

Favorites

Favorites allow you to assign common tasks and settings to buttons on the graphical user interface (GUI) such as a TouchLinX or web browser. Before you can create a Favorites button, you must create macros. DigiLinX supports an unlimited number of macros. Each macro can have approximately 20 steps.

Once you have created the macros for your system, you must create and name a button on the Favorites screen for the consumer to access the macros. DigiLinX supports an unlimited number of Favorites.

Understanding Macros

Macros contain multiple actions you want to perform in sequence. A macro can be as simple as turning on the XM radio and switching to a favorite station or as complicated as turning on the light in one room, turning off the lights and playing three separate CDs on a timer in three other rooms, and turning on the intercom in the nursery.

Macros can be generic (apply to current room), specific (apply to a certain room), or global (apply to every room).

Basic Macro Process

Before you write any macro, verify your entire DigiLinX system is functional, including any integrated components. This includes properly naming all rooms, devices, and streams, matching devices, and learning all IR codes.

If you cannot control a source from a TouchLinX, you will not be able to successfully write or test macros.

To write a macro, start by selecting a general category and then drilling-down to get to the exact function you want to set. The six categories group similar functions.

- **Audio/Video Player Services:** Contains actions applying to a SpeakerLinX. Controls selecting the source to play, where to distribute the audio, and adjusting audio settings such as the equalizer.
- **Control Services:** Contains actions for relays and sensors as well as IR and RS-232 controlled devices, like presses and releases for lighting buttons.
- **Intercom Services:** Contains actions applying to the intercom functions of the DigiLinX system.

- Room Services: Contains actions that apply to an entire room and all of its devices.
- Source Services: Contains actions applying to networked devices connected to a MediaLinX and native audio devices connected to the SwitchLinX like a media server.
- User Interface Services: Contains actions applying to the DigiLinX GUI such as TouchLinX.

After you select a Category, the Services dropdown list shows components you can manipulate in that category. The available Services are unique to each project and the names of the services are those you used when building the project. A service may contain other services. If this is the case you are presented with a Sub-service dropdown list.

After you have defined exactly what you want to control, enter the action, any needed parameter, and any needed delays.

Macro Guidelines

Macros are unique to each project, depending on the product configuration and customer needs. You should, therefore, expect to spend time tweaking the macros to ensure the exact result is achieved. There are, however, some general principles to aid you.

Sending a macro action when the device is already in that state does not change the state. For example, if the macro sends the command to turn on the amplifier of a SpeakerLinX that is already on, the amplifier simply stays on. Macros should not be dependent on knowing the status of the device.

If you create macros with a media server and want to select a specific artist to play, you need to type in the artist's name. Macros handle case sensitivity the same as presets. To avoid any problems with the artist not being recognized, enter the artist information exactly as it appears on a TouchLinX.

The Advanced View shows the code of the macro step. You can change the code in the advanced view, including adjusting settings not available in the Basic view. If you do change the code, that step shows the modified code, even in the Basic view.

If you rename a SpeakerLinX room or any service, the information does not update in all places. If you rename a room, select the new name on relevant devices such as the TouchLinX (on the User Interface tab). When you add a macro to a favorite, you may see both the original service name and the new service room name. Select the updated name; if only the original name appears, manually enter the correct name in the Advanced View. If you change a name in the project after creating macros, you must manually update the macros with the new information.

The information you enter on the Labels tab of a *ControLinX* appears in the Macro Builder. For example, the Sub-service field shows either Lutron RadioRA Phantom Buttons or the text you entered on the Labels tab.

If you have created groups as discussed in *Groups* in Chapter 8 that contain audio players, you can use these groups to create MultiRoom sessions in macros. MultiRoom sessions allow you to send commands to all audio player services in the group and

links the rooms. When linked, a change from one TouchLinX applies to all rooms. You must first add a step selecting the desired group in the Services list and then add another step selecting the now-available group MultiRoom.

When writing a macro there is a test function that runs the macro. If you have already tested a macro and need to edit the macro and retest it, reset the system to a state that can test all steps of the macro.

Creating Macros

Every function (called a service) on a DigiLinX device can be included in a macro. Services are simply logical constructs for device functions. A single DigiLinX device may host multiple services. A macro can contain 900 bytes, which is approximately 20 steps. The macro editor prevents you from creating a macro that is too long.

NOTE: If you change the name of a room or source *after* you create a macro, be sure to double check the macros you created.

To create a macro, open your current project and complete the following steps:

1. Select **Macros**.

The MACRO LIBRARY screen appears.



Figure 11-1 Macro library

2. Enter a name for your macro over the existing text in the **Macro** field, enter a description, if desired, and then click **Edit**.
The MACRO BUILDER screen appears.



Figure 11-2 Macro builder

3. Select the Category, Service, and, if enabled and needed, Sub-service.
This indicates which component should perform the action.
4. Select the first Action you want to take and, if enabled and needed, the Parameter.
Most macros have multiple actions. The macro must account for not knowing the current source or the state of that source.
5. Select the **Delay After Command**, if any.
When changing or powering sources, allow time for the action to happen. When sending IR commands, set a .5 second delay between each command, including between numbers.
6. Click **Add Step**.
The actions selected appear in Macro View.

7. Repeat steps 4 through 6 until the macro is complete.
A description of the entire macro appears in the MACRO BUILDER.



Figure 11-3 Macro steps

8. Click **Test Macro**.
The Macro Tester screen appears.



Figure 11-4 Macro tester

9. Select a device from the dropdown list and click **Send**.
Depending on the macro, select the appropriate options. Any DigiLinX device is able to test the macro.
The macro sends the commands. Click Close to return to the MACRO BUILDER screen.
If the macro did not execute as expected, edit the macro and retest. The Move Up, Move Down, Delete Item, and Clear All buttons help you rearrange or delete steps when editing a macro.

10. Click Save & Return to Library.

A selection of examples are provided in *Example Macros* on page 11-8.

The Macro Library screen appears.

11. If you want to apply the macro to a Favorite button now, click Add to Favorites.
You can also create all Favorite buttons from the Favorites screen, as described below.

The Add Macro to Favorites screen appears.



Figure 11-5 Add Macro to Favorites

12. Enter the text you want to appear on the Favorites button, select the rooms you want to have access to the button, and click Add. Use the **Select All** button to select all rooms or Ctrl + selection to select multiple rooms.

A message appears confirming success. Click the X in the upper right corner to close the message.



Figure 11-6 Favorite confirmation message

13. If you do not want to add the macro to a Favorite button, click Apply to save the macro.

The Apply button is disabled after it has finished saving.

14. Click the X in the upper right corner.

The Project screen appears.

15. Save the project and send the configuration to the devices. See Chapter 6 *Sending Configuration* for complete instructions.

Creating Favorites

Favorites are buttons that appear on the GUI and execute a macro you created. You can create a Favorite from the MACRO LIBRARY screen when creating a macro, or from the FAVORITES screen. You cannot create a Favorite until you have created macros and consumers cannot access the macros without Favorites.

Favorites are room specific; each room can have a unique selection of Favorites. You can also copy a Favorite to other rooms or even all rooms.

A macro must be linked to a Favorite before it can be used.

To create a macro, open your current project and complete the following steps:

1. Select **Favorites**.

The FAVORITES screen appears.

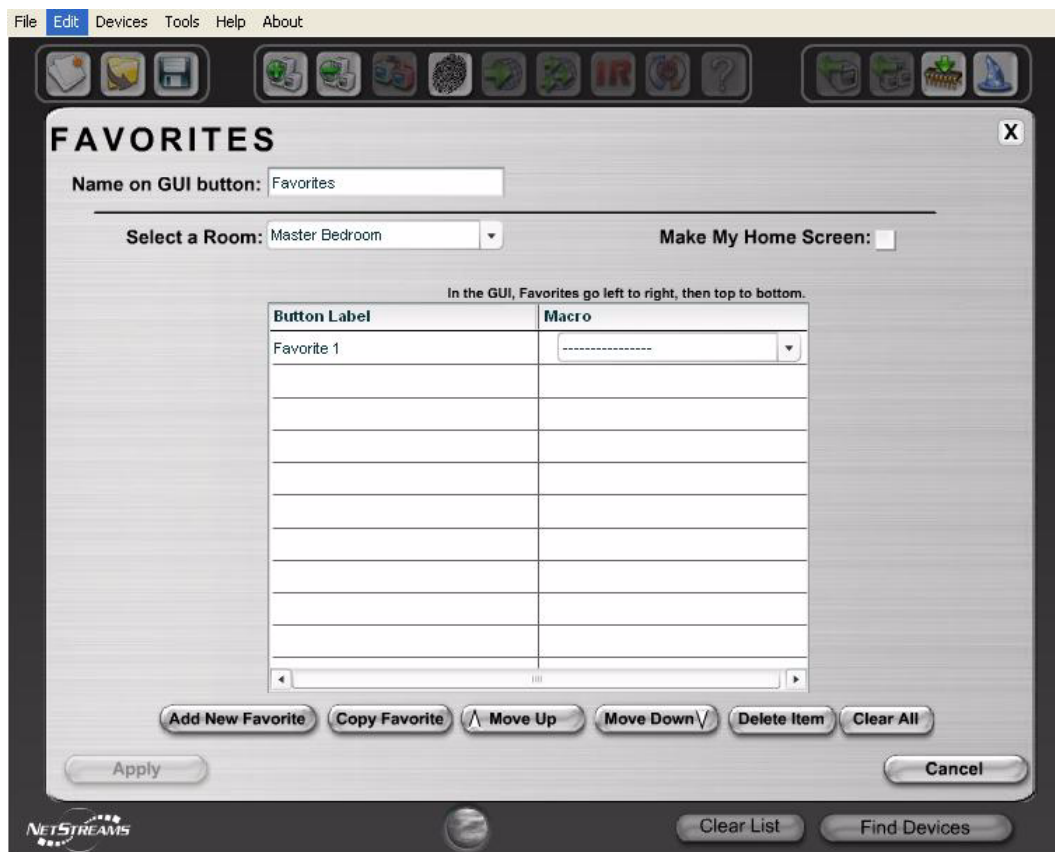


Figure 11-7 Favorites

2. Enter text over the existing text in the **Name on GUI** button field. Take into account how many characters can appear on the GUI given the skin used. This text appears on the Home screen and takes you to the Favorites you create.
3. From the **Select a Room** dropdown list, select the room where you want to access the Favorite.
4. If you want to make the Favorites screen your home screen on this room's GUI, click the Make My Home Screen checkbox.
5. Enter the text for the Button Label over the existing text in the first row and select the macro to execute for the button. Take into account how many characters can appear on the GUI given the skin used.

This button executes a macro.

6. To apply the macro to additional rooms, click the macro and then click **Copy Favorite**.

The Copy Favorite to Other Rooms screen appears.



Figure 11-8 Copy Favorite

7. Select the rooms you also want to have access to the button, and click **Copy**. Use the **Select All** button to select all rooms or Ctrl + selection to select multiple rooms.
8. If you want to add additional Favorites, click **Add New Favorite** and repeat step 5.
9. Click **Apply**.

The Apply button is disabled after it has finished saving.

10. Click the X in the upper right corner.

The Project screen appears.

11. Save the project and send the configuration to the devices. See Chapter 6 *Sending Configuration* for complete instructions.

Example Macros

The following examples illustrate the steps to consider when writing macros and show some of the types of macros you can write.

Because the entries in the dropdown list depend on the names you enter when creating a project, your macros will not look exactly like these examples.

Some of the steps shown below may not be necessary depending on the sources used. For example, some CD players automatically start playing when you select a specific track, others go to the track and wait for the play command. The macros in each

installation are unique to that installation based on information entered in the Dealer Setup program and the equipment used.

Goodnight

This macro turns off all music and lights. The macro takes advantage of the Lutron RadioRA dedicated Phantom Buttons; Phantom Button 16 is always All On and Phantom Button 17 is always All Off. If these buttons were renamed on the *ControLinX* Labels tab, that appears instead of Phantom Button 17.

1. Set Active Off of All Audio Players
2. Press Phantom Button 17 of Lighting

Table 11-1 shows the dropdown selections chosen to create each macro step.

Table 11-1
Goodnight

Step	Category	Service	Sub-service	Action	Parameter
1	Audio Player Services	All Audio Players		Set Active Off	
2	Control Services	Lighting	Phantom Button 17	Press Button	

Quick Party

Tune all rooms to the same source, set the volume, and change the UI screen to the player in all rooms.

1. Create MultiRoom Session (All Rooms MultiRoom)
2. Set Active On of All Rooms MultiRoom
3. Set Mute Off of All Rooms MultiRoom
4. Change Source of All Rooms MultiRoom to CD Player
5. Set Volume of All Audio Players to 30
6. Jump to Current Source's Screen of All Rooms

NOTE: This could also be Jump to CD Screen of All Rooms.

7. Send PLAY to CD Player

Table 11-2 shows the dropdown items selected to create each macro step.

Table 11-2
Quick Party

Step	Category	Service	Sub-service	Action	Parameter
1	Audio Player Services	All Audio Players		Create MultiRoom Session (All Room MultiRoom)	

Table 11-2
Quick Party

2	Audio Player Services	All Rooms MultiRoom		Set Active On	
3	Audio Player Services	All Rooms MultiRoom		Change Source	CD Player
4	Audio Player Services	All Rooms MultiRoom		Set Mute Off	
5	Audio Player Services	All Rooms MultiRoom		Set Volume	70
6	User Interface	All Rooms		Jump to GUI Screen	
7	Source Services	CD Player		Play	CD Screen

Exercise 1

Play a specific DVD track through the integrated Panorama system.

Not only are the items on the Service list based on what you entered when you created the project, the Action list for the Panorama driver reflect either generic button names or the name you provided on the Labels tab.

1. Change Source of Exercise Room Player to DVD Player
2. Sending Display On to Distributed Video
3. Send TRACK 5 to DVD Player
4. Send PLAY to DVD Player
5. Set Active On of Exercise Room Player
6. Set Volume of Exercise Room Player to 50

Table 11-3 shows the dropdown selections chosen to create each macro step.

Table 11-3
Exercise 1

Step	Category	Service	Sub-service	Action	Parameter
1	Audio Player Services	Exercise Room Player		Change Source	DVD Player
2	Control Services	Distributed Video		Display On	
3	Source Services	DVD Player		TRACK 5	
4	Source Services	DVD Player		PLAY	
5	Audio Player Services	Exercise Room Player		Set Active On	
6	Audio Player Services	Exercise Room Player		Set Volume	50

Exercise 2

Turn off the DVD playing through the integrated Panorama system, listen to a CD track, and then turn off the music.

Not only are the items on the Service list based on what you entered when you created the project, the Action list for the Panorama driver reflect either generic button names or the name you provided on the Labels tab.

1. Send STOP to DVD Player
2. Sending Display Off to Distributed Video
3. Change Source of Exercise Room Player to CD Player
4. Send TRACK 3 to CD Player
5. Send PLAY to CD Player
6. Set Active On of Exercise Room Player
7. Set Volume of Exercise Room Player to 35
8. Set Sleep Timer of Exercise Room Player to 30 Minutes

Table 11-4 shows the dropdown selections chosen to create each macro step.

Table 11-4
Exercise 2

Step	Category	Service	Sub-service	Action	Parameter
1	Source Services	DVD Player		STOP	
2	Control Services	Distributed Video		Display Off	
3	Audio Player Services	Exercise Room Player		Change Source	CD Player
4	Source Services	CD Player		TRACK 3	
5	Source Services	CD Player		PLAY	
6	Audio Player Services	Exercise Room Player		Set Active On	
7	Audio Player Services	Exercise Room Player		Set Volume	35
8	Audio Player Services	Exercise Room Player		Set Sleep Timer	30 Minutes

Movie Time

This macro sets the stage to watch a movie through an integrated Panorama system. It dims the lights, sets the thermostat, turns off audio other than the home theater, and starts the movie.

Not only are the items on the Service list based on what you entered when you created the project, the Action list for the Panorama driver reflect either generic button names or the name you provided on the Labels tab.

1. Turn On Movie Time of Service Lighting
2. Set Cool Set Point of HVAC's Home Theater to 72
3. Sending Display On to Distributed Video
4. Set Active Off of All Audio Players
5. Set Active On of Home Theater Player
6. Change Source of Home Theater Player to DVD Player
7. Set Volume of Home Theater Player to 65
8. Send PLAY to DVD Player

Table 11-5 shows the dropdown selections chosen to create each macro step.

Table 11-5
Movie Time

Step	Category	Service	Sub-service	Action	Parameter
1	Control Services	Lighting	Movie Time	Turn On	
2	Control Services	HVAC	Home Theater	Set Cool Set Point	72
3	Control Services	Distributed Video		Display On	
5	Audio Player Services	All Audio Players		Set Active Off	
6	Audio Player Services	Home Theater Player		Set Active On	
7	Audio Player Services	Home Theater Player		Change Source	DVD Player
8	Audio Player Services	Home Theater Player		Set Volume	65
9	Source Services	DVD Player		Play	

Macro Actions

The macro actions you can select send IR or RS232 commands to sources or ASCII commands to DigiLinX devices. When sending a macro to a source, both IR and RS-232 actions are available. You must select the appropriate action for how the source is connected.

Audio Player Services

Actions selecting the source to play, indicating where to distribute the audio, and adjusting audio settings such as the equalizer.

Table 11-6
Audio Player Services Actions

Action	Description
Cancel a MultiRoom Session	End a multiroom session.
Change Source	Set the source.

Table 11-6
Audio Player Services Actions

Action	Description
Create a MultiRoom Session	Start a multiroom session.
Set Active Off	Turns off the amplifier and audio system.
Set Active On	Turns on the amplifier and audio system. Restores default volume.
Set Amp Off	Turn off the amplifier.
Set Amp On	Turn on the amplifier. Restores last volume.
Set Balance	Set the balance level.
Set Band (1-5)	Set band level to a specific value. Only the SL250 has an equalizer. This action will not change settings when an SL220 is used.
Set Bass	Set the bass level. The SL220 does not have an equalizer, just bass and treble settings. This action will not change settings when an SL250 is used.
Set Mute Off	Turn mute off.
Set Mute On	Turn mute on.
Set Sleep Timer	A countdown timer. Mutes the audio after the time set.
Set Treble	Set the treble level. The SL220 does not have an equalizer, just bass and treble settings. This action will not change settings when an SL250 is used.
Set Volume	Set the volume level.

Control Services Actions

The actions available depend on the driver selected. The actions apply to heating and cooling systems, lighting systems, the Panorama video distribution center, and security systems.

Table 11-7
Control Services Actions

Action	Description
Aprilaire or other HVAC system	
Turn Mode Off	End a multiroom session.
Turn Mode to Auto	Set to automatic mode.
Turn Mode to Cool	Set to air conditioning.
Turn Mode to Heat	Set to heat.
Turn Mode to eHeat	Set to emergency heat.
Turn Fan Mode to On	Turn on fan.
Turn Fan Mode to Auto	Set fan to automatic mode.
Set Cool Set Point	Set desired air conditioning temperature.
Set Heat Set Point	Set desired heat temperature.

Table 11-7
Control Services Actions

Action	Description
Lutron or other lighting system	
Press Button	Executes command assigned to the lighting button.
Release Button	If needed, releases button executing command.
Panorama Driver	
Press Button 1	Execute learned IR accessed by button 1 for selected display.
Press Button 2	Execute learned IR accessed by button 2 for selected display.
Press Button 3	Execute learned IR accessed by button 3 for selected display.
Press Button 4	Execute learned IR accessed by button 4 for selected display.
Press Button 5	Execute learned IR accessed by button 5 for selected display.
Press Button 6	Execute learned IR accessed by button 6 for selected display.
GE Concord or other security system	
Press Button	Sends a button press. Must select specific button to send from the parameters.
Release Button	Releases a button.
Relay	
Set Relay State ON	?Paul
Set Relay State OFF	?Paul

Intercom Services Actions

Actions that control the intercom functions of the DigiLinX system.

Table 11-8
Intercom Services Actions

Action	Description
Cancel Intercom Session	Terminate the intercom session or monitoring.
Call All Rooms	Initiate session with all rooms.
Monitor a Room	Indicate room to monitor and room to listen.
Turn Do Not Disturb On	Blocks all intercom sessions.
Turn Do Not Disturb Off	Allows intercom sessions to be initiated.
Turn Privacy On	Prevents the room from being monitored.
Turn Privacy Off	Allow the room to be monitored.
Set Intercom Volume	Set intercom volume level.

Rooms Actions

Actions that apply to an entire room and all of its devices.

Table 11-9
Rooms Actions

Action	Description
Set Active On	Turns on all services in the room.
Set Active Off	Turns off all services in the room.

Source Services Actions

Actions that control networked devices connected to a MediaLinX and native audio devices connected to the SwitchLinX, such as a media server. The exact description of each action depends on the IR you learned as discussed in *Learning IR* on page 7-2.

Table 11-10
Source Services Actions

Action	Description
AM	Set tuner to AM.
ANGLE	If your DVD has different angles of the same scene, you can press this button to view the scene from a different angle.
BAND NEXT	Changes from AM to FM.
CLEAR	Optional. Depends on how the button is programmed. Typically, it is programmed to clear entries made on the keypad.
DISC NEXT	Select the next CD or DVD.
DISC PREV	Select the previous CD or DVD.
DISPLAY	Displays a menu of the video settings for the DVD player.
DVDAUDIO	Displays a menu of the audio settings for the DVD player.
EJECT	Opens or closes the tray on the DVD or CD player.
ENTER	Optional. Depends on how the dealer programs the button. Typically, it's programmed to enter information keyed in on the keypad.
EWB	Set tuner to the EWB band.
F1, F2	Unique commands to the device that are not in the standard command set.
FM1, FM2	FM band or second FM band.
FWD	Generic FWD command.
Go_Back	Toggle that goes to previous tuner station.
Guide	Access the guide for that source, if any.
HUNDRED_PLUS	Allows you to enter a three-digit number or jump the playback 100 DVDs or CDs forward depending on the brand of DVD or CD player you have.
INFO	Access information, if any, about the source.

Table 11-10
Source Services Actions

Action	Description
KEY x	Keys 0 through 9, A, B.
KEY BLUE	Provides functionality as defined by manufacturer.
KEY GREEN	Provides functionality as defined by manufacturer.
KEY RED	Provides functionality as defined by manufacturer.
KEY YELLOW	Provides functionality as defined by manufacturer.
LANG	Brings up the language default settings for the DVD player.
MENU	Menu - controls the menu functions and allows you to change DVD player settings.
MODE	Changes the mode of play from repeat to shuffle (or other presets programmed by the installer) on the CD player.
MUTE	Mutes the sound.
NAV DN	Navigates down.
NAV LT	Navigates left.
NAV RT	Navigates right.
NAV UP	Navigates up.
NEXT	Select the next track or next CD/DVD, depending on what IR code you learned.
PAUSE	Pauses.
PLAY	Plays.
PRESET DN	Goes to the previous preset and stops.
PRESET UP	Goes to the next preset and stops.
PRESET x	Select Preset station - Tuner command.
PREV	Select the previous song or previous CD/DVD, depending on what IR code you learned.
PWR OFF	Turns off power to the source.
PWR ON	Turns on power to the source.
RANDOM	Select Random mode.
RECORD	Starts recording on DVR.
REPEAT ALL	Replay all CDs or DVDs in a multidisc player.
REPEAT DISK	Replay the selected CD or DVD.
REPEAT OFF	Turns off Repeat function on CD or DVD.
REPEAT ON	Turns on Repeat function on CD or DVD.
REPEAT TOGGLE	Toggle Repeat mode.
REPEAT TRACK	Replays a track on a CD or DVD.
RETURN	Returns to the previous menu (or performs as programmed by the installer).

Table 11-10
Source Services Actions

Action	Description
REV	Generic REV command.
SCAN DN	Scan automatically searches down the frequency for the previous station and then continues to the previous station.
SCAN UP	Scan automatically searches up the frequency for the next station and then continues to the next station.
SEEK DN	Goes to the previous station and stops.
SEEK UP	Goes to the next station and stops.
SELECT	Select - selects the highlighted item.
Select Album	Selects album on media servers.
Select All Songs	Selects all songs on media servers.
Select Artist	Selects a specific artist on media servers.
Select Channel Number	Selects XM channel through RS232 command.
Select Genre	Selects a genre on media servers.
Select Playlist	Selects a playlist on media servers.
Select Preset x	Select preset station of the nine possible.
SETUP	Brings up the onscreen setup menu for the DVD player.
SHUFFLE	Shuffles songs, tracks, or discs depending on source (media server, CD or DVD player).
Shuffle Off	Stops shuffling songs on media servers.
Shuffle On	Shuffles songs on media servers.
STOP	Stop.
SUBTITLE	Brings up the subtitle on/off default settings for the DVD player.
TEN_PLUS	Allows you to enter a two-digit number or jump the playback 10 CDs or DVDs forward depending on the brand of CD or DVD player you have.
TOPMENU	Top Menu - takes the disc navigation to the top menu stored on the DVD disc.
TRACK x	Sets track of 12 possible.
TRACK NEXT	Next track on CD or DVD.
TRACK PREV	Previous track on CD or DVD.
TUNE DN	Manually dialing down the frequency.
Tune to	Sets radio frequency.
TUNE UP	Manually dialing up the frequency.
ZOOM	If your DVD disc allows you to zoom in on a scene, pressing this button will activate the Zoom feature.

User Interface Services

Actions that affect the DigiLinX GUI such as TouchLinX.

Table 11-11

User Interface Services Actions

Action	Description
Jump to GUI Screen	Causes the GUI to go to a specific screen. Allows you to update screen to match changes from macro (show CD player screen, not just play CD).
Set Active On	Turns the backlight and hard button LEDs on.
Set Active Off	Turns the backlight and hard button LEDs off.
Turn Button Clicks On	Turns on TouchLinX button noise.
Turn Button Clicks Off	Turns off TouchLinX button noise.
Set Backlight Timeout	Set the timeout value for the UI backlight.