



CUROLUX – SCREEN MONITORING

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IMPROVING PRESENTATION QUALITY



A wide-angle shot of a movie theater from the audience's perspective. The theater is dimly lit with a blue hue. A large, bright white screen is the central focus, displaying the text "TO LIGHT ON SCREEN..." in a serif font. The audience is seated in rows, filling the lower two-thirds of the frame. A central aisle leads towards the screen. The walls and ceiling are dark, with some architectural details visible on the sides.

TO LIGHT ON
SCREEN...

IN RECENT YEARS...



OPTIMISING AND
MAINTAINING
PRESENTATION
QUALITY



FACTORS THAT AFFECT PRESENTATION QUALITY

- Under-powered equipment
 - Lamp degradation
 - Lamp alignment
 - Focus
 - Colour correction
 - Screen ageing
 - Theatre design
 - Audio issues
-

CUROLUX
SCREEN MONITORING SOLUTIONS

SUITE OF SOLUTIONS

- Automated and semi-automated systems
- Pioneering Harkness technology
- Industry-leading Qalif equipment from HTS
- Solutions for exhibitors large and small
- Also ideal for PLF, key theaters or post-production
- Supported by Harkness expertise



THE CUROLUX SUITE

CUROLUX **GOLD**

CUROLUX SILVER

CUROLUX **BRONZE**

CUROLUX **BLUE+**

CUROLUX **BLUE**



Qalif Ultimate



Qalif Optimiser



Qalif Optimiser Lite

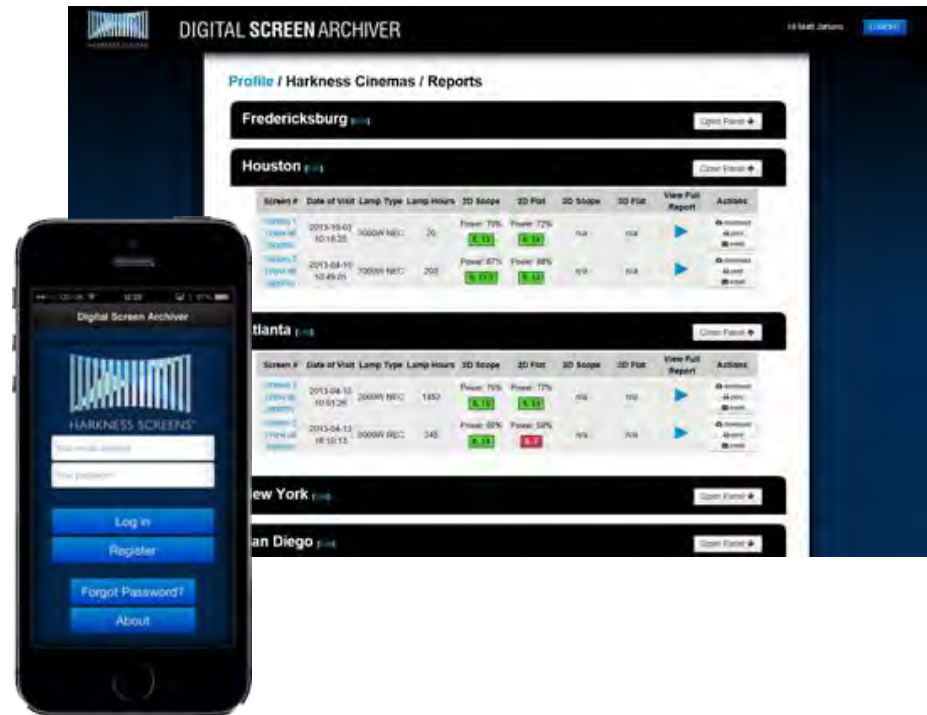


Digital Screen Verifier



Digital Screen Checker

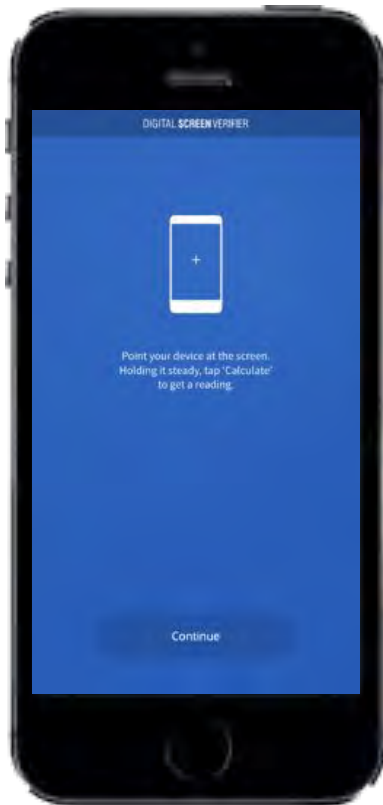
CUROLUX BLUE



CUROLUX BLUE

- Hand-held or tripod mounted device
 - Accurate light readings +/- 0.5 fL
 - Centre-screen measurement only
 - Measures between 0 - 35fL
 - Measure light in 2D and 3D
 - Manually enter light readings into the Digital Screen Archiver
 - Low-cost light meter
-

CUROLUX BLUE+



DIGITAL SCREEN ARCHIVER

Profile / Harkness Cinemas / Reports

Fredericksburg

Houston

Screen #	Date of Visit	Lamp Type	Lamp Hours	2D Scope	2D Flat	3D Scope	3D Flat	View Full Report	Actions
Screen 1 1000W REC	2013-10-01 10:18:28	3000W REC	70	Power: 75% 5.33	Power: 72% 5.31	NA	NA		Download Print
Screen 2 1000W REC	2013-08-19 12:49:01	3000W REC	202	Power: 87% 5.17	Power: 88% 5.15	NA	NA		Download Print

Atlanta

Screen #	Date of Visit	Lamp Type	Lamp Hours	2D Scope	2D Flat	3D Scope	3D Flat	View Full Report	Actions
Screen 2 1000W REC	2013-04-10 10:51:26	2000W REC	140	Power: 75% 5.19	Power: 77% 5.17	NA	NA		Download Print
Screen 2 1000W REC	2013-04-13 18:10:12	3000W REC	345	Power: 88% 5.18	Power: 88% 5.1	NA	NA		Download Print

New York

San Diego

Log In

Register

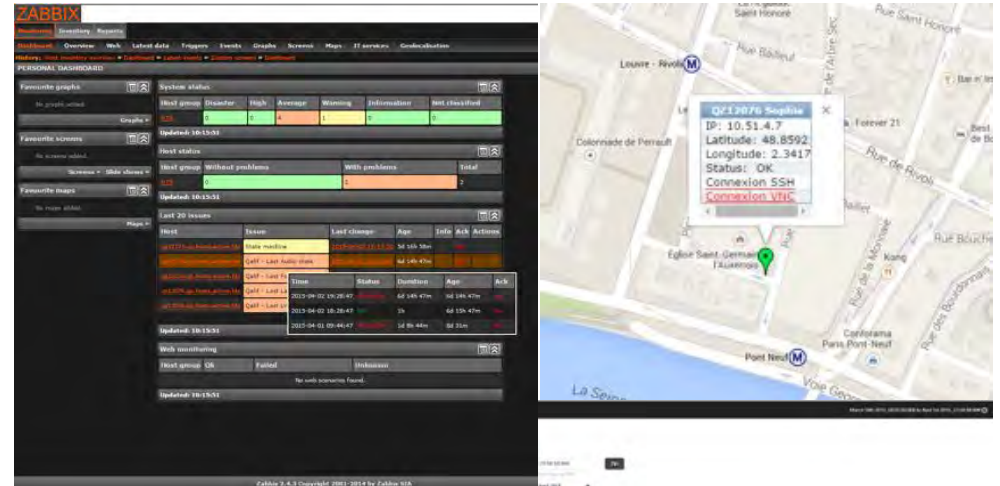
Forgot Password?

About

CUROLUX BLUE+

- Hand-held device (iPhone)
 - Accurate light readings +/- 1.0 fL
 - Measures between 0 - 30fL
 - Measure light in 2D and 3D
 - Available for iOS only (iOS 8+) and iPhone 5+
 - Use with the Digital Screen Archiver for semi-automated data entry
 - Low-cost to download c. \$39.99 per download
 - Available now on Apple App Store
-

CUROLUX BRONZE



CUROLUX BRONZE

- Fixed unit (typically back wall of theater)
 - Automated functions through server playlist
 - Accurate single point light readings +/- 1.0 fL
 - Automated light measurement
 - Automated light management
 - Automated Audio channel check
 - Remote monitoring to NOC or TMS
-

CUROLUX SILVER



ZABBIX

PERSONAL DASHBOARD

System status

Host group	Disaster	Warn	Average	Warning	Information	Not checked
Updates: 16.13.31	0	0	0	0	0	0

Host status

Host group	Without problems	With problems	Total
Updates: 16.13.31	0	0	0

Last 20 issues

Host	Event	Last change	Age	Info	Risk	Actions
10.11.1.1	File system	2013-04-02 12:11:10	54 0h 5m			
10.11.1.1	Q21 - Load 1m	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 5m	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 15m	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 30m	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 1h	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 3h	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 6h	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 12h	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 1d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 3d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 7d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 15d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 30d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 60d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 90d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 180d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	
10.11.1.1	Q21 - Load 360d	2013-04-02 12:11:10	54 0h 5m	94.14% 47m	High	

Web monitoring

Host group: OS

Updated: 16.13.31

Map

Q212076 Souffle

IP: 10.51.4.7
Latitude: 48.8592
Longitude: 2.3417
Status: OK
Connection SSH
Connection VNC

Zabbix 2.4.2 Copyright 2001-2014 by Zabbix SIA

World map

System status

Host status

System status

Host status

System status

Host status

CUROLUX SILVER

- Fixed unit (typically back wall of theater)
 - Automated functions through server playlist
 - Simultaneous 144-point light readings
 - Accurate light readings +/- 1.0 fL
 - Automated light measurement
 - Automated light management
 - Automated lens focus
 - Automated spectral analysis of audio channels
 - Remote monitoring to NOC or TMS
-

CUROLUX GOLD



A composite image showing the Zabbix monitoring interface, a map of Paris, and a dashboard with charts and maps. The Zabbix interface includes a 'PERSONAL DASHBOARD' with various graphs and a table of hosts. The map shows a location in Paris with a tooltip for 'QALIF 2076 Sogilia' containing IP, Latitude, Longitude, Status, and Connection SSH. The dashboard at the bottom features a world map, two pie charts, and two line graphs.

ZABBIX

PERSONAL DASHBOARD

System status

Host group	Disaster	Warn	Average	Warning	Information	Not checked
Updates: 16:15:31	OK	OK	OK	OK	OK	OK

Host status

Host group	Without problems	With problems	Total
Updates: 16:15:31	OK	OK	OK

Last 20 issues

Host	Event	Last change	Age	Info	Risk	Actions
10.11.1.1	File system	2013-04-02 12:11:12	54 0h 5m			
10.11.1.1	QALIF - Last 16:15:31	2013-04-02 16:15:31	44 1h 4m			
10.11.1.1	QALIF - Last 16:15:31	2013-04-02 16:15:31	44 1h 4m			
10.11.1.1	QALIF - Last 16:15:31	2013-04-02 16:15:31	44 1h 4m			
10.11.1.1	QALIF - Last 16:15:31	2013-04-02 16:15:31	44 1h 4m			

Web monitoring

Host group	OK	Failed	Instances
Updates: 16:15:31	OK	Failed	Instances

Updates: 16:15:31

No web instances found.

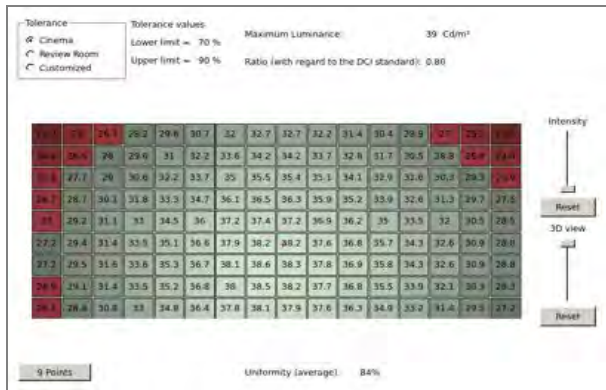
Zabbix 2.4.2 Copyright 1999-2014 by Zabbix SIA



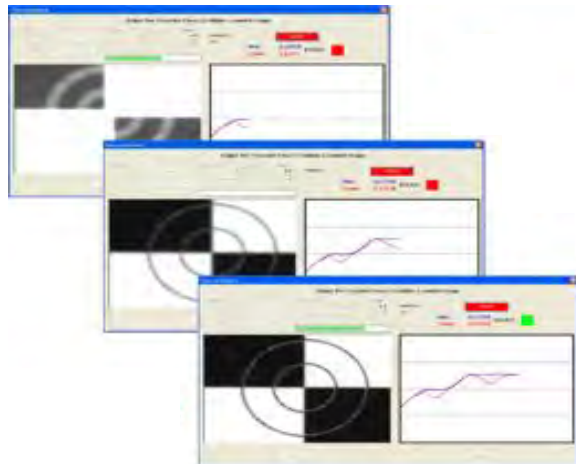
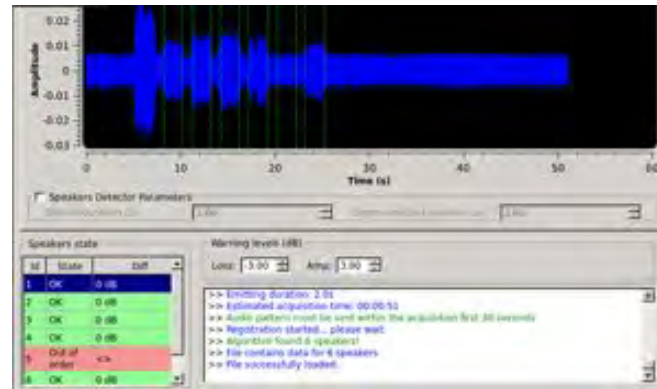
CUROLUX GOLD

- Fixed unit (typically back wall of theatre)
 - Automated functions through server playlist
 - Simultaneous 144-point light readings
 - Accurate light readings +/- 1.0 fL
 - Automated light measurement and management
 - Contrast and colour measurement
 - Screen colour convergence
 - Automated lens focus
 - Automated multiple projector alignment
 - Automated spectral analysis of audio channels
 - Remote monitoring to NOC or TMS
-

Automatic brightness uniformity monitoring



Multiple channel audio monitoring




Automatic Lens focus



Functions using server playlist

WHY
MONITORING
IS INCREASINGLY
IMPORTANT...



A young woman with long brown hair, wearing a light blue denim jacket over a white t-shirt, is seated in a maroon cinema chair. She is looking towards the right of the frame. In front of her is a large, colorful popcorn bucket with red, blue, and yellow stripes and the word 'Popcorn' visible. To her left is a yellow soft drink cup with a white lid and a straw. The background is dark, suggesting a cinema setting.

GIVING YOUR
CUSTOMERS A
QUALITY
VIEWING
EXPERIENCE
WILL ENSURE
THEY KEEP
COMING
BACK TO YOUR
CINEMA.

WHAT CONSUMERS THINK ABOUT CINEMA

“I don’t like that the screen is dark at the edges.”

“I find 3D movies too dark and difficult to enjoy.”

“I get a better experience at home.”

TO STOP FURTHER BOX OFFICE REVENUE FALLS...

- Differentiate from competitive threats e.g. Netflix, Amazon Prime
 - Use screen monitoring to help improve presentation quality
 - Monitor presentation regularly to ensure standards are maintained
-

YOU CAN'T ALWAYS SOLVE
EVERY PRESENTATION BUT YOU
CAN ENSURE
YOUR AUDITORIUM IS
OPERATING EFFICIENTLY AT
ALL TIMES.

THE CUROLUX SUITE

- Solutions for exhibitors large and small
 - From low-cost manual solutions through to fully automated solutions
 - Ideal for PLF, key theatres, standard cinema or post-production
 - Can help identify areas for improvement including theatre optimisation
 - Supported by Harkness knowledge expertise
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YOUR NEXT STEPS

- Talk to your local Harkness representative
 - Discuss a screen monitoring solution or plan with Harkness
 - Obtain theatre optimisation advice from Harkness' technical experts
 - Visit our tradeshow both or book into our demo suite
 - Find out more information www.harkness-screens.com/curolux
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