QMS-CHK-DUAL-1_T T QMS-CHK-DUAL-1_T T Traisfer Status Remark	ST QMS-CHK-DUAL_TST-3D_F_71_2K_GOC ST QMS-CHK-DUAL_TST-3D_S_71_2K_GOC ST QMS-CHK_TST-3D_F_71_2K_GOC_2015(ST QMS-CHK_TST-3D_S_71_2K_GOC_2015(ST QMS-CHK_TST-3D_F_71_2K_GOC_2015(ST QMS-CAL_TST-2D_S_7L_2K_GOC_2015(ST QMS-CAL_TST-2D_S_2K_GOC_20150803 ST QMS-CAL_TST-2D_S_2K_GOC_20150803 ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GOC ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GOC ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GOC ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GOC ST QMS-CHK_DUAL-1_TST-2D_S_71_2K_GOC ST QMS-CHK_DUAL-1_TST-2D_S_71_2K_GOC	ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV ST QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV ST QMS-CAL_TST-2D_F_2K_GDC_20150803_OV ST QMS-CAL_TST-2D_F_2K_GDC_20150803_OV ST QMS-CAL_TST-2D_S_7L_2K_GDC_20150803_OV ST QMS-CHK-DUAL_T_TST-2D_S_71_2K_GDC_20150803_OV ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV ST QMS-CHK-DUAL-1_TST-3D_S_71_2K_GDC_20150803_OV ST QMS-CHK-	ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_0V ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_0V ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_0V ST QMS-CAL_TST-2D_F_2K_GDC_20150803_0V ST QMS-CAL_TST-2D_F_2K_GDC_20150803_0V ST QMS-CAL_TST-2D_S_2K_GDC_20150803_0V ST QMS-CHK_DUAL_1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK_DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK_DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK_DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK_DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK_DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK_DUA	ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_0V ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_0V ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_0V ST QMS-CAL_TST-2D_F_2K_GDC_20150803_0V ST QMS-CAL_TST-2D_F_2K_GDC_20150803_0V ST QMS-CHK_TST-2D_F_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST QMS-CHK_DUAL-1_TST-2D_S_71_2K_GDC_20150803_0V ST </td <td>ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV 0 ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CAL_TST-2D_F_2K_GDC_20150803_OV 0 ST QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 0 ST</td> <td>ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:01:41 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:00:10 ST QMS-CAL_TST-2D_F_2K_GDC_20150803_OV 00:00:10 ST QMS-CAL_TST-2D_S_71_2K_GDC_20150803_OV 00:00:10 ST QMS-CAL_TST-2D_S_71_2K_GDC_20150803_OV 00:00:10 ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 00:03:07 ST MS MS MS 00:01:41 MS</td> <td>ST QMS-CHK-DUAL_TST-3D_F_T1_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL_TST-3D_F_T1_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK_TST-3D_F_T1_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK_TST-3D_F_T1_2K_GDC_20150803_OV 00:01:41 ST QMS-CHK_TST-3D_F_T1_2K_GDC_20150803_OV 00:00:01:0 ST QMS-CAL_TST-2D_F_ZK_GDC_20150803_OV 00:00:01:0 ST QMS-CAL_TST-2D_S_ZK_GDC_20150803_OV 00:00:01:0 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:00:01:0 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK_DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK_DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK_DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK_DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST</td> <td>ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV 00:03:07 b223:47a7-8bc7-c6350e3301 ST QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV 00:03:07 b723:47a7-8bc7-c6350e3301 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:01:41 b723:47a7-8bc7-c6350e3301 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:01:41 b723:47a7-8bc7-c6350e3301 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:01:41 b77PE: test ST QMS-CAL_TST-2D_F_2K_GDC_20150803_OV 00:00:10 b77PE: test ST QMS-CAL_TST-2D_S_71_2K_GDC_20150803_OV 00:00:01:0 b77PE: test ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 00:00:01:0 b77PE: test ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 00:00:00:07 st ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 00:00:01</td>	ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV 0 ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV 0 ST QMS-CAL_TST-2D_F_2K_GDC_20150803_OV 0 ST QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV 0 ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 0 ST	ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:01:41 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:00:10 ST QMS-CAL_TST-2D_F_2K_GDC_20150803_OV 00:00:10 ST QMS-CAL_TST-2D_S_71_2K_GDC_20150803_OV 00:00:10 ST QMS-CAL_TST-2D_S_71_2K_GDC_20150803_OV 00:00:10 ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 00:03:07 ST MS MS MS 00:01:41 MS	ST QMS-CHK-DUAL_TST-3D_F_T1_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL_TST-3D_F_T1_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK_TST-3D_F_T1_2K_GDC_20150803_OV 00:03:07 ST QMS-CHK_TST-3D_F_T1_2K_GDC_20150803_OV 00:01:41 ST QMS-CHK_TST-3D_F_T1_2K_GDC_20150803_OV 00:00:01:0 ST QMS-CAL_TST-2D_F_ZK_GDC_20150803_OV 00:00:01:0 ST QMS-CAL_TST-2D_S_ZK_GDC_20150803_OV 00:00:01:0 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:00:01:0 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK-DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK_DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK_DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK_DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST QMS-CHK_DUAL-1_TST-2D_S_T1_ZK_GDC_20150803_OV 00:03:07 ST	ST QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV 00:03:07 b223:47a7-8bc7-c6350e3301 ST QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV 00:03:07 b723:47a7-8bc7-c6350e3301 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:01:41 b723:47a7-8bc7-c6350e3301 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:01:41 b723:47a7-8bc7-c6350e3301 ST QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV 00:01:41 b77PE: test ST QMS-CAL_TST-2D_F_2K_GDC_20150803_OV 00:00:10 b77PE: test ST QMS-CAL_TST-2D_S_71_2K_GDC_20150803_OV 00:00:01:0 b77PE: test ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 00:00:01:0 b77PE: test ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 00:00:00:07 st ST QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV 00:00:01

When the ingestion is completed, the content will be added to TMS Theatre_Store.

From Theatre_Store, transfer all the test contents to the server that will run the test. Select test content, right-click and select "Transfer CPL(s)".

IS Fi	le View Tool	s Help					
			M				
Thea	tre_Store	•				C Q qms	1
D	Kind	Name			Duration 🔺	QMS-	
1	TEST	QMS-CAL_TST-3D_F_2K_G	DC_20150803_OV		00:00:10	GDC 20150803 OV	-
	TEST	QMS-CAL_TST-3D_S_2K_G	DC_20150803_OV		00:00:10		
é .	TEST	QMS-CHK-DUAL_TST-3D_	F_71_2K_GDC_20150803_OV		00:03:07	UUID: e2585b9a- bd11-41b6-8dd3-	
4	TEST	QMS-CHK-DUAL_TST-3D_	S_71_2K_GDC_20150803_OV		00:03:07	df99913fb578	
4	TEST	QMS-CHK_TST-3D_F_71_2	K_GDC_20150512_OV		00:01:41	TYPE: test	
	TEST	QMS-CHK_TST-3D_S_71_2	K_GDC_20150803_OV	Transfer CPL (s)	00:01:41	DORATION: 00:01:41	
	TEST	QMS-CAL_TST-2D_F_2K_G	DC_20150803_OV	V-it.	00:00:10	Theatre_Store	
	TEST	QMS-CAL_TST-2D_S_2K_G	DC_20150803_OV	venty	00:00:10		
	TEST	QMS-CHK-DUAL-1_TST-2	D_F_71_2K_GDC_20150803_	Quick Verify	00:03:07		
	TEST	QMS-CHK-DUAL-1_TST-2	D_S_71_2K_GDC_20150803_	Delete Content	00:03:07		
	тест	OME OUR DUAL STET S	D E 71 2V CDC 20150002		00.01.41		
IL COL	and an other states of		Continue Automation	Add Contents for Live Play]	
III CPL	Teatures	trailers advertisement	policies teaser	Open containing directory	LP SPL KDM	4	
Kir	d Name Trans	fer Status Remark	L_	, , ,	1		
							_
Remo	ve 🔻						
meCon	nect						
mscor							
niscor							
Inscor							
linscor			-~ 🔊				
			- → 🔊				

In the Content(s) tab, check Theatre_Store as source and select destination at Send content(s) to Screen(s) tab, then click "Send" button.

ontent(s):	Send content(s) to Screens(s):
 QMS-CAL_TST-3D_F_2K_GDC_20150803_OV Theatre_Store QMS-CAL_TST-3D_S_2K_GDC_20150803_OV Theatre_Store QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV Theatre_Store QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV Theatre_Store QMS-CHK_TST-3D_F_71_2K_GDC_20150512_OV Theatre_Store 	Theatre Store Hall 1 Hall 2
elect a time:	Select all screen(s)
Now Preference time (01:00)	
02/24/2016 - 11:08 +	

Click the *k* button at the bottom right of TMS window. Transfer Display window will pop up and show the transfer status of the contents that are being transferred from Theatre_Store to the selected destination.

Destination		Туре	Title	Schedule time	Status	Remark
Hall 1 (14)						
(0	CPL	QMS-CAL_TST-3D_F_2K_GDC_20150803_OV		Done	
	0	CPL	QMS-CAL_TST-3D_S_2K_GDC_20150803_OV		Done	
	2	CPL	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV		Done	
	2	CPL	QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV		Done	
6	2	CPL	QMS-CHK_TST-3D_F_71_2K_GDC_20150512_OV		Done	
	0	CPL	QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV		Done	
	2	CPL	QMS-CAL_TST-2D_F_2K_GDC_20150803_0V		Done	
•	2	CPL	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV		Done	
•	0	CPL	QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV		Done	
	0	CPL	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV		Done	
	2	CPL	QMS-CHK-DUAL-2_TST-2D_F_71_2K_GDC_20150803_OV		Done	
	2	CPL	QMS-CHK-DUAL-2_TST-2D_S_71_2K_GDC_20150803_OV		Done	
6	2	CPL	QMS-CHK_TST-2D_F_71_2K_GDC_20150512_OV		Done	
•	0	CPL	QMS-CHK_TST-2D_S_71_2K_GDC_20150512_OV		Done	

Once the transfer is completed, the contents will be stored in both Theatre_Store and the selected server.

QMS- CAL_TST-3D_F_2K_GDC_20 150803_0V
UUID: b6352034- b223-47a7-8bc7-c85e0ea5916f TYPE: test DURATION: 00:00:10 FRAME RATE: 24 1 ASPECT RATIO: 1.85 FILE SIZE: 30.38 MB
Hall 1

The contents will not be able to playback without valid KDMs from supplier. The local icon indicates that the needed KDM is not yet available in the testing server.

3D	Kind	Name	Duration	QMS-
-	TEST	QMS-CAL_TST-3D_F_2K_GDC_20150803_OV	00:00:10	150803_0V
-	TEST	QMS-CAL_TST-3D_S_2K_GDC_20150803_OV	00:00:10	
	TEST	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV	00:03:07	b223-47a7-8bc7-c85e0ea5916f
	TEST	QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV	00:03:07	TYPE: test
	TEST	QMS-CHK_TST-3D_F_71_2K_GDC_20150512_OV	00:01:41	DURATION: 00:00:10
-	TEST	QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV	00:01:41	ASPECT RATIO: 1.85
	TEST	QMS-CAL_TST-2D_F_2K_GDC_20150803_OV	00:00:10	FILE SIZE: 30.38 MB
	TEST	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV	00:00:10	
	TEST	QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV	00:03:07	Hall 1
	TEST	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV	00:03:07	Theatre Store
	TEST	QMS-CHK-DUAL-2_TST-2D_F_71_2K_GDC_20150803_OV	00:01:41	
	TEST	QMS-CHK-DUAL-2_TST-2D_S_71_2K_GDC_20150803_OV	00:01:41	
	TEST	QMS-CHK_TST-2D_F_71_2K_GDC_20150512_OV	00:01:41	
	TEST	QMS-CHK_TST-2D_S_71_2K_GDC_20150512_OV	00:01:41	

Go to Theare_Store, the "No" status in Transferred? column indicates that the KDMs in the Theatre_Store are yet to transfer to their corresponding servers.

Status	Content Name	KDM ID	Valid Before	Valid After	Transferred?
~	QMS-CHK-DUAL-2_TST-2D_S_71_2K_GDC_20150803_OV	3f3230b7-9f43	2020-08-04T12:	2015-08-03T12:	No
~	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV	af60eba6-960d	2025-01-01T08:	2015-08-03T11:	No
~	QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV	9ee278ae-8294	2020-08-04T11:	2015-08-03T11:	No
~	QMS-CAL_TST-3D_S_2K_GDC_20150803_OV	1d2ef06f-6837-4	2020-08-04T11:	2015-08-03T11:	No
*	QMS-CAL_TST-3D_F_2K_GDC_20150803_OV	45b84787-367a	2020-08-04T15:	2015-08-03T15:	No
~	QMS-CAL_TST-2D_F_2K_GDC_20150803_OV	41173a47-d604	2020-08-04T12:	2015-08-03T12:	No
~	QMS-CHK_TST-3D_F_71_2K_GDC_20150512_OV	65ecce40-9998	2025-01-01T08:	2015-05-13T16:	No
~	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV	5945e6c4-5e94	2020-08-04T12:	2015-08-03T12:	No
~	QMS-CHK-DUAL-2_TST-2D_F_71_2K_GDC_20150803_OV	c863b865-c6ae	2020-08-04T12:	2015-08-03T12:	No
*	QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV	4a250337-c344	2020-08-04T11:	2015-08-03T11:	No
~	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV	5ab03d03-66ff	2020-08-04T11:	2015-08-03T11:	No
~	QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV	8aa79b85-c150	2020-08-04T12:	2015-08-03T12:	No
*	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV	15ff7e70-d082	2020-08-04T11:	2015-08-03T11:	No
*	QMS-CHK-DUAL-2_TST-2D_S_71_2K_GDC_20150803_OV	17762dd0-c6fc	2020-08-04T12:	2015-08-03T12:	No
~	QMS-CAL_TST-3D_F_2K_GDC_20150803_OV	a5abd69e-4f13	2025-01-01T08:	2015-08-03T15:	No

Select the contents that are needed to be sent to the testing server, right-click at the selected contents, click "Send" button to send.

Status	Content Name		KDM ID	Valid Before		Valid After	-
¥	QMS-CAL_TST-2D_S_2K_GDC_20150803_0V		c0bbfd3c-a961	2020-08-04T	11:	2015-08-03TJ	1:
~	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV	Connel		-04T	12:	2015-08-03T1	.2:
*	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV	Send		04T	11:	2015-08-03TJ	1:
4	QMS-CAL_TST-2D_S_2K_GDC_20150803_0V	Purge expire	d KDMs (current vi	ew) 04T	11:	2015-08-03TJ	1:
¥	QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV	Delete		01T	08:	2015-08-03TJ	2:
¥	QMS-CAL_TST-3D_F_2K_GDC_20150803_0V		3eta65a5-9b9b	2020-08-04T	15:	2015-08-03TJ	5:
¥	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV		a4a33fae-44a8	2020-08-04T	12:	2015-08-03TJ	2:
4	QMS-CAL_TST-2D_F_2K_GDC_20150803_OV		41173a47-d604	2020-08-04T	12:	2015-08-03T1	.2:
¥	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV		4d37fa80-c7c1	2020-08-04T	11:	2015-08-03TJ	1:
	III						*
- E.	ature trailers advertisement policies to	acor tact	wating other	00	n (DI KOM	77

The KDMs will be sent to the designated server without the need of choosing a server.

Status	Content Name	KDM ID	Valid Before	Valid After	^
¥	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV	6894426b-9296	2020-08-04T11:54:33	2015-08-03T11:54:33	
*	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV	c0bbfd3c-a961	2020-08-04T11:40:04	2015-08-03T11:40:04	
4	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV	5945e6c4-5e94	2020-08-04T12:42:22	2015-08-03T12:42:22	
¥	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV	15ff7e70-d082	2020-08-04T11:54:33	2015-08-03T11:54:33	
*	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV	5ab03d03-66ff	2020-08-04T11:40:04	2015-08-03T11:40:04	=
*	QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV	534aedc8-3fbe	2025-01-01T08:00:00	2015-08-03T12:47:52	
*	QMS-CAL_TST-3D_F_2K_GDC_20150803_OV	3efa65a5-9b9b	2020-08-04T15:45:15	2015-08-03T15:45:15	
¥.	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV	a4a33fae-44a8	2020-08-04T12:42:22	2015-08-03T12:42:22	
4	QMS-CAL_TST-2D_F_2K_GDC_20150803_OV	41173a47-d604	2020-08-04T12:49:42	2015-08-03T12:49:42	-
•					*

3.3 Server Playlist Creation and Transfer

After ingesting contents, Server Play Lists (SPLs) will be needed to be created and transferred to the server. There are 14 SPLs to be created on server.

No	Server Play List Name (SPL)	Content Name
1	QMS-CHK-S	QMS-CHK_TST-2D_S_71_2K_GDC_20150803_OV
2	QMS-CHK-F	QMS-CHK_TST-2D_F_71_2K_GDC_20150803_OV
3	QMS-CHK-3D-S	QMS-CHK_TST-3D_S_71_2K_GDC_20150803_OV
4	QMS-CHK-3D-F	QMS-CHK_TST-3D_F_71_2K_GDC_20150803_OV
5	QMS-CHK-S-DUAL-1	QMS-CHK-DUAL-1_TST-2D_S_71_2K_GDC_20150803_OV
6	QMS-CHK-F-DUAL-1	QMS-CHK-DUAL-1_TST-2D_F_71_2K_GDC_20150803_OV
7	QMKS-CHK-S-DUAL-2	QMS-CHK-DUAL-2_TST-2D_S_71_2K_GDC_20150803_OV
8	QMKS-CHK-F-DUAL-2	QMS-CHK-DUAL-2_TST-2D_F_71_2K_GDC_20150803_OV
9	QMS-CHK-3D-S-DUAL	QMS-CHK-DUAL_TST-3D_S_71_2K_GDC_20150803_OV
10	QMS-CHK-3D-F-DUAL	QMS-CHK-DUAL_TST-3D_F_71_2K_GDC_20150803_OV
11	QMS-CAL-S	QMS-CAL_TST-2D_S_2K_GDC_20150803_OV
12	QMS-CAL-F	QMS-CAL_TST-2D_F_2K_GDC_20150803_OV
13	QMS-CAL-3D-S	QMS-CAL_TST-3D_S_2K_GDC_20150803_OV
14	QMS-CAL-3D-F	QMS-CAL_TST-3D_F_2K_GDC_20150803_OV

At Content Tab, select Create, and click "New SPL".

D Kind	Nam RAILER UP_T	ie 1.R-3R-3D F FN-XX US					Duration	Size	_
- TF	RAILER UP_T	IR-3R-3D F EN-XX US						1 5 7 7 F	
🗧 📕 TE			s-GB_51_ZK_DI_2	0090218_TDC_i	i3D-gb		00:02:30	4.29 GB	
	EST QMS	-CAL_TST-3D_F_2K_GD	C_20150803_OV	1			00:00:10	30.38 MB	
🚽 📃 TE	EST QMS	-CAL_TST-3D_S_2K_GD	C_20150803_OV	1			00:00:10	29.77 MB	
🗧 📃 TE	est QMS	-CHK-DUAL_TST-3D_F	_71_2K_GDC_20	150803_OV			00:03:07	565.95 MB	
🚽 📃 TE	EST QMS	-CHK-DUAL_TST-3D_S	_71_2K_GDC_20	150803_OV			00:03:07	561.83 MB	
= TE	EST QMS	-CHK_TST-3D_F_71_2K	_GDC_20150512	_ov			00:01:41	310.73 MB	
🛋 📃 TE	EST QMS	-CHK_TST-3D_S_71_2K	_GDC_20150803	_ov			00:01:41	309.71 MB	
🚽 📃 T F	RAILER LORA	X-3D_TLR-B_S_EN-XX	INT_51_2K_UP_	20111115_MPS	_i3D_OV		00:02:31	2.26 GB	
🚽 🔰 FE	EATURE Beov	Beowulf 3D GBusted Bottom Subtitles				00:01:54	1.39 GB		
-			111			4			٠
all CPL f	eatures trailers	advertisement	policies te	aser test	rating	others	SPL		
5PL Name: Number of C	lips:	Server Type: Duration:	Alterna	tive input 🔻 📘	New SPL	Copy Show	Delete CPLs	Save SPL Exit Edi	itor

Server Type window will pop up. Click the drop-down menu and select D-Cinema, then click "OK" button.

4 Server Type	8 X					
Please select server type						
D-Cinema	•					
ОК	Cancel					

SPL name window will pop up. Enter the corresponding SPL name in the text box, then click "OK" button.

4 SPL name	8 X
Please enter SPL	name:
QMS-CHK-S	
	Canal

Select contents [QMS-CHK_TST-2D_F_71_2K_GDC_20150803_OV] and drag into empty column below SPL Name, then click "Save SPL" button. Save SPL window will pop up. Check on Theatre_Store as the location and click "OK" button to save. The created SPL will be saved into Theatre_Store.

LL Med	ia in Theatre	•			0 9		
BD	Kind	Name			Duration	Size	
	TEST	QMS-CAL_TST-2D_F_2K_0	GDC_20150803_OV		00:00:10	23.50 MB	r
	TEST	QMS-CAL_TST-2D_S_2K_0	GDC_20150803_OV	Save SPI	? X	23.20 MB	
	TEST	QMS-CHK-DUAL-1_TST-2	2D_F_71_2K_GDC_20150803_0	Save on E		437.51 MB	
	TEST	QMS-CHK-DUAL-1_TST-2	2D_S_71_2K_GDC_20150803_0	Save SPL: QMS-CHK-S		435.45 MB	
	TEST	QMS-CHK-DUAL-2_TST-2	2D_F_71_2K_GDC_20150803_0	to Location:		238.84 MB	
	TEST	QMS-CHK-DUAL-2_TST-2	2D_S_71_2K_GDC_20150803_0	Thursday Chang		237.51 MB	
	TEST	QMS-CHK_TST-2D_F_71_	2K_GDC_20150512_OV	Ineatre_store		238.84 MB	
	TEST TEST	QMS-CHK_TST-2D_S_71_	2K_GDC_20150512_OV			238.32 MB	
	TEST	Aaa130_TST-1_F_2K_2015	0729_SMPTE			8.62 MB	
			III				۲
all CP	features	trailers advertisement	policies teaser t				
PL Na Iumb	nme: QMS- er of Clips: 1	CHK-S Server Type: D Duration: 0	Cinema Alternative input			SPL Exit Edi	tor
	10						

Go to Contents Tab, manage, locate "QMS-CHK-S" SPL, right-click and select "Send to..."

Theatre_Store	•		MANAGE		- C Q
Name	Duration	Issue Date	Validity	(7 Days Alert)	QMS-CHK-S
QMS-CHK-S	00:00:10	2016-02-24T14		Delete SPL	UUID: 992cd816-739e-4fae- b344-81d85ff7bab9
				Send to	Content Version ID: da46fcb5-745c-49a6-8035-93dde5580fc9
				Export SPL Detail	TYPE: Playlist DURATION: 00:00:10 TECHE DATE: Word Eab 24 14:42:E4 2016
			55 8 8		

SPL Transfer Display window will pop up. Check "Send SPL with needed content(s)". Then, check the destination server, then click "Send" button.

reen(s):	Spi(s):				
🖉 🖾 Hall 1	Title	Duration	Issue Date	Extra	
Hall 2	▶ QMS-CHK-S	00:00:10	2016-02-24T14:42:54		
Select all screen(s) Send SPL with neede	d content(s)			Cond Control	4

Click the Transfer zicon to check if the SPL is being transferred successfully.

Transfer Display						
Destination	Туре	Title	Schedule time	Status	Remark	
a 🖾 Hall 1 (1)						
	SPL SPL	QMS-CHK-S		Done		

Note: For the remaining 13 SPLs and contents, follow the same method of creating the first SPL used.

Shows:	QMS-CAL	2	are Spin	New 8	Show	Delete	Show	Copy Show		
	OMS-CAL_TST-2D_S_3 00	2K_GDC_20131 000:11	106_OV							
J2K Po	el Structure Pattern W el Structure Pattern W	2k 2.1.8 (§1 4k 2.1.8 (§1	•		ј2к С [00:00	MS-CAL :03] PAU	TST-2D_S SE	2K_GDC_20		3 seconds pause automation cue
J2K PI J2K QI J2K QI	inesFrameCrt-51_TST //S-CAL_TST-2D_F_2 //S-CAL_TST-2D_S_2	-2D-Deluxe K_GDC_20 K_GDC_20	3DSync	Clear						
J2K 3D J2K 3D J2K 01	OMS-CAL_TST-3D_F OMS-CAL_TST-3D_S AS-CHK-DUAL-1_TST-	_2K_GDC_ _2K_GDC_ 2D_F_71_2	Start Frame	Edit Cue						
J2K OI	AS-CHK-DUAL-1_TST-	2D_S_71_2 2D_F_71_2	Show Dura	ation:00:00):11	1	₽	🔄 Loop	-	
J2K 01 J2K 3D J2K 3D	AS-OHK-DUAL-2_TST- QMS-CHK-DUAL_TST QMS-CHK-DUAL_TST AS-OHK_TST-2D_F_7	2D_S_71_2 F-3D_F_71_ F-3D_S_71_ 1_2K_GDC	Content Duration Sound:	Kind: :	test 00:00:11 12Ch 24 48Khz	IBit	Aspect: Clip: Subtitles:	2.39 Present No		
J2K OI	AS-CHK_TST-2D_S_7	1_2K_GDC	Content	Format: on:	JPEG20 Yes	00	KDM:			
	Active	Show: QMS-C	нк		Load St	now To Pl	ay	Close		

After all SPLs are created, a 3 seconds pause automation cue has to be added to both SPLs QMS-CAL and QMS-CAL-3D.

3.4 Profile Setup

A new profile has to be created before running a test. There are 4 profiles to be setup.

No	Profile Name	Mode	Aspect Ratio
1	2D_Scope	2D	Scope
2	2D_Flat	2D	Flat
3	3D_Scope	3D	Scope
4	3D_Flat	3D	Flat

Go to Quality tab, click "Profile" which is located at the bottom left of TMS window.

	Profile	Date	Screen Luminance Chromaticity Sound Status	; Luminance (fL)	Benchmar
Test	•	-	📮 Hall 1	20 -	
e e e e e e e e e e e e e e e e e e e				15	
				10 -	
				5 -	
				Chromaticity (x y)	
				13	
				0.6	
				0.4	
				0.2	
				E o	
				Sound (dB)	
				80 -	
				70 -	
				60	
		m		40 3	
Profile	Set all profi	es to:	est Al		Detail

For 2D Scope profile, enter the Profile Name as 2D_SCOPE, select Mode as 2D, Aspect Ratio as SCOPE, enter the Warning and Critical values for Sound Pressure Level, Luminance and Chromaticity, or else user may also use the default values. Click "Save" button to save the settings.

Profile Name	2D_	SCOPE	8
Mode	2D		
Aspect Ratio	SCC	PE	•
Tolerance Devi	ation		
		Warning	Critical
Sound Pressur	e Level	± 1.0 dB	± 1.0 dB 🜲
Luminance		± 3.0 fL 🖨	± 3.0 fL 🜻
Chromaticity		± 0.006	± 0.006

For 2D Flat profile, enter the Profile Name as 2D_FLAT, select Mode as 2D, Aspect Ratio as FLAT, enter the warning and Critical values for Sound Pressure Level, Luminance and Chromaticity, or else user may also use the default values. Click "Save" button to save the settings.

Profile Name	2D_	FLAT	
Mode	2D		1.
Aspect Ratio	FLAT	r-	
Tolerance Deviati	on		
		Warning	Critical
Sound Pressure L	.evel	± 1.0 dB 🗘	± 1.0 dB 🚔
Luminance		± 3.0 fL ≑	± 3.0 fL 🚔
Chromaticity		± 0.006	±0.006

For 3D profiles, user needs to create both Scope and Flat profiles. Select Mode 3D, Aspect Ratio, enter the profile name, input the tolerance values for sound pressure level, luminance and chromaticity, then click "Save" button to save.

Profile Name	3D_	SCOPE		<u> </u>	Profile Name	3D_	FLAT		82
Mode	3D 💌		•	Mode	3D				
Aspect Ratio	SCO	PE		•	Aspect Ratio	FLA	г		•
Tolerance Devia	ation				Tolerance Devi	ation			
		Warning	Critical				Warning	Critical	
Sound Pressure	e Level	± 1.0 dB 🗘	± 1.0 dB	A T	Sound Pressur	e Level	± 1.0 dB 🗘	± 1.0 dB	A V
Luminance		± 3.0 fL 🌻	± 3.0 fL	<u>.</u>	Luminance		± 3.0 fL 🚔	± 3.0 fL	*
Chromaticity		± 0.006 🗘	± 0.006	A	Chromaticity		± 0.006 🗘	± 0.006	A. Y

When all 4 profiles, 2D_SCOPE, 2D_FLAT, 3D_SCOPE and 3D_FLAT are being created, click Profile to check on it.

	Profile	Date	Screen	Luminance	Chromaticity	Sound
Test	2D_S 🔻		🖾 Hall 1			
	2DPE					
	2DAT					
	3DPE					

Note:

<u>Recommended Warning Values:</u> Sound Pressure Level: 0.5dB Luminance: 1.5FL Chromaticity: 0.003 <u>Recommended Critical Values:</u> Sound Pressure Level: 1.0 dB Luminance: 3.0FL Chromaticity: 0.006

3.5 Screen Information

Information of screen, projector and sensor device are needed to be entered in each cinema hall 2D/3D profile.

Right-click Test and click "Get Info"

	Profile Date	Screen	Luminance	Chromaticity	Sound	Status	
Test	Get Info	 💭 Hall 1					
	Gerimo						
	Restore						

The auditorium data information window will be loaded.

Screen		Screen Ratio	16:9	*
4 m		Screen Width	4.00 m	
843		Screen Height	2.25 m	*
E	E	Projector Distance	10.00 m	×
2.25	2.25	Sound System	5.1	•
		Immersive Sounds	None	•
4 m		Sensor Location	Rear	•
Projector Distance		Projector Setup	Single	•
		2D Projection	Single	
10 m		Light Efficiency: Left Eye Right Eye Calibration:	100.00%	× ×
Sensor		Auto Calibration	Yes	•

Enter the Hall Screen information, Projector Distance, select Sound System type, Sensor Location and Projector Setup type.

Screer	ı		Screen Ratio	16:9 •
	4 m		Screen Width	4.00 m
			Screen Height	2.25 m
E		E	Projector Distance	10.00 m
2.25		2.25	Sound System	5.1 💌
			Immersive Sounds	Dolby Atmos 🔹
	4 m		Sensor Location	Rear 🔹

User should select Sensor installed location, it should be either Center or Rear location depending on initial sensor device physical installations.

Sensor Location	Rear
	Center
	Rear

User should select the Single or Dual Projector used.

Projector Setup	Single 🔹
	Single
	Dual

For Light Efficiency, as the sensor device is mounted in the hall, there is no light efficiency factor for 2D. For 3D, user needs to measure the 3D light efficiency value and input into the column for better measurement accuracy.

Light Efficiency Factor for 2D and 3D



For 2D, the human eyes have a clear view to the screen without any external interference. For 3D, there is less light reflected to the human eyes due to the 3D glasses, and this light efficiency value can be calculated. Connect Chroma meter to the mounting stand kit.



Put the Chroma meter to the centre of the Hall, set the height of it to be around 1.5 metres.



From Barco Projector, select Alightment Test Pattern as shown below, and click the icon to activate it.

Test patterns Test pattern currently displayed :	Pattern shortcuts
Change pattern	
Clear pattern	
Test Pattern Frequency Frame rate 24	

Using the projected Test Pattern, look through the Chroma Meter and ensure that it is shooting to the centre of the it. Once it is aligned properly to the centre, lock and secure the Chroma meter to the mounting stand.



Playback Full White Test Pattern from the server and measure the value of the brightness using the Chroma meter, record this value and it will be known as A.



Using the same setup, use a pair of 3D glasses and put it in front of the lens of the Chroma Meter, measure the value of the brightness, record this value and it will be known as B.



To get the 3D Light Efficiency value, it will be B/A. Once calculated, enter this value into the Light Efficiency Column for single projector Setup. Click okay, and it is completed.

Light Efficiency:		
Left Eye	41.00%	*
Right Eye	41.00%	*

Note: If the setup is using a 3D Dual Projector, select "Dual" projector, use the same method as above to measure the values of the 2D and 3D setup of both the Left (Up) Projector and Right (Lower) Projector, input the values into the Light Efficiency columns.

4. Running Test

4.1. 2D Profile - Optimal Projection Benchmark Values

After both 2D and 3D profiles setup are completed and the screen information is entered, user can select a profile and click "Test" button to run a test. For Optimal Projection Values Test, check and ensure that the physical sensor device is mounted on the rear wall in the auditorium, for projector information, the sensor device location must be selected as Rear.

Sound System	5.1 🔹
Immersive Sounds	Dolby Atmos 🔹
Sensor Location	Rear 🔻

Select 2D_FLAT profile, click "Test" button to start the test.

	Profile	Date	Screen	Luminance	Chromaticity	Sound	Status
Test	2D_FLAT 🔻		💭 Hall 1				
	2D_FLAT						
	2D_SCOPE						
	3D_FLAT						
	3D_SCOPE						
1							

When the test is in progress, the results will be updated in real time as shown in the graph on the right.

When the test is completed, the results graph will be created as shown on the right.

TMS	S File	View Tools	Help							
		Profile	Date	Screen	Luminance	Chromaticity	Sound	Status	Luminance (fL)	Benchmark
	Test	2D_FLAT	2015-01-18T09:47:53 ×	📮 Hall 1	BENCHMARK	Ҏ BENCHMARK	P BENCHM	ARK	40 - 35 -	
									30 - 25 -	
										1
									Chromaticity (x y)	
									0.8	
									0.6 -	
									0.4	
									Sound (dB)	1 23 02
									100 -	
									90 -	
									80 -	1
•				ш					, 50]	
	Profile	Set all profiles	to: 2D_FLAT 🔹 Te	st All						Details

Click the "Details" button at the bottom right to toggle the results to display in numerical mode.



4. RUNNING TEST

The results will be displayed in numerical mode.

	Profile	Date	Screen	Luminance	Chromaticity	Sound	Status	_	Checking	tem Value			Benchmark	
st	2D FLAT	· 2015-01-18T09:47:53 ·	Hall 1	P BENCHMARK	P BENCHMARK	P BENCHMAR	<	*	💡 Lumin	ince	7	0.97 f	L i	0.97 fL
								4	Patterr	1	0.316	0.36	3 0.316	0.363
								4	Patterr	2	0.420	0.56	5 0.420	0.565
								4	Patterr	3	0.210	0.38	0 0.210	0.380
								4	Patterr	4	0.356	0.15	1 0.356	0.151
								4	Pattern	5	0.150	0.05	2 0.150	0.052
								1	Patterr	6	0.277	0.69	0 0.277	0.690
								4	Patterr	7	0.725	0.32	6 0.725	0.326
								4	d) Chann	el 1	1	70.7 d	В	70.7 dB
								4	4) Chann	el 2		74.1 d	В	74.1 dB
								4	◄) Chann	el 3	- 16	73.1 d	В	73.1 dB
								-	Chann	el 4		72.3 d	В	72.3 dB
								4	4) Chann	el 5		70.6 d	В	70.6 dB
								1	4) Chann	=16		77.4 d	В	77.4 dB
								4	() Chann	el 7	2	59.1 d	B	59.1 dB
								*	Chann	el 8		58.9 di	B	58.9 dB
			ш				•							

Once the test is completed, the test will check the tolerance deviations initially configured in the profile and indicates that the test is "Pass", "Warning" or "Critical" under their columns.

	Profile	Date	Screen	Luminance	Chromaticity	Sound	Status
Test	2D_FLAT -	2015-05-26T10:21:45 -	🛤 Hall 1	V PASS	V PASS	V PASS	
Test	2D_FLAT -	2015-05-26T10:21:45 -	📮 Hall 2	3 CRITICAL	CRITICAL	A WARNING	

A clear comparison between the actual result value and the benchmark is displaced at the right of the window.

	Checking Item	Value		Benchmark	
*	💡 Luminance	2	0.97 fL	20	0.97 fL
*	Pattern 1	0.316	0.363	0.316	0.363
*	Pattern 2	0.420	0.565	0.420	0.565
*	Pattern 3	0.210	0.380	0.210	0.380
*	Pattern 4	0.356	0.151	0.356	0.151
*	Pattern 5	0.150	0.052	0.150	0.052
*	Pattern 6	0.277	0.690	0.277	0.690
*	Pattern 7	0.725	0.326	0.725	0.326
*	 Channel 1 	7	70.7 dB	7	0.7 dB
¥	 Channel 2 	7	74.1 dB	7	4.1 dB
*	 Channel 3 	7	73.1 dB	7	3.1 dB
*	 Channel 4 	7	72.3 dB	7	2.3 dB
¥.	 Channel 5 	7	70.6 dB	7	0.6 dB
*	Channel 6	7	77.4 dB	7	7.4 dB
*	Channel 7	1	59.1 dB	5	9.1 dB
*	 Channel 8 	1	58.9 dB	5	8.9 dB

Right-click entry and click "Set as Benchmark" to set current values as Benchmark values.

Test	2D_FLAT	•	2015-01-18T09:47:53	•		Hall 1	۳	BENCHMARK	۳	BENCHMAR	18.	Get Info
Test	2D_FLAT	•	2015-05-26T10:21:45	-		Hall 2	ω	CRITICAL	•	CRITICAL		occano
					,							Projector Calibration
												Set as Benchmark
												Delete this Result
												Export
												Restore
												Export Report

Click "OK" to save result as benchmark values.



As initial benchmark values have been saved, click "Test" button again to check current values against it. The list now shows both benchmark values and real time results.

	Profile		Date	Screen	Luminance	Chromaticity	Sound	Status	C	hecking Item	Value	Be	enchmark	
Test	2D_FLAT	*	2015-01-18T09:47:53 -	🗖 Hall 1	P BENCHMARK	P BENCHMARK	P BENCHMARK		8	Luminance	1	4.57 fL	2	0.97 fL
Tert	2D FLAT	*	2015-05-26T10-21-45 ×				A WARNING			Pattern 1	0.321	0.367	0.316	0.363
icst	20_1041	<u> </u>	2013-03-20110.21.45	- 110112	Childre	Charles Charles	A VIARIANO	8		Pattern 2	0.427	0.566	0.420	0.565
										Pattern 3	0.211	0.386	0.210	0.380
								63		Pattern 4	0.367	0.155	0.356	0.151
										Pattern 5	0.148	0.051	0.150	0.052
								83		Pattern 6	0.278	0.698	0.277	0.690
								0		Pattern 7	0.741	0.330	0.725	0.326
								4	-) Channel 1	ĥ	0.6 dB	7	0.7 dB
									4) Channel 2		3.7 dB	7	4.1 dB
) Channel 3		3.4 dB	7	3.1 dB
								V	4) Channel 4		3.0 dB	7	2.3 dB
								4) Channel 5	10	0.9 dB	7	0.6 dB
									4) Channel 6		7.8 dB	7	7.4 dB
								4) Channel 7		50.8 dB	5	9.1 dB
								4	4) Channel 8		50.5 dB	5	QL DQ

4.2. 2D Profile - SMPTE Standard Benchmark Values

For 2D Profile - SMPTE Standard Benchmarks, the physical sensor device must be mounted in the centre location in the auditorium and the sensor location column in TMS software must be Center.

Sound System	5.1 💌
Immersive Sounds	None 🔹
Sensor Location	Center 👻

Select a 2D profile, and click "Test" button to start the test, when the location of sensor is set to center, the benchmark values will automatically be toggled to SMPTE standard benchmark values, these values are fixed and will not be changed.

	Profile	Date	Screen	Luminance	Chromaticity	Sound	Status		Checking Item	Value	Benchmark	
est	2D FLAT	2015-01-18T09:47:53	- 🖾 Hall 1					4	💡 Luminance	14.57 fL	14.5	57 fL
To a d		2015 05 26710-21-45	- III H-II 2	8				4	Pattern 1	0.321 0.367	0.321 0).367
est	ZU_FLAI	2013-03-20110:21:45	Fidil 2					4	Pattern 2	0.427 0.566	0.427 0	0.566
								~	Pattern 3	0.211 0.386	0.211 0	0.386
								~	Pattern 4	0.367 0.155	0.367 0	0.155
								-	Pattern 5	0.148 0.051	0.148 0	0.051
								4	Pattern 6	0.278 0.698	0.278 0	0.698
								-	Pattern 7	0.741 0.330	0.741 0).330
								~	◄) Channel 1	70.6 dB	70.0	.6 dB
								~	◄) Channel 2	73.7 dB	73.	7 dB
								-	Channel 3	73.4 dB	73.4	4 dB
								~	◄) Channel 4	73.0 dB	73.0	0 dB
								-	Channel 5	70.9 dB	70.9	9 dB
								~	◄) Channel 6	77.8 dB	77.8	8 dB
								4	Channel 7	60.8 dB	60.8	8 dB
								4	Channel 8	60.5 dB	60.	5 dB

4.3. 3D Profile - Optimal Projection Benchmark Values

Select 3D profile and click [Test] to run a test in 3D mode. User does not need to put any 3D glasses over the Chroma Meter, as the light efficiency value has been keyed into the information column earlier.

	Profile	Date	Screen	Luminance	Chromaticity	Sound	Status
Test	2D_FLAT 🔻	2015-05-26T10:21:45 🔻	🖾 Hall 1				
Test	3D_SCOPE 🔻	2015-05-26T10:21:45 🔻	🖾 Hall 2				
	2D_FLAT 2D_SCOPE 3D_FLAT			-			
	3D_SCOPE						

When the test is completed, the graph will be full, and user can click details to toggle to the numerical mode.



Click details to toggle the results to numerical values.

t 2015-05-26T10:21:45 Image: Hall 1 PASS PASS PASS PASS PASS Pattern 1 0.321 0.367 0.316 0.338 3D_SCOPE 2015-05-26T10:21:45 Image: Hall 2 PASS PASS PASS PASS Pattern 2 0.221 0.367 0.316 0.338 Pattern 3 0.211 0.386 0.210 0.380 0.210 0.380 Pattern 4 0.367 0.155 0.356 0.151 0.168 0.0210 0.380 Pattern 5 0.148 0.051 0.150 0.522 Pattern 6 0.228 0.220 0.380 Pattern 7 0.741 0.330 0.727 0.326 Pattern 7 0.741 0.330 0.725 0.326 Pattern 7 0.741 0.330 0.723 0.326 Pattern 7 0.741 0.306 <		Profile	Date	Screen	Luminance	Chromaticity	Sound	Status		Checking Item	Value	Be	nchmark	
t 3D_SCOPE 2015-05-26T10:21:45 Image: Hail 2 PASS PASS PASS Pattern 1 0.321 0.367 0.316 0.363 Pattern 2 0.427 0.566 0.420 0.565 Pattern 3 0.211 0.386 0.210 0.380 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.386 0.210 0.380 0.210 0.386 0.210 0.386 0.211 0.368 0.217 0.502 0.316 0.352 0.352 0.315 0.352 0.326 0.151 0.352 0.326 0.277 0.690 0.277 0.690 0.277 0.690 0.277 0.690 0.277 0.690 0.277 0.502 0.326 0.277 0.502 0.326 0.277 0.502 0.326 0.277 0.502 0.326 0.277 0.502 0.276 0.277 0.502 0.277	Test	2D FLAT -	2015-05-26T10:21:45 -	Hall 1	V PASS	V PASS	V PASS		×.	💡 Luminance	1	4.57 fL	2).97 fL
A CLOCK 1 201505 20110.1147 CASS PASS PAttern 2 0.427 0.566 0.420 0.565 Pattern 3 0.211 0.386 0.210 0.380 0.210 0.380 0.210 0.380 0.210 0.380 0.210 0.380 0.210 0.380 0.210 0.380 0.210 0.380 0.210 0.380 0.010 0.380 0.055 0.356 0.151 0.150 0.052 0.386 0.210 0.380 0.0210 0.380 0.052 0.386 0.210 0.380 0.052 0.386 0.151 0.150 0.052 0.386 0.217 0.690 0.572 0.386 0.217 0.690 0.525 0.326 0.420 0.525 0.326 0.420 0.525 0.326 0.420 0.525 0.326 0.420 0.525 0.326 0.420 0.525 0.326 0.420 0.525 0.326 0.420 0.525 0.326 0.420 0.525 0.326 0.420 0.525 0.326 0.420 0.52 0.420 0.427 0.537 0.52 0.326 0	Tert	3D SCOPE ¥	2015-05-26T10-21-45		and the	DASS			×	Pattern 1	0.321	0.367	0.316	0.363
Pattern 3 0.211 0.386 0.210 0.380 Pattern 4 0.367 0.155 0.356 0.511 Pattern 5 0.44 0.051 0.150 0.360 Pattern 6 0.278 0.698 0.277 0.690 Pattern 7 0.741 0.330 0.725 0.326 Pattern 7 0.741 73.748 77.348 77.348 Pattern 9 0.0.0.018 70.948 70.548 <td< td=""><td>est</td><td>JD_SCOPE ·</td><td>2013-03-20110:21:45</td><td>Fidil 2</td><td>V PASS</td><td>V PASS</td><td>TA33</td><td></td><td>×.</td><td>Pattern 2</td><td>0.427</td><td>0.566</td><td>0.420</td><td>0.565</td></td<>	est	JD_SCOPE ·	2013-03-20110:21:45	Fidil 2	V PASS	V PASS	TA33		×.	Pattern 2	0.427	0.566	0.420	0.565
Pattern 4 0.367 0.155 0.356 0.151 Pattern 5 0.148 0.051 0.050 0.55 Pattern 6 0.278 0.698 0.277 0.690 Pattern 7 0.741 0.330 0.725 0.326 Othannel 1 70.6 dB 70.7 dB 74.1 dB Othannel 2 73.7 dB 74.1 dB 73.1 dB Othannel 3 73.4 dB 73.1 dB 72.3 dB Othannel 4 73.0 dB 77.2 dB 77.4 dB Othannel 5 70.9 dB 70.6 dB 77.4 dB Othannel 6 77.8 dB 77.4 dB 77.4 dB Othannel 6 77.8 dB 59.1 dB 59.1 dB Othannel 8 60.5 dB 58.9 dB 58.9 dB									*	Pattern 3	0.211	0.386	0.210	0.380
Pattern 5 0.148 0.051 0.150 0.052 Pattern 6 0.278 0.698 0.277 0.690 Pattern 7 0.741 0.330 0.725 0.326 Image: Channel 1 70.6 dB 70.7 dB 74.1 dB Image: Channel 2 73.7 dB 74.1 dB 73.1 dB 74.1 dB Image: Channel 3 73.4 dB 73.2 dB 72.3 dB 72.3 dB Image: Channel 4 73.0 dB 72.3 dB 70.6 dB 70.6 dB Image: Channel 4 73.0 dB 72.3 dB 70.6 dB 70.9 dB 70.6 dB Image: Channel 4 73.0 dB 72.3 dB 70.4 dB 70.6 dB 70.9 dB 70.6 dB Image: Channel 5 70.9 dB 70.6 dB 70.4 dB 71.4 dB Image: Channel 5 70.9 dB 70.6 dB 71.4 dB 71.4 dB Image: Channel 6 77.8 dB 77.4 dB 71.4 dB									×	Pattern 4	0.367	0.155	0.356	0.151
Pattern 6 0.278 0.698 0.277 0.690 Pattern 7 0.741 0.330 0.725 0.326 Image: Channel 1 70.6 dB 70.7 dB 74.1 dB Image: Channel 2 73.7 dB 74.1 dB 73.1 dB Image: Channel 3 73.4 dB 73.2 dB 72.3 dB Image: Channel 4 73.0 dB 72.3 dB 70.6 dB Image: Channel 5 70.9 dB 70.6 dB 70.4 dB Image: Channel 5 70.9 dB 70.6 dB 71.4 dB Image: Channel 6 77.8 dB 77.4 dB 71.4 dB Image: Channel 7 60.8 dB 59.1 dB 59.1 dB Image: Channel 8 60.5 dB 58.9 dB 58.9 dB									1	Pattern 5	0.148	0.051	0.150	0.052
Pattern 7 0.741 0.330 0.725 0.326 Image: Channel 1 70.6 dB 70.7 dB 71.1 dB Image: Channel 2 73.7 dB 74.1 dB 73.4 dB 73.1 dB Image: Channel 3 73.4 dB 73.1 dB 72.3 dB Image: Channel 4 73.0 dB 72.3 dB 70.6 dB Image: Channel 5 70.9 dB 70.6 dB 70.6 dB Image: Channel 6 77.8 dB 77.4 dB 77.4 dB Image: Channel 7 60.8 dB 59.1 dB 10.6 dB Image: Channel 8 60.5 dB 58.9 dB 58.9 dB									×	Pattern 6	0.278	0.698	0.277	0.690
••••••••••••••••••••••••••••••••••••									4	Pattern 7	0.741	0.330	0.725	0.326
Image: State Stat									-	 ◄) Channel 1 	7	0.6 dB	7	0.7 dB
✓ 1 Channel 3 73.4 dB 73.1 dB ✓ 40 Channel 4 73.0 dB 72.3 dB ✓ 40 Channel 5 70.9 dB 70.6 dB ✓ 40 Channel 6 77.8 dB 77.4 dB ✓ 40 Channel 6 77.8 dB 77.4 dB ✓ 40 Channel 7 60.8 dB 59.1 dB ✓ 40 Channel 8 60.5 dB 58.9 dB									×.	Channel 2	5	3.7 dB	7	4.1 dB
Image: State Stat									*	◄) Channel 3	1	3.4 dB	7	3.1 dB
✓ 4) Channel 5 70.9 dB 70.6 dB ✓ 4) Channel 6 77.8 dB 77.4 dB ✓ 4) Channel 7 60.8 dB 59.1 dB ✓ 4) Channel 8 60.5 dB 58.9 dB									×	◄) Channel 4		3.0 dB	7	2.3 dB
✓ 4) Channel 6 77.8 dB 77.4 dB ✓ 4) Channel 7 60.8 dB 59.1 dB ✓ 4) Channel 8 60.5 dB 58.9 dB									×	Channel 5	5	0.9 dB	7	0.6 dB
✓ Image: Channel 7 60.8 dB 59.1 dB ✓ Image: Channel 8 60.5 dB 58.9 dB									×.	Channel 6	5	7.8 dB	7	7.4 dB
✓ ◄) Channel 8 60.5 dB 58.9 dB									×	◄) Channel 7	e	i0.8 dB	5	9.1 dB
									*	 Channel 8 	e	0.5 dB	5	8.9 dB
	_				111				•					

Right-click entry and click "Set as Benchmark" to set current values as Benchmark values.

	Profile	Date	Screen	Luminance	Chromaticity	Sound	Status
Test	2D_FLAT 🔻		🖾 Hall 1				
Test	3D_SCOPE ▼	2015-01-18T09:47:53 🔻	💭 Hall 2	P BENCHMARK	BENCLINA	Get Info	
						Projector Calibration Set as Benchmark	י
						Delete this Result	
						Export Restore	
						Export Report	

User can click test again to run the test, and the subsequent test will be checked against this benchmark values. It will tell the user that the test is "Pass", "Warning" or "Critical". Click "Details" to view the numerical results of the test.



4.4. 3D Profile - SMPTE Standard Benchmark Values

To run 3D Profile in Standard Benchmark Values, select a 3D profile and change sensor location to center. The benchmark values will be fixed to SMPTE standard values.

Checking Item	Value	Benchmark	_
💡 Luminance		7 fL	I
Pattern 1		0.314 0.351	I
Pattern 2		0.424 0.547	I
Pattern 3		0.204 0.360	I
Pattern 4		0.342 0.154	I
Pattern 5		0.15 0.06	I
Pattern 6		0.265 0.69	I
Pattern 7		0.679 0.32	I
			I
 Channel 1 		85 dB	I
Channel 2		85 dB	I
Channel 3		85 dB	I
 Channel 4 		95 dB	I
Channel 5		82 dB	I
 Channel 6 		82 dB	
 Channel 7 		82 dB	I
 Channel 8 		82 dB	

When the test is completed, the graph will be full, and user can click details to toggle to the numerical mode.



4.5 3D Profile Dual Projector Optimal Projection Benchmark Values

Check and ensure that dual projector has been selected in screen information, click Test button to start the test. After test completion, the results and the graph will be updated.



The results below show the full graph of actual results and comparison with benchmarks.



	Profile	Date	Screen	Luminance	Chromaticity	Sound	4	Checking Item	Value		Benchma	rk
Test	2D SCOF -	ŗ,	174					Cuminance		-	10	
	Tax cost	1		and DACE	04.04CC	PACC.		Pattern 1		1779 15		1/01 15
lest	30_SCOF *	2013-09-11116:38:32 •	SK182	V PASS	V 19433	V PADD		Pattern 2	0.315	0.345	0.316	0.347
								Pattern 3	0.499	0.509	0.435	0.569
								Pattern 4	0.200	0.105	0.200	0.334
								Pattern S	9.327	0.138	0.327	0.136
								Pattern 6	0.277	0.003	0.275	0.004
								Pattern 7	0.2750	0.141	0.210	0.009
								Euminance				19.5
							4	Pattern 1	1	.821 fL	4	775 A.
							~	Pattern 2	0.315	0.346	0.315	0.347
							4	Pattern 3	0.454	0.588	0.455	0.589
							~	Pattern d	0.201	0.354	0.200	0.355
								Pattern K	0.327	0.158	0.327	0.158
							×	Pattern 5	0.136	0.064	0.135	0.063
							4	Patternip	0.277	0.803	0.276	0.799
							1	Puttern 7	0.750	0.342	0.750	0.343
							~	Channel1		74.2 dB		74.2 dB
							V	Channel 2		75.0 dB		75.0 dt
								Channel 3		75.0 dB		74.8 di
								<3 Channel 4		74.5 d0		74.6 dl
								Channel 5		73.2 d8		73.0 di
								43 Channel 6		72.6 dB		72.7 di
								4) Channel 7		61.3 dB		60.1 di
								<) Channel 8		61.7 dB		59.7 de
	Cat al anofine		the set									C.04

5. Automatic Foot Lambert Calibrations

To run test with automatic Foot Lambert (FL) adjustment by QMS, user needs to select "Get Info".

	Profile	Date	Screen	Luminance	Chromaticity	Sound	Status
Test	2D_FLAT 🔻		🖾 Hall 1				
Test	Get Info	• •	🔲 Hall 2				
	Restore						

On Screen information window, select Calibration, set Auto Calibration to Yes.

Screen		Screen Ratio	16:9	•
4 m		Screen Width	4.00 m	*
		Screen Height	2.25 m	*
E	E	Projector Distance	10.00 m	A. V
2.25	2.25	Sound System	5.1	•
	- 10	Immersive Sounds	None	•
4 m		Sensor Location	Rear	•
Projector Distance		Projector Setup	Single	•
		2D Projection	Single	Ŧ
		Light Efficiency:		
		Left Eye	100.00%	×
		Right Eye	100.00%	-A
10 m		Calibration:		
Sensor		Auto Calibration	Yes	•

When test has been completed, and auto calibration is set to Yes, if the value of current luminance does not pass the luminance benchmark value, QMS will immediately and automatically run a calibration SPL, and the FL of current projector will be automatically adjusted above benchmark values.

6. Results Analysis and Solutions

6.1 Results Analysis

By comparing between the actual results and benchmarks values, user can immediately know the result by looking at the details or graphical mode. The user can obtain the result from the pattern on the graph.



From the test results, the user can tell the difference between benchmark values and current test results, and below graph shows the huge difference of the FL in the test results taken after a time lapse.



From the detail test results, the results will be more refined, and the user can immediately note the differences in results and to take the next course of action.

Ch	ecking Item	Value		Bend	hmark	
1	💡 Luminanc	e	1	4.75 fL	1	.4.33 fL
1	Pattern 1		0.312	0.329	0.312	0.329
1	Pattern 2		0.447	0.557	0.447	0.557
1	Pattern 3		0.203	0.331	0.203	0.331
1	Pattern 4		0.325	0.156	0.325	0.156
1	Pattern 5	2	0.148	0.070	0.148	0.070
1	Pattern 6		0.279	0.733	0.278	0.733
1	Pattern 7		0.693	0.331	0.694	0.332
	Channel 1		6	8.0 dB	6	58.2 dB
	(1) Channel 2		6	58.8 dB	6	58.9 dB
	Channel 3		e	58.7 dB	6	58.7 dB
	Channel 4		6	58.5 dB	6	58.9 dB
1 .	Channel 5		e	57.1 dB	6	57.1 dB
1 .	() Channel 6		6	56.8 dB	6	57.0 dB
1 .	Channel 7		e	50.4 dB	6	51.7 dB
	() Channel 8		5	59.7 dB	6	50.0 dB

C	hecking Item	Value		Benchmark	
0	Luminance	1	4.76 fL		14 fL
1	Pattern 1	0.311	0.328	0.314	0.351
	Pattern 2	0.447	0.557	0.424	0.547
	Pattern 3	0.203	0.330	0.204	0.360
	Pattern 4	0.324	0.155	0.342	0.154
	Pattern 5	0.148	0.069	0.15	0.06
	Pattern 6	0.278	0.733	0.265	0.69
	Pattern 7	0.694	0.331	0.679	0.32
()	Channel 1	6	58.2 dB		85 dB
((ا	Channel 2		69 dB		85 dB
()	Channel 3	e	58.8 dB		85 dB
(اھ	Channel 4	7	70.6 dB		95 dB
(اې	Channel 5	e	57.3 dB		82 dB
(اله 🖌	Channel 6	e	56.9 dB		82 dB
((ا م	Channel 7	5	59.6 dB		82 dB
()	Channel 8	5	9.4 dB		82 dB

Results that are at warning stages of Benchmark values

Results that passed Benchmark values

6.2 Solution

User need to take note of the results that are at warning and critical levels, and the need to improve the luminance, chromaticity and sound levels to ensure that audience have the best cinema experience in the cinema hall.

Luminance

Besides the lamp long running hours, which caused the lamp to degrade and brightness level to drop, there are many causes of brightness problems that caused luminance to decrease. The dust accumulated in the projection room which caused dust on the port window, screen and projector parts including lens, lamp house, deflector, folding mirror, cold mirror and the light pipe etc. User is advised to perform cleaning maintenance quarterly on projector which will improve the overall brightness output on the projector.



QMS is capable of doing automatic adjustment of the lamp according to the benchmark values when user sets the auto calibration in screen information to Yes, and user does not need to do anything after installing lamp and calibrating the xyz values. When critical values of luminance is reached, QMS will perform auto adjustment to the defined benchmark values.

Chromaticity

When the values of the projector output values dropped, user should check and retune the color convergence of the light processor in projector and redo color calibrations on projector.

From Touch Panel, select color convergence test pattern and display it on the screen.



When the test pattern is displayed, the color convergence of red, green and blue on light processor can be checked and retuned.



			Navigation
			E Control
			Configuration
			Diagnostics
			Installation
	Color calibration		Communication
		Measure native colors	Color calibration
		Select target colors	Automation Advanced
IL III	-	Verify corrected colors	
			1 Maintenance
			Communicator

After convergence is adjusted, user can proceed to redo color calibrations and verifications.

The red, green, blue and white values will have to be measured in the cinema hall using chroma meter and verifications of colors verified to ensure that it passed the 0.006 tolerance values.

Color calibration; sing	le (default)			
	Active	MCGD file :		
No Color	Red	Green	Blue	White
x ->	0.0	0, 0	0, 0	0. 0
y ->	0, 0	0,0	0,0	0, 0

Color ca Targe	y Colors alibration type: t colors	single (default)						
(Red	Green	Blue	Magenta	Cyan	Yellow	White	Remove color
x y	??? ???	??? ???	??? ???	??? ???	??? ???	??? ???	??? ???	
								Exit

Sound

For sound that did not pass requirements, user has to check and trace on the cinema audio processor, amplifiers, speakers, audio cables in the projection room and cinema hall and sound recalibrations maybe necessary.



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