# **ControlSpace Remote Builder 2.7**



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# Introduction

# Bose ControlSpace Remote Builder Software

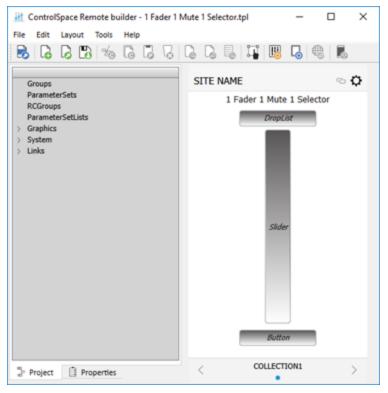
Bose ControlSpace Remote Builder software is a graphical user interface tool used to design, test and deploy mobile control panels for the Bose ControlSpace Remote app.

Bose ControlSpace Remote Builder is used by system integrators to configure control panels that are sent to the ControlSpace Remote app. Using control panel templates from within ControlSpace Remote Builder, integrators are able to quickly create unique interfaces for wireless control of Bose networked pro audio systems.

System designs created in ControlSpace Designer software are easily imported into ControlSpace Remote Builder. Defined system control elements such as volume, mute, source selection, tone EQ, and parameter sets are assigned to end-user friendly templates. Multiple app designs—each personalized for a specific user's control needs—can be created and tested from ControlSpace Remote Builder and sent wirelessly to mobile devices on the network.

You can create control panels either using the built-in templates, or by using the graphical elements available in the layout mode to design customized layouts and control buttons.

- For designing with templates, see Creating Control Panels.
- For designing customized panels, see Creating Custom Layouts and Creating Custom Controls.



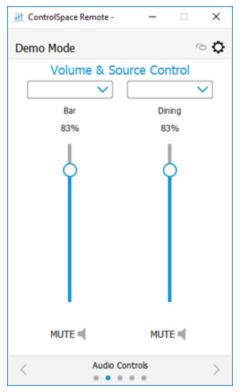
ControlSpace Remote Builder Window Example

# Bose ControlSpace Remote App

Bose ControlSpace Remote app is a mobile device application for Android and iOS devices that provides wireless control of networked Bose Professional system components. Personalized for each end user's mobile device, various functions of the system can be adjusted:

- Volume levels and mute state
- Source selection
- Tone EQ settings
- Parameter set recall

The ControlSpace Remote app is available as a free download on the App Store or Google Play store.



ControlSpace Remote App Control Panel Example

## **Getting Started**

To get started using the ControlSpace Remote Builder desktop app:

- 1. From PRO.BOSE.COM, download and install the ControlSpace Remote Builder desktop app to your computer.
- 2. From the Google Play or App Store, download and install the ControlSpace Remote app to your mobile device.
- 3. Ensure that your Android or iOS device is connected to the same Wi-Fi network as your ControlSpace/PowerMatch devices.

## **Trademark Notices**

Bose, ControlSpace, and ControlSpace Designer are trademarks of Bose Corporation.

Android<sup> $\mathbb{T}$ </sup> and Google Play<sup> $\mathbb{T}$ </sup> are trademarks of Google Inc.

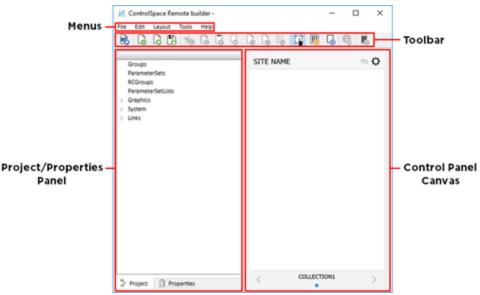
App Store<sup>®</sup> is a service mark of Apple Inc.

Wi-Fi<sup>®</sup> is a registered mark of the Wi-Fi Alliance.

All other trademarks are the property of their respective owners.

# **ControlSpace Remote Builder Window**

The ControlSpace Remote Builder window contains four key elements: a menu bar, a toolbar, the Project/Properties panel, and the Control Panel canvas.



ControlSpace Remote Builder window elements

## Menus

The menus located in the menu bar contain the main commands in ControlSpace Remote Builder.

#### File Menu

File	Edit	Layout	Tools	Help	
8	Open CSP File				
6	New Remote app File Ctrl+N				
6	Open Remote app File Ctrl+O				
в	Save Remote app File Ctrl+S				
1	Save Remote app File As				
IP	Update Remote app IP Addresses				
	Exit				Ctrl+Q

The **File** menu includes the following options:

- **Open CSP File:** opens a window for browsing to an existing ControlSpace Designer software project file.
- New Remote app File: opens a window in which you can select a template or blank panel to use for building a new Remote app control panel.
- Open Remote app File: opens a window for browsing to an existing Remote app file.
- Save Remote app File: initially opens a window for naming the current Remote app file and browsing to a location to save it. Subsequent selections of this menu option will immediately save changes directly to the previously selected file location.
- Save Remote app File As: opens a window for renaming current Remote app file and browsing to a location to save it.
- Update Remove app IP Addresses: opens a window for updating the IP addresses of each device in the open project file.

### Edit Menu

Edit	Layout	Tools	Help
6	Undo	Ctrl	+Z
G	Redo	Ctrl	+Y
6	Undo List		
%	Cut	Ctrl	+X
G	Сору	Ctrl	+C
6	Paste	Ctrl	+V
6	Delete	Del	

The **Edit** menu includes the following options:

- **Undo:** erases the last change and reverts to the previous state.
- **Redo:** reverts the effects of the undo action.
- Undo List: opens the Undo/Redo window
- **Cut:** removes the selected item and copies it to the clipboard (standard Windows editing function).
- Copy: copies the selected item to the clipboard (standard Windows editing function).
- Paste: pastes the contents of the clipboard (standard Windows editing function).
- **Delete:** removes the selected item.

#### Layout Menu

Layo	Layout Tools Help				
•	Bring To Front Ctrl+F				
•	Bri	ng Forwa	rd	Ctrl+Shift+F	
۰.	Ser	nd To Ba	ck	Ctrl+B	
•	Ser	nd Backw	vard	Ctrl+Shift+B	
	Alig	gn Left		Ctrl+Left	
	Align Right			Ctrl+Right	
U	Align Top			Ctrl+Up	
	Align Bottom		n	Ctrl+Down	
<u>cp</u>	Alig	gn Horizo	ntal Center	Ctrl+Home	
₽	Alig	gn Vertica	al Center	Ctrl+End	
+	Dis	tribute H	orizontally	Alt+Right	
+	Distribute Vertically			Alt+Down	

The **Layout** menu includes the following options:

- Bring to Front: moves the selected object to the top layer.
- Bring Forward: moves the selected object one layer toward the top.
- Send to Back: moves the selected object to the bottom layer.
- Send Backward: moves the selected object one layer toward the bottom.
- Align Left: aligns selected objects relative to their left edges.
- Align Right: aligns selected objects relative to their right edges.

- Align Top: aligns selected objects relative to their top edges.
- Align Bottom: aligns selected objects relative to their bottom edges.
- Align Horizontal Center: aligns selected objects relative to their horizontal centers.
- Align Vertical Center: aligns selected objects relative to their vertical centers.
- Distribute Horizontally: distributes selected objects evenly along the horizontal axis
- Distribute Vertically: distributes selected objects evenly along the vertical axis

#### **Tools Menu**

Tools		Help
1	layout	
۵	C	anvas
4	G	o Online
	s	end to Mobile Device

The **Tools** menu includes the following options:

- Layout: opens the Layout dialog box, which allows you to add/delete collections and panels.
- Canvas: opens the Canvas Setup window.
- Go Online: connects to a ControlSpace network.
- Send to Mobile Device: transmits the control panel file to a mobile device.

#### Help Menu

Help	0
0	Help Topics
	About ControlSpace Remote builder

The **Help** menu includes the following options:

- Help Topics: Opens User Help.
- About ControlSpace Remote Builder: opens a dialog box that displays the software version number.

## Toolbar

The toolbar contains icons/buttons that provide the following functions:

**Open CSP file:** Opens a window for browsing to an existing ControlSpace Designer software project file

**New Remote app File:** Opens a window in which you can select a template or blank panel to use for building a new Remote app control panel

Open Remote app File: Opens a window for browsing to an existing Remote app file

Save Remote app File: Initially opens a window for naming the current Remote app file and browsing to a location to save it. Subsequent selections of this tool will immediately save changes directly to the previously selected file location



6

o	Сору
0	Paste
Ø	Delete
6	Undo
	Redo
6	Undo List: Opens Undo list window
	Edit Mode: Enables/disables Edit mode
	Layout: Opens "Layout Tool" on page 9
	Canvas: Opens "Canvas Setup Properties" on the next page
	Go Online
-1	Send to Mobile Device: Sends file to mobile device

# **Project/Properties Panel**

Selecting the **Project** tab displays a tree view of devices and controls in the opened project file. Selecting the **Properties** tab displays properties for a selected object on the canvas.

# **Control Panel Canvas**

This canvas is the workspace for creating control panels. The size, shape, orientation, and other properties of the Canvas is set using the **Canvas Setup Properties** tool in the toolbar. See "Canvas Setup Properties" on the next page for more details.

# **Canvas Setup Properties**

The **Canvas Setup** window allows you to define the size and features of the control panel you are creating.

🚻 Canvas Set	up	×		
Device:	User Defined	• OK		
Size:	6 inches	Cancel		
Aspect Ratio:	16:9 👻	Units		
Orientation:	Portrait 👻	Inches     Centimeters		
Top Slot:	Standard Toolbar 🔹			
Bottom Slot:	Statusbar 👻			
Skin:	Light -	Customize		
Accent:	Blue 👻	Device List		
Center Controls Horizontally Centering will be applied when this dialog is closed				

#### Canvas Setup window

The Canvas Setup window includes the following properties:

• Device: Determines the canvas Size and Aspect Ratio for the selected device. The drop-down menu includes several pre-populated options, as well as any devices added using the Custom Device List button (described later in this topic). The User Defined option allows you to set values such as size and aspect ratio manually.

**Note: Size** and **Aspect Ratio** can only be adjusted manually when **User Defined** is selected as the device.

- Size: Diagonal screen dimension of the selected device.
- Units: Specifies whether the measurement unit in the **Size** field is in inches or centimeters. This option appears on the right side of the window.
- Aspect Ratio: The proportional relationship between the width and height of the screen on the selected device.
- Orientation: Changes the orientation of the screen between portrait and landscape.
- **Top Slot/Bottom Slot:** Places the Standard Toolbar, Minimum Toolbar, Statusbar, or no toolbar (None) in the top/bottom border of the canvas.
  - **Standard Toolbar:** The left end of the toolbar includes the name of the site where the panel will be used. You can edit the site name in the **Layout** window. The right side of the toolbar includes an **Online/Offline** link indicator and a **Setup** information button.

SITE NAME	° 🗘

- **Minimum Toolbar:** This toolbar includes the **Online/Offline** link indicator and the **Setup** information button.



Status bar: The Status bar indicates which collection of panels has been selected. The dots
indicate how many panels are in the collection (there is always one blank panel). Click the
left/right arrows to view other panels - the highlighted dot will move left/right accordingly. If
multiple collections exist, you can click COLLECTION to open a list of panel collections and
select a different one.

1	COLLECTION1	5
	0 0 •	

- None: Removes the toolbar from the canvas.
- Skin: Selects a light or dark skin for the panel.
- Accent: Selects an accent color (Black, Blue, Green, Pink, Red, or Yellow) for the controls dragged into the panel.
- **Center Controls Horizontally:** When this check box is selected, the controls are centered in the workspace. This applies only when creating custom control panels.
- Units: Specifies units of measurement as either inches or centimeters.
- **Customize Device List:** This button appears on the right side of the **Canvas Setup** window and opens the **Custom Device List** dialog box, in which you can create device definitions other than those in the **Device** drop-down menu.

H Custom Device List	×
Create Device Definition	
Name	Delete Selected
Diagonal Length inches	Move Up
Portrait Aspect Ratio	Move Down
Height	Save to External File
Width Add	Load From External File
Ratio invalid	Ignore duplicates
Save Clo	se

Custom Device List dialog box

# Layout Tool

The **Layout** tool manages the collections and control panels being created in ControlSpace Remote Builder software. Initially, the **Layout** tool provides one collection (COLLECTION1) with one blank panel (Home). You can add additional blank panels from the template list to create custom layouts.

Layout ×			
Site: SITE NAME	ОК		
👻 - Blank Panel	Cancel		
~ 🗐 COLLECTION1			
💪 Home	Add Collection		
	Delete Collection		
	Add Panel		
	Delete Panel		
	Move Up		
	Move Down		
	Edit Title		

Initial **Layout** tool content

The **Layout** tool provides the following control buttons:

- **OK:** Stores changes and closes the tool.
- **Cancel:** Closes the tool without making any changes.
- Add Collection: Adds another collection to the list.
- **Delete Collection:** Removes the selected collection from the list.
- Add Panel: Adds another control panel to the list
- Delete Panel: Removes the selected control panel from the list
- Move Up: Moves the selected item up one line in the list.
- Move Down: Moves the selected item down one line in the list.
- Edit Title: Allows changing the title of the selected collection or control panel.

# **File Types**

The ControlSpace Remote Builder application is compatible with the following file types:

File Type	Description
.csp	ControlSpace Designer project file.
.cpf	Custom control panel file.
.cpz	A packaged file that includes data from a control panel file (.cpf) and its associated ControlSpace Designer project file (.csp).

# **Creating Panels Using Templates**

# **Creating Control Panels**

- 1. Open the ControlSpace Remote Builder app on your computer using the desktop icon.
- 2. In the ControlSpace Remote Builder window, click the Open CSP File tool.

ControlSpace Remote builder -			-	×
File Edit Layout Tools Help		<b>I B</b>	6	)
Groups ParameterSets RCGroups ParameterSetLists > Graphics > System > Links	SITE NAME			0
> Project  Properties	<	COLLECT	ION1	>

Open CSP File tool

3. In the **Open ControlSpace Designer File** window, select a ControlSpace Designer (CSD) project file and click **Open**.

🚻 Open ControlSpace Designer	File				×
	Doc > ControlSpace Remote builder	νÖ	Search ControlS	pace Rem	ote 🔎
Organize 👻 New folder					•
This PC	Name		Date modified	Туре	
C Desktop	Semo.csp		9/19/2018 12:42 PM	CSP File	1
Documents					
👆 Downloads					
👌 Music					
E Pictures					
📱 Videos					
Windows (C:)	<				>
File name	Demo.csp		CSD Files (*.csp	)	~
			Open 🚽	· Ca	ancel

Selecting a Project File

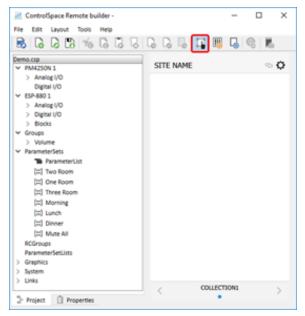
4. Ensure that all of the devices and controls in the CSD project are listed in the **ControlSpace Remote Builder** window.

lle Edit Layout Tools Help	5 G G G 🛯 🖬 I	G @ K
iemo.csp		
PM4250N 1	SITE NAME	~ <b>Q</b>
> Analog I/O		
Digital I/O		
✓ ESP-880 1		
> Analog I/O > Digital I/O		
> Blocks		
✓ Groups		
> Volume		
✓ ParameterSets		
ParameterList		
(=) Two Room		
[II] One Room		
(III) Three Room		
[=] Morning		
(III) Lunch		
(=) Dinner		
[=] Mute All		
RCGroups		
ParameterSetLists		
> Graphics		
> System > Links		
> Links		

Project File Devices and Controls

5. Before you begin creating a control panel, ensure that **Edit** mode is selected.

Note: Edit mode must be enabled in order to create a control panel.



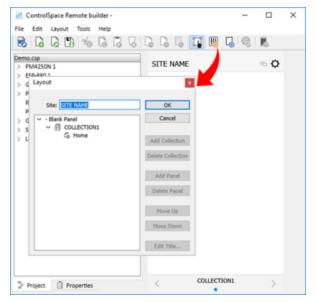
Edit Mode Selected

In the toolbar, click the Canvas tool. Make your selections and click OK.
 Note: See "Canvas Setup Properties" on page 7 for more information.

	sp 4250N 1 -680 1		SIT	e name	~ <b>0</b>
-	1007 1				
Pa	🖹 Canvas Set	up		×	
Pa	Device:	User Defined		ОК	
Sy:	Size:	Mimo Adapt-1Q (7 Galaxy 58	Inch)	Cancel	
	Aspect Ratio:	Galaxy S8+ Galaxy Tab S3		6	
	Orientation:	Google Pixel Google Pixel 2		Inches	
	Top Slot:	Google Pixel C iPhone 8 iPhone X		Centimeters	
	Bottom Slot:	Phone X	-	1	
	Skinc	Light	*	Customize	
	Accent:	Blue	-	Device List	
		enter Controls Horiz	ontally		
	20				

Selecting canvas size for your device

7. In the toolbar, click the **Layout** tool.



Clicking the Layout tool

8. In the **Layout** window, add a template to the workspace. For example, click **Home** under **COLLECTION1**. Click **Add Panel**, select a template and click **OK**.

File Edit Layout Tools Help	6666	1	٦	ę ,
Demo.csp > PM4250N 1 > ESP-880 1 > Groups > ParameterSt RCGroups	SITE NAME 1 Fader 1 Mut	e 1 Sele	ctor	>
<ul> <li>&gt; ParameterSe</li> <li>&gt; Graphics</li> <li>&gt; System</li> <li>&gt; Links</li> <li>&gt; Elank Panel</li> <li>&gt; COLLECTION1</li> <li>Collection</li> <li>Collection</li> <li>Collection</li> <li>Collection</li> <li>Collection</li> </ul>	Add Collec Aute 1 Sel Delete Colle Add Pan Delete Pa Move U Move Do Edit Title	tion ction ed p wn		

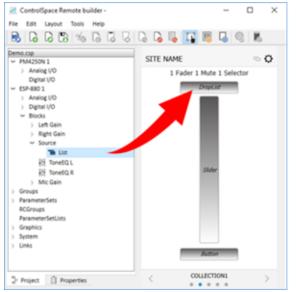
Selecting a control panel template

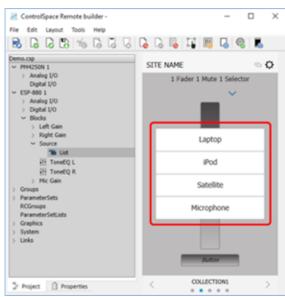
	Ht C	ontrol	Space	Ren	note bu	uilder	-					_			$\times$
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	8	6	6	В	1%	6	6	6	G G	6	1	G	€	6	
	Demo	.csp M4250	N 1						SITE	NAME				∽ ⊀	3
Select a Template								x		1 Fader	1 Mute	1 Sel	ector		
- Blank Panel				^		OK		1			DropL	ist			
1 Fader 1 Mute 1 Selector 1 Fader 1 Mute 1 Selector 1 Fader 1 Selector 2 Fader 2 Mute 1 Selector 2 Fader 2 Mute 2 Selector 2 Fader 2 Fader 2 Parameter Sets 4 Parameter Sets 6 Parameter Sets				~		Cano					Slide	r			
			Å						4	C	Butto		,		
	P P	roject	E	Prop	perties										

Placing the template in the workspace

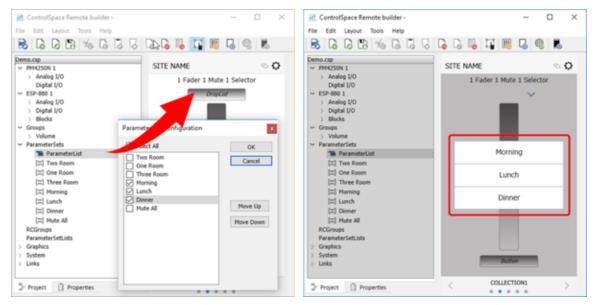
9. Drag controls to the predefined locations on the control panel template (see the following examples).

**Note:** To verify the operation of any control panel feature such as a slider or drop list, be sure to disable **Edit** mode.

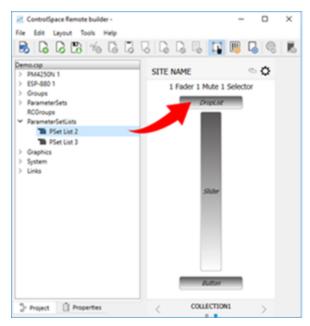




Dragging a Source list to the Drop List

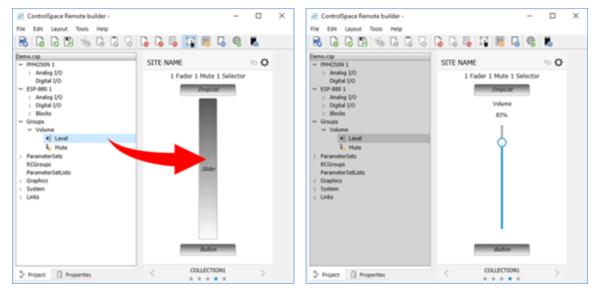


Dragging a list of Parameter Sets to the Drop List



🥂 ControlSpace Remote builder -		-		$\times$
File Edit Layout Tools Help				
66666	3 💪 💪 🖳 📬	🕫 🎝	9	R
Demo.csp > PMA250N 1 > ESP-880 1 > Groups > ParameterSets RCGroups * ParameterSetLists * ParameterSetList 3 > Graphics > System > Links	SITE NAME I Fader 1 Mute 1 Three Roo Morning Lunch Dinner Mute All Autor	m		
Project 🗍 Properties	COLLECTION	4	>	

Dragging a Parameter Set List to the Drop List



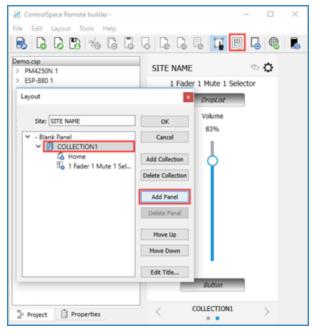
Dragging the group volume gain to the slider

To change volume limits on a slider, select the slider and click the **Properties** tab. Within this pane you can set maximum and minimum limits and select **Percent** or **dB** for units.

ControlSpace Remote builder -	-		×
File Edit Layout Tools Help			
🗟 🔓 🖓 🖏 🖓 🖓 🖓 🖓	15 😼	¢	5
Slider : ESP-880 1 : Volume SITE NAME	0	ò	
x 101 Width 40 1 Fader 1 Mute 1 5		*	
Y 60 Height 303 Droplat			
Max 12 dB Vertical Volume			
Min -60 dB O Horizontal 83%			
Units Percent  Color Text Volume	_		
Project Properties COLLECTION	L	>	

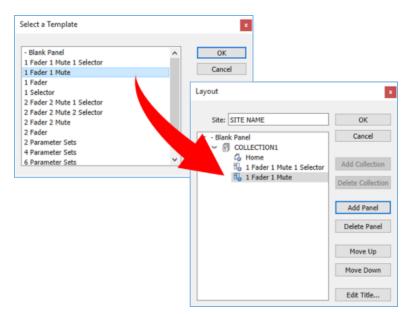
### Volume Properties

10. To add another panel, click the **Layout** button, select **COLLECTION1**, and then click **Add Panel**.

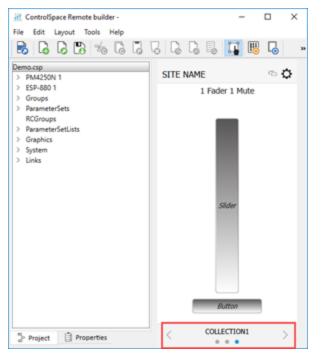


#### Locating the Add Panel button

11. Select a panel template and click **OK**. Repeat this procedure to add as many panels as needed. Click the left and right arrows in the **Status** bar to scroll through the panels.



Adding another panel template to the Layout



COLLECTION1 with one blank panel and two templates

**Note:** To change the collection name, select **COLLECTION1** and click **Edit Title**. Enter the new name and click **OK**.

ControlSpace Remote builder - File Edit Layout Tools Help	- 0	×
5 5 6 8 6 5	6 6 6 5 6 🖬 8 6	39
Demo.csp > PM4250N 1	SITE NAME	¢
> ESP-880 1 > Layout	* Cader 1 Mute	
Site: SITE NAME	ок	
<ul> <li>Sink Panel</li> <li>COLLECTION1</li> <li>G Home</li> <li>1 Fader</li> <li>1 Fader</li> </ul>	Cancel	
	Move Up Move Down	
	Edit Title	
	Button	
Project	< COLLECTION1	>

Changing Name of COLLECTION1.

12. To add another collection, select **COLLECTION1** again and click **Add Collection**. **COLLECTION2** is added to the Layout.

layout	x	Layout	
Site: SITE NAME	OK Cancel	Site: SITE NAME	OK Cancel
Control Home Control Home Co	Add Collection Delete Collection	G Home G Home G 1 Fader 1 Mute 1 Selector G 1 Fader 1 Mute COLLECTION2	Add Collection
	Add Panel Delete Panel		Add Panel Delete Panel
	Move Up Move Down		Move Up Move Down
	Edit Title		Edit Title

#### Adding collection

- 13. To create more panels, add more templates or blank panels and drag-and-drop controls to them.
- 14. When you are done, click **Save Remote app File**.



Save Remote app File button

# Sending to a Mobile Device

To send a panel to your mobile device, make sure your PC and mobile device are connected to the same

Wi-Fi<sup>®</sup> router.

- 1. Launch the ControlSpace Remote app on your mobile device.
- 2. Touch the **Settings** icon.



Remote App Settings icon

3. In the pop-up menu, touch **Receive**.

Demo Mode 🗢 🗘
BOSE PROFESSIONAL
pro.Bose.com
This file demonstrates the type of
Setup
About ControlSpace Remote
Project Information
Network Status
Receive
ControlSpace Remote only works with
Bose Professional Audio Systems and
will not provide control of any Bose
Consumer products such as LifeStyle
and SoundTouch systems.
< Audio Controls >

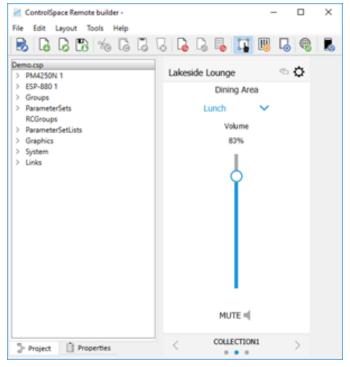
Selecting Receive in the Remote app

The **Receive Control Panel** dialog box appears and reveals the IP address that you will use in Step 5.

Demo Mode 🗠 🗘	Der
BOSE PROFESSIONAL	В
pro.Bose.com	
This file demonstrates the type of	
E Receive Control Panel	E
Mobile IP Address:	
F 192.168.0.3	F h
Cancel	
Please Note:	
ControlSpace Remote only works with Bose Professional Audio Systems and	
will not provide control of any Bose Consumer products such as LifeStyle	
and SoundTouch systems.	
< Audio Controls	<
• • • • • •	

Receive Control Panel Dialog Box

4. On your computer, in the ControlSpace Remote Builder toolbar, click the **Send to Mobile Device** icon.



Send to Mobile Device

5. In the **Send to Mobile Device** dialog box, enter the IP address from the **Receive Control Panel** dialog box on the mobile device and click **OK**.

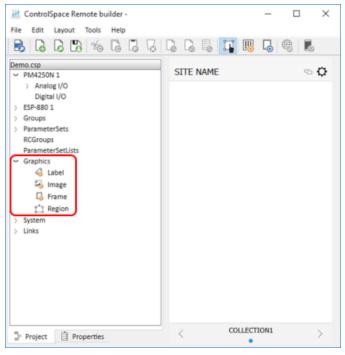


The control panel file will be transferred to the mobile device.

# **Creating Custom Panels**

# **Creating Custom Layouts**

You can create your own customized control panels by using the tools and options available in ControlSpace Remote Builder. From the **Project** tab, you can combine labels, images, frames, and regions to create a customized layout. The **Layout** menu functions can help you position the objects you placed on the canvas.



Locating Graphics

# Importing Backgrounds

You can import backgrounds to place maps, floor plans, or other graphics of a venue into the work-space.

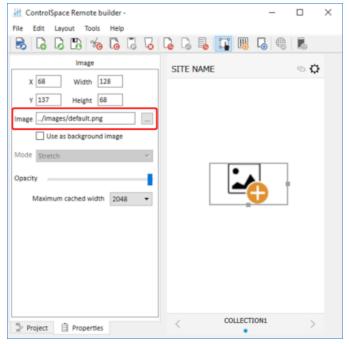
To place a floor plan or map on the canvas:

- 1. On the **Project** tab, expand the **Graphics** group.
- 2. Drag the **Image** icon onto the canvas.

it ControlSpace Remote builder -	- 0	) ×
File Edit Layout Tools Help		
8 6 8 % 6 6 7 8 8	6	
Demo.csp SITE NAME		~ *
* PM4250N 1		© ₿
> Analog I/O		
Digital I/O		
> ESP-880 1		
> Groups > ParameterSets		
RCGroups		
ParameterSetLists		
✓ Graphics		
4 Label		
- Image		
G Frame		
TT Region		
> System		
> Links		
COLLECT	TON1	
Project Properties		>

Dragging Image icon into the Canvas

- 3. In the canvas, double-click the **Image** icon. The **Properties** tab will automatically be selected.
- 4. On the **Properties** tab, navigate to the file you want to import from your computer and click **Open**. The file will appear on the canvas.



Searching for an Image

5. Re-size the image by dragging the handles on the right side and bottom of the image frame. Alternatively, set the image as a background image by selecting the **Use as background image** check box and adjusting the available parameters, which are listed below.

H ControlSpace Remote builder - File Edit Layout Tools Help	-	
5 6 8 % 5	G G 6 🚺 🚺 🐻 🖓	
Image	SITE NAME	⊙ <b>Ç</b>
X 0 Width 0		
Y 0 Height 0 Image/images/default.png		
Use as background image		
Mode Pad 👻		
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- **Mode:** Specify how to adjust the background image size with respect to the canvas. Options include:
  - **Stretch:** Fits the width and height of the image to match the canvas size. This option does not preserve the aspect ratio of the original image.
  - **Preserve aspect and fit:** Fits the larger image dimension to the canvas size, while preserving the aspect ratio of the original image.
  - **Preserve aspect and crop:** Fits the smaller image dimension to the canvas size, while preserving the aspect ratio of the original image.
  - **Tile:** Repeats the image horizontally and vertically to fill the canvas. This option preserves the size and aspect ratio of the original image.
  - **Tile Vertically:** Fits the image width to the canvas size, then repeats the image vertically to fill the canvas. This option does not preserve the aspect ratio of the original image.
  - **Tile Horizontally:** Fits the image height to the canvas size, then repeats the image horizontally to fill the canvas. This option does not preserve the aspect ration of the original image.
  - **Pad:** Centers the image on the canvas. This option preserves the aspect ratio of the original image.
- **Opacity:** Use the slider to adjust the opacity of the background image.
- **Maximum cached width:** Set the maximum cache width used for the background image. Larger cache size allows for higher-resolution images, but may have a longer load time. Smaller cache size may allow image to load faster, but display with a lower resolution.

## Adding images

ControlSpace Remote Builder software includes an image library of sources and zones that may be used to create your custom control panel. Library images are available in five colors: Blue, Green, Pink., Red, and Yellow.

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B_Sales.png	B_Stock.png	B_WomensRestro om.png			3	

Zone Image Library

To place a library image on the canvas,

1. Follow Steps 1-3 of the Importing Backgrounds procedure (above) and drag the image icon into the canvas.

2. On the **Properties** tab, navigate to the directory for the **Sources** and **Zones** folders.

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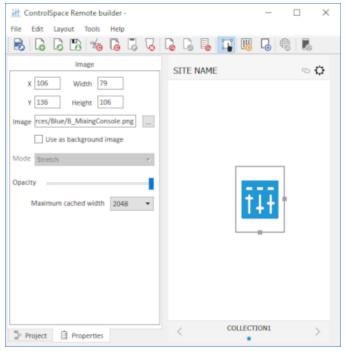
Locating Sources and Zones images

3. Open the folder that corresponds with the color you wish to use.

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Choosing colored images

4. Select an image and click **Open**. The image will appear on the canvas.



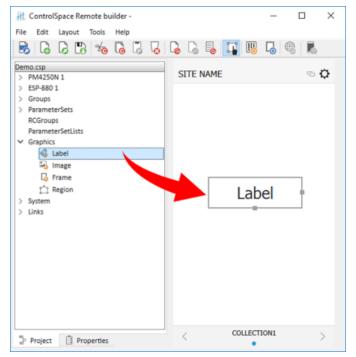
Selected Blue Image on Canvas

Note: Image colors match the skin accent colors selected in the Canvas Setup properties.

5. Re-size the image by dragging the handles on the right and bottom edges of the image frame.

# **Adding Text Frames & Labels**

Use the **Label** option in the **Graphics** group to place a text field on other graphics and create labels or text strings. Resize labels by dragging the handles on the right and bottom edges of the frame.



Dragging a Label into the Canvas

Double-click the label in the canvas or click the **Properties** tab to display the label properties.

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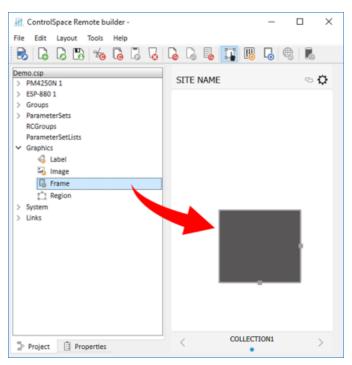
### Label Properties

Label properties include the following parameters:

- X/Y: Specifies the X/Y coordinates of the upper-left corner of the label.
- Width/Height: Specifies the width and height of the label.
- **Text:** Provides an area in which to enter text for the label.
- Align: Positions the text left, right, or center.
- Scale: Changes the size of the text.
- **Color:** Changes the color of the text.

## Adding a Frame

Use the **Frame** option in the **Graphics** group to add a rectangular shape to your design. Resize frames by dragging the handles on the right and bottom edges of the frame.



Dragging a Frame into the canvas

Double-click the frame in the canvas or click the **Properties** tab to reveal the frame properties.

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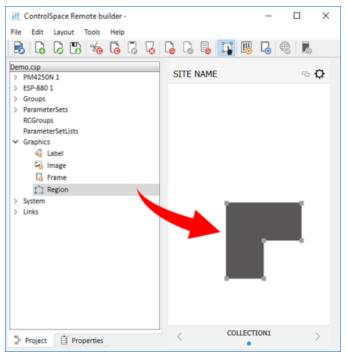
### Frame Properties

Frame properties include the following parameters:

- **X/Y:** Specifies the X/Y coordinates of the upper-left corner of the frame.
- Width/Height: Specifies the width and height of the frame.
- Field Color: Changes the fill color.
- Border Color: Changes the color of the border.
- Border Width: Changes the line weight of the border.

# **Adding a Region**

Use the **Region** option in the **Graphics** group to add a customizable polygon to the canvas. A region can be linked to an existing control panel. Reshape regions by dragging the handles on the edges of the frame. To add another handle, press and hold the Ctrl key, place the cursor where you want the handle, and then click the mouse button. To remove a handle, press and hold Ctrl+Shift, and then click the handle you want to remove.



Dragging a Region into the canvas

Double-click the region in the canvas or click the **Properties** tab to reveal the region properties.

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### **Region Properties**

Region properties include the following parameters:

- **X/Y:** Specifies the X/Y coordinates of the upper-left corner of the region.
- Width/Height: Specifies the width and height of the region.
- Field Color: Changes the fill color.
- Border Color: Changes the color of the border.
- Border Width: Changes the line weight of the border.
- Path: Links the region to an existing control panel.

# **Creating Custom Controls**

Project controls listed in the tree view can be dragged into a custom panel design. The appearance of buttons, sliders, and drop-lists can be changed using their individual properties.

## **Custom Buttons**

- 1. From the **Project** tab, drag a button into the canvas.
- 2. Using the handles on the right and bottom edges, resize the button.

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Dragging a Button onto the Canvas

3. To access the button properties, double-click the button or click the **Properties** tab.

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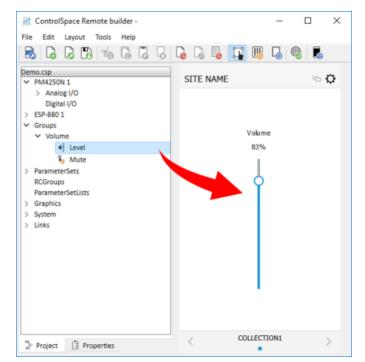
Viewing the Mute Button Properties

- 4. Adjust the properties as desired, using the options available in the tabs:
- Main tab:
  - **X/Y:** X/Y coordinates of the upper-left corner of the frame.
  - Width/Height: width and height of the button.
  - Mode: selects how the button appears: Text, Image, or Text+Image (both).

- Border: when checked, places a border around the button.
- **Text** tab (only active in Text and Text+Image modes):
  - Text: allows text entry for button labels when mute is off or on.
- Images tab: (only active in Image and Text+Image modes)
  - Image: specifies whether to use the default icon or a custom image.
  - Off: specifies image when mute is off.
  - **On:** specifies image when mute is on.

### **Custom Sliders**

- 1. From the **Project** tab, drag a slider into the canvas.
- 2. Using the handles on the right and bottom edges, re-size the slider.



Dragging a Slider into the Canvas

3. To access the slider properties, double-click the slider or click the **Properties** tab.

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Viewing the Slider Properties

- 4. Adjust the properties as desired:
  - **X/Y:** X/Y coordinates of the upper-left corner of the frame.
  - Width/Height: width and height of the slider.
  - Max: selects the maximum value on the slider.
  - Min: selects the minimum value on the slider.
  - Vertical/Horizontal: sets the orientation of the slider as vertical or horizontal.
  - Units: specifies dB or Percent for volume measurement.
  - **Color:** selects the color of the slider.
  - **Text:** allows entry of a label for the slider.

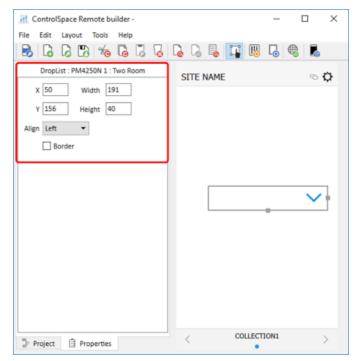
# **Custom Drop-lists**

- 1. From the **Project** tab, drag a list into the canvas.
- 2. Select the items you want in the list and click **OK**.

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Dragging a Drop List into the Canvas

- 3. Using the handles on the right and bottom edges, resize the drop list.
- 4. To access the drop-list properties, double-click the list or click the **Properties** tab.



Viewing the Drop List Properties

- 5. Adjust the properties as desired:
  - **X/Y:** X/Y coordinates of the upper-left corner of the frame.
  - Width/Height: width and height of the slider.
  - Align: positions the list Left, Center, or Right
  - Border: when checked, places a border around the button.

## **Custom RCGroups**

- In the **Project** tab, expand the device with the desired room controls. Drag the desired control(s) for one of the rooms onto the canvas. (Controls for standard room combiner blocks [StRC] will be under the **Blocks** item for the device.)
- 2. Create an additional panel for each room you want to add:
  - a. Click the **Layout** icon in the toolbar, or click **Tools** > **Layout**.
  - b. In the Layout window, select the desired collection, and then click Add Panel.
  - c. In the Select a Template window, select Blank Panel, and then click OK.
  - d. In the **Layout** window, click **OK**. Below the canvas, there should be an additional dot in the **Status** bar to indicate a new panel.
  - e. In the **Project** tab, expand the device with the desired room controls. Drag the desired control(s) for one of the rooms onto the canvas.
- 3. Repeat Step 2 to create a separate panel for your room-combining controls.
- 4. On the **Project** tab, expand the **RCGroups** item, and then expand the **RCGroup** with the desired rooms.
- 5. Drag the **Combination Control** for the RCGroup onto the canvas. This is the selector for each room combination.
- 6. Drag the desired control(s) for each room you created in Steps 1-2 onto the canvas.
  - **Room Name:** the name of the room in the RCGroup.
  - Active Combination: a field that shows the names of the other rooms in the combination.
  - **Room Layout:** an adjustable polygon representing the layout of the room. Drag a handle on the edge of the layout to move it. Press and hold the Ctrl key and click an edge of the polygon to add another handle at that location. Press and hold Ctrl+Shift and click a handle to remove it.
- 7. To access the properties of an item in any of the panels, double-click the item or click the **Properties** tab. Adjust the properties as desired.

RCGroup items include the following properties:

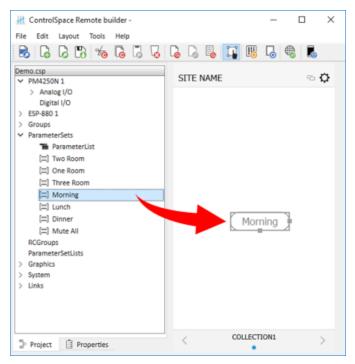
- **RCGroup Name:** the properties are identical to those of a label (see Adding Text Frames & Labels in Creating Custom Layouts).
- Combination Control:
  - Y: the Y coordinate of the upper-left corner of the selector frame.
  - Height: the height of the selector frame.
  - Side Margins: the width of the margin on either side of the selector frame.
- **Room Name:** the properties are identical to those of a label (see Adding Text Frames & Labels in Creating Custom Layouts).
- Active Combination:
  - **Y:** the Y coordinate of the upper-left corner of the frame.
  - **Height:** the height of the frame.
  - **Side Margins:** the width of the margin on either side of the frame.

- Color: the color of the text inside of the frame.
- Border Color: the color of the border of the frame.
- Border Width: the width of the border of the frame.
- **Separator:** the character(s) that separate the combined room names shown in the frame.
- Room Layout:
  - **X/Y:** X/Y coordinates of the upper-left corner of the region.
  - Width/Height: width and height of the region.
  - **Opacity:** the opacity of the region.
  - Border Color: the color of the border of the region.
  - Border Width: the width of the border of the region.

Other controls are described elsewhere in this help topic: Custom Buttons, Custom Sliders, Custom Drop-lists, Custom Parameter Sets, Custom Parameter Set Lists, Custom Links, Custom Setup Button, or Custom Remote Connection Indicator.

### **Custom Parameter Sets**

1. From the **Project** tab, expand **ParameterSets** and drag a parameter set onto the canvas.



Dragging a Parameter Set onto the Canvas

- 2. Using the handles on the right and bottom edges, resize the button.
- 3. To access the properties, double-click the button or click the **Properties** tab.

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### Viewing the Parameter Set Button Properties

- Adjust the properties as desired:
  - **X/Y:** X/Y coordinates of the upper-left corner of the frame.
  - Width/Height: width and height of the button.
  - **Mode:** selects how the button appears: text, or text+image.
  - Border: when checked, places a border around the button.
  - **Text:** in Text mode, allows text entry for a button label.
  - **On/Off:** in Image mode, allows an image selection for both on/off states of the button.

## **Custom Parameter Set Lists**

- 1. From the **Project** tab, expand **ParameterSetLists** and drag a **parameter set list** onto the canvas.
- 2. Using the handles on the right and bottom edges, resize the button.
- 3. To access the properties, double-click the button or click the **Properties** tab.
- 4. Adjust the properties as desired:
  - **X/Y:** X/Y coordinates of the upper-left corner of the frame.
  - Width/Height: width and height of the button.
  - Align: selects the horizontal alignment of the text in the button.
  - Border: when checked, places a border around the button.

### **Custom Links**

1. From the **Project** tab, expand **Links**, expand a collection, and then drag a control panel onto the canvas.

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Dragging a Link onto the Canvas

- 2. Using the handles on the right and bottom edges, re-size the button.
- 3. To access the properties, double-click the button or click the **Properties** tab.

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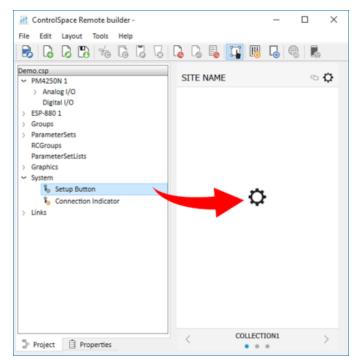
Viewing the Panel Link Properties

- 4. Adjust the properties as desired:
  - X/Y: X/Y coordinates of the upper-left corner of the frame.
  - Width/Height: width and height of the button.
  - **Mode:** selects how the button appears: text or image.

- **Border:** when checked, places a border around the button.
- **Text:** in Text mode, allows text entry for a button label.
- Image: in Image mode, allows selection of an image to use on the button.
- **Path:** links the button to an existing control panel.

## **Custom Setup Button**

1. From the **Project** tab, expand **System**, and then drag a **Setup Button** onto the canvas.



Dragging a Setup Button into the Canvas

- 2. Using the handles on the right and bottom edges, resize the button.
- 3. To access the properties, double-click the button or click the **Properties** tab.

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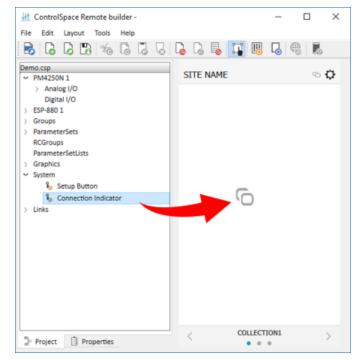
Viewing the Button Properties

Adjust the properties as desired, using the options available in the tabs:

- Main tab:
  - **X/Y:** X/Y coordinates of the upper-left corner of the frame.
  - Width/Height: width and height of the button.
  - Mode: selects how the button appears: Text, Image, or Text+Image (both).
  - Border: when checked, places a border around the button.
- **Text** tab (only active in Text and Text+Image modes):
  - **Text:** allows text entry for a button label.
- Images tab (only active in Image and Text+Image modes):
  - **Image:** specifies whether to use the default icon or a custom image. If you select **Custom**, locate the desired image by using the field that appears below the drop-down menu.

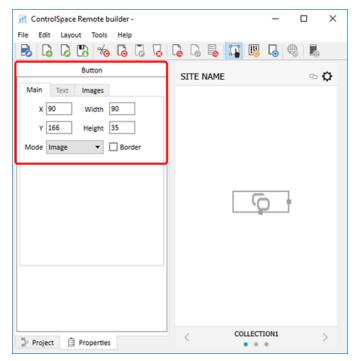
## **Custom Remote Connection Indicator**

1. From the **Project** tab, drag a connection indicator button from **System** onto the canvas.



Dragging a Connection Indicator Button into the Canvas

- 2. Using the handles on the right and bottom edges, resize the button.
- 3. To access the properties, double-click the button or click the **Properties** tab.



Viewing the Button Properties

- 4. Adjust the properties as desired, using the options available in the tabs:
  - Main tab:

- **X/Y:** X/Y coordinates of the upper-left corner of the frame.
- Width/Height: width and height of the button.
- Mode: selects how the button appears: Text, Image, or Text+Image (both).
- Border: when checked, places a border around the button.
- **Text** tab (only active in Text and Text+Image modes):
  - Text: allows text entry for button labels when the connection is off, on, or partial.
- Images tab (only active in Image and Text+Image modes):
  - Image: specifies whether to use the default icon or a custom image.
  - **Off:** specifies image when the remote connection is off.
  - **On:** specifies image when the remote connection is on.
  - **Partial:** specifies image when the remote connection is partially active.