The LED Signage Manager software allows you to control multiple display devices simultaneously from a computer. Remotely rearrange display devices with ease from the computer. There is no need to physically rearrange the devices.
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1-1 About LED Signage Manager

The LED Signage Manager software allows you to control multiple display devices simultaneously from a computer. Remotely rearrange display devices with ease from the computer. There is no need to physically rearrange the devices.

- Make sure that the display devices you want to control are connected to the same network as the computer where LSM is installed.
- Make sure that the display devices (LED Signage Cabinet) are connected to S-Box (LED Signage Box). For more information on how to connect a display device to S-Box, refer to the display device user guide.

1-2 Rules for writing names in this user guide

This user guide refers the software and device names as follows:
- LED Signage Manager(LSM) → LSM
- LED Signage Cabinet(LSC) → Cabinet
- LED Signage Box(LSB) → S-Box
1-3 Installation requirements

Supported operating systems

LSM is compatible with the following operating systems.

- Windows 7(32/64-bit)
- Windows 8(32/64-bit)
- Windows 10(32/64-bit)

Required software

To use LSM, make sure that the following software is installed on the computer.

- .NET Framework 4.5

1-4 Installing/uninstalling the software

Installing

Install the LSM software on your computer and control connected cabinets.

ℹ️ LSM installation can be affected by the graphics card, mother board and network conditions.

1  Run the LED Signage Manager installation file.

2  When the installation window appears, read the instructions and click Next.
3 Agree to the license agreement and click Yes.

4 Set the installation folder and click Next.
   – If an installation folder is not specified, the software will be installed in the default folder.

5 Check that the user information and installation folder have been correctly configured. Click Next.

6 After installation is complete, click Finish.
   – To start LSM immediately, select the Launch LED Signage Manager checkbox.
   – After the software is installed, the shortcut icon is created on the desktop.
   – The shortcut icon may not appear, depending on the computer system and product specifications. If the shortcut icon does not appear, press the F5 key.

### Uninstalling

If there is an issue with the software, follow the steps below to uninstall the software.

> The uninstall process may vary, depending on the computer operating system. This user guide assumes that Windows 7 is used.

1 Select Start > Control Panel > Programs and Features.

2 From the list, select LED Signage Manager and click Uninstall.

3 When the delete confirmation dialog box appears, click Yes.

4 After uninstallation is complete, click Finish.
2-1 Configuring the network

1. Connect the S-Box to your PC by using a serial communication method (UART or RS232).

2. Select *Start > All Programs > Samsung > LED Signage Manager > Network Configuration.*
3 Configure settings for **Serial Port** and **Device ID**.

<table>
<thead>
<tr>
<th>Serial Port</th>
<th>Select the serial port where the S-Box is connected.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device ID</td>
<td>If necessary, you can changed the ID.</td>
</tr>
<tr>
<td></td>
<td>The default value for Device ID is set to &quot;1.&quot;</td>
</tr>
</tbody>
</table>

4 After configuration is complete, click **Open**.

5 Enter the IP for the S-Box in **IP Address**, and then click **Apply**.

6 The IP of the S-Box is changed and a pop-up window appears.
   You can change the communication method for S-Box from RS232 (initial setting) to RJ45 to use LSM. Click **Change to RJ45** to change the S-Box's communication method to RJ45.

7 After configuration is complete, you can use LSM to connect between S-Box and the cabinet.

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### 2-2 Launching LSM

Launch LSM, using one of the following options.

**Option 1** Double-click the shortcut icon on the desktop.

**Option 2** Click **Start > All Programs > Samsung > LED Signage Manager > LED Signage Manager**.
2-3 Connecting to LSM

The login screen appears when LSM is launched for the first time. Connect to LSM, using one of the following options.

**Option 1** To set a password and provide access to specific users to ensure security, enter a password and click **Start**.

- Restart LSM and enter the configured password to connect to the software. To change the password or to connect to LSM without entering a password, change the related settings from Preferences. For more information, refer to the following: [Configuring the software settings](#)

**Option 2** To connect without entering a password, select the **Do not require a password** checkbox and click **Start**.

- Restart LSM and connect to the software without the login screen.

When you connect to LSM for the first time, the S-Box connection screen appears. For more information on how to connect to an S-Box, refer to the following: [Connecting S-Box](#)
3-1 Connecting S-Box

Connect an S-Box to LSM. You can easily control the S-Box and cabinets connected to the S-Box, from the computer.

1. In the **Connections** tab, click **New Connection**.

- After **New Connection** is performed, the **Error Status Interval (min.)** menu is turned off. To use the menu, select the **Error Status Interval (min.)** menu checkbox in the settings.
- When you connect to LSM for the first time, the S-Box connection screen appears.
2 Connect an S-Box, using one of the following options.

**Option 1** To automatically search for an S-Box on the same network and add it, click **Search**. Set the information for connecting the S-Box, check the S-Box to be connected and click **Add**.

<table>
<thead>
<tr>
<th>IP Address</th>
<th>View the IP address of the S-Box you want to connect to.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection Name</td>
<td>Enter the name of the S-Box you want to connect to.</td>
</tr>
</tbody>
</table>

**Option 2** To connect by manually specifying a desired S-Box, enter the IP address and click **Add**.

- To connect the S-Box over IPv6, select the **IPv6** checkbox first.

Enter the **Device's PIN** when the device's Secured Protocol is on.

3 In **Setup and Connect**, set **Model Type** and the number of cabinets.

- To automatically assign IDs and positions, select the **Assign IDs and positions automatically** checkbox.

After replacing a cabinet, select this option to update the ID and location.

<table>
<thead>
<tr>
<th>IP Address</th>
<th>View the IP address of the S-Box you want to connect to.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Type</td>
<td>Select the model type.</td>
</tr>
<tr>
<td>• Without Cabinet IP: Select this in case of no cabinet IP.</td>
<td></td>
</tr>
<tr>
<td>• With Cabinet IP (UHD): Select this in case a cabinet IP is present. IP addresses and the number of cabinets can be entered in four groups.</td>
<td></td>
</tr>
<tr>
<td>• With Cabinet IP (FHD): Select this option if cabinet IP addresses are available. You can enter the IP addresses and the number of cabinets in one group.</td>
<td></td>
</tr>
<tr>
<td>• The Wall Luxury: Select this option for The Wall Luxury model. For more information, refer to the installation guide for the product.</td>
<td></td>
</tr>
</tbody>
</table>

To connect with existing settings, check **Connect with existing settings**.

| Number of Cabinets | Specify the number of cabinets connected to the S-Box. |

When connecting the S-Box over IPv6, the number of the cabinets, their IP address and ID will be set automatically.

4 After finishing setting the connection, click **Connect**.
3-2 Configuring cabinet layout settings

Customize the arrangement of cabinets connected to the S-Box.

1. Open the layout settings screen, using one of the following options.
   - **Option 1**: In the Home tab screen, go to the S-Box list and click 🖍.
   - **Option 2**: In the Connections tab screen, go to the S-Box list on the left and click 🖍.

When an S-Box is connected for the first time, the cabinet layout settings screen appears automatically.

1. Customize the arrangement of the selected cabinets.
2. Rearrange the cabinets connected to an S-Box.
3. Import or export layout settings.
4 Edit Connection: Edit the initial S-Box connection settings.
   - To establish a connection using existing settings, select the Connect with existing settings checkbox.
   - In case of having replaced a cabinet, check Auto Set ID to reset its ID.

5 View the resolution and position of a cabinet. You can also adjust the resolution or position by manually entering a value. For more information, refer to the following: ▶ Finely adjusting the layout

6 This Viewport section shows images and videos displayed on the S-Box. Viewport can also be used to drag and rearrange cabinets.
   - When an S-Box is connected for the first time, a random layout of cabinets is shown in the Viewport section.
   - To select all of the connected cabinets, check the Select All checkbox.
   - To show cabinets with their assigned ID, click On next to Show Cabinet ID and click Off to hide the IDs.

2 After configuration is complete, click Save.
   - To apply settings to the cabinets immediately, click Apply.
Finely adjusting the layout

Manually enter values to finely adjust the layout of the cabinets.

1. On the right of the layout settings screen, customize the settings for the following options.

| Resolution | View the resolution settings for a connected cabinet.  
|            | • **Input**: View the resolution of the S-Box.  
|            | • **LED Signage Cabinet**: View the resolution of the selected cabinet.  
| Viewport   | Customize the size and position of the **Viewport** section.  
|            | • **H. Size**: Enter a width of the **Viewport** section.  
|            | • **V. Size**: Enter a height of the **Viewport** section.  
|            | • **Video Wall**: Set the number of vertical and horizontal cabinets arranged as a videowall when using multiple cabinets.  
|            | • **X Position**: Enter a horizontal position value (x value) of the **Viewport** section.  
|            | • **Y Position**: Enter a vertical position value (y value) of the **Viewport** section.  
| LED Signage Cabinet | View and adjust the coordinates of the cabinet selected from **Viewport**.  
|            | • **X Position**: Enter a horizontal position value (x value) of the cabinet.  
|            | • **Y Position**: Enter a vertical position value (y value) of the cabinet.  

2. After configuration is complete, click **Save**.  
   – To apply settings to the cabinets immediately, click **Apply**.
3-3 Managing S-Box

View and manage detailed information on an S-Box connected to LSM.

Click the **Connections** tab.

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1. Connect an additional S-Box. For more information, refer to the following: [Connecting S-Box](#)

2. View and manage registered S-Box groups.
   - 🔪: Edit group details. For more information, refer to the following: [Managing S-Box groups](#)
View and manage a list of S-Box devices connected to LSM.

- View the connection of a specific S-Box. Blue indicates that the S-Box is connected properly to LSM. Red indicates that the S-Box is disconnected or has an error.
- Rotate the layout of the cabinets connected to the S-Box by 90°.
- Start dehumidification mode for connected cabinets. The mode will stay active for 24 hours.
- Apply the settings of the first cabinet to all cabinets in the cabinet groups connected to the S-Box.
- Edit layout settings for a cabinet connected to an S-Box. For more information, refer to the following: [Configuring cabinet layout settings](#).
- Import or export the information of the S-Box about the connection, settings, cabinets, and more.
- Delete an S-Box. Deleting an S-Box will delete all the related settings and terminate the connection with LSM.

If more than one S-Box is connected, create S-Box device groups to manage the devices by group. For more information, refer to the following: [Managing S-Box groups](#).

View the layout and status of each cabinet connected to an S-Box.

A disconnected cabinet will be grayed out.

- To show cabinets with their assigned ID, click **On** next to **Show Cabinet ID** and click **Off** to hide the IDs.
- To select all of the connected cabinets, check the **Select All** checkbox.
- Click **Test Pattern** to display the sample pattern on the connected cabinets for more accurate assessment of their status.
  - The most accurate detection of defective LEDs (LED open detection) is possible when a white screen is displayed.

- **Monitor Window**: View logs generated on an S-Box and the cabinets connected to the S-Box.
  - To filter details for a specific event, select the event checkbox.
  - To view log details of a specific IP address, click **IP Filter**. Then, use the pop-up window to select the IP address.
  - To delete log details, click **Clear**.
  - To export log details as an Excel file, click **Export**.
- **LED Signage Cabinet**: View detailed information on the selected cabinet.
- **LED Signage Box**: View detailed information on the connected S-Box.

To minimize the log details window, drag the top bar to the bottom.
• **S-Box Settings**: View and manage settings for an S-Box connected to LSM. For more information, refer to the following:  
  ► [Controlling S-Box](#)

• **Cabinet Settings**: View and manage settings for a cabinet connected to an S-Box. For more information, refer to the following:  
  ► [Controlling cabinets](#)

• **Cabinet Calibration**: View and adjust the picture quality of a cabinet. For more information, refer to the following:  
  ► [Adjusting cabinet picture quality](#)

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### Managing S-Box groups

If more than one S-Box is connected, create S-Box device groups to manage the devices by group.

#### Creating an S-Box group

1. In the **Connections** tab, click **New Group**.

2. Configure group details.

<table>
<thead>
<tr>
<th><strong>Group Name</strong></th>
<th>Enter a group name.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Select S-Box</strong></td>
<td>Select S-Box devices to assign to the group. Select the desired S-Box devices from the list. To select all the connected S-Box devices, select the <strong>Select All</strong> checkbox.</td>
</tr>
</tbody>
</table>

3. After configuring required settings, click **OK**.
Editing S-Box group details

1. In the Connections tab screen, click from the group list on the left.

2. Edit group details.
   - To ungroup, click Ungroup.

3. Click OK to save changes.

Controlling S-Box

Use S-Box Settings to control an S-Box connected to LSM, from the computer.

- If you select a group and change S-Box Settings values, the changes are applied to every S-Box in the group.
- If settings are changed, they will be applied immediately to the S-Box.
- To refresh settings, click .

Basic

<table>
<thead>
<tr>
<th>Power</th>
<th>Turn the S-Box on or off. To turn on the S-Box, click On. To turn it off, click Off.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Source</td>
<td>Change the input source for the S-Box. Select another source from the dropdown list.</td>
</tr>
<tr>
<td>Screen Off</td>
<td>Display a blank screen. To enable this function, click On. To disable the function, click Off.</td>
</tr>
<tr>
<td>Freeze</td>
<td>Freeze the currently playing video to display a still image. To enable this function, click On. To disable the function, click Off.</td>
</tr>
<tr>
<td>Menu Size</td>
<td>You can change the size of the menu. Select the desired mode from the dropdown list.</td>
</tr>
</tbody>
</table>
## Picture

Depending on the model, some of the options may not be available.

<table>
<thead>
<tr>
<th>Picture Mode</th>
<th>Select a picture mode according to the environment and purpose of use. Select a mode from the dropdown list.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brightness</td>
<td>Adjust the screen brightness.</td>
</tr>
<tr>
<td>Contrast</td>
<td>Adjust the screen contrast.</td>
</tr>
<tr>
<td>Sharpness</td>
<td>Adjust the screen sharpness.</td>
</tr>
<tr>
<td>Tint (G/R)</td>
<td>Change the screen tint.</td>
</tr>
<tr>
<td>Color</td>
<td>Change the screen color depth.</td>
</tr>
<tr>
<td>Color Temp (K)</td>
<td>Adjust the screen color temperature. A lower value makes the screen more red. A higher value makes the screen more blue.</td>
</tr>
<tr>
<td>Gamma</td>
<td>Adjust the mean brightness of the screen.</td>
</tr>
<tr>
<td>White Balance</td>
<td>Adjust the brightness of the colors of red, green and blue so that the brightest area on the screen is white.</td>
</tr>
<tr>
<td>LED Picture Size</td>
<td>Adjust the screen size, resolution and alignment.</td>
</tr>
</tbody>
</table>
# Picture Options

Depending on the model, some of the options may not be available.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Color Tone</strong></td>
<td>Adjust the background color.</td>
</tr>
<tr>
<td><strong>MPEG Noise Filter</strong></td>
<td>Reduce video noise to improve the picture quality.</td>
</tr>
<tr>
<td><strong>HDMI Black Level</strong></td>
<td>Adjust the screen depth by selecting the brightness level of the darkest area on the image.</td>
</tr>
<tr>
<td><strong>Film Mode</strong></td>
<td>Convert a video to obtain the optimum picture quality. This will increase the sense of immersion when viewing a video.</td>
</tr>
<tr>
<td><strong>Digital Clean View</strong></td>
<td>Reduce flicker and dotted lines on the screen.</td>
</tr>
<tr>
<td><strong>I.T.M.</strong> (Inverse Tone Mapping)</td>
<td>Adjust the brightness to make the image resemble the actual view as closely as possible in such a way that the dark area becomes darker while the bright area becomes brighter.</td>
</tr>
<tr>
<td></td>
<td>- <strong>HDR Detailed Settings</strong>: You can directly change the settings for HDR or you can import or export them.</td>
</tr>
<tr>
<td><strong>Dynamic Peaking</strong></td>
<td>Express the bright area in a sharper way by adjusting the maximum and the minimum instantaneous brightness of an image so that the difference becomes much larger.</td>
</tr>
<tr>
<td></td>
<td>- <strong>HDR Detailed Settings</strong>: You can directly change the settings for HDR or you can import or export them.</td>
</tr>
<tr>
<td><strong>Color Mapping</strong></td>
<td>Change the image color of a specific input signal to a desired color by specifying it as the color of targeted image.</td>
</tr>
<tr>
<td></td>
<td>- <strong>HDR Detailed Settings</strong>: You can directly change the settings for HDR or you can import or export them.</td>
</tr>
</tbody>
</table>
### Eco Image Enhancer
Lower the LED brightness and energy consumption while increasing the gap between the maximum and the minimum instantaneous brightness for the video to get clearer images.

### Multi-link HDR
Set to apply the HDR effect to all connected S-Box for 4K or higher resolution images. To enable this function, click **On**. To disable the function, click **Off**.

- **Number of S-Boxes**: Select the number of S-Box units to apply **Multi-link HDR** (2-4 units).
- **S-Box ID**: Set the ID number of the S-Box to apply **Multi-link HDR**. An ID number must be unique to the individual S-Box unit.

### Multi-link HDR Settings
When two or more S-Box units are connected, select the S-Box to apply HDR.

### Auto Motion Plus
Apply the mode that is optimized for motion-heavy videos.

- **Judder Reduction**: Stabilize a juddering video to get clearer images.

---

### Advanced Settings

| **Black Tone** | Adjust the concentration of the color black to improve the screen depth. |
| **Flesh Tone** | Adjust the skin tone. |
| **RGB Only Mode** | Select colors red, green and blue to finely calibrate the color concentration and tone. |
| **Picture Enhancer** | Displays enhanced color and sharpness. To enable this function, click **On**. To disable the function, click **Off**. |
| **Color Space** | Select a color range available for display. |
| **Input Signal Plus** | Optimize the image quality for HDMI UHD connection. |
### System

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Auto Power On</strong></td>
<td>Automatically turn on the device when the power is connected. There is no need to use the remote control.</td>
</tr>
<tr>
<td><strong>Auto Power Off</strong></td>
<td>Automatically turn off the device if left idle for a specific period of time.</td>
</tr>
<tr>
<td><strong>Standby Control</strong></td>
<td>Enable standby mode if an external input signal is not detected.</td>
</tr>
<tr>
<td><strong>Network Standby</strong></td>
<td>Keep the network power on when the device is turned off.</td>
</tr>
<tr>
<td><strong>Eco Sensor</strong></td>
<td>Activate Eco Sensor to save energy. To enable this function, click <strong>On</strong>. To disable the function, click <strong>Off</strong>.</td>
</tr>
<tr>
<td><strong>Min. Brightness</strong></td>
<td>Set the minimum brightness for the video.</td>
</tr>
<tr>
<td><strong>Display Orientation</strong></td>
<td>Change the Onscreen Menu Orientation and Source Content Orientation to Landscape or Portrait. You can also change the Aspect Ratio to Full Screen or Original Ratio.</td>
</tr>
<tr>
<td><strong>Message Display</strong></td>
<td>Set whether or not to output values for Source Info, No Signal Message, MDC Message, and Download Status Message.</td>
</tr>
<tr>
<td><strong>Clock Set</strong></td>
<td>Set the current date and time.</td>
</tr>
<tr>
<td><strong>DST</strong></td>
<td>Automatically adjust the time according to daylight saving time.</td>
</tr>
<tr>
<td><strong>Timer</strong></td>
<td>Automatically turn the device on or off at a specified time.</td>
</tr>
<tr>
<td><strong>Holiday Management</strong></td>
<td>Set particular dates as holidays.</td>
</tr>
<tr>
<td><strong>System Restart Interval</strong></td>
<td>Set the system restart cycle.</td>
</tr>
<tr>
<td><strong>Reset</strong></td>
<td>Reset settings.</td>
</tr>
<tr>
<td><strong>Connect to Server</strong></td>
<td>Configure the settings for connection to the Magicinfo server.</td>
</tr>
<tr>
<td><strong>Software Update</strong></td>
<td>Update the S-Box firmware. In case of the same model, you can update multiple devices simultaneously.</td>
</tr>
</tbody>
</table>
Controlling cabinets

Use Cabinet Settings to control cabinets connected to an S-Box.

- If you select a group and change Cabinet Settings values, some functions are applied to all cabinets connected to the group.
- If settings are changed, they will be applied immediately to the selected cabinet.
- Depending on the model, some of the options may not be available.
- To update the Cabinet Settings values for the selected cabinet, click .

<table>
<thead>
<tr>
<th>LOD</th>
<th>Check the LOD of the cabinet again. To enable this option, click Recheck.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pixel RGB Data</td>
<td>Reload the picture settings for the selected cabinet. To enable this option, click Reload.</td>
</tr>
<tr>
<td>ABL</td>
<td>Viewing a video or image that is extremely bright for an extended period of time may cause eye fatigue. For these situations, use this option to automatically adjust the brightness. To enable this function, click On. To disable the function, click Off.</td>
</tr>
<tr>
<td>OnScreen Display</td>
<td>Display on-screen display menus (OSD) on a cabinet. To enable this function, click On. To disable the function, click Off.</td>
</tr>
<tr>
<td>Auto Source</td>
<td>Automatically switch to another input source if the input source set for a cabinet is not detected. To enable this function, click On. To disable the function, click Off.</td>
</tr>
<tr>
<td>Input Source</td>
<td>Change the input source for the selected cabinet. Select another source from the dropdown list.</td>
</tr>
<tr>
<td>Gamut</td>
<td>Change color settings for the selected cabinet. Select another mode from the dropdown list.</td>
</tr>
<tr>
<td>LED Brightness</td>
<td>Adjust the cabinet brightness in the 0-10 range.</td>
</tr>
<tr>
<td>Refresh Rate</td>
<td>Adjust cabinet refresh rate.</td>
</tr>
</tbody>
</table>
### Software Update
Update the firmware of the Cabinet. In case of the same model, you can update the cabinets connected to multiple S-Box units simultaneously.

### Module Information
View the project number and manufacture date for each module of the cabinet.

### Reset Cabinet
Reset settings.

### FPGA Settings
Adjust the image quality by manually adjusting the FPGA value of the cabinet.

Be careful when using this function since it will affect the image quality.

---

**Adjusting cabinet picture quality**

- If you select a group and change Cabinet Calibration values, some functions are applied to all cabinets connected to the group.
- Depending on the model, some of the options may not be available.
- To update the Cabinet Calibration values for the selected cabinet, click ▶️.

<table>
<thead>
<tr>
<th>Cabinet Calibration</th>
<th>Finely adjust the picture quality of each module that constitutes a cabinet. For more information, refer to the following:  ► Cabinet Calibration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabinet RGB CC</td>
<td>Use the Cabinet RGB CC option to adjust the picture quality of a cabinet. To enable this function, click On. To disable the function, click Off.</td>
</tr>
<tr>
<td>Module RGB CC</td>
<td>Use the Module RGB CC option to adjust the picture quality of a cabinet. To enable this function, click On. To disable the function, click Off.</td>
</tr>
<tr>
<td>Edge Correction</td>
<td>Use the Edge Correction option to adjust the picture quality of a cabinet. To enable this function, click On. To disable the function, click Off.</td>
</tr>
</tbody>
</table>
**Block RGB CC**
Use the Block RGB CC options to adjust the picture quality of the cabinet. To enable this function, click **On**. To disable the function, click **Off**.

**Pixel RGB CC**
Use the Pixel RGB CC option to adjust the picture quality of a cabinet. To enable this function, click **On**. To disable the function, click **Off**.

**Gradation CC**
Use the gradient CC values to adjust the picture quality of a cabinet. To enable this function, click **On**. To disable the function, click **Off**.

**Export / Import**
Load or export Module Calibration settings for selected cabinets as a file.

---

**Cabinet Calibration**

<table>
<thead>
<tr>
<th>Cabinet</th>
<th>Select the cabinet ID for which to adjust picture quality.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cabinet RGB CC</strong></td>
<td>Edit the 3x3 matrix to adjust the picture quality of the selected cabinet. Click ![ ] to activate representative values for each item. These representative values are linked to each other and share a fixed RGB color proportion. For example, if you adjust the R value, the G and B values are adjusted as much as the R value has been.</td>
</tr>
<tr>
<td></td>
<td>- Click <strong>Reset</strong> to initialize the settings of the currently editing cabinet.</td>
</tr>
<tr>
<td></td>
<td>- Click <strong>Apply</strong> to use the current settings.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module</th>
<th>Select a cabinet’s module for which to adjust picture quality.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![ ] The number of modules differs depending on the type of cabinet. Only one module can be selected when adjusting picture quality.</td>
</tr>
<tr>
<td><strong>Module RGB CC</strong></td>
<td>Edit the 3x3 matrix to adjust the picture quality of the selected module. Click ![ ] to activate representative values for each item. These representative values are linked to each other and share a fixed RGB color proportion. For example, if you adjust the R value, the G and B values are adjusted as much as the R value has been.</td>
</tr>
<tr>
<td></td>
<td>![ ] To reset the settings for a module that is being adjusted for picture quality, click <strong>Reset</strong>. To reset the settings for all modules that constitute a cabinet, click <strong>Reset All</strong>.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **Edge Correction** | Adjust the LED pixel brightness of the selected module, one after another row, horizontally or vertically. This feature adjusts the boundary brightness for each module to display more natural video and images on a cabinet.  
  - To reset the settings for a module that is being adjusted for picture quality, click **Reset**. To reset the settings for all modules that constitute a cabinet, click **Reset All**.  
  - **Multiple Selection**: Simultaneously adjust the selected edges of the connected cabinets. Set the **Offset** value and click **Apply**. Closing the window without clicking **Apply** will dismiss the new **Offset** value.  
  - Click **Deselect All** to deselect the edges.  
  - Click **Single Selection** to adjust cabinets individually. |
| **Gradation Calibration** | Select a target point on the selected cabinet and adjust the gradient values.  
  - To reset the **Gradation Calibration** values, click **Reset Gradation**. |
| **Block** | Select a cabinet’s **Block** for which to adjust picture quality.  
  - The number of Blocks differs depending on the type of cabinet. Only one Block can be selected when adjusting picture quality. |
| **Block RGB CC** | Adjust the picture quality of the selected block by editing the 3x3 matrix.  
  - Click to activate representative values for each item. These representative values are linked to each other and share a fixed RGB color proportion. For example, if you adjust the R value, the G and B values are adjusted as much as the R value has been.  
  - Click **Reset** to initialize the settings for the current block or click **Reset All** to initialize settings for all modules that constitute the cabinet. |
3-4 Viewing multiple S-Box devices

Easily view a list of S-Box devices connected to LSM and information on each S-Box. These will be shown on the same screen.

Click the Home tab.

1. View the name and IP address of the S-Box.

2. Open the cabinet layout settings screen. For more information, refer to the following:
   ► Configuring cabinet layout settings

3. View the input source, resolution and runtime of the S-Box.

4. View the layout and status of each cabinet connected to an S-Box.
   A cabinet that has a fault will be highlighted in red. A disconnected cabinet will be grayed out.
5. View the connection status of cabinets connected to the S-Box.

6. You can view the number of cabinets that have faults and the types of the faults. To refresh settings, click 🔄.

3-5 Configuring the software settings

Configure basic settings to use LSM.

Click 🗼 at the top right of the LSM screen.
# Configuring options

Use **Options** to customize option settings to monitor the status of cabinets connected to LSM.

<table>
<thead>
<tr>
<th><strong>Command Retry Count</strong></th>
<th>Set the maximum number of times to retry a failed task on the cabinets.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Error Status Interval (min.)</strong></td>
<td>Set the time interval to check cabinets for a fault. To enable the function, select the checkbox.</td>
</tr>
<tr>
<td><strong>Temperature Alert</strong></td>
<td>Specify a temperature to set off the alarm. The alarm will go off if the temperature of a cabinet exceeds the specified temperature. To enable the function, select the checkbox.</td>
</tr>
<tr>
<td><strong>Auto Brightness</strong></td>
<td>Configure automatic brightness settings.</td>
</tr>
<tr>
<td></td>
<td>![Note] If you manually adjust S-Box brightness, automatic brightness mode automatically turns <strong>Off</strong>.</td>
</tr>
<tr>
<td></td>
<td>· <strong>Off</strong>: Turn off automatic brightness mode.</td>
</tr>
<tr>
<td></td>
<td>· <strong>Brightness Sensor</strong>: Customize brightness for the selected group or LED display. Each sensor has ten brightness levels.</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Enter S-Box location details.</td>
</tr>
</tbody>
</table>
# Configuring general settings

Use **Support** to configure general settings to use the software, such as the display language and password.

<table>
<thead>
<tr>
<th><strong>Language</strong></th>
<th>Change the display language of the software. Select a language from the dropdown list.</th>
</tr>
</thead>
</table>
| **Advanced Log Management** | Manage log details generated on an S-Box and cabinets connected to the S-Box.  
  - **Keep Log Data**: Specify the period of time to back up log details. For example, if you select 2 **days**, log details generated over the past two days only are saved. Logs generated before this period are removed. To enable the function, select the checkbox.  
  - **Log Backup**: Back up log details.  
  - **Delete Log**: Delete log details generated during a specific period of time. |
| **Use Password** | Set a password to ensure security when connecting to LSM. To enable the function, select the checkbox.  
  To change the password, click **Change Password**. |
| **Fault Device Alert** | Set the interval to notify faults on cabinets.  
  To enable the function, select the checkbox.  
  Click **Mail Server**, and then set the SMTP server and email address. A fault on a cabinet will be reported via the specified email address. |
**Viewing the software information**

Use **About Software** to view the copyright and version details of LSM.

<table>
<thead>
<tr>
<th><strong>Current Version</strong></th>
<th>View the version of the software currently installed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Auto Update</strong></td>
<td>Automatically perform an update when there is an update. To be prompted for confirmation of an update each time the software is launched, select the checkbox. To check if there is an update, click <strong>Check for Updates</strong>.</td>
</tr>
<tr>
<td><strong>Open Source License</strong></td>
<td>View the open source license of the software. To view the full text of the license, click <strong>View details</strong>.</td>
</tr>
</tbody>
</table>