Legislative Control System User Guide

Version 4.0

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Production Technology Experts

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Our mission is to:

1. Provide a Superior Customer Experience
    - offer the best product quality and support
2. Make Cool Practical Technology
    - develop great products that customers love

Ross has become well known for the Ross Video Code of Ethics. It guides our interactions and empowers our employees. I hope you enjoy reading it below.

If anything at all with your Ross experience does not live up to your expectations be sure to reach out to us at *solutions@rossvideo.com*.

David Ross
CEO, Ross Video
dross@rossvideo.com

Ross Video Code of Ethics

Any company is the sum total of the people that make things happen. At Ross, our employees are a special group. Our employees truly care about doing a great job and delivering a high quality customer experience every day. This code of ethics hangs on the wall of all Ross Video locations to guide our behavior:

1. We will always act in our customers' best interest.
2. We will do our best to understand our customers' requirements.
3. We will not ship crap.
4. We will be great to work with.
5. We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
6. We will keep our promises.
7. We will treat the competition with respect.
8. We will cooperate with and help other friendly companies.
9. We will go above and beyond in times of crisis. *If there's no one to authorize the required action in times of company or customer crisis - do what you know in your heart is right. (You may rent helicopters if necessary.)*

Legislative Control System User Guide

- Ross Part Number: **4500DR-001-4.0**
- Release Date: May 24, 2016.
- Software Issue: **4.0**

The information contained in this Guide is subject to change without notice or obligation.

Copyright

Patents

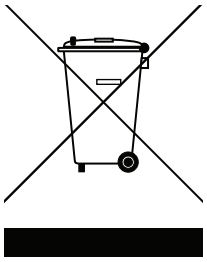
Ross Video products are protected by patent numbers US 7,034,886; US 7,508,455; US 7,602,446; US 7,802,802 B2; US 7,834,886; US 7,914,332; US 8,307,284; US 8,407,374 B2; US 8,499,019 B2; US 8,519,949 B2; US 8,743,292 B2; GB 2,419,119 B; GB 2,447,380 B. Other patents pending.

Environmental Information

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Ross Video for more information on the environmental performances of our products.

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Contents

Introduction

This chapter contains the following sections:

Overview

This user guide provides an overview and detailed operational procedures for the DashBoard Legislative Control System (LCS).

The intended audience for this guide is operators who use the LCS to produce video coverage of legislative events.

For information about installing and configuring the LCS, see the ***LCS Commissioning Guide (4500DR-002-xx)***.

Documentation Conventions

Special text formats are used in this guide to identify parts of the user interface, text that a user must enter, or a sequence of menus and submenus that must be followed to reach a particular command.

Interface Elements

Bold text is used to identify a user interface element such as a dialog box, menu item, or button. For example:

In the **Program** pane, tap the **TAKE** button to take the shot to air.

Touch-Screen Support

This guide assumes you are using a touch-screen. The guide includes instructions to tap user interface elements. If you are using a mouse instead of a touch screen, click the mouse instead of tapping.

User Entered Text

Courier text is used to identify text that a user must enter. For example:

In the **File Name** box, type `Channel01.property`.

Referenced Guides

Italic text is used to identify the titles of referenced guides, manuals, or documents. For example:

LCS Commissioning Guide (4500DR-002-xx)

Menu Sequences

Menu arrows are used in procedures to identify a sequence of menu items that you must follow. For example, if a step reads "**Server** > **Save As**," you would tap the **Server** menu and then tap **Save As**.

Interface Navigation

Navigation procedures assume that you are running Microsoft® Windows®. If you are running Mac® OS or Linux® Fedora®, menu names and options may differ.

Contacting Technical Support

At Ross Video, we take pride in the quality of our products, but if problems occur, help is as close as the nearest telephone.

Our 24-hour Hot Line service ensures you have access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross Video personnel. During business hours (Eastern Time), technical support personnel are available by telephone. After hours and on weekends, a direct emergency technical support phone line is available. If the technical support person who is on call does not answer this line immediately, a voice message can be left and the call will be returned shortly. This team of highly trained staff is available to react to any problem and to do whatever is necessary to ensure customer satisfaction.

- **Technical Support:** (+1) 613-652-4886
- **After Hours Emergency:** (+1) 613-349-0006
- **E-mail:** techsupport@rossvideo.com
- **Website:** http://www.rossvideo.com

LCS Overview

Ross' Legislative Control System is designed to operate an assembly broadcast using an intuitive touch screen interface. When you tap a representative's icon, the assigned cameras focus on that position. Then you can choose from multiple preset shots to find the one that frames the subject best, and take it to air without physically interacting with the Carbonite™ switcher. When it goes live the representative's name and information appears on the screen, powered by XPression™ graphics.

For unassigned seating, or to make modifications to the seating plan, representatives can be assigned through a simple drop-down interface. For rooms that host multiple meetings, settings can be saved and loaded quickly to configure the room in a matter of moments, allowing you to make better use of the space.

This chapter provides an overview of the Legislative Control System (LCS), and includes the following topics:

Features

The Legislative Control System provides a comprehensive and wide range of features.

Focus on the Production instead of the Technology

The Legislative Solution simplifies the video production process by reducing technical complexity. A single technician can produce broadcast-quality video without having to operate a switcher console or character generator. Graphics can be automatically selected with the shot to ensure that the correct graphic appears every time. Additional graphics can be added anytime, with just a few clicks.

Manage the Meeting Effortlessly

Configure multiple meetings for the same room and load them in moments, to make the best use of the space. This can change the seat locations, who is assigned to each seat, and even the shots stored. The user interface is fully customizable to include artwork and seating plans that are as unique as your legislature, and can be optimized to fit your workflow to improve productivity. Updates to representatives, such as photographs or information, are simple.

Fully Integrated HD Production

Ross offers a complete HD video production system including robotic camera mounts, the popular Carbonite production switcher, and XPression graphics. Integration with third-party PTZ cameras from Sony and Panasonic provides even more options.

Camera Options

The solution support 3 + 1 camera views per representative seat. For each mark, three cameras can be assigned to focus on that location when selected, and each can have 3 shots assigned. If one of those cameras is on air, a fourth camera is shown instead so that the system never moves the on-air camera.

Live Video in the GUI

Only Ross gives you live video in the GUI with latency as low as 33ms (one video frame). This enables the operator to stay focused and make a clean show, and potentially reduces monitoring costs.

Works with Your Delegate System

We're proud to work with the International Roll Call and Bosch microphone systems, and are committed to inter-operating with systems from other vendors as needed.

User Interface Overview

The LCS panel consists of two interfaces. Use the production interface to operate the system. Use the configuration interface to set up the system.

Note: Each LCS panel is customized to the layout of a specific legislature. The LCS interface may vary according to your needs. The images of the LCS interface in this guide are used for demonstrative purposes only.

Production Interface

The production interface enables you to quickly select shots of representatives and take them to air. The interface includes a **Preview** panel plus two **Alternate Preview** panels. Up to four cameras, each with up to three shots, can be associated with each mark.

To access the production interface, tap the **Production** button.

Figure 2.1 shows the production interface:

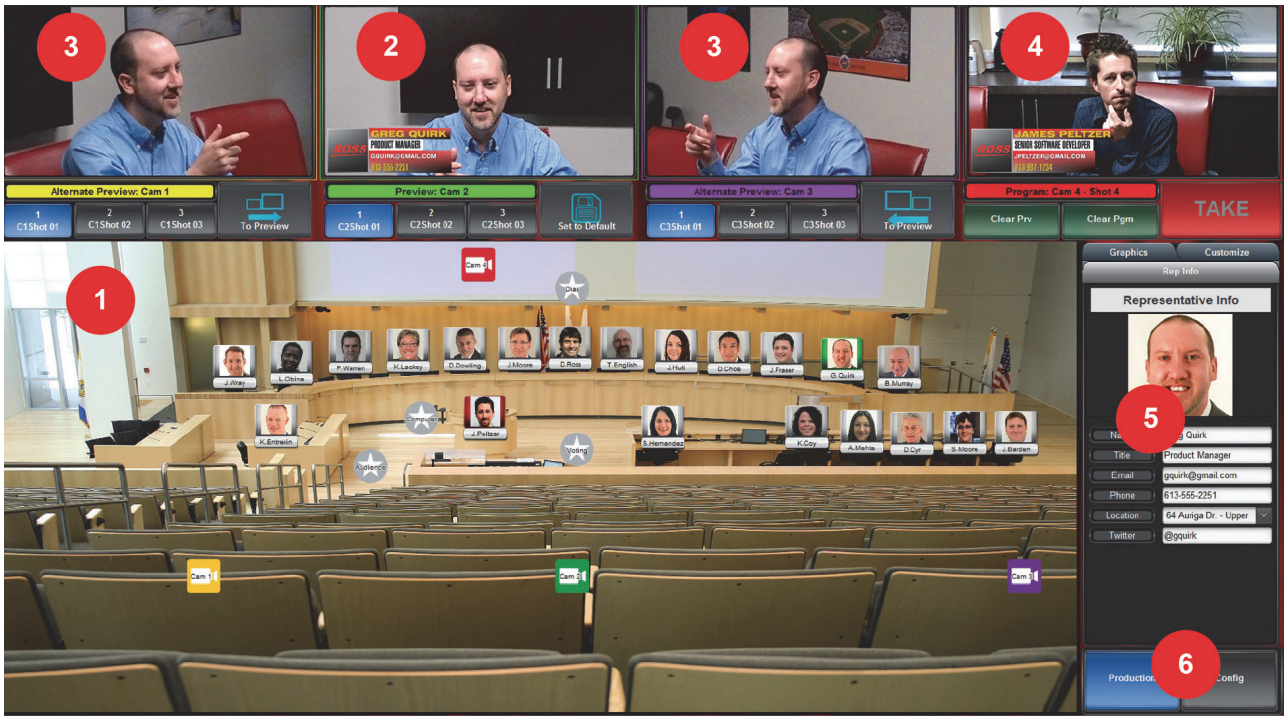

Figure 2.1 *LCS Production Interface (an example)*

1	**Room Layout** — displays a photo or map of the legislature, overlaid with mark icons and camera icons. Marks are targets for camera shots. A mark icon indicates the position of a representative, podium, etc. It can appear as a head shot photo or as a custom graphic. If a head shot photo is used, the background of the mark icon is green when that mark is in preview, and turns red when it is taken to air. Alternative previews are indicated by yellow or purple backgrounds. Camera icons appear gray when not in use, green when in preview, and red when on-air.

2	**Preview pane** — displays the preview shot. Tap the shot buttons below the **Preview** pane to select a shot. Tap the **TAKE** button to take the shot to air. **Tip:** When you take a shot to air, the **Preview** pane changes to show the shot that was previously on-air. To switch back to the previous shot, tap the **TAKE** button again. If you want to adjust the position of the camera shown in the **Preview** pane, tap the pane and then use the SmartShell Control Panel (joystick console) or the **Camera Controls** window. For more information, see "**Using the Camera Controls Window**" on page 3–4. If you want to make the current preview shot the default shot for the current mark, tap **Set to Default**. **Tip:** On the layout, the icon for the preview camera has a green background. Unless custom graphics are used, the background of the preview mark is green. The border and title background of the **Preview** pane are also green. Camera icons for alternate previews are highlighted yellow and purple.
3	**Alternate Preview panes** — displays alternative preview shots from other cameras. You can keep one shot prepared in the **Preview** pane, while using the **Alternate Preview** panes to consider other shots for preview. Use the shot buttons below the **Alternate Preview** panes to select shots. When you find a shot you want to use, tap the **To Preview** button to move the shot to the **Preview** pane. **Tip:** On the layout, the icons for alternative preview cameras have colored backgrounds. A yellow background indicates one alternative preview, and a purple background indicates the other. These colors also appear in the borders and title backgrounds of the **Alternative Preview** panes. If you want to adjust the position of a camera shown in an **Alternative Preview** pane, tap the pane and then use the SmartShell Control Panel (joystick console) or the **Camera Controls** window. For more information, see "**Using the Camera Controls Window**" on page 3–4.
4	**Program pane** — displays the program out video. Use the **TAKE** button to take the preview to air. The video in the **Preview** pane goes to air, along with any automated graphics, if applicable. **Tip:** When you take the preview to air, the shot formerly on air becomes the preview shot so you can toggle back and forth using only the **TAKE** button. Use the **Clear Prv** button to clear graphics from the **Preview** pane. The **Clear Prv** button runs the commands specified for it on the **Graphics** tab of the configuration interface. Typically, the button is used to clear all optional graphics layers. For example, layers for a clock bug or station bug may remain after you clear the graphics. Use the **Clear Pgm** button to clear graphics from the **Program** pane. The **Clear Pgm** button runs the commands specified for it on the **Graphics** tab of the configuration interface. Typically, the button is used to clear all optional graphics layers. For example, layers for a clock bug or station bug may remain after you clear the graphics. If you want to adjust the position of a camera shown in the **Program** pane, tap the pane and then use the SmartShell Control Panel (joystick console) or the **Camera Controls** window. For more information, see "**Using the Camera Controls Window**" on page 3–4. **Note:** Graphics must be built properly to be used with the LCS. For more information, see the ***LCS Commissioning Guide (4500DR-002-xx)***.

5	**Utility Panel** — Contains tabs that enable you to perform additional tasks. The utility panel contains the following tabs: • **Rep Info** — Use this tab to view and edit representative information before you take a preview shot to air. For example, a representative may have multiple portfolios. If your system makes the portfolio data available in a list, you can choose which portfolio text populates the automated graphics. **Note:** Changes made in this area are temporary and do not persist for subsequent transitions. • **Graphics** — Use this tab to run graphics commands that insert and remove graphics in the **Preview** pane and the **Program** pane. Each pair of buttons controls one graphic. The green button is for the **Preview** pane, and the red button is for the **Program** pane. When you tap a button, the LCS sends a command to the XPression graphics system. The graphics and commands are specified on the **Graphics** tab of the configuration interface. • **CustomPanel** — Use this tab to interact with a customized DashBoard panel exposed in the LCS. The customized panel contains whatever applications your system designer created.
6	**Interface Selection Buttons** — use these buttons to switch between the **Production** interface and the **Configuration** interface (**Config**).

Configuration Interface

The configuration interface enables you to quickly edit representative data, assign camera shots to marks, and configure connectivity settings for devices in the system such as cameras, production switchers, and graphics systems.

For detailed information about how to perform a complete system setup, see the ***LCS Commissioning Guide (4500DR-002-xx)***.

To access the configuration interface, tap the **Config** button.

The configuration interface includes the following tabs:

- **General Tab** — Enables you to select a layout background image; configure the Carbonite video switcher connection; and load, save, and create data files for representatives, marks, and general configuration data.
- **Graphics Tab** — Connectivity settings for the graphics system; settings for automated graphics; settings for clearing optional graphics from the **Preview** and **Program** panes; and a list of graphics and the commands required to apply them to the **Preview** pane and on-air (**Program** pane).
- **Sources Tab** — Connectivity settings and layout position data for video sources, such as cameras.
- **Config Rep Info Tab** — Customizable data fields associated with representatives. This data can be used in on-air graphics.
- **Representatives Tab** — Data and images for representatives.
- **Marks Tab** — Layout positions for marks, optional custom graphics for marks, mappings between marks and representatives, and mappings between marks and cameras used to shoot those marks. Also includes mappings between marks and delegate microphones, if applicable.
- **Mic Systems Tab** — Connection settings for supported delegate microphone systems, if applicable. Supported delegate microphone systems can be used to automatically select preview shots and take them to air.

The configuration interface includes a few **Additional Buttons** that are always available, regardless of which configuration tab is shown. They appear below the configuration tabs. For more information, see “**Additional Buttons**” on page 2–21.

General Tab

The **General** tab enables you to select a layout background image; configure the video switcher connection; and load, save, and create data files for representatives, marks, and general configuration data.

Figure 2.2 shows the **General** tab.

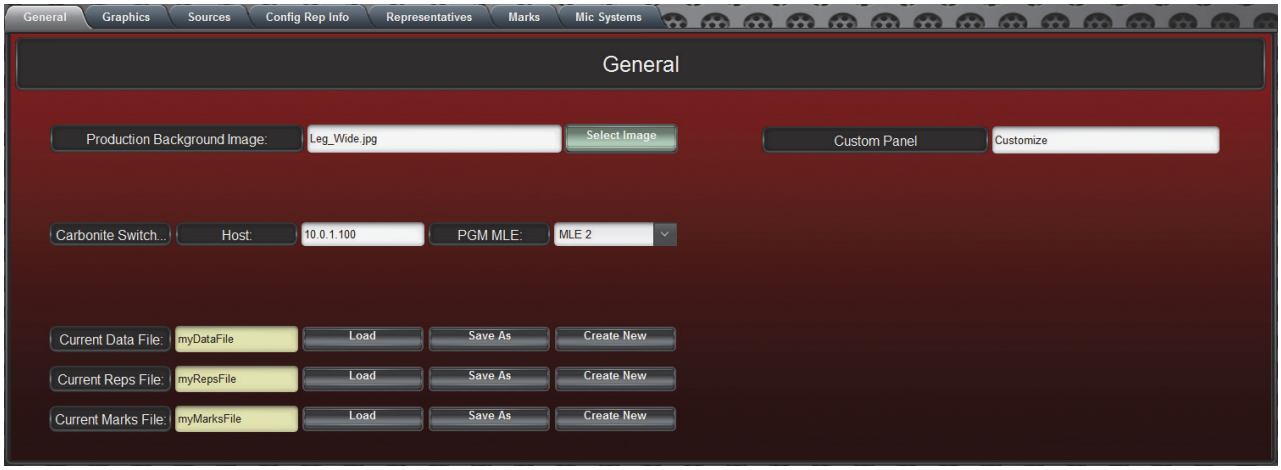

***Figure 2.2** General Tab*

The **General** tab includes the following settings and buttons:

Setting or Button	Description
Production Background Image	Specify the filename of the background image. You can type the filename, or tap **Select Image**, tap the image you want, and then tap **Accept**. Background images are stored on the DashBoard LCS computer, in the **Images/Photos** folder. The image must be either .png or .jpg format.
Custom Panel	Specify the filename of the DashBoard panel that appears on the **Custom Panel** tab of the **Production** interface. Do not include the .grid file extension. The customized DashBoard panel must be in the **LCS** folder (typically **C:\LCS**). The **Custom Panel** tab enables you to make additional controls available through an embedded DashBoard CustomPanel you create. For information about creating a CustomPanel, see the ***DashBoard User Guide (8351DR-004-xx)***, which is available as a PDF file and as online Help from within DashBoard.
Carbonite Switcher	**Host** — Specify the Host IP address for the Carbonite switcher. **PGM MLE** — Specify the ME (multi-layer effects) bus to be used as the program ME.

Setting or Button	Description
Current Data File	You can save or load general configuration data for the LCS panel. The **Current Data File** contains data that appears on the **General**, **Graphics**, and **Sources** tabs of the **Configuration** interface. **To load a Data file:** 1. In the **Current Data File** row, tap the **Load** button. 2. Tap the button corresponding to the Data file you want to load. 3. Tap the **Load** button. **To save a Data file:** 1. In the **Current Data File** row, tap the **Save As** button. 2. In the **File Name** box, type a descriptive name for the Data file. By default, the current filename is shown. 3. Tap the **Save As** button. **To create a new, empty Data file:** 1. In the **Current Data File** row, tap the **Create New** button. 2. In the **File Name** box, type a descriptive name for the Data file. By default, the current filename is shown. 3. Tap the **Create New** button. **Note:** The current LCS file references the new Data file, which does not yet contain data. The data still exists in the old Data file, but is no longer shown in the LCS interface.

Setting or Button	Description
Current Reps File	You can save or load data about a set of representatives. Reps files enable you to quickly switch between lists of representatives. This is useful when using the LCS in a room that hosts multiple types of meetings that use the same seats. A Reps file contains data that appears on the **Config Rep Info** and **Representatives** tabs of the **Configuration** interface. **To load a Reps file:** 1. In the **Current Reps File** row, tap the **Load** button. 2. Tap the button corresponding to the Reps file you want to load. 3. Tap the **Load** button. **To save a Reps file:** 1. In the **Current Reps File** row, tap the **Save As** button. 2. In the **File Name** box, type a descriptive name for the Reps file. By default, the current filename is shown. 3. Tap the **Save As** button. **To create a new, empty Reps file:** 1. In the **Current Reps File** row, tap the **Create New** button. 2. In the **File Name** box, type a descriptive name for the Reps file. By default, the current filename is shown. 3. Tap the **Create New** button. **Note:** The current LCS file references the new Reps file, which does not yet contain data. The data still exists in the old Reps file, but is no longer shown in the LCS interface.

Setting or Button	Description
Current Marks File	You can save or load data about a set of marks. Marks files enable you to quickly switch between lists of marks. This is useful when using the LCS in a room that hosts multiple types of meetings that use different seat layouts. A Marks file contains data that appears on the **Marks** and **Mic Systems** tabs of the **Configuration** interface. **To load a Marks file:** 1. In the **Current Marks File** row, tap the **Load** button. 2. Tap the button corresponding to the Marks file you want to load. 3. Tap the **Load** button. **To save a Marks file:** 1. In the **Current Marks File** row, tap the **Save As** button. 2. In the **File Name** box, type a descriptive name for the Marks file. By default, the current filename is shown. 3. Tap the **Save As** button. **To create a new, empty Marks file:** 1. In the **Current Marks File** row, tap the **Create New** button. 2. In the **File Name** box, type a descriptive name for the Marks file. By default, the current filename is shown. 3. Tap the **Create New** button. **Note:** The current LCS file references the new Marks file, which does not yet contain data. The data still exists in the old Marks file, but is no longer shown in the LCS interface. **Note:** Default marks settings, such as the size of marks, representatives, and cameras, are cleared. If your layouts include mark icons and camera icons, they will not visible in the room layout until you assign sizes in the **Default Mark Settings** area of the **Marks** tab.

Graphics Tab

Figure 2.3 shows the **Graphics** tab.

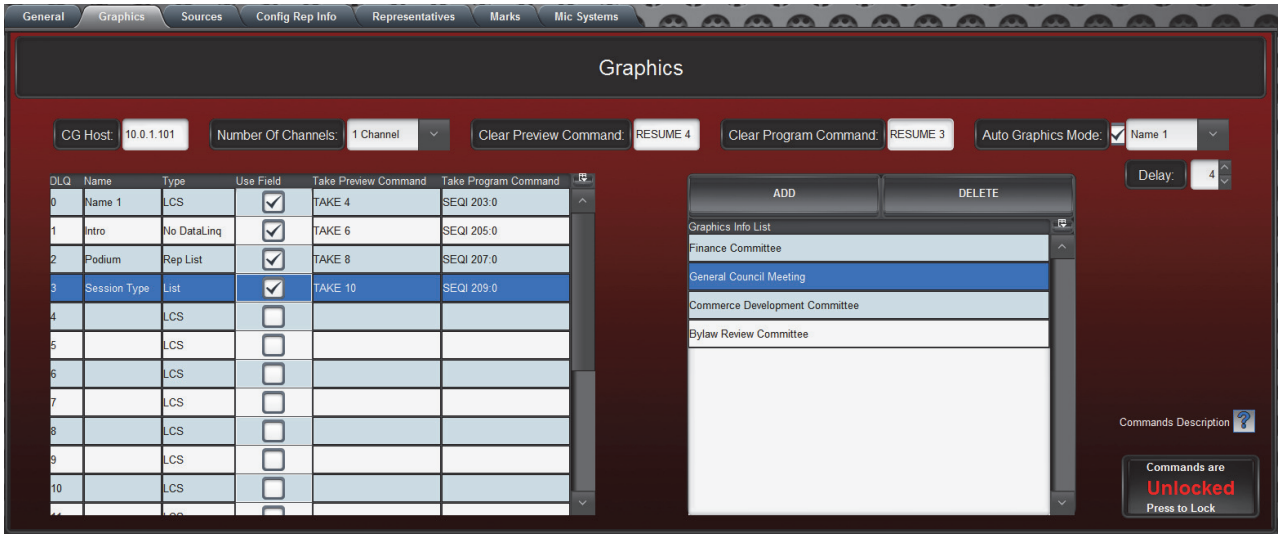

Figure 2.3 *Graphics Tab*

Note: Some setting values on the **Graphics** tab appear yellow and are not editable by default. This is to protect the configuration from accidental changes. To edit these settings, tap the **Locked** button. When you are finished making changes, tap the **Unlocked** button.

The **Graphics** tab includes the following settings and buttons:

Setting or Button	Description
CG Host	Specify the Host IP address for the XPression graphics system.
Number of Channels	Specify the number of XPression graphics channels used (0, 1, or 2).
Clear Preview Command	Specify the RossTalk command to be sent to the XPression graphics system whenever the user taps the **Clear Prv** button in the **Production** interface. Typically, the command clears all optional graphics layers but does not clear persistent layers. For example, you might want a layer with a clock bug to persist.
Clear Program Command	Specify the RossTalk command to be sent to the XPression graphics system whenever the user taps the **Clear Pgm** button in the **Production** interface. Typically, the command clears all optional graphics layers but does not clear persistent layers. For example, you might want a layer with a clock bug to persist.
Auto Graphics Mode	Select the **Auto Graphics Mode** check box if you want a graphic to appear whenever a shot is taken to air. From the drop-down list, select the graphic to be used.
Delay	If **Auto Graphics Mode** is enabled, in the **Delay** box, specify the minimum number of seconds allowed between **TAKE** actions. The delay temporarily deactivates the **TAKE** button each time a shot is taken. Ensure that the delay is long enough that the automated graphic plays out completely before the **TAKE** button is reactivated.

Setting or Button	Description
Graphics Table	A list of up to 20 graphics that can be run via the LCS panel. Each row of the table contains data required to run one XPression graphic. The graphics table includes the following columns: **DLQ** — The database record number for the graphic. This number is required in XPression to establish a DataLinq connection, to populate the graphic with data. There are 20 records, numbered 0 to 19. Each row of the graphics table is a record for one graphic. **Name** — Name of the graphic. Specify a name that will be meaningful to LCS operators. **Type** — Source of the data used to populate the graphic. Options include: • **LCS** — Data used to populate the graphic is based on the current representative. XPression can use DataLinq to retrieve any **Information** item associated with the current representative. Information items are defined on the **Representatives** tab. • **List** — The operator selects a data item from a list. When you select this option, the **Graphics Info List** appears so you can define the data items. • **Rep List** — The operator selects a representative from the list of representatives. • **No DataLinq** — The graphic does not require data from the LCS database. **Use Field** — Select this check box if you want the graphic to be available for operators to run. **Take Preview Command** — Specify the RossTalk command the LCS sends to the XPression graphics system to run the graphic in the LCS Preview pane. **Take Program Command** — Specify the RossTalk command the LCS sends to the XPression graphics system to run the graphic in the LCS Program pane (on-air).
Graphics Info List	A list of data items LCS operators can use to populate a graphic. The **Graphics Info List** appears when you select **List** as the graphics **Type**. • To add a data item to the list, tap **ADD**, tap the new data item, and then type the data. • To delete a data item, tap the data item, and then tap **DELETE**.
Commands Description	Tap the question mark (**?**) to open a syntax guide about Ross Talk commands commonly used in LCS to control the XPression graphics system.
Locked or **Unlocked**	The **Locked** / **Unlocked** button helps to protect the data on the **Graphics** tab from accidental changes. You can make changes on the **Graphics** tab only if the button reads **Unlocked**. Tap the button to change its state.

Sources Tab

Sources are video or image sources, such as cameras.

Figure 2.4 shows the **Sources** tab.

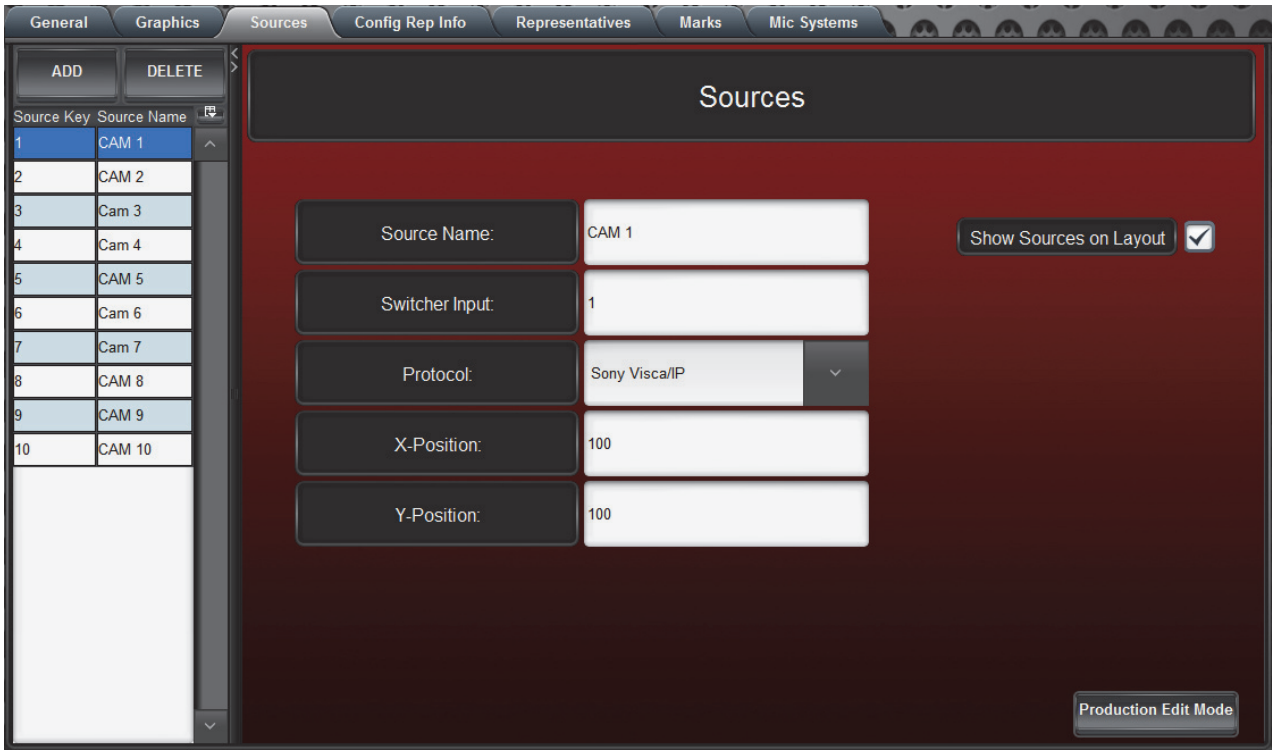

Figure 2.4 *Sources Tab*

The **Sources** tab includes the following settings and buttons:

Setting or Button	Description
Source List (left side of tab)	
Source Key	Displays the source number. This is not editable.
Source Name	Displays the name of the source. Tap a source name to show and edit the properties of the source in the **Sources** area.
ADD button	Adds a new source to the list.
DELETE button	Deletes the currently-selected source from the list. **Tip:** The currently-selected source is indicated by a blue background.
Sources Area (right side of tab)	
Source Name	Displays the name of the source. This is editable. This name appears on room layout in the production interface. **Tip:** Tap an entry in the Sources list to view properties for that source.
Switcher Input	Specify the switcher crosspoint with which the source is associated.
Protocol	If the source is a camera, select the camera type from the list. If the source is not a camera, select the blank entry from the list.

Setting or Button	Description
X-Position	Specify a number representing the horizontal position of the camera on the room layout. A value of **0** positions the camera icon at the far left side. **Tip:** Camera positions can also be set in **Production Edit Mode**. For more information, see the **Production Edit Mode** entry in this table.
Y-Position	Specify a number representing the vertical position of the camera on the room layout. A value of **0** positions the camera icon at the top. **Tip:** Camera positions can also be set in **Production Edit Mode**. For more information, see the **Production Edit Mode** entry in this table.
Other Buttons	
Show Sources on Layout	Select this option if you want source icons to appear on the layout.
Production Edit Mode	Tap the **Production Edit Mode** button to reposition sources on the room layout. To reposition a source, do one of the following: • Tap the source icon, and then tap the location where you want the center of the icon to appear. • Drag and drop the icon. • Tap the source icon, and then tap the green directional arrows to move it. • Specify **X Position** and **Y Position** values in the **Edit Mode** area. To close the **Production Edit Mode** interface, tap the **Exit** button.

Config Rep Info Tab

The **Config Rep Info** tab enables you to define custom data fields about representatives. These data fields can be populated with data for each representative. For example, you might add “Political Party” and “Portfolio” data fields. Representative data can be used in on-air graphics.

Figure 2.9 shows the **Config Rep Info** tab.

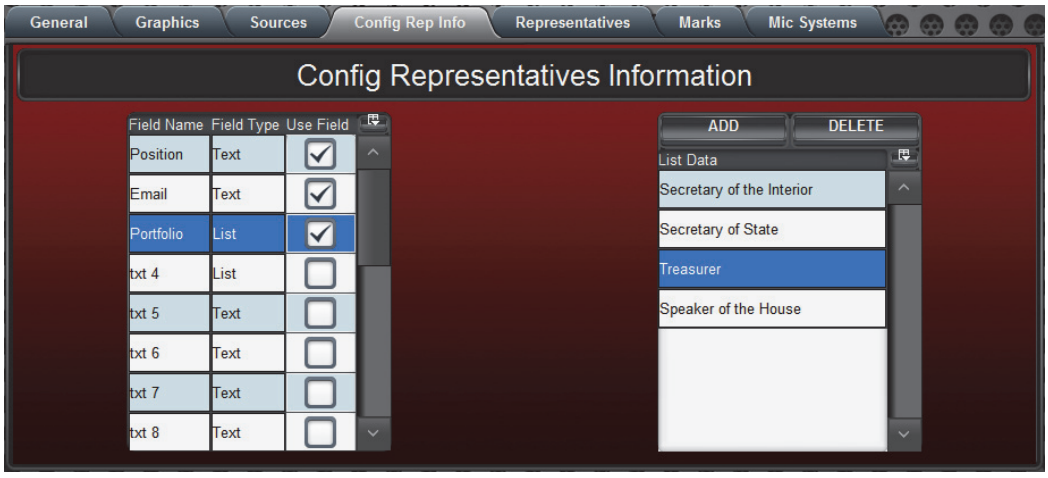

***Figure 2.5** - Config Rep Info Tab*

The **Config Rep Info** tab includes the following settings and buttons:

Setting or Button	Description
Data Field List	
Field Name	The name of the data field. For example, “Portfolio”.

Setting or Button	Description
Field Type	The type of data that can be entered into the field. • **Text** — Users can type any text data in the field. • **List** — Users must select the data from a predefined list. After you select **List** as the data type, the **List Data** area appears. Specify the list items, and then tap the **Save Changes** button.
Use Field	When selected, the field appears in the **Information** area of the **Representatives** tab for each representative. The data can be used for on-air graphics. When cleared, the field is not shown in the **Information** area of the **Representatives** tab for each representative. The data can not be used for on-air graphics.
List Data Area (available only when a List field is selected)	
Add	Creates a new, empty list item at the bottom of the list. Tap **Add**, tap the new list item, and then type the list item data.
Delete	Deletes the selected list item.
List Data	Shows the list items. To edit a list item, tap the item and then type the new data.

Representatives Tab

Figure 2.6 shows the **Representatives** tab.

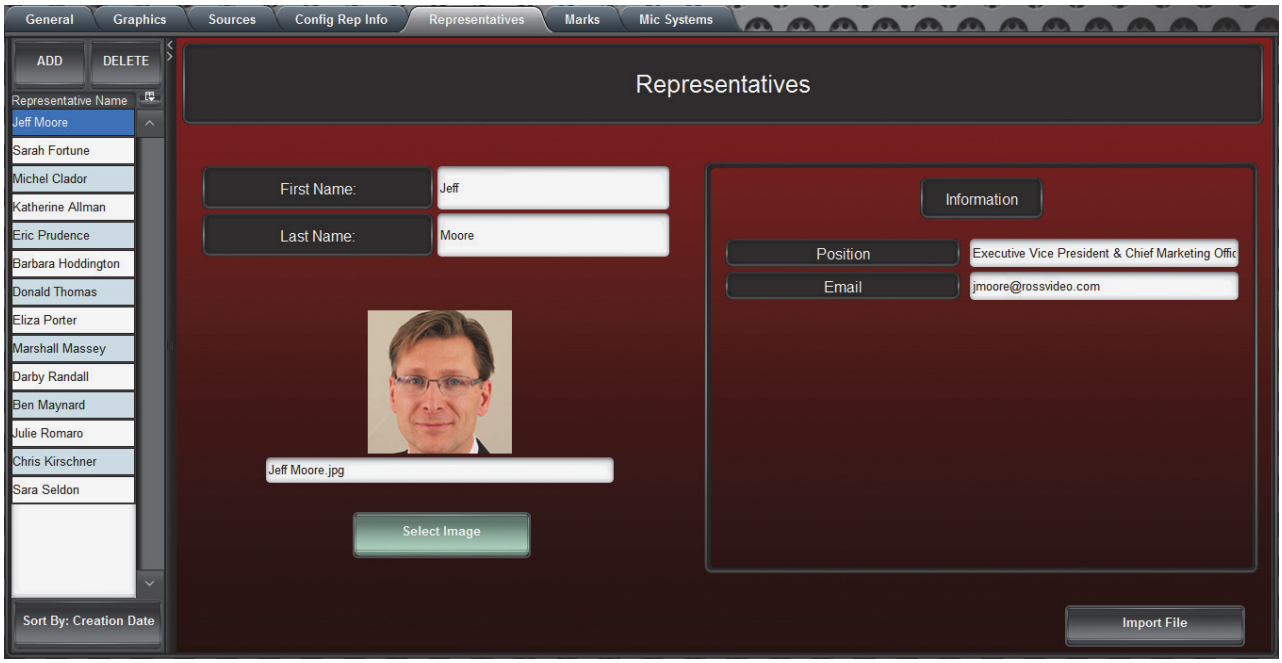

***Figure 2.6** Representatives Tab*

The **Representatives** tab includes the following settings and buttons:

Setting or Button	Description
Representatives List Area (left side of tab)	
Representative Name	Displays the name of the representative. Tap a representative name to show and configure the properties of the representative.
ADD button	Adds a new representative to the list.

Setting or Button	Description
DELETE button	Deletes the selected representative from the list. The selected representative is indicated by a blue background.
Sort By button	The **Sort By** button enables you to change how the representatives list is sorted. Tap the **Sort By** button, and then tap the sort criterion you want to use. Criteria include **Creation Date**, **First Name**, and **Last Name**.
Representatives Area	
First Name	Specify the first name of the representative. This name appears on the room layout, and in on-air graphics.
Last Name	Specify the last name of the representative. This name appears on the room layout, and in on-air graphics.
Select Image	You can change the head shot image for the current representative. This image appears in the **Rep Info** area of the layout to help identify the selected representative. It may also be used in icons on the room layout. For each representative, the icon can be based on either the head shot image, or on a set of custom graphics. The head shot image is not used in on-air graphics. Head shot images are stored on the DashBoard LCS computer, in the **Images/Photos** folder. Place all head shot images in this folder. The image files must be either .png or .jpg format. For best performance and a consistent visual appearance, make all the images the same size and keep them small (typically below 150 pixels by 150 pixels). **IMPORTANT:** Do not use large image files. If your images are large, use graphics software to reduce their file size before using them in the LCS. **To select a head shot image, do one of the following:** • Tap the **Select Image** button, tap the image you want to use, and then tap **Accept**. • In the box above the **Select Image** button, type the filename for the image. Include the file extension. For example, **DavidRoss.jpg**.
Information	Specify custom data for the current representative. For each row of the **Information** table, specify a data value. **To specify data, do one of the following:** • If the data box has a down arrow, tap it to expand the list of data options, and then tap the correct value. • If the data box does not have a down arrow, tap the data box and then type the data value. **Tip:** The quantity and nature of these fields are specific to your LCS application. Data fields are defined on the **Config Rep Info** tab. For more information, see "**Config Rep Info Tab**" on page 2–12.
Import	Enables you to import representative data from a Reps file. When you import representatives from a Reps file, they are added to the current list of representatives. Duplicates are possible. To select and import a file: 1. Tap the **Import** button. 2. Tap the file you want to import, and then tap the **Load** button.

Marks Tab

A mark is a camera shot target location. The Marks tab enables you to view and edit data about marks.

The left side of the tab is a table that has two modes:

- Operator mode enables you to add and delete marks, edit the names of marks, and assign representatives to marks.
- Engineering mode enables you to perform additional tasks, such as specify icon images, sizes and positions; associate sources and shots with marks; and associate microphone IDs with marks.

The right side of the tab enables you to specify the default appearance of all marks.

Figure 2.7 shows the **Marks** tab.

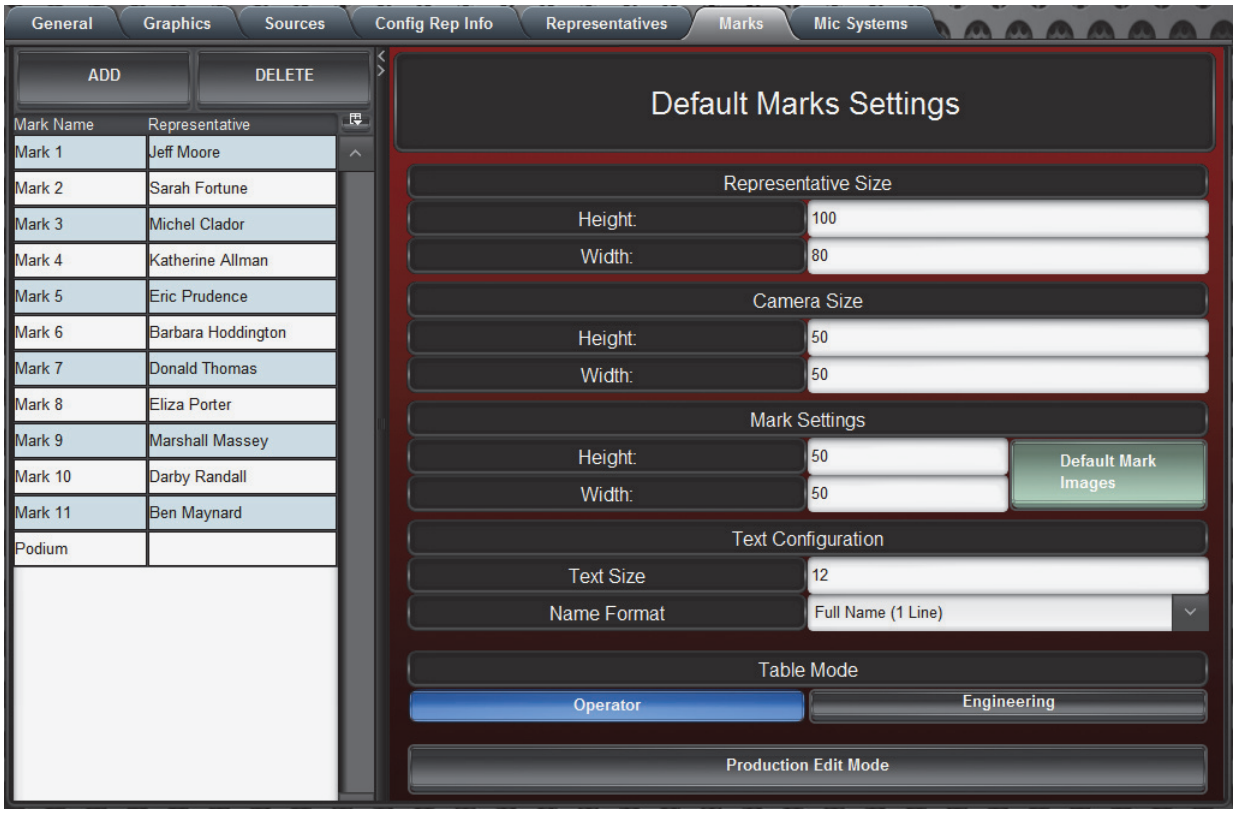

Figure 2.7 *Marks Tab, showing the Operator Table*

Figure 2.7 shows the **Engineering** table.

Mark Name	Representative	Rep Image if Available	X Pos	Y Pos	Src1	Src1 Shot1	Src1 Shot2	Src1 Shot3	Src2	Src2 Shot1	Src2 Shot2	Src2 Shot3	Src3	Src3 Shot1	Src3 Shot2	Src3 Shot3	Src4	Src4 Shot1	Src4 Shot2	Src4 Shot3	MicID	Not Selected	On Preview	On Air	Height	Width
Mark 1	Jeff Moore	☑	100	200	1	1	2	3	2	4	5	6	3	7	8	9	4	10	11	12	1					
Mark 2	Sarah Fortune	☑	200	200	4	100	101	102	3	103	104	105	2	106	107	108	1	109	110	111	2					
Mark 3	Michel Clador	☑	300	200	3	4	5	87	4	4	8	5	1	0	56	18	2	72	42	8	3					
Mark 4	Katherine Allman	☑	400	200	2	22	43	32	1	15	20	30	4	15	38	76	3	5	18	80	4					
Mark 5	Eric Prudence	☑	500	200	7	52	21	42	8	1	2	3	9	78	900	800	10	15	1	0						
Mark 6	Barbara Hoddington	☑	600	200	10	8	2	82	9	75	68	67	8	66	65	64	7	505	706	888						
Mark 7	Donald Thomas	☑	700	200	6	999	0	500	5	761	273	384	4	404	22	301	3	130	2	800						
Mark 8	Eliza Porter	☑	800	200	2	56	87	2	1	125	150	175	10	259	384	468	9	25	684	98						
Mark 9	Marshall Massey	☑	900	200	8	86	55	759	7	785	52	86	6	7	8	6	5	44	46	49						
Mark 10	Darby Randall	☑	251	404	4	2	571	168	3	286	45	862	2	158	23	558	1	426	385	777					143	110
Mark 11	Ben Maynard	☑	0	0																						
Podium		☑	0	0																						

Figure 2.8 *Marks Tab, showing the Engineering Table*

The **Marks** tab includes the following settings and buttons:

Setting or Button	Description
Marks Table Area (left side of tab) **Tip: To view all columns, tap the Engineering button.**	
ADD button	Adds a new mark to the list.
DELETE button	Deletes the selected mark from the list. The selected mark is indicated by a blue background.
Mark Name	Specify a name for the mark. This is optional. **Tip:** The name should reflect the location or purpose of the mark.
Representative	From the list, select a representative associated with the mark. Data associated with the representative is made available to on-air graphics. **Tip:** If you start typing the representative's name in the box, the list is filtered to help you find the correct representative quickly. **Tip:** If there is no representative for the mark location, select the blank entry.
Rep Image if Available	When selected, the mark icon is based on the representative's head shot image, if one has been specified on the **Representatives** tab. If no head shot image is available, the mark icon is based on a set of default icon graphics, or a set of custom icon graphics.
X-Pos	Specify the horizontal position of the mark on the layout view, in pixels. A value of zero positions the mark at the far left side. The **X-Pos** and **Y-Pos** values position the center of the mark. **Tip:** Mark position can also be set in **Production Edit Mode**. For more information, see the **Production Edit Mode** entry in this table.
Y-Pos	Specify the vertical position of the mark on the layout view, in pixels. A value of zero positions the mark at the top. The **X-Pos** and **Y-Pos** values position the center of the mark. **Tip:** Mark position can also be set in **Production Edit Mode**. For more information, see the **Production Edit Mode** entry in this table.
Src1 **Src2** **Src3** **Src4**	Specify the video sources to use for the mark, in order of preference. There are four **Src** columns: **Src1**, **Src2**, **Src3**, and **Src4**. **Src1** is the default video source. If it is unavailable, the next source is used. **Tip:** The source and shot column headings are color-coded. Each color identifies a video source and its shots.
Src1 Shot1 **Src1 Shot2** **Src1 Shot3** **Src2 Shot1** **Src2 Shot2** **...** **Src4 Shot3**	If you are using cameras to shoot the mark, specify shot numbers for each camera source, in order of preference. For source 1, **Src1 Shot1** is the default shot. The other source 1 shots are available as alternatives. **IMPORTANT:** Ensure that shot 1 is specified for each camera source. For example, if using two cameras for the mark, specify shots for **Src1 Shot1** and for **Src2 Shot1**. These "shot 1s" are the default shots for the camera sources, and must be present for the system to work properly. **Tip:** The source and shot column headings are color-coded. Each color identifies a video source and its shots.

Setting or Button	Description
Mic ID	Applies only to systems that use a delegate microphone system to select previews and/or trigger video transitions. Maps the mark to a microphone. When the microphone is activated, the mark is selected. Type the string that the microphone system sends when the microphone at the mark location is activated.
Not Selected	Specify a custom icon graphic to show when the mark is not selected for preview and is not on-air. Double-tap the box, tap a graphic to select it, and then tap **Accept**. This graphic is used only if the **Rep Image if Available** box is clear, or if no representative head shot image is available. **Tip:** This setting is used for defining custom graphics for individual marks. You can also create a set of default graphics. For more information, see the **Default Mark Images** entry in this table.
OnPreview	Specify a custom icon graphic to show when the mark is selected for preview. Double-tap the box, tap a graphic to select it, and then tap **Accept**. This graphic is used only if the **Rep Image if Available** box is clear, or if no representative head shot image is available. **Tip:** This setting is used for defining custom graphics for individual marks. You can also create a set of default graphics. For more information, see the **Default Mark Images** entry in this table.
On Air	Specify a custom icon graphic to show when the mark is on-air. Double-tap the box, tap a graphic to select it, and then tap **Accept**. This graphic is used only if the **Rep Image if Available** box is clear, or if no representative head shot image is available. **Tip:** This setting is used for defining custom graphics for individual marks. You can also create a set of default graphics. For more information, see the **Default Mark Images** entry in this table.
Height	Specify a custom height for the mark icon, in pixels. This value overrides the mark height and representative height specified in the **Default Marks Settings** area.
Width	Specify a custom width for the mark icon, in pixels. This value overrides the mark width and representative width specified in the **Default Marks Settings** area.
Default Marks Settings Area (right side of tab)	
Representative Size	Specify the default **Height** and **Width** of the mark icons, in pixels. **Note:** This setting affects only marks that use representative head shot images. The default height and width of other marks are set the in the **Marks Settings** area.
Camera Size	Specify the **Height** and **Width** of the camera icons, in pixels. Camera icons show the position of cameras on the room layout.
Mark Settings	Specify the default **Height** and **Width** of the mark icons, in pixels. **Note:** This setting does not affect marks that use representative head shot images. The default height and width of those marks are set the in the **Representative Size** area.

Setting or Button	Description
Default Mark Images	You can specify a set of three default graphics to use as mark icons. Each graphic is associated with a state, and is only shown when the mark is in that state: • **Not Selected** — The mark is not selected for preview, and is not on-air. • **On Preview** — The mark has been selected and is in preview. • **On Air** — The mark is on-air. For a given mark, default graphics are used only if ALL of the following are true: • The **Rep Image if Available** box for the mark is clear, or there is no representative head shot image available. • No custom icon graphic has been specified for the mark, for the required state. For example, if the **On Air** box for the mark contains a graphic, then it is shown instead of the default **On Air** graphic. Mark graphics are stored on the DashBoard LCS computer, in the **Images/Panel** folder. Place all mark graphic files in this folder. The graphics files must be either .png or .jpg format. If necessary, DashBoard automatically shrinks the graphics to fit within the mark icon. For best performance and a consistent visual appearance, make all the graphics the same size, and keep them small. A typical size might be 100 pixels square. **IMPORTANT:** Do not use large graphics files. If your graphics are large, use graphics software to reduce their size before using them in the LCS. To define the default mark images: **1.** Tap the **Default Mark Images** button. The graphics selection interface appears, showing available images at the top, and three graphic selection areas at the bottom. **2.** In each of the three graphic selection areas, (**Not Selected**, **On Preview**, and **On Air**), select the option button below the graphic, and then tap the required graphic. **3.** Tap the **Accept** button to save your changes, or tap the **Cancel** button to discard them.
Text Configuration	Set the following text properties: • **Text Size** — Specify the text size, as a number. A typical value is **10**. • **Name Format** — Specify how the representative's name is displayed below the mark.
Table Mode	Tap the buttons to toggle between display modes for the marks table: • **Operator** — Shows only the **Mark Name** and **Representative** columns. This mode is used by operators to quickly assign representatives to marks. • **Engineering** — Shows all columns. This mode is used for initial configuration of marks, including mark positions and camera shots.

Setting or Button	Description
Production Edit Mode	Tap the **Production Edit Mode** button to edit marks. The **Production Edit Mode** interface shows the room layout, and enables you to easily reposition marks. You can also add and delete marks, and edit properties of marks. **To edit the properties of a mark:** **1.** Tap the mark you want to edit. **2.** Edit the following properties as required: • **Mark Name** — Type a meaningful name, such as the purpose of the mark. • **Representative** — Select which representative (if any) is associated with the mark. **Tip:** If you start typing the representative's name in the box, the list is filtered to help you find the correct representative quickly. • **Image** — When selected, the mark icon is based on the representative's head shot image, if available. • **X Position** — Type a value for the horizontal position, in pixels, or use the green positional arrows. This value changes as the mark moves. If you specify a position beyond the layout area, scroll bars appear and the layout background image is enlarged accordingly. This enables you to fit more icons on the layout. Alternatively, you can drag the mark icon, or tap the icon and then tap the location where you want the center of the icon to appear. • **Y Position** — Type a value for the vertical position, in pixels, or use the green positional arrows. This value changes as the mark moves. If you specify a position beyond the layout area, scroll bars appear and the layout background image is enlarged accordingly. This enables you to fit more icons on the layout. Alternatively, you can drag the mark icon, or tap the icon and then tap the location where you want the center of the icon to appear. • **Height** — Type the mark height, in pixels. This value overrides the default height. • **Width** — Type the mark width, in pixels. This value overrides the default width. **To reposition a mark:** • Tap the mark you want to reposition, and then tap the position where you want the center of the mark icon to appear. You can also tap the green directional arrows to move the selected mark, or type X and Y values in the **Edit Mode** area. **To add a mark:** • Tap the **Add Mark** button, and then define the mark position and other properties of the new mark. **Tip:** By default, the mark appears in the top left corner of the room layout. **To delete a mark:** • Tap the mark you want to delete, and then tap the **Delete Mark** button. **To exit Edit Mode:** • Tap the **Exit** button.
Other Buttons	

Mic Systems Tab

Figure 2.9 shows the **Mic Systems** tab.

***Figure 2.9** Mic Systems Tab*

The **Mic Systems** tab includes the following settings and buttons:

Setting or Button	Description
	Mic Systems Area
Mic System	Select the type of delegate microphone system to be used for selecting previews and/or triggering video transitions: • **None** — Select this option if you want to select previews manually. • **IRC** — Select this option if you have an International Roll Call (IRC) delegate microphone system. • **Bosch** — Select this option if you have a Bosch delegate microphone system.
Mode (Bosch only)	Tap the mode button to select an operating mode: • **Semi-Auto** — The Bosch system selects preview shots, but an operator must take them to air. • **Full Auto** — The Bosch system selects a preview shot and takes it to air. **Delay** — Specify the number of seconds to wait from when a microphone goes live to when a shot of the associated mark goes on-air. Set the delay to be longer than the longest shot recall. If a shot recall takes longer than the delay, the camera may still be moving when the shot goes on-air.
Mic Off Location (Bosch only)	Select the mark to which the system defaults when the current microphone turns off. This feature is typically used to automatically switch from a representative position to the speaker's podium when the representative's microphone turns off. The mark's primary camera and primary shot are used, unless that camera is already in use. If you do not want to use this feature, select **Do Not Move Camera**.

Setting or Button	Description
Extended Mic Off Location (Bosch only)	Select the mark to which the system defaults after the current microphone has been off for a prolonged period of time. This feature is typically used to automatically switch to a wide shot of the legislative chamber at the end of proceedings. The mark's primary camera and primary shot are used, unless that camera is already in use. If you use this feature, in the **Delay** box, specify the number of seconds the microphone must be off before the transition occurs. If you do not want to use this feature, select **Do Not Move Camera**. **Note:** If you set both a **Mic Off Location** and an **Extended Mic Off Location**, the delay for the **Extended Mic Off Location** starts after the transition for the **Mic Off Location** is complete.

Additional Buttons

The configuration interface includes a few additional buttons that are always available, regardless of which configuration tab is shown. Most of these buttons are located below the configuration tabs.

Figure 2.9 shows the buttons located below the configuration tabs.

Figure 2.10 *- Common Configuration Buttons*

The buttons are as follows:

Button	Description
LCS <*version*>	Opens the **About LCS** window, which displays information about the version of LCS installed on your computer. This button is located in the top left corner of the LCS panel. Select **Verbose Logging** only if instructed to do so by Ross Video Technical Support. Verbose logging generates technical performance data to assist support personnel.
Refresh Data	Refreshes the LCS panel and reverts to previous values. If there are unsaved configuration changes, the LCS prompts you to save or discard them.
Reload Data	Reloads data from saved files. If there are unsaved configuration changes, the LCS prompts you to save or discard them.
Save Changes	Saves all configuration changes. **Tip:** If you close DashBoard without saving changes, the LCS will prompt you to save or discard the changes the next time you open the LCS panel.
Cancel	Cancels all unsaved configuration changes, and reverts to previous values. If there are unsaved changes, the LCS prompts you to save or discard them.
Production	Closes the configuration interface and opens the production interface.
Config	Closes the production interface and opens the configuration interface.

Operating the LCS

The Legislative Control System is designed to enable a single operator with limited production experience to produce flawless broadcasts of meetings, legislative sessions, and other events.

The LCS combines robotic camera control, video switching, and graphics control in one operator position.

This chapter explains how to start and operate the Legislative Control System (LCS) during a broadcast. It contains the following sections:

Starting the System

To start the system:

1. Ensure the following equipment is connected and running:
   - Carbonite Switcher (Frame and Panel)
   - XPression Graphics System
   - Robotic Cameras
   - DashBoard LCS all-in-one computer.
   - SmartShell Control Panel (joystick console)
   - IP network equipment (network switch)
   - Bosch or IRC Delegate system (if present)
   - Other accessories (if present)
2. If your system includes a SmartShell Control Panel (joystick console), on the DashBoard LCS computer, in the **C:\Cambotics** folder, start **masterpanel1.exe**.
3. Start DashBoard.
4. In DashBoard, open the panel file for your legislature, plus the panel file(s) corresponding to the type(s) of camera(s) your LCS panel uses.

   Tip: When DashBoard starts, it automatically opens all panels that were open when it was last shut down.
5. On the keyboard, press **SHIFT+F11** to display the LCS panel in full-screen mode.
6. Test the system by selecting shots from each camera, and taking them to air.

Basic Operation

This section explains the most basic aspects of operating the LCS. The steps include references to optional tasks you can also perform.

The LCS operation workflow is as follows: The operator selects a mark (representative), previews up to three shots, and then takes the best shot to air.

Before taking shot to air, the operator can adjust the camera position and edit representative data.

Automated graphics, such as a lower third populated with the representative's name and title, can be configured to appear when each shot goes to air.

Once the shot is on-air, the operator can run graphic sequences at will.

The **Production** interface includes an optional panel of customized controls the operator can use. The nature of these controls depends on what the system designer created for the **Custom Panel** tab.

To operate the LCS:

1. On the room layout, tap a mark (representative) to select it.

   Tip: The icon for the selected mark has green highlights.

2. Below the **Preview** and **Alternate Preview** panes, tap the shot buttons until you find a shot you like.

   Tip: By default, the designated default (preferred) shot appears in the **Preview** pane.

3. If the shot you like is in an **Alternate Preview** pane, tap the **To Preview** button below that pane to move the shot to the **Preview** pane.

4. Adjust the shot position and temporarily edit the representative information if desired.

   For more information, see "**Adjusting Shot Position**" on page 3–2.

   For more information, see "**Temporarily Editing Representative Information**" on page 3–5.

5. If you want the **Preview** shot to become the default shot for the mark, tap the **Set to Default** button.

6. In the **Program** pane, tap the **TAKE** button to take the shot to air.

7. The shot goes to air, along with automated graphics, if configured.

   Tip: If you don't want the automated graphics to run, you can turn them off. In the **Configuration** interface, navigate to the **Graphics** tab, and then clear the **Auto Graphics Mode** check box.

8. Run graphic sequences if desired.

   You can run graphics at any time. Graphics in the **Program** pane remain until you remove them, even if you take another shot.

   For more information about operating graphics manually, see "**Operating Graphics Manually**" on page 3–5.

9. Operate controls on the **Custom Panel** tab, if applicable.

   For more information, see "**Operating Custom Controls on the Custom Panel Tab**" on page 3–6.

Adjusting Shot Position

You can adjust the position of any of the four camera views shown in the **Production** interface (**Preview** pane, **Program** pane, and two **Alternate Preview** panes).

To control a camera:

- Tap the pane that shows the camera view, and then use one of the following to reposition the camera:
  - SmartShell Control Panel (joystick console).

    For more information, see "**Using the SmartShell Control Panel (joystick console)**" on page 3–3.
  - Camera Controls window.

    For more information, see "**Using the Camera Controls Window**" on page 3–4.
  - The joystick control console that came with your camera system.

Using the SmartShell Control Panel (joystick console)

You can use the SmartShell Control Panel to adjust the position of a camera in four axes: pan, tilt, zoom, focus, and iris.

Tip: Alternatively, you can use the **Camera Controls** window to reposition cameras. For more information, see "**Using the Camera Controls Window**" on page 3–4.

Figure 3.1 shows the SmartShell Control Panel.

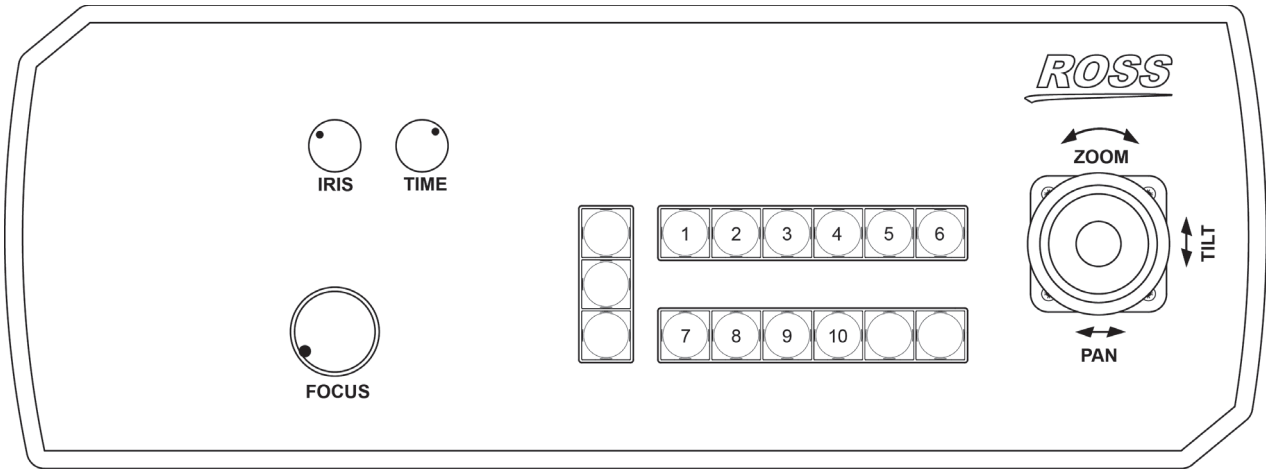

Figure 3.1 *- SmartShell Control Panel (joystick console)*

Selecting a Camera to Control

By default, the SmartShell Control Panel controls the camera shown in the **Preview** pane of the LCS panel.

To control a camera view shown in the **Program** pane or one of the **Alternate Preview** panes, tap that pane.

To control a camera that is not shown in the LCS, on the SmartShell Control Panel, press the camera button for that camera.

You can control any camera by pressing the corresponding camera button on the SmartShell Control Panel. When you select a camera, the button turns either red or green. Red indicates that the camera is currently on-air.

Figure 3.2 shows the camera selection buttons.

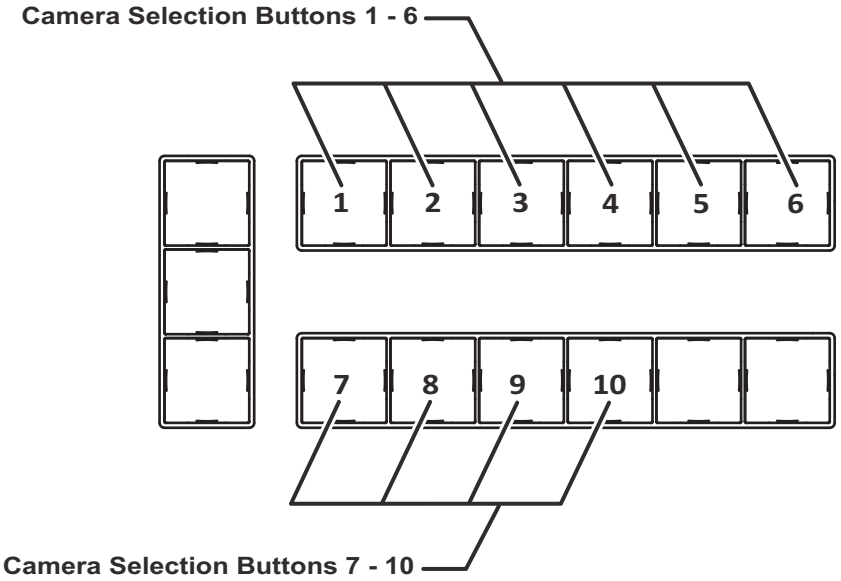

Figure 3.2 *- Camera Selection Buttons*

Adjusting Camera Position

You can use the SmartShell Control Panel to adjust the following axes:

- **Pan** — Push the right joystick right and left.
- **Tilt** — Push the right joystick forward and backward.
- **Zoom** — Rotate the right joystick.
- **Focus** — Turn the **FOCUS** knob.
- **Iris** — Turn the **IRIS** knob.

Using the Camera Controls Window

You can use the **Camera Controls** window to adjust the pan, tilt, zoom, focus, and iris positions of a camera shot. Before you can adjust the shot, it must be visible in the **Program** pane, the **Preview** pane, or an **Alternate Preview** pane.

To access the **Camera Controls** window, tap the pane that contains the shot you want to adjust.

Tip: Alternatively, you can use the SmartShell Control Panel (joystick console) to reposition cameras. For more information, see "**Using the SmartShell Control Panel (joystick console)**" on page 3–3.

Figure 3.3 shows the **Camera Controls** window:

Figure 3.3 *- The Camera Controls Window*

Camera Controls:

- **Pan and Tilt** — Move the crosshairs in the **PAN & TILT** area to adjust the pan and tilt position of the camera. Alternatively, tap the **Positioner** button to reveal **PAN** and **TILT** slider handles, which can be dragged to adjust pan and tilt individually.
- **Zoom** — Drag the **ZOOM** slider handle to adjust the zoom position of the lens.
- **Focus** — Drag the **FOCUS** slider handle to adjust the focal position of the lens. When you use the **FOCUS** slider, auto focus turns off. To turn auto focus on, tap the **Auto Focus** button.
- **Iris** — Drag the **IRIS** slider handle, if present, to adjust the lens iris. The LCS does not control iris on CamBots. When you use the **IRIS** slider, auto iris turns off. To turn auto iris on, tap the **Auto Iris** button.

- Tap the **Advanced** button to open a separate camera control panel that includes advanced camera settings. For more information, see the ***LCS Commissioning Guide (4500DR-002-xx)***.
- Tap the **Recall Preset** button to reset the camera to the position stored in the original shot.
- Tap the **Store Preset** button to record the current camera position, replacing the original shot.
- Tap the **Close** button to close the **Camera Controls** window.

Temporarily Editing Representative Information

Sometimes you may need to temporarily edit representative information while operating the LCS during a broadcast. For example, a representative may have multiple portfolios. If your system makes the portfolio data available in a list, you can choose which portfolio text populates the automated graphics.

To temporarily edit representative information:

1. In the **Production** interface, tap the mark you want to take to air next.
2. In the **Utility** panel, tap the Rep Info tab.

   Tip: The **Utility** panel is to the right of the room layout.
3. Edit the data fields below the representative's picture as desired.

   Some fields accept text, and others have drop-down lists. The nature of the data available depends on how your system is configured.

Tip: Representatives are mapped to their seats (marks). If a representative moves to a different seat during proceedings, you can quickly change the mapping. For more information, see "**Assigning Representatives to Marks**" on page 4–2.

Note: Changes to the data are not retained permanently, so you must edit the data each time you take a shot for that mark to air. To edit the data permanently, use the **Representatives** tab of the **Configuration** interface. For more information, see "**Representatives Tab**" on page 2–13.

Operating Graphics Manually

The **Production** interface of the LCS enables you to run graphics sequences manually. The graphics sequences are created on the Ross Video XPression graphics system. The LCS sends commands to XPression to run the graphics You can run a sequence in the **Preview** pane to see how it looks and behaves, and then run it in the **Program** pane (on-air).

We recommend that you practice running graphics before the broadcast, to familiarize yourself with their behavior. Each graphic is designed separately, and they may behave in very different ways.

Note: In addition to graphics that you operate manually, your LCS may be configured to run graphics automatically. If you don't want the automated graphics to run, you can turn them off. In the **Configuration** interface, navigate to the **Graphics** tab, and then clear the **Auto Graphics Mode** check box.

Note: When you take a shot, it has no effect on manually-operated graphics. Any such graphics remain in the **Program** pane when a new shot is taken. If your system is configured with automated graphics, those graphics will run when a new shot is taken.

To run a graphics sequence:

1. In the **Production** interface, in the **Utility** panel, tap the **Graphics** tab.

   Tip: The **Utility** panel is to the right of the room layout.

   The **Graphics** tab contains pairs of buttons, one pair per row. Each pair of buttons represents a graphic that is available for use in the LCS. The buttons with green text (left column) run the graphic in the **Preview** pane.

The buttons with red text (right column) run the graphic in the **Program** pane (on-air). Some graphics accept data, either as text or via a drop-down list.

2. In the list of graphics, find the graphic you want to run.
3. If the graphic accepts data, specify the data by typing text or by selecting the data from the drop-down list.
4. To run the graphic, tap one of the graphic buttons:
   - Button with **green** text — the graphic sequence runs in the **Preview** pane.
   - Button with **red** text — the graphic sequence runs in the **Program** pane (on-air).

   We recommend you experiment with the graphic in the **Preview** pane before you run it in the **Program** pane.

   Some graphics appear and then disappear without any operator intervention. Others are configured to appear when you tap the button the first time, and then disappear when you tap it again. How a graphic sequence behaves depends on how it was designed in XPression. For information about how to create graphics sequences for the LCS, see the ***LCS Commissioning Guide (4500DR-002-xx)***.

   You can run as many graphics as you want. Graphics can be designed to work together.
5. If you want to clear all optional graphics, below the **Program** pane, tap one of the following:
   - **Clear Prv** — Removes optional graphics from the **Preview** pane.
   - **Clear Pgm** — Removes optional graphics from the **Program** pane (on-air).

   Some graphics may remain. The **Clear Prv** and **Clear Pgm** buttons send commands specified on the **Graphics** tab of the **Configuration** interface. The commands may be designed to keep certain graphics layers visible, such as a clock bug.
6. Note: When you take a shot, it has no effect on manually-operated graphics. If your system is configured with automated graphics, those graphics will run when a new shot is taken.

Operating Custom Controls on the Custom Panel Tab

The LCS enables you to operate custom controls within a DashBoard CustomPanel that is exposed in the LCS **Production** interface.

To operate custom controls:

1. In the **Production** interface, in the **Utility** panel, tap the **Custom Panel** tab.

   Tip: The **Utility** panel is to the right of the room layout.
2. Operate the controls as required.

   The nature of the controls depends on what your system designer created.

Editing Representative Data

This chapter explains how to edit representative data including names, custom data, and seat positions. You can also update representative photos.

This chapter includes the following sections:

Note: For information about changing other configuration settings, refer to the ***LCS Commissioning Guide (4500DR-002-xx)***.

Editing Representative Data

You can edit representative names and custom data such as portfolios.

To edit representative data:

1. In the LCS panel, tap the **Config** button.
2. On the **Representatives** tab, in the **Representative Name** list, tap the name of the representative whose data you want to edit.
3. Edit the following data as required:
   - **First Name** — Specify the first name of the representative.

     This name appears in the room layout view, and in on-air graphics.
   - **Last Name** — Specify the last name of the representative.

     This name appears in the room layout view, and in on-air graphics.
   - **Data in the Information Table** — For each row of the **Information** table, specify a data value:
     - › If the data box has a down arrow, tap it to expand the list of data options, and then tap the correct value.
     - › If the data box does not have a down arrow, tap the data box and then type the data value.

     Tip: The quantity and nature of these data fields are specific to your LCS application. Data fields are defined on the **Config Rep Info** tab. For more information, see "**Config Rep Info Tab**" on page 2–12.
4. Tap the **Save Changes** button.

   Tip: The data file containing representative data is updated when you save changes. You can also save the representative data as a separate data file, which can be loaded and used later. For more information, see "**Saving Data Files**" on page 4–3.

Importing Representatives from a Reps File

You can import representative data from a **Reps** file. When you import representatives from a **Reps** file, they are added to the current list of representatives. Duplicates are possible.

Note: If you want to load a different set of representatives, see "**Switching Between Meetings**" on page 4–4.

To import representatives from a Reps file:

1. In the **Configuration** interface, tap the **Import** button.
2. Tap the file you want to import, and then tap the **Load** button.

For information about how to save representative data to a **Reps** file, see "**Saving Data Files**" on page 4–3.

Updating Representative Photos

Representative photos (headshots) appear on mark icons and in the **Rep Info** area of the room layout to help identify the selected representative. Headshot photos are never used in on-air graphics.

The image files must be either .png or .jpg format.

For best performance and a consistent visual appearance, make all the images the same size and keep them small (typically below 150 pixels by 150 pixels).

IMPORTANT: Do not use large image files. If your images are large, use graphics software to reduce their file size before using them in the LCS.

To replace a head shot photo:

1. Create the new photo and save it in the **Images/Photos** folder.

   If the new photo has the same filename as the old one, replace the old photo.
2. In the LCS panel, tap the **Config** button.
3. On the **Representatives** tab, tap the name of the representative whose photo you want to replace.
4. Tap the **Select Image** button, tap the image you want to use, and then tap **Accept**.
5. Tap **Save Changes**.

   Tip: A data file containing representative data, including references to photo files, is updated when you save changes. You can also save the representative data as a separate data file, which can be loaded and used later. For more information, see "**Saving Data Files**" on page 4–3.

Assigning Representatives to Marks

If seating assignments in the legislature change, you can reassign representatives to the appropriate marks.

If your LCS includes automated graphics populated with representative names, you will need to reassign representatives to multi-user marks where they are about to appear, such as a podium. A representative can be assigned to multiple marks.

There are two ways to assign representatives to marks:

- **graphically** — marks are shown on a layout. You tap a mark, and then select the new representative from a list.
- **using the list of marks** — marks are shown on a list. You find the mark name or current occupant's name, and then select the new representative from a list.

To assign a representative to a mark graphically:

1. Tap the **Config** button.
2. On the **Marks** tab, tap the **Production Edit Mode** button.

   The room layout appears, in **Production Edit Mode**.
3. On the room layout, tap the mark to which you want to assign a representative.

   IMPORTANT: Be sure to tap only the mark. Tapping elsewhere on the layout repositions the selected mark.

4. In the **Representative** list, select the name of the representative you want to assign to the mark.

   Tip: If you want leave the mark unassigned, select the blank entry at the top of the list.

   Tip: If you start typing the representative's name in the box, the list is filtered to help you find the correct representative quickly.

5. Continue assigning representatives to marks, as required.
6. When you have finished assigning representatives to marks, tap the **Exit** button.
7. Tap the **Save Changes** button.

   Tip: A data file containing marks data is updated when you save changes. You can also save the marks data as a separate data file, which can be loaded and used later. For more information, see "**Saving Data Files**" on page 4–3.

To assign a representative to a mark, using a list of marks:

1. Tap the **Config** button.
2. On the **Marks** tab, scroll through the list of marks to find the one to which you want to assign a representative.

   You can search for the **Mark Name**, or if the seat is already assigned, you can search for that representative's name.

3. In the **Representative** drop-down list for the mark, tap the name of the representative you want to assign to the mark.

   Tip: If you want leave the mark unassigned, select the blank entry at the top of the list.

   Tip: If you start typing the representative's name in the box, the list is filtered to help you find the correct representative quickly.

4. Continue assigning representatives to marks, as required.
5. When you have finished assigning representatives to marks, tap the **Save Changes** button.

   Tip: A data file containing marks data is updated when you save changes. You can also save the marks data as a separate data file, which can be loaded and used later. For more information, see "**Saving Data Files**" on page 4–3.

Saving Data Files

You can save current data as named data files, which you can load and use later. When you load a data file, it becomes the current file and is updated as you save changes.

When you edit data and then save the changes, the LCS panel automatically updates the current version of the following types of data files:

- **Data File** — General configuration data for the LCS panel. Contains contains data that appears on the **General**, **Graphics**, and **Sources** tabs of the **Configuration** interface.
- **Reps File** — Contains data about a set of representatives. A **Reps** file contains data that appears on the **Config Rep Info** and **Representatives** tabs of the **Configuration** interface.

  Reps files enable you to quickly switch between lists of representatives. This is useful when using the LCS in a room that hosts multiple types of meetings that use the same seats.

  A **Reps** file contains data that appears on the **Config Rep Info** and **Representatives** tabs of the **Configuration** interface.

- **Marks File** — Contains data about marks. A Marks file contains data that appears on the **Marks** and **Mic Systems** tabs of the **Configuration** interface.

  Marks files enable you to quickly switch between lists of marks. This is useful when using the LCS in a room that hosts multiple types of meetings that use different seat layouts.

To save data files:

1. Make and save whatever changes you want to include in the data files.
2. Navigate to the **General** tab, and note the buttons for saving data files (**Figure 4.1**).

Figure 4.1 *- Saving Data Files*

   There is a row of buttons for each type of data file you can save and load.

3. In the row corresponding to the type of data file you want to save, tap the **Save As** button.
4. In the **File Name** box, type a descriptive name for the file. By default, the current filename is shown.
5. Tap the **Save As** button.
6. Repeat these steps for any other types of data files you want to save.

Switching Between Meetings

A single meeting room or legislative chamber is often used to host multiple types of meetings. To switch between meetings, load data files containing information about the marks and representatives for the next meeting.

To load a set of representatives:

1. Tap the **Config** button.
2. On the **General** tab, in the row that contains the **Current Reps** button, tap the **Load** button.
3. Tap the button corresponding to the Reps file you want to load.
4. Tap the **Load** button.

To load a set of marks:

1. Tap the **Config** button.
2. On the **General** tab, in the row that contains the **Current Marks** button, tap the **Load** button.
3. Tap the button corresponding to the Marks file you want to load.
4. Tap the **Load** button.