1.0 System Overview

The LSS-100P Database is a served web application that is available to users, managers, and system administrators to review performance data collected from auditoriums. The data contains limits and measurements available for review. When the media server executes a test show, the LSS-100P is provided with commands that execute various types of measurements that are then reported to the LSS-100P Database Web Server. When the data arrives (a report is received) at the server, it is then processed and logged into the database. The data contains an organization identifier and theater number that is used to identify and generate notifications to designated users assigned or part of the company's personnel. The data is kept private to the organization's users and managers. It is only the system administrator that has visibility of the world and access privileges to install the web application on server hardware that will be hosting the site (LSS-DB Database Web Application).



LSS-100P Database Web Server System Overview

1.1 User Levels

The default database contains an administrator, manager, and user accounts. Each account type has a respective access level that enables a list of available options such as creating a new company, and adding new users. As shown below, the three login levels with configuration options. For more information about the configuration see the LSS-DB User Manual.





1.2 New Company

Each company is required to have a manager that will be able to add theaters, users, and define groups. A user group is formed to create a pool of users that are notified when the reported data contains measurement that are out of limits. Adding a manager requires system administrator privileges. The administrator is reminded of the existing companies in the list shown in the left side of the view. In this example we are adding a company called "USL-TQM."

		New Company				
Companies In The System		Setup Company Manager				
Company / Organizati	on	Managoris Namo	Hereld H			
USL	^	Manager s Name	naroid n			
		Password	•••			
		Confirm Password	•••			
		Email	haroldh@uslinc.com			
		Cell Phone	805-549-0161			
		Company (OrgKey)	USL-TQM *Case Sensitive			
	*	Notification Type	None			

LSS Database Add Company

1.3 LSS-100P Configuration

The LSS-100P has a configuration web page that is accessible via a computer's browser such as Fire Fox or Chrome. As a note, access may be limited to within the theater complex's location and is typically not available on the web (intranet restricted). As shown in the screen capture the Organization Key and Theater Number are used to identify the users that are to receive notification emails. The organization is basically a company identifier and the theater number identifies the user group that is selected to receive notifications. Once the LSS-100P reports measurements to the LSS Database, it is logged and available in the Groups Management settings. It's important that the LSS-100P is configured with the correct Organization Key and Theater Number to identify the data source. Without the LSS-100P report, group management is not available.

Configuration Page Home Page | Command Scripts | Update Firmware Page Web Display Configuration | Auditorium Data | Web Configuration | NTP Configuration | License Keys Multionium Data | Web Configuration | NTP Configuration | License Keys Multionium Data | Web Configuration | NTP Configuration | License Keys Organization Key: USL-TQM *Case Sensitive Theater Name: USL San Luis Obispo Theater Number: 1 Screen Number: 1 Distance LSS-100P to Screen: (ft.): 65.0 Comments: Main Theater

LSS-100P Configuration

Save Auditorium Data

1.4 Group Management

When the LSS-100P report data is received, the organization key (company) and theater number identify its source and will be available for group assignment. By assigning a user to a group and then a theater to a group, the notifications generated will be emailed to those designated in the respective group that is set to receive notifications. User notification control is an option available in the modify user and new user screens. As shown below, a case where the theater is assigned to a group.



LSS Database Group Management

As previously described Harold H is the manager for company USL-TQM and an LSS-100P report was received from the theater. The database logs the report and will use it in the group management.

The manager will access the Group Management screen via the Configure drop down menu in the navigation bar. When the drop down is visible the item called "Modify Groups" will access the Group Management view.

Groups Management



When a company is created, the manager will need to define regional groups that are created by activating the Choose a Group add button (green +). A dialog box will appear prompting the user to enter a new group name that is then added with the + button activation. Cancellation and deletions are done by activating the red x button. In this example USL-TQM has theaters that are to be assigned to the Central Coast region.

The Users tab will be used to assign a selected user to a group. In this example Harold H was selected and the group assignment box appears in the right side of the view. Using the Select a Group drop down menu the Central Coast region was selected. As shown in this example Harold H is assigned to the Central Coast.



LSS Database Quick Start Guide

User Group Management

Next a theater is added to the group. This operation requires data from the same organization be received and is stored in the database before seeing the items (theaters) for selection.

Groups Management

Groups Users Theaters ${\cal G}$		8
USL-TQM #1: USL San Luis Obispo	1. USL San Luis Obispo	Ŭ
	In Groups:	
	Central Coast	
	Select a Group 🔹 🔶	

Theater Group Management

When the Theaters tab is selected, a list of theaters for the organization (company) will appear. The # indicates the theater number followed by its name. When the theater number/name is selected an input selection box appears on the right. Again to assign it to a group, use the drop down and chose a regional group. Since the assignment has already been made, the current group assignment it appears as Central Coast with the delete red x button.

1.5 Add User

After the manager has created the groups including theater assignments, the system is ready to set up additional user accounts. In the example shown, information about the new user is being provided. When complete, the Add User button will update the database with the Current Users list including the newly added user. The LSS Database supports the concept of a service company handling multiple organizations and when defined via the group management a list of them will be available via the Company drop down list. For simplicity a single organization is the focus here. The Notification Type is a drop down selector for None, Errors Only, and All. When an LSS-100P report is received, the users assigned to the theater with the respective notification type will get emailed accordingly. A selection of 'None' will result in no notification emails for that user.

Add New User

w User Information	New	Current Users		
	N	Email Address	Company	User Na
IOM A	Name	haroldh@uslinc.com	USL-TQM	Harold H
•••	Password			
•••	Confirm Password			
toma@uslinc.com	Email			
805-549-0161	Cell Phone			
USL-TQM	Company (OrgKey)			
Errors Only	Notification Type			
User	User Level			
HAdd User Clear				

Add New User

Be sure to assign users to a group. Otherwise there will be no data available and the user will not receive notifications. In the example below, the new user Tom A has not been assigned. Use the drop down to select a group followed by the add button activation.

Groups Management

Groups	Users	Theaters	C		Ø	
USL-TQM Harold H Tom A			Tom A USL-TQM	Ũ		
				In Groups: None Select a Group		
				Select a Group 🔹 🐳		

Users Group Management

1.6 User Access

When the user logs into the LSS Database, the user is restricted to data within his/her groups. As shown below, a theater in the central coast region has a problem with the center audio channel.

Theaters Overview

	Date Range:	Mon May 1	8, 2015		Wed June 17, 20	15	i
						1 warnings	>
USL San Luis Obispo					1 tolerance	es not met	*
							*
1	Reading	Value	Units		Limits		
SP	L Center	78.5	dB		80 to 85	P	
	USL San Luis Obispo	Date Range: USL San Luis Obispo Reading SPL Center	Date Range: Mon May 1 USL San Luis Obispo Image: Im	Date Range: Mon May 18, 2015 USL San Luis Obispo Value Reading Value SPL Center 78.5	Date Range: Mon May 18, 2015 USL San Luis Obispo Reading Value Units SPL Center 78.5 dB	Date Range: Mon May 18, 2015 USL San Luis Obispo 1 tolerance Reading Value Units SPL Center 78.5 dB 80 to 85	Date Range: Mon May 18, 2015 Image: Wed June 17, 2015 I warnings I warnings USL San Luis Obispo I tolerances not met I to

To see a reports timeline, a single mouse click on the item will display a graph. As the user moves the mouse over the graph, measurements for a sample period are displayed. In the Screens view, the user can view a group of measurements for a selected auditorium.

Screens



1.7 User Notifications

Users are notified once a day of all the issues discovered by the LSS Database. Notifications are collected prior to being sent. Each notification will have a status of pending, sent, or error. The error indicates that the email could not be delivered. As shown below, a summary of the notifications is presented to the user. By selecting the item a graph view will be shown for review.

My Notifications

	Date Range:	Tue May 19, 2015	i	Thu June 18, 2015	i
6/18/2015		You received notification	ns for	7 data entries	
Fri June 12, 2015 at 10:07AM-0700) Sa	an Luis Obispo Screen #1	S	PL Left Channel 80.95dB	
) Sat June 13, 2015 at 10:07AM-070	0 Sa	an Luis Obispo Screen #1	S	PL Left Channel 80.7dB	
) Sun June 14, 2015 at 10:07AM-07	00 Sa	an Luis Obispo Screen #1	S	PL Left Channel 80.45dB	
) Mon June 15, 2015 at 10:07AM-07	00 Sa	an Luis Obispo Screen #1	S	PL Left Channel 80.2dB	
▲ Tue June 16, 2015 at 10:07AM-070	00 Sa	an Luis Obispo Screen #1	S	PL Left Channel 79.95dB	
🛕 Wed June 17, 2015 at 10:07AM-07	00 Sa	an Luis Obispo Screen #1	S	PL Left Channel 79.7dB	
▲ Thu June 18, 2015 at 10:07AM-070	00 Sa	an Luis Obispo Screen #1	S	PL Left Channel 79.45dB	

The notification email contains both text and HTML formats. They can be viewed on a cell phone or computer's email application. The screen capture below is a desktop version of the notification.

LSS-100 Notification 2015-06-17 17:07:42 UTC

Notification Level: All Theater Name: San Luis Obispo Theater Number: 1 Screem: 1 Serial Number: 100007 **Comments:** Simulation Firmware: 150309

Report Data									
Description	Value	Minimum	Maximum	Record	Data ID	Link			
SPL Left Channel	79.7dB	80.001	85.002	10211	5114	View			
SPL Left Channel	79.45dB	80.001	85.002	10213	5115	View			
SPL Left Channel	79.95dB	80.001	85.002	10209	5113	View			
SPL Left Channel	80.2dB	80.001	85.002	10207	5112	View			
SPL Left Channel	80.45 dB	80.001	85.002	10205	5111	View			
SPL Left Channel	80.7dB	80.001	85.002	10203	5110	View			
SPL Left Channel	80.95dB	80.001	85.002	10201	5109	View			
	Description SPL Left Channel SPL Left Channel SPL Left Channel SPL Left Channel SPL Left Channel SPL Left Channel SPL Left Channel	Report Description Value SPL Left Channel 79.7dB SPL Left Channel 79.95dB SPL Left Channel 80.2dB SPL Left Channel 80.2dB SPL Left Channel 80.7dB SPL Left Channel 80.7dB SPL Left Channel 80.7dB SPL Left Channel 80.7dB	Report Event Description Value Minimum SPL Left Channe 79.45dB 80.001 SPL Left Channe 79.55dB 80.001 SPL Left Channe 80.24B 80.001 SPL Left Channe 80.24B 80.001 SPL Left Channe 80.42B 80.001 SPL Left Channe 80.45B 80.001	Report Event Description Value Minimu Maximum SPL Left Channel 79.7dB 80.001 85.002 SPL Left Channel 79.45dB 80.001 85.002 SPL Left Channel 79.95dB 80.001 85.002 SPL Left Channel 80.2dB 80.001 85.002 SPL Left Channel 80.4dB 80.001 85.002 SPL Left Channel 80.4dB 80.001 85.002 SPL Left Channel 80.7dB 80.001 85.002 SPL Left Channel 80.7dB 80.001 85.002 SPL Left Channel 80.95dB 80.001 85.002	Report Event Description Value Minimu Maximu Record SPL Left Channel 79.7dB 80.001 85.002 10211 SPL Left Channel 79.45dB 80.001 85.002 10203 SPL Left Channel 79.95dB 80.001 85.002 10203 SPL Left Channel 80.2dB 80.001 85.002 10203 SPL Left Channel 80.42B 80.001 85.002 10203 SPL Left Channel 80.7dB 80.001 85.002 10203 SPL Left Channel 80.7dB 80.001 85.002 10203 SPL Left Channel 80.7dB 80.001 85.002 10203 SPL Left Channel 80.9dB 80.001 85.002 10203	Report Event Description Value Minimue Maximue Record Data D SPL Left Channe 79.7dB 80.001 85.002 10210 5114 SPL Left Channe 79.7dB 80.001 85.002 10210 5115 SPL Left Channe 79.95dB 80.001 85.002 10209 5113 SPL Left Channe 80.2dB 80.001 85.002 10207 5112 SPL Left Channe 80.45dB 80.001 85.002 10205 5114 SPL Left Channe 80.45dB 80.001 85.002 10205 5114 SPL Left Channe 80.7dB 85.002 10205 5114 SPL Left Channe 80.7dB 85.002 10205 5114			

For additional details see LSS-DB User Manual.