TheaterTouch Designer 4.2

Programming Manual

ADVANCED CONTROL

RTI

ACU

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RTI

It's Under Control®

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Chapter 1. Introduction

TheaterTouch Designer is a powerful, easy-to-use, Windows based software package that allows an entire TheaterTouch system to be programmed from a PC. It includes a wide variety of powerful tools that make the programming process quick and easy.

TheaterTouch Designer provides complete flexibility in the design of the TheaterTouch screen. Several pre-defined buttons, symbols and page templates are included along with the ability to directly import your own color graphics.

TheaterTouch Designer also includes a powerful Infrared Library Manager. Infrared codes are learned and stored for easy reuse in multiple systems and are added to any button by a simple drag-and-drop process. Updates to the included infrared library are continually being made and are available for download from the RTI website.

TheaterTouch Designer Macro Editor provides a simple interface enabling every button in the system to carry out complex multi-step actions.

The product of over 15 years of development, TheaterTouch Designer is a central part of the TheaterTouch system, not an afterthought. The software is continually being refined, and upgrades are available from the RTI web site.

FEATURES

- Provides a central interface for defining all parameters needed for controlling an entire TheaterTouch system
- Contains several programming wizards to get you up and running quickly
- Allows programming to be uploaded from existing TheaterTouch systems and edited, in case the original program is lost or damaged
- Allows for direct importing of your own color graphics with complete flexibility on button size, shape, style, and labels
- Allowsfor direct importing of your own sound files (*.wav) for use with the buttons on color devices
- Includes graphics editors for creating Custom Buttons and Bitmaps (for use with the T2+ Universal Controller)
- Infrared Library allows easy drag-and-drop programming of IR codes on every button
- Includes libraries of predefined IR codes and bitmaps
- Infrared Library Manager allows infrared commands to be learned into libraries and stored for future use
- Macro Editor allows complex multi-step actions to be created on every button
- Allows easy reuse of design elements (pages, bitmaps, IR codes, etc.), simplifying the task of creating remotes for many clients
- Preview mode allows rapid testing of designs right on the computer screen

HARDWARE/SOFTWARE REQUIREMENTS

- Windows 98SE®, Windows ME®, Windows 2000®, Windows XP® or later version.
- A free USB port.
- At least 64 Megabytes of RAM.
- At least 100 Megabytes of free disk storage.
- Screen resolution of 800x600 (1024x768 recommended) with 16-bit color; 256 colors or lower not supported.
- A mouse or other pointing device is required.
- An optional printer for printing reports.

INSTALLING THEATERTOUCH DESIGNER

1. Close any open programs.

2. Open your internet browser to www.rticorp.com and go to the Dealer area.

3. Login using your provided dealer password.

4. Select TheaterTouch Designer version 4.2.

5. Choose **Run** from the file download dialog box and follow the on-screen instructions.

Chapter 2. Programming Overview

CREATING A SYSTEM STEP BY STEP

To create a new control system, use the following procedure:

1. Create a new system file using the New command on the File menu.

2. Add a new device to the system for each component in your system using the Add New command on the Device menu.

3. Open the first device in the system by clicking on its icon in the System Workspace.

NOTE: Steps 4-9 apply to remote devices with touchscreens (T2+/T3/RK3/K4) only, keypad remotes (T1/U1) skip to step 10.

4. Use the Page Wizard command on the Page menu to insert pages for common components.

5. Create any additional pages required for your system using the New Page command on the Page menu.

6. Use the Merge Pages function on the File menu to copy pages from another device in the current system or from a different system file.

7. Place a button on the main menu to access each one of the source components.

8. Place buttons on each of the source component pages.

9. Use the Assign Page tool to link the buttons on the main menu to their respective source component pages.

10. Assign infrared codes and other commands to buttons using the Command Library.

11. Create macros using the macro editor (if needed).

12. Check the Device Properties.

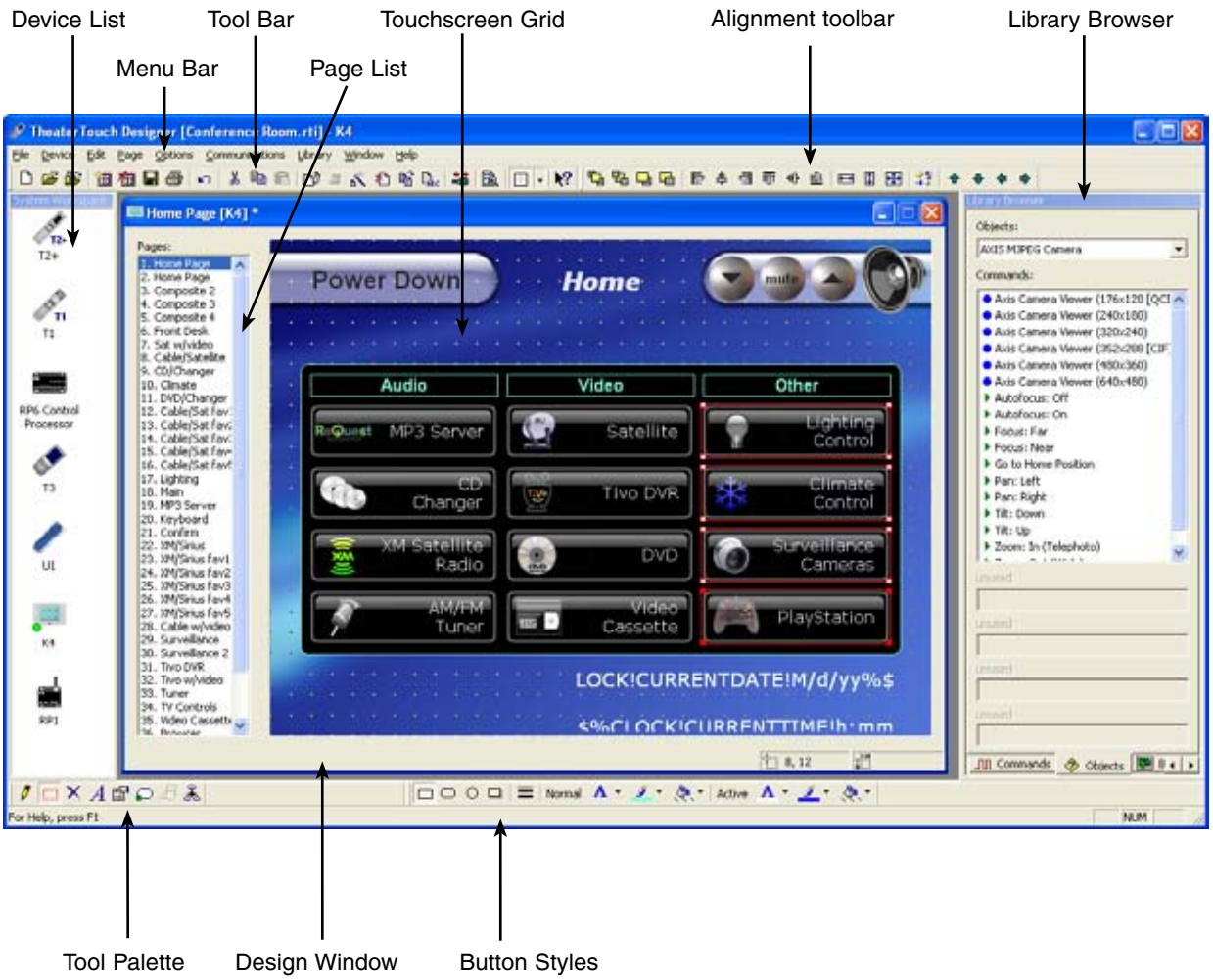
13. Repeat steps 4-11 for each additional device in the control system.

14. Save the file.

15. Download the programming into each device in the system.

THEATERTOUCH DESIGNER SCREENS

K4 IN-WALL UNIVERSAL SYSTEM CONTROLLER



System Workspace Device List – Displays all devices in a System File for easy selection. This panel can be moved or resized to make it easier to see the K4 if needed

Menu Bar – Provides drop down menus of all programming features.

Toolbar – Icons for easy access to frequently used programming features.

Page List – Displays the name and number of the pages added to a device.

Touchscreen Grid – Displays the page contents of the LCD display for editing.

Alignment Toolbar – Icons for easy access to button alignment tools.

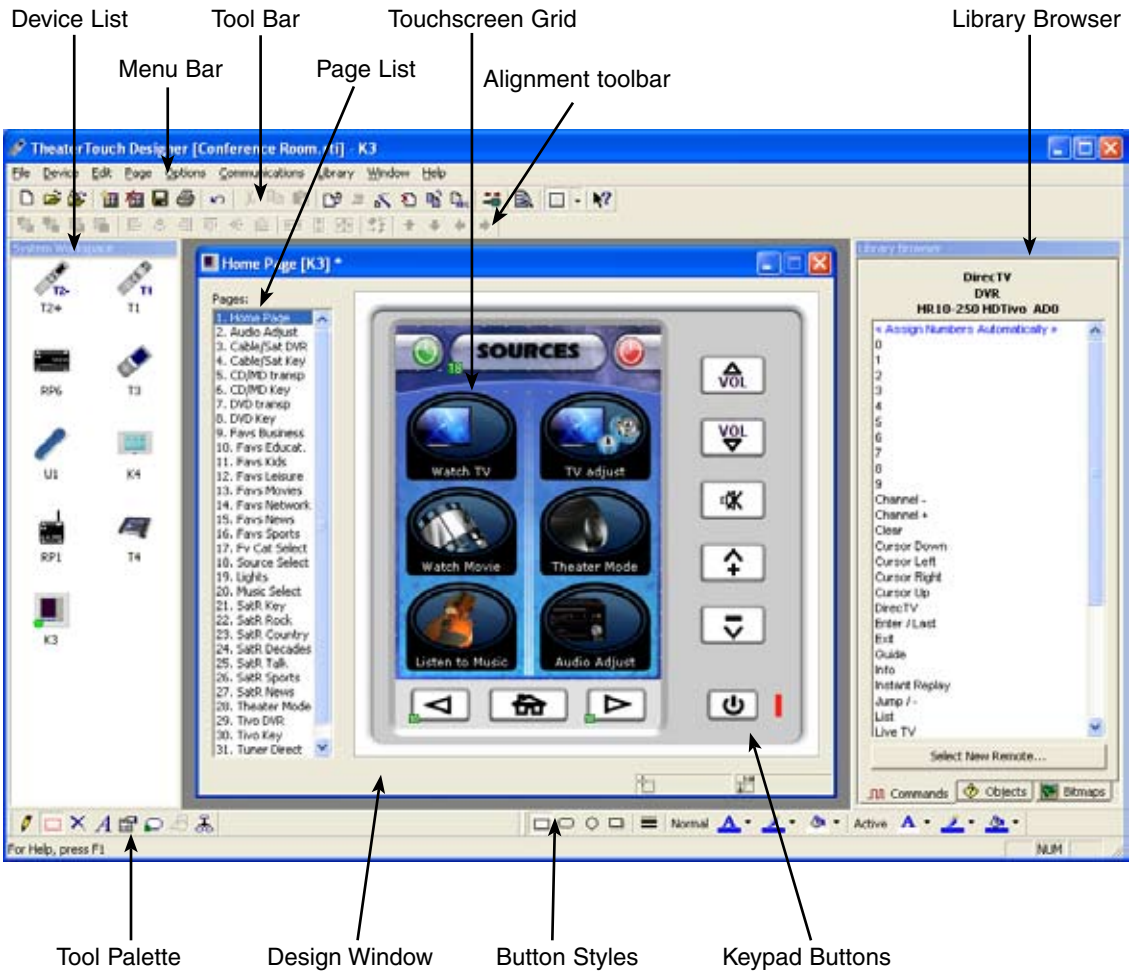
Library Browser – Displays IR commands, objects and bitmaps for easy drag and drop programming.

Tool Palette – Icons for easy access to frequently used design features.

Design Window – Displays the currently selected device for editing.

Button Styles – Icons for fast editing of button styles.

RK3 UNIVERSAL SYSTEM CONTROLLER



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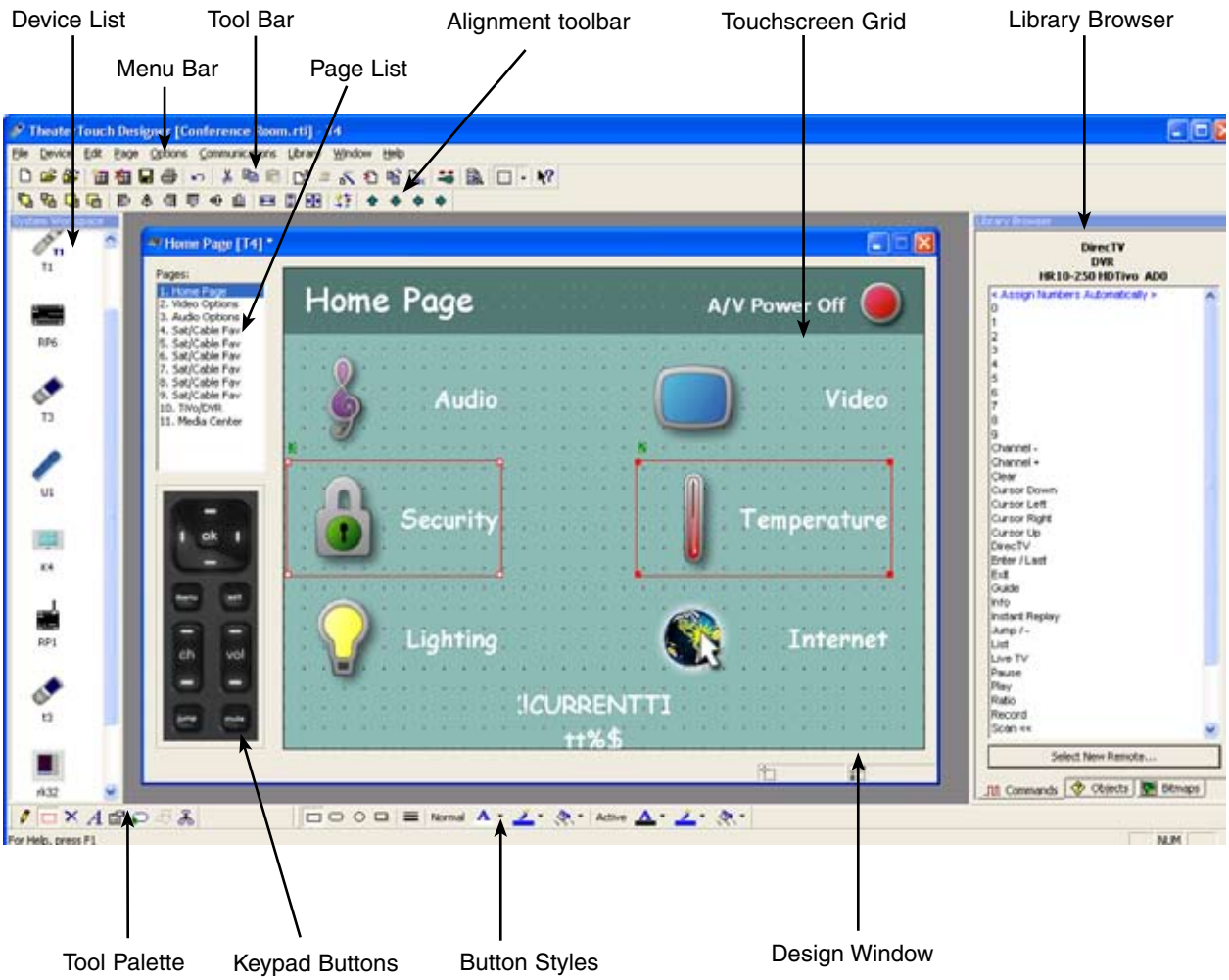
Design Window – Displays the currently selected device for editing.

Button Styles – Icons for fast editing of button styles.

Keypad Buttons – Fixed buttons used for programming frequently used control functions.

T4 UNIVERSAL SYSTEM CONTROLLER



System Workspace Device List – Displays all devices in a System File for easy selection. This panel can be moved or resized to make it easier to see the T4 if needed

Menu Bar – Provides drop down menus of all programming features.

Toolbar – Icons for easy access to frequently used programming features.

Page List – Displays the name and number of the pages added to a device.

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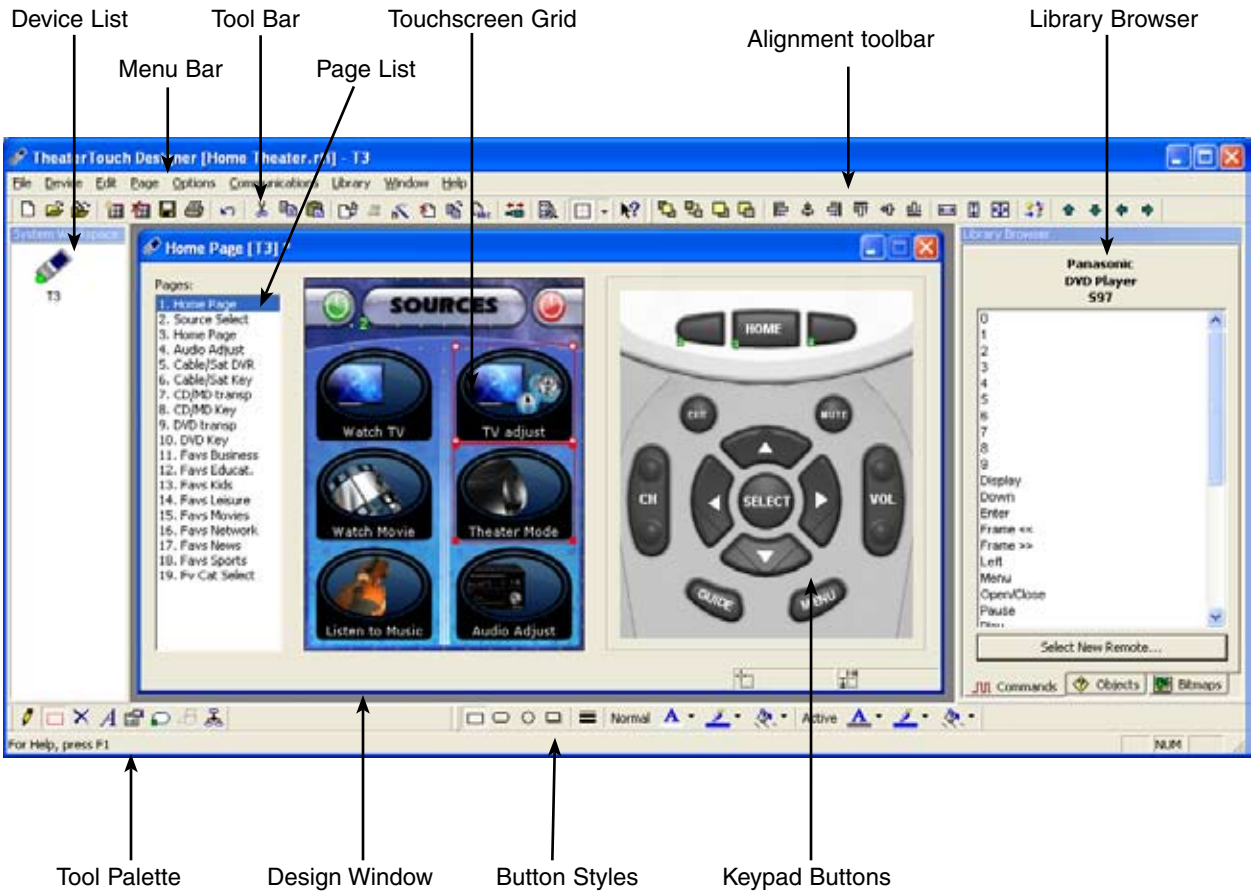

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Toolbar – Icons for easy access to frequently used programming features.

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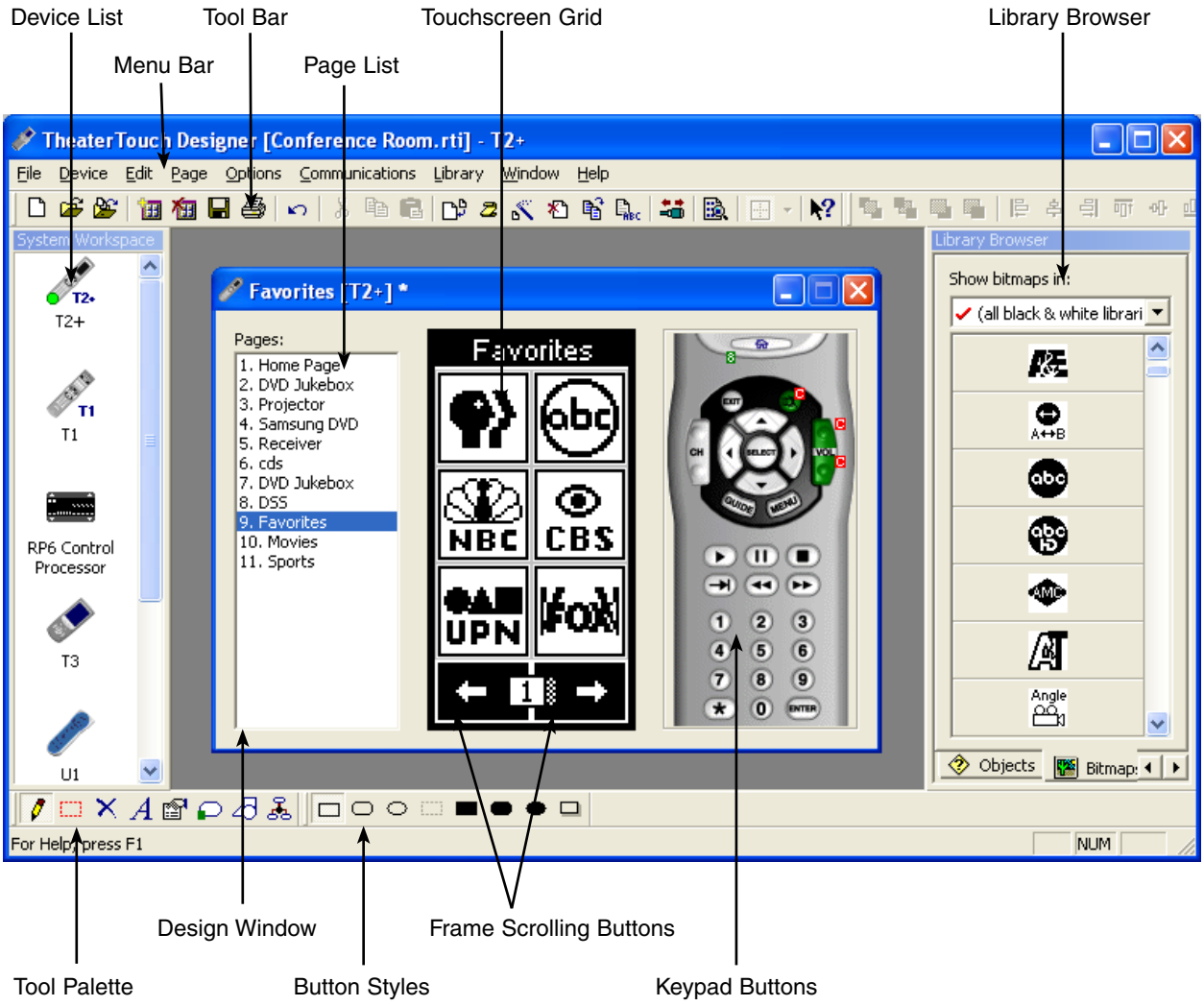
Tool Palette – Icons for easy access to frequently used design features.

Design Window – Displays the currently selected device for editing.

Button Styles – Icons for fast editing of button styles.

Keypad Buttons – Fixed buttons used for programming frequently used control functions.

T2+ UNIVERSAL SYSTEM CONTROLLER



System Workspace Device List – Displays all devices in a System File for easy selection.

Menu Bar – Provides drop down menus of all programming features.

Toolbar – Icons for easy access to frequently used programming features.

Page List – Displays the name and number of the pages added to a device.

Touchscreen Grid – Displays the page contents of the LCD display for editing.

Library Browser – Displays IR commands and bitmaps for easy drag and drop programming.

Tool Palette – Icons for easy access to frequently used design features.

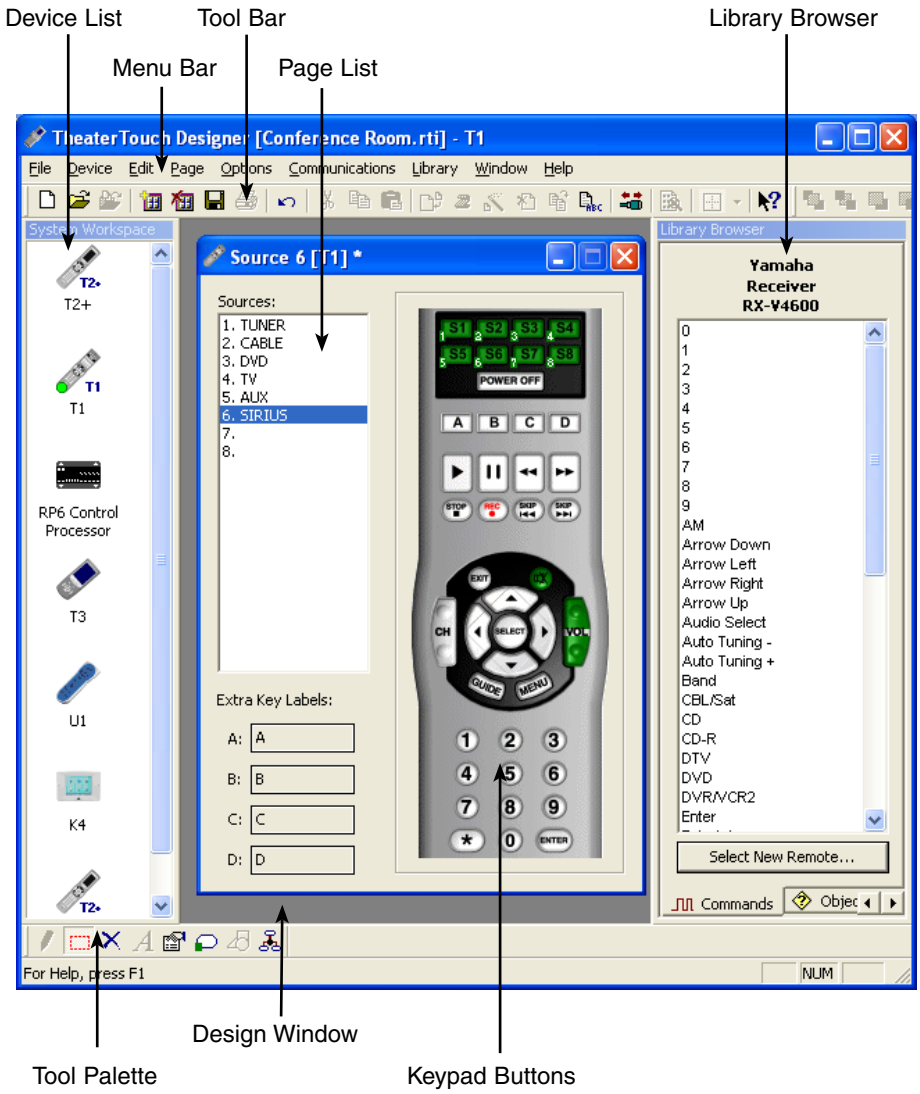
Button Styles – Icons for fast editing of button styles.

Design Window – Displays the currently selected device for editing.

Frame Scrolling Buttons – Provides access to the multiple frames of a page.

Keypad Buttons – Fixed buttons programmed with frequently used control functions.

T1 UNIVERSAL SYSTEM CONTROLLER



System Workspace Device List – Displays all devices in a System File for easy selection.

Menu Bar – Provides drop down menus of all programming features.

Toolbar – Icons for easy access to frequently used programming features.

Page List – Displays the name and number of all programmable pages.

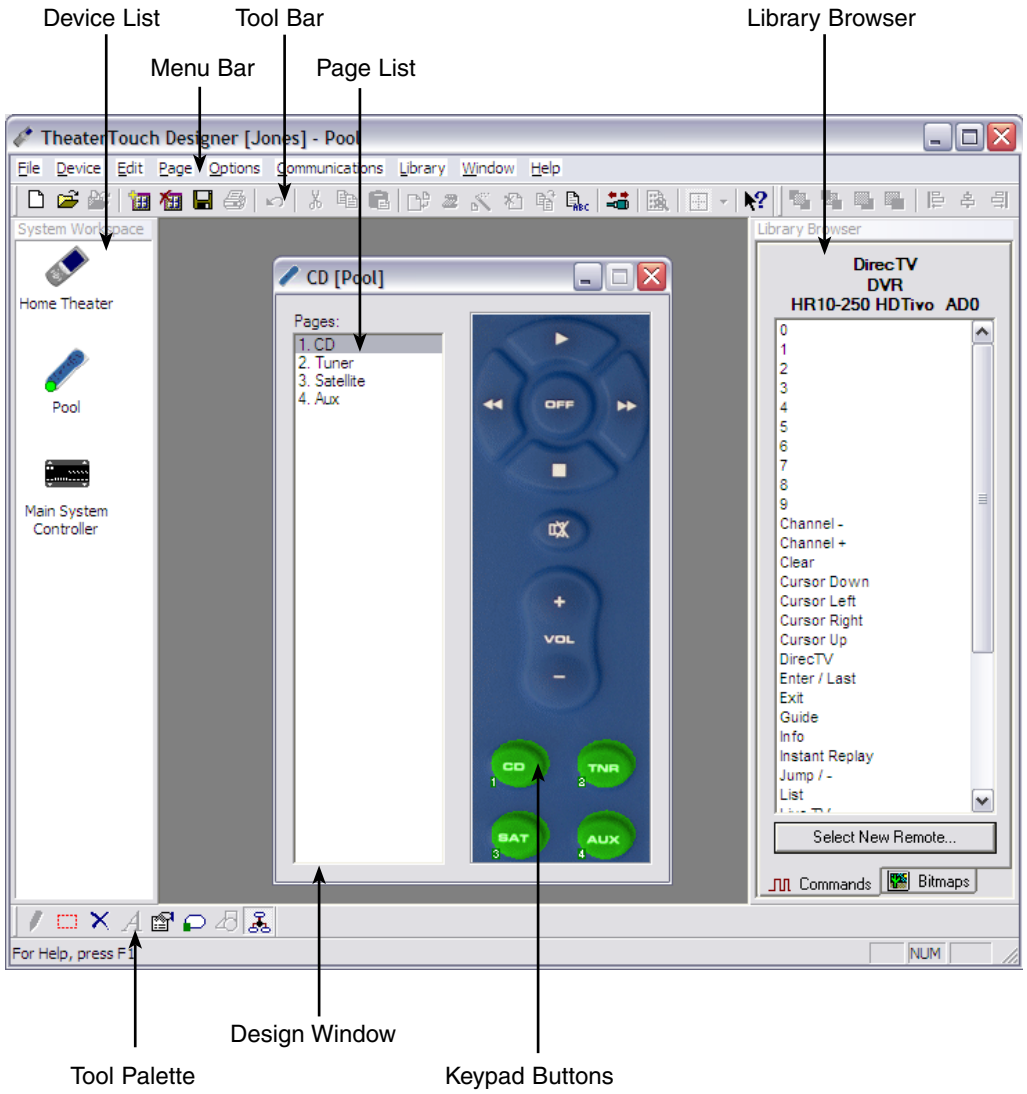
Library Browser – Displays IR commands and graphics for easy drag and drop programming.

Tool Palette – Icons for easy access to frequently used design features.

Design Window – Displays the currently selected device for editing.

Keypad Buttons – Program these buttons to control the individual components in a system.

U1 UNIVERSAL SYSTEM CONTROLLER



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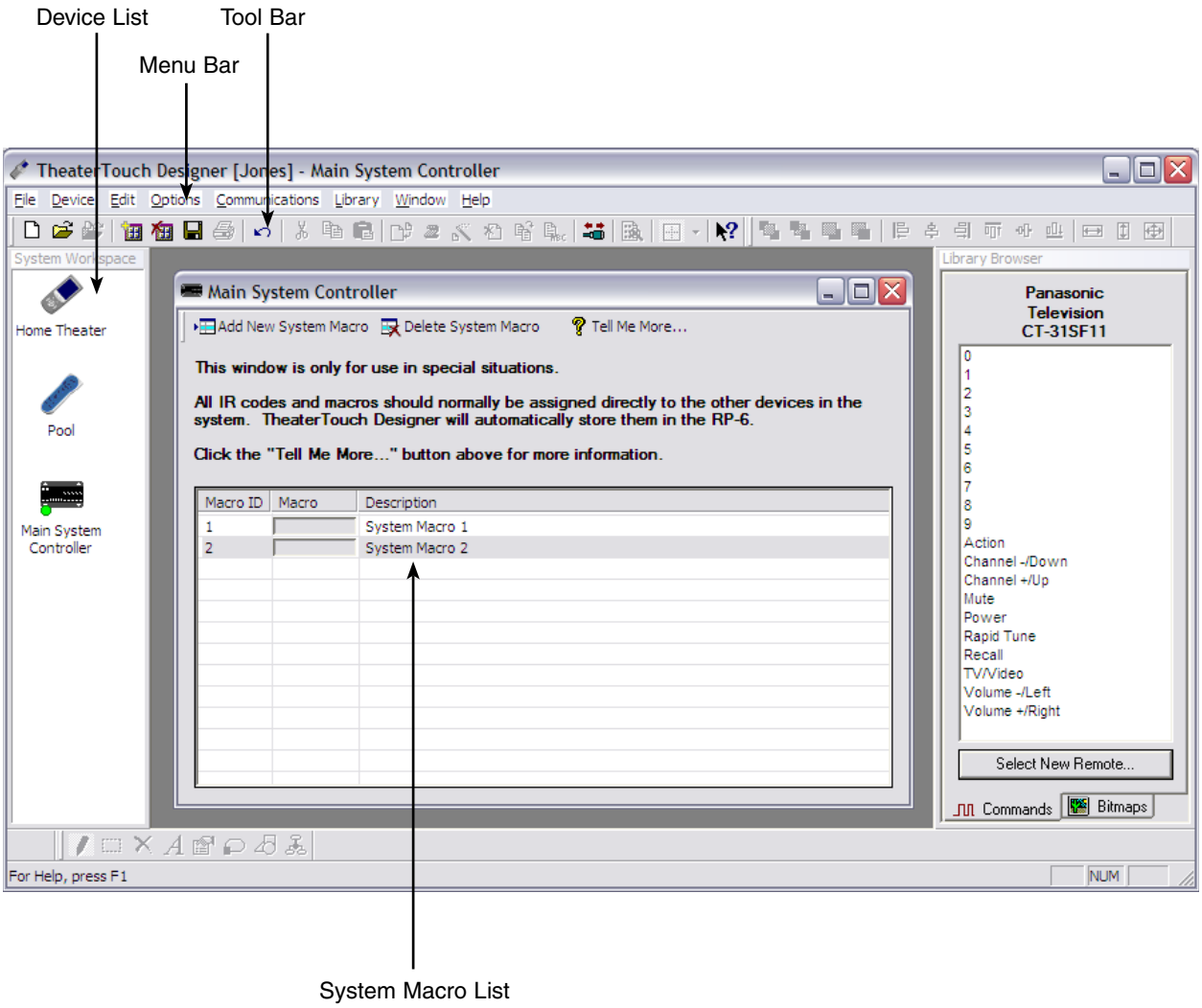
RP-6/RP-1 SYSTEM CONTROL PROCESSOR



Device List – Displays all devices in a System File for easy selection.

Menu Bar – Provides drop down menus of all programming features.

Toolbar – Icons for easy access to frequently used programming features.

System Macro Window – A list of added system macros displayed for editing (see Understanding System Macros - Chapter 8 for more information).

DESIGN GUIDELINES

1. Be consistent with the location of similar buttons. For example, if you have a DVD player and a VCR in your system, try to make the transport controls (Play, Pause, Stop, etc.) on both pages look similar.

2. It's not necessary to re-create each remote in its entirety. Think of the functions the user will be using daily.

3. Use macros to hide complex command sequences from the user. For example, instead of presenting the user with a 0-9 key pad for changing channels on their TV, make a set of macros for CBS, HBO, etc. that send the proper channel numbers automatically. The Channel Macro Wizard makes it easy to create this type of macro.

4. (T2+ only) - Use bitmaps instead of custom buttons wherever possible. Bitmaps take half as much device memory as custom buttons do, so you can put more of them in your device (See Custom Buttons and Bitmaps - Chapter 6 for more information.)

GETTING HELP

TheaterTouch Designer includes an extensive on-line help system. If you need help with any tool or command, select the **What's this?** button on the **Toolbar**.

If you need an explanation of any item in a dialog box, select the **Help** button in the dialog's title bar, and then select the control you would like to learn about.

Chapter 3. Working with System Files

INTRODUCTION TO SYSTEM FILES

Each file you create with TheaterTouch Designer is called a system file. A system file consists of a mixture of control processors and remote control devices.

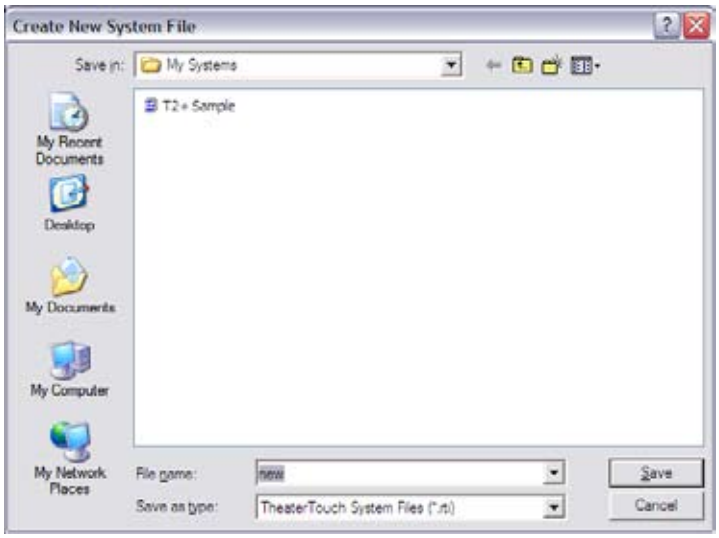
The System Workspace has a device list that displays an icon for each device stored in the system file. Click any icon to open that device for editing.

Many portions of TheaterTouch Designer behave differently depending on whether or not a control processor is present in the system file. If you do not add a control processor to your system, you can still have multiple remote control devices in the system file but they function independently. Adding a control processor causes all remote control devices in the system to use it by default, storing all commands and macros in the control processor rather than the remote control device. You can use the Properties command on the Device menu to change this behavior for each device.

CREATING A NEW FILE

1. Choose New from the File menu or select the New File icon on the Toolbar.

2. Specify the name and directory for the file when saving for the first time and choose Save.



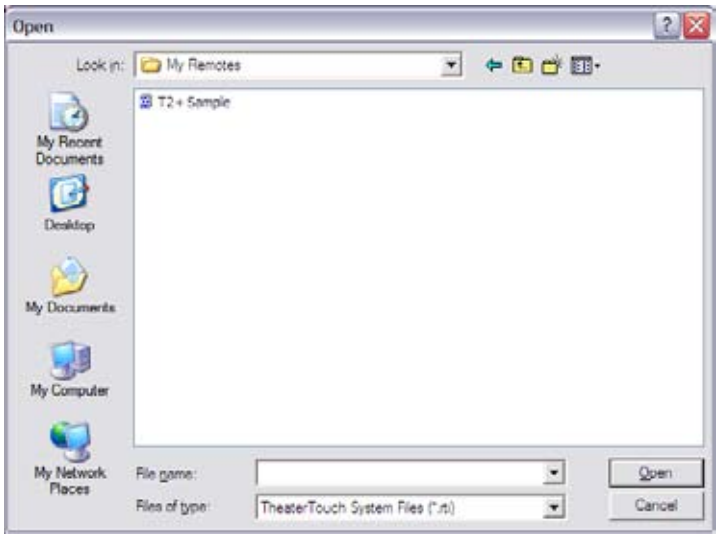
The files created with TheaterTouch Designer hold all the elements that make up an individual remote file. They have the extension .rti and may be stored in any directory.
Default directory is: [C:\Program Files\RTI\TheaterTouch Designer\My Systems]

OPENING AN EXISTING FILE

1. Choose Open from the File Menu or select the Open File icon from the Toolbar.

2. Select the file you wish to open.

3. Choose Open.

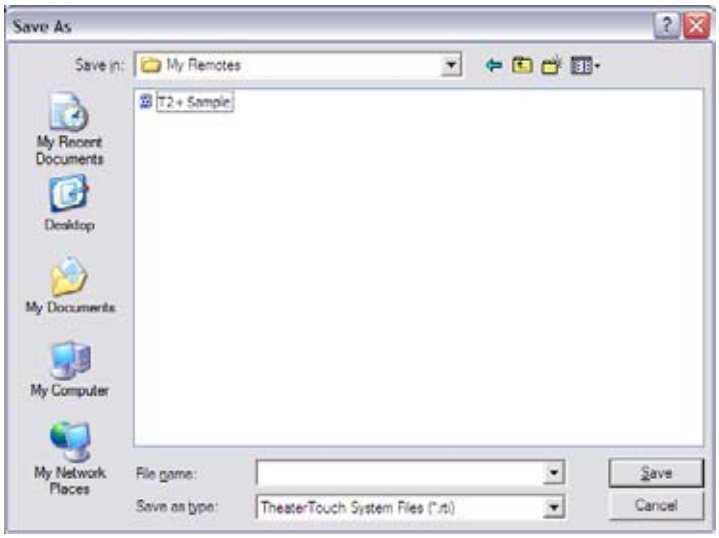


This command opens an existing system file. The currently open file, if any, will be closed. If you wish to open a device in the current system, click on its icon in the System Workspace.

SAVING A FILE

1. Choose Save from the File Menu or select the Save File icon on the Toolbar.

2. Specify the name and directory for the file when saving for the first time and select Save.



EDITING SYSTEM PROPERTIES

1. Choose System Properties from the File menu.

2. Select the tabs in the System Properties dialog box to edit the system properties that affect all devices.

ZONE SETTINGS

Setting unique System Zone Codes allows individual operation of multiple RTI systems located within the same installation or systems located in close proximity to each other (i.e. a close neighbor that has a TheaterTouch System).

Note: Only adjust the Zone Code to keep separate RTI systems from communicating with each another. Within a single RTI system file each control processor is addressable by changing the output properties of a device or button.

1. Select the Zone tab and edit the System Zone Code.

2. Choose OK to confirm the new System Zone Code

DEALER INFORMATION

1. Select the Dealer Information tab and enter all pertinent dealer data and installation notes.

2. Choose OK to confirm the new settings.

CLIENT INFORMATION

1. Select the Client Information tab and enter all pertinent client data and notes.

2. Choose OK to confirm the new settings.

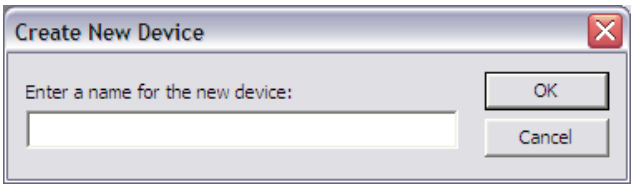
Chapter 4. Working with Devices

INTRODUCTION TO DEVICES

Each TheaterTouch system file contains the devices that correspond to the actual control processors and remote control devices included in a system. Add each device individually to match the control system you are programming.

ADDING A DEVICE

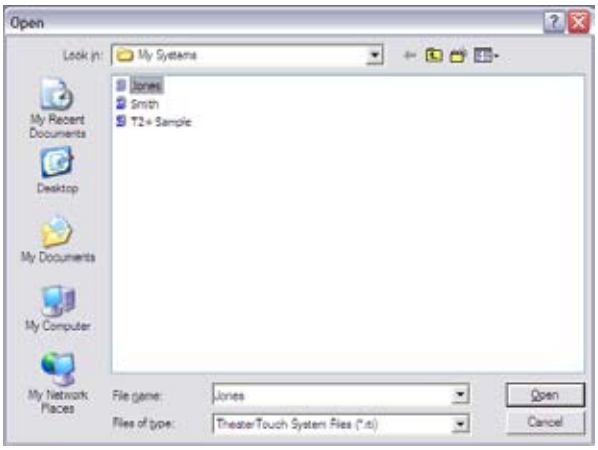
1. Choose Add New from the Device menu or select the New Device icon .
2. Select the icon of the type of device you wish to add.
3. Enter a name for the device and choose OK to confirm the new name.
4. The new device appears in a Device list located in the system workspace.

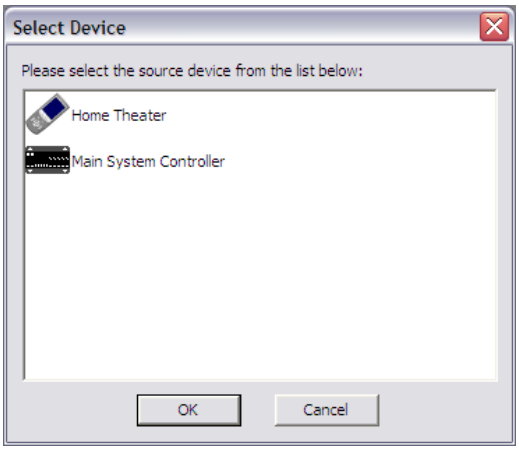


IMPORTING A DEVICE

This command copies a single device from another system file into the current one.

1. Choose Import Device from the Device menu.
2. Select the system file that contains the device to be imported.
3. Choose the device from a list of all devices in that system.
4. Choose OK to confirm the device.





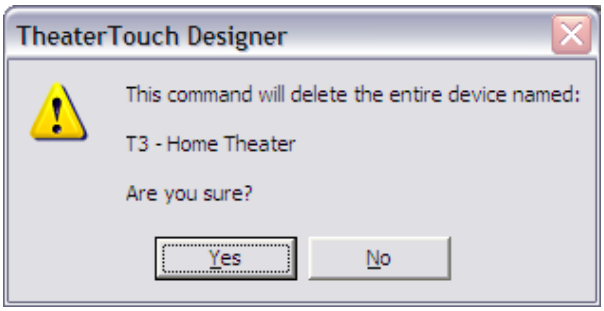
DELETING A DEVICE

1. Select the icon of the device you wish to delete from the Device List.

2. Choose Delete from the Device Menu or select the Delete Device icon .

3. Choose Yes to confirm deletion.

4. The device is removed from the system file.



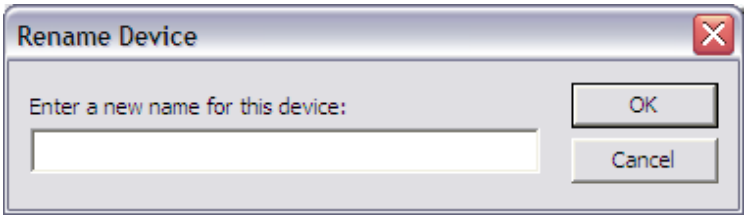
RENAMING A DEVICE

1. Select the icon of the device you wish to rename from the Device List.

2. Choose Rename from the Device Menu.

3. Enter a new name for the device and choose OK to confirm the new name.

4. The device is displayed in the Device list with a new name.



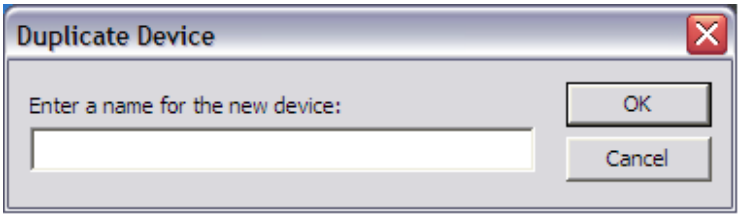
DUPLICATING A DEVICE

1. Select the icon of the device you wish to duplicate from the Device List.

2. Choose Duplicate from the Device Menu.

3. Enter a new name for the device and choose OK to confirm the new name.

4. The duplicated device is displayed in the Device list with a new name.



CLOSING A DEVICE

This programming option closes the current device. This does not close the system file. If you wish to close the system file, use the Close System command on the File menu.

1. Select Close from the Device menu.

2. The edit window for the selected device closes.

SAVING A DEVICE

Saving the currently selected device in the system:

1. Select a device from the device list.

2. Choose Save from the Device Menu or select the Save icon .

Saving all devices in the system:

1. Choose Save All Devices from the File Menu.

EDITING A DEVICE

1. Select the icon of the device you wish to edit from the Device List.

2. The Design Window appears for that device allowing you to perform edits.

EDITING DEVICE PROPERTIES

1. Choose Properties from the Device menu to change settings that affect the currently selected Device.

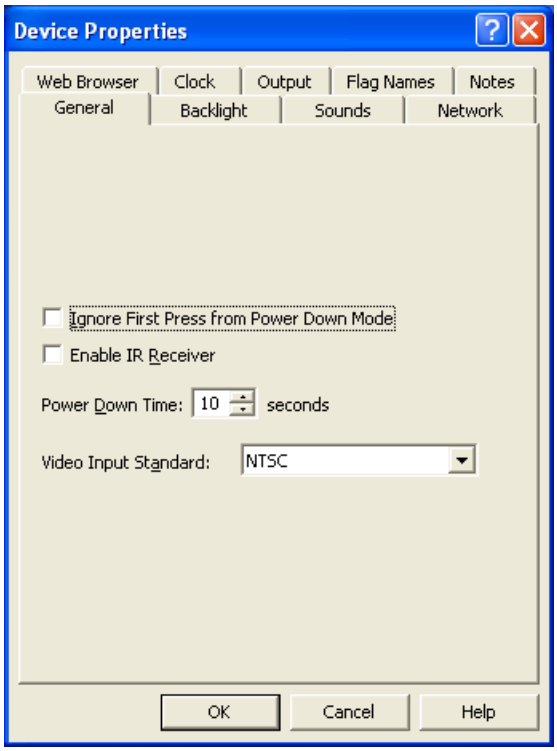
2. Select each of the tabs in the Device Properties dialog box to edit the individual device properties.

Note: Many of these properties can be accessed directly on touchscreen remote devices through their respective Control Panels, however it should be noted that changes made locally on a remote will be over-written upon programming it with the TheaterTouch Software.

K4 GENERAL TAB

IGNORE FIRST PRESS FROM POWER DOWN MODE

1. Enabling this option causes the device to ignore the first button press if the unit is powered down (the backlight is off.) The first button press will wake up the device and turn on the backlight, but will not activate any programmed command or macro.



ENABLE IR RECEIVER

2. Enabling this option allows signals received by the built-in IR receiver to be passed through to the IR output.

POWER DOWN TIME

3. Adjust the amount of time the unit stays awake after the last button press of the touchscreen. The time is variable from 1 second to 60 seconds (default is 10 seconds).

VIDEO INPUT STANDARD

4. Select the type of Video Input Standard that will be used for all of the video feeds

NTSC = USA/Canada

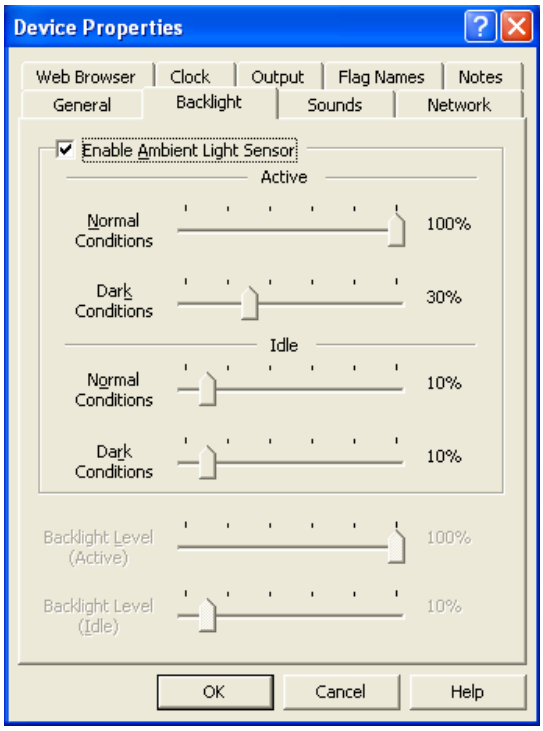
PAL = Europe/Asia/Australia

5. Choose OK to confirm the new settings.

K4 BACKLIGHT TAB

ENABLE AMBIENT LIGHT SENSOR

1. Check this box to enable a built-in light sensor to determine the current room lighting conditions and change the backlight levels according to these conditions and the current activity status of the control device.



BACKLIGHT LEVELS

2. Use these sliders to adjust the backlight setting for normal lighting conditions and dark lighting conditions when the Ambient Light Sensor is enabled for both Active and Idle status.

Active Status = Device is in use

Idle Status = Power Down Time has expired (set on the "General" tab)

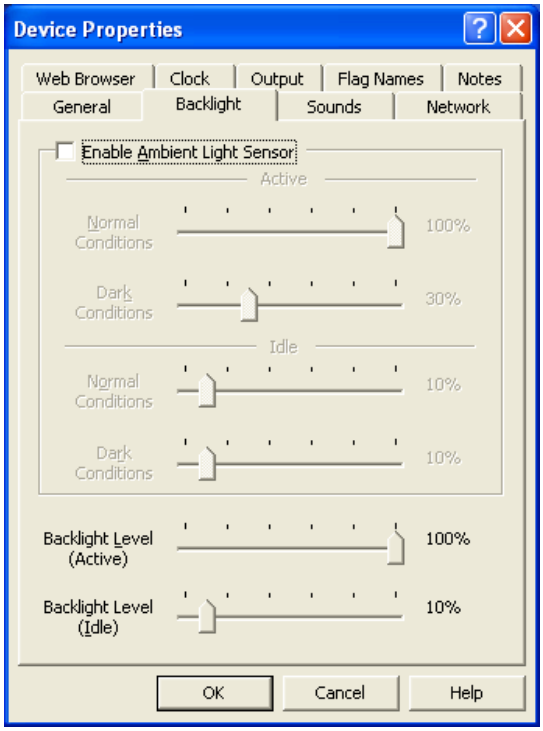
BACKLIGHT LEVEL (ACTIVE)

3. Use this slider to adjust the backlight setting for when the Ambient Light Sensor is disabled and the control device status is Active.

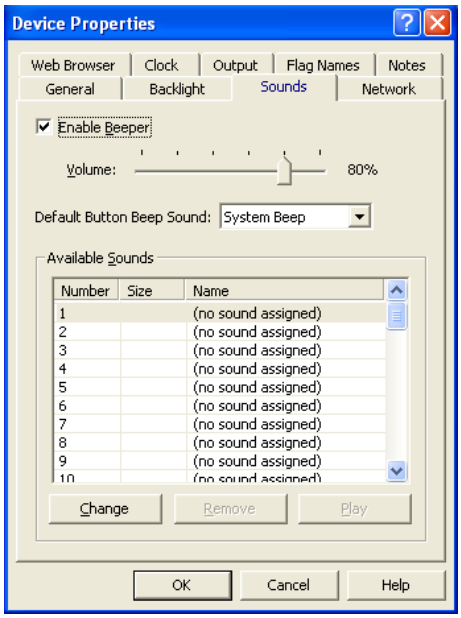
BACKLIGHT LEVEL (IDLE)

4. Use this slider to adjust the backlight setting for when the Ambient Light Sensor is disabled and the control device status is Idle.

5. Choose OK to confirm the new settings.



K4 SOUNDS TAB



ENABLE BEEPER

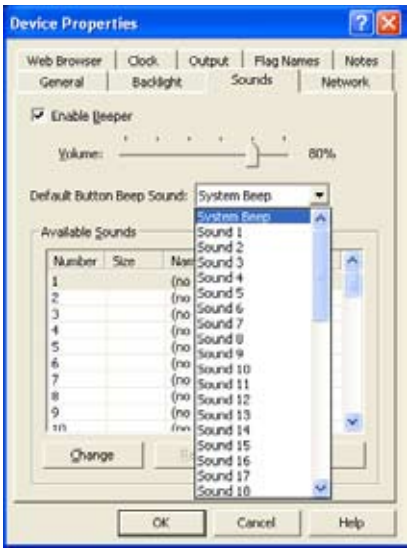
1. Check this box to enable the beeper. If this box is checked, the remote control will play the default button beep sound every time a button is pressed.

VOLUME

2. Set the Volume slider to set volume level of the beeper.

DEFAULT BUTTON BEEP SOUND:

3. Determines the default sound for all buttons on the control device. System beep is the built-in beep sound. Choose from the available sounds in the drop down list to change the device default.



Drop Down List of Available Sounds

AVAILABLE SOUNDS

4. Add to the list of Available Sounds by selecting Change. An Open Sound File dialog box appears and allows you to select a *.wav file.

- Remove a file from the list by selecting Remove.
- Test an added sound file by selecting Play
- The only limitation on sound length is the amount of available memory on the remote device.

5. Choose OK to confirm the new settings.

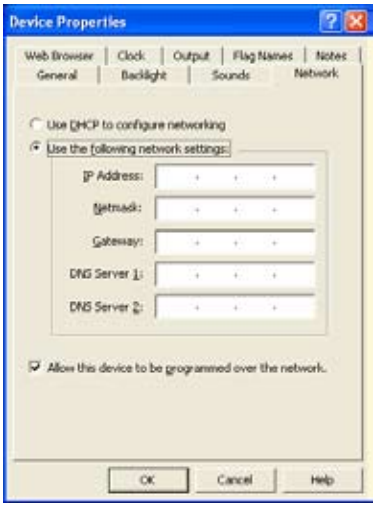
Open Sound File Dialog Box

K4 NETWORK TAB

DHCP

1. Check this box to configure the device's network interface using DHCP. You must have a DHCP server (such as a router or cable/DSL modem) on the network for this to work. In most cases, this is the option you should use.

MANUALLY CONFIGURE NETWORK SETTINGS



2. Use this selection to configure the device's network interface using a static IP address. The values can be obtained by contacting your ISP or your network administrator.
- Enter the device's static IP Address
- Enter the network's:
  - Netmask
  - Gateway IP Address
  - DNS Server 1
  - DNS Server 2 (If only one is available, leave blank)

ALLOW THE DEVICE TO BE PROGRAMMED OVER THE NETWORK

3. Check this box to allow the device to be programmed remotely via the device's ethernet interface. If you uncheck this box you will have to use a direct USB connection to update the device's programming. Unchecking this box provides increased security by preventing the device's programming from being altered over the network.

4. Select OK to confirm all selections.

K4 WEB BROWSER TAB

HOME PAGE

1. Enter the URL for the default home page that the web browser will navigate to.

USE PROXY SERVER

2. Check this box to enable the use of a web proxy server. In most cases this option will not be used.

- Enter the host name or the IP address of the proxy server
- Enter the Port number used by the proxy server

ADJUST WEB PAGES TO REDUCE HORIZONTAL SCROLLING

3. Check this box to enable the browser to automatically resize web pages to fit on the screen. In most cases, this will reduce the amount of scrolling needed to view the entire width of a web page, however some websites will not appear correctly when this option is enabled.

4. Select OK to confirm all selections.

K4 CLOCK TAB

SET CLOCK FROM PC WHEN DOWNLOADING

1. Check this box to automatically synchronize the control device's clock with the clock on your PC when you download the program to the device. (Make sure the PC's clock is set correctly when using this option.)

ENABLE NTP SYNCHRONIZATION

2. Check this box to enable automatic clock setting via the Network Time Protocol. Enabling NTP requires either an NTP server on your local network or access to an NTP server on the internet.

3. Enter the address of the NTP server you would like to use. If you have constant internet access, you can use the default value. If not, input the address of an NTP server on the local network.

TIME ZONE

4. Choose the time zone for the location that the device will be installed in. This setting must be set correctly for NTP and automatic Daylight Saving Time adjustment to function correctly.

AUTOMATICALLY ADJUST FOR DAYLIGHT SAVING TIME

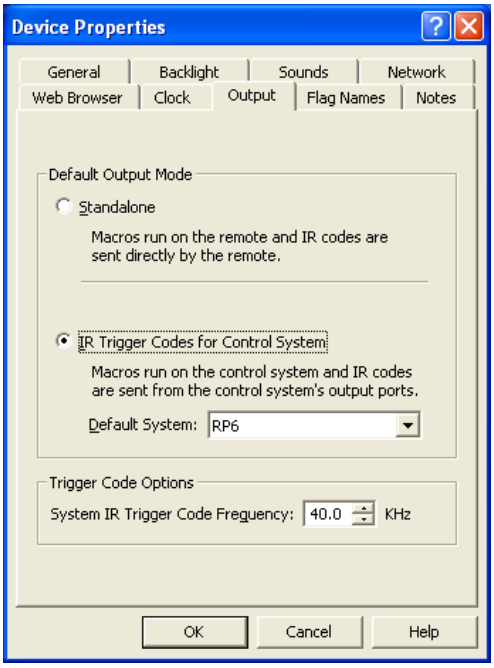
5. Check this box to enable automatic Daylight Saving Time adjustment. (Make sure the time zone is set correctly when using this option.)

6. Select OK to confirm all selections.

NOTE: To insert the time onto a K4 control device page, create a button, right click and go to the Edit Text option, then choose the Control Variable button select the time format to be displayed on the button.

K4 OUTPUT TAB

DEFAULT OUTPUT MODE



1. Change the default output mode by selecting one of the two available options listed.

Note: To have any single button on the device operate in a different output mode or trigger a different control processor from the device default, you must edit the Button Properties Output Tab (See Output Tab - Chapter 6 for more information on editing a buttons properties).

STANDALONE

In-wall control devices are set to the Standalone output mode by default when a control processor is not included in a system file. In this mode, devices output IR commands and issue macros to components directly.

IR TRIGGER CODES FOR CONTROL SYSTEM

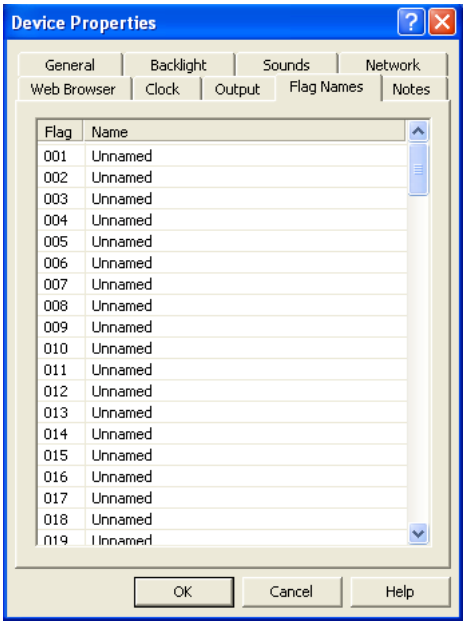
In-wall control devices are set to the IR Trigger Codes for Control System output mode by default when a control processor is included in a system file. In this mode, devices send IR trigger codes to the control processor which outputs IR commands and macros, and also provides access to additional features such as RS-232 commands, IR routing, power sensing and relay control.

2. Choose which control processor a device triggers by default (all control processors included in the system file are displayed for selection in the drop down list.)

3. Adjust the IR Trigger Code carrier frequency to improve IR trigger code reliability when using an IR receiver and a control processor.

4. Choose OK to confirm the new settings.

K4 FLAG NAMES TAB

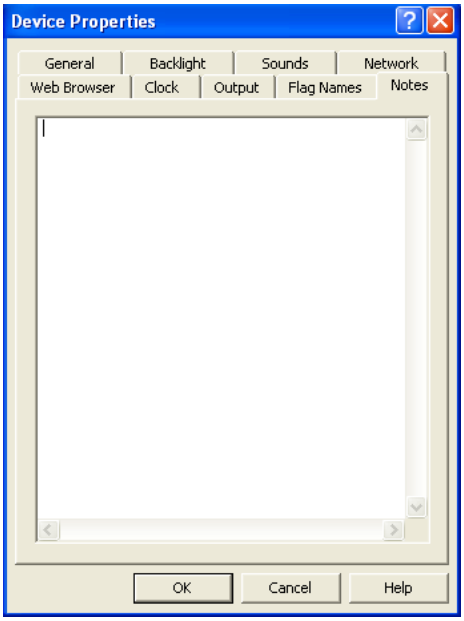


1. Input the names of the flags to be associated with this device in a Flag Macro Step.

Note: Flags are used in macros to keep track of a component or remote device's status and act based on that status. For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Flags exist on a per-device basis, therefore you must name each flag used by each remote device or contol processor. (See Working with Macros - Chapter 8 for more information on programming macros using Flags).

2. Choose OK to confirm the new settings.

K4 NOTES TAB



1. Enter any device specific notes for future reference.

Note: This field does not affect the functionality of the device, it is for your informational purposes only.

2. Choose OK to confirm the new settings.

RK3 GENERAL TAB)

IGNORE FIRST PRESS FROM POWER DOWN MODE

1. Enabling this option causes the device to ignore the first button press if the unit is powered down (the backlight is off.) The first button press will wake up the device and turn on the backlight, but will not activate any programmed command or macro.

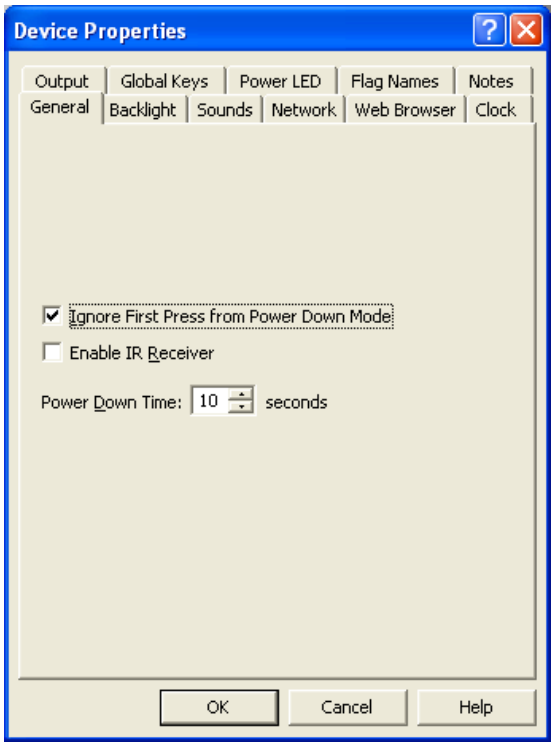
ENABLE IR RECEIVER

2. Enabling this option allows signals received by the built-in IR receiver to be passed through to the IR output.

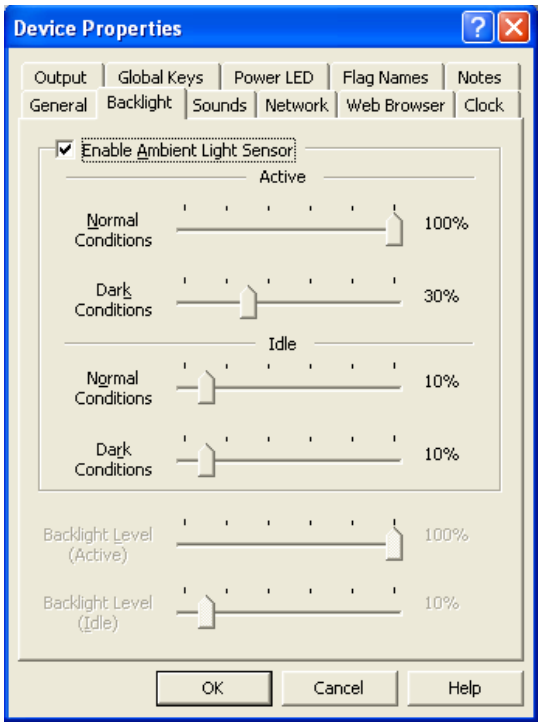
POWER DOWN TIME

3. Adjust the amount of time the unit stays awake after the last button press of the touchscreen. The time is variable from 1 second to 60 seconds (default is 10 seconds).

4. Choose OK to confirm the new settings.



RK3 BACKLIGHT TAB



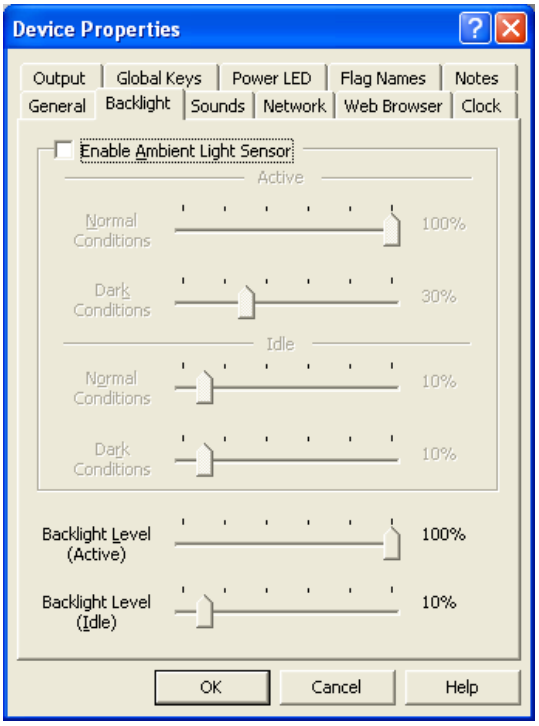
ENABLE AMBIENT LIGHT SENSOR

1. Check this box to enable a built-in light sensor to determine the current room lighting conditions and change the backlight levels according to these conditions and the current activity status of the control device.

BACKLIGHT LEVELS

2. Use these sliders to adjust the backlight setting for normal lighting conditions and dark lighting conditions when the Ambient Light Sensor is enabled for both Active and Idle status.

Active Status = Device is in use
Idle Status = Power Down Time has expired
(set on the "General" tab)



BACKLIGHT LEVEL (ACTIVE)

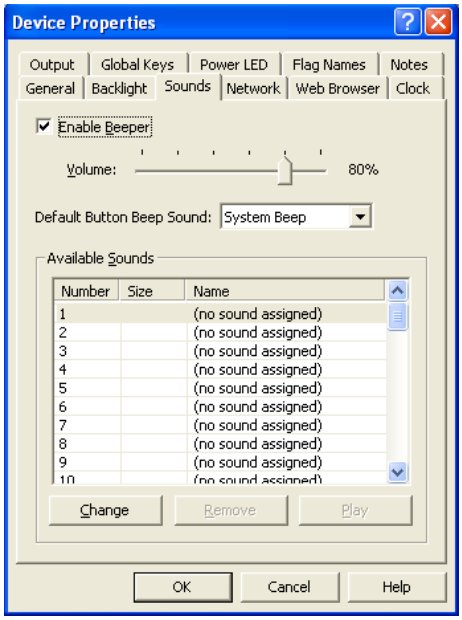
3. Use this slider to adjust the backlight setting for when the Ambient Light Sensor is disabled and the control device status is Active.

BACKLIGHT LEVEL (IDLE)

3. Use this slider to adjust the backlight setting for when the Ambient Light Sensor is disabled and the control device status is Idle.

4. Choose OK to confirm the new settings.

RK3 SOUNDS TAB



ENABLE BEEPER

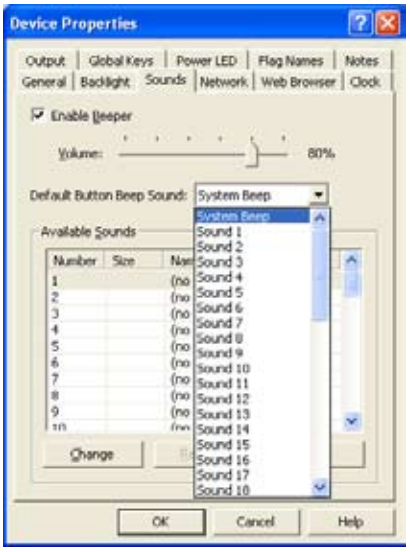
1. Check this box to enable the beeper. If this box is checked, the remote control will play the default button beep sound every time a button is pressed.

VOLUME

2. Set the Volume slider to set volume level of the beeper.

DEFAULT BUTTON BEEP SOUND:

3. Determines the default sound for all buttons on the control device. System beep is the built-in beep sound. Choose from the available sounds in the drop down list to change the device default.

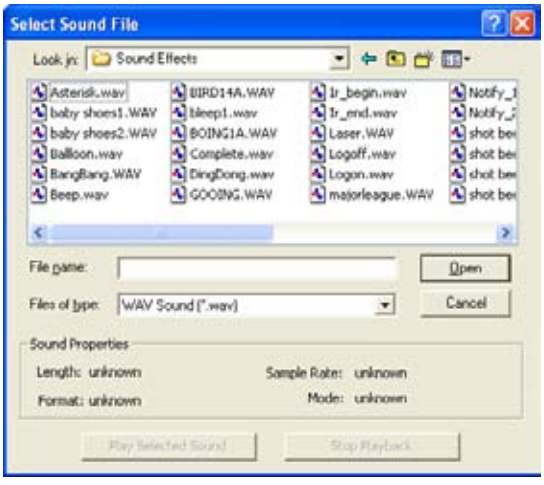


Drop Down List of Available Sounds

AVAILABLE SOUNDS

4. Add to the list of Available Sounds by selecting Change. An Open Sound File dialog box appears and allows you to select a *.wav file.

- Remove a file from the list by selecting Remove.
- Test an added sound file by selecting Play
- The only limitation on sound length is the amount of available memory on the remote device.



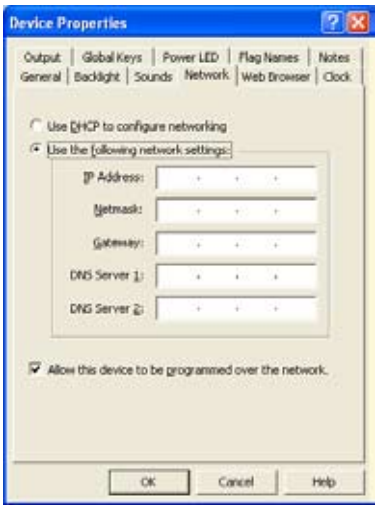
Open Sound File Dialog Box

RK3 NETWORK TAB

DHCP

1. Check this box to configure the device's network interface using DHCP. You must have a DHCP server (such as a router or cable/DSL modem) on the network for this to work. In most cases, this is the option you should use.

MANUALLY CONFIGURE NETWORK SETTINGS



2. Use this selection to configure the device's network interface using a static IP address. The values can be obtained by contacting your ISP or your network administrator.
- Enter the device's static IP Address
- Enter the network's:
  - Netmask
  - Gateway IP Address
  - DNS Server 1
  - DNS Server 2 (If only one is available, leave blank)

ALLOW THE DEVICE TO BE PROGRAMMED OVER THE NETWORK

3. Check this box to allow the device to be programmed remotely via the device's ethernet interface. If you uncheck this box you will have to use a direct USB connection to update the device's programming. Unchecking this box provides increased security by preventing the device's programming from being altered over the network.

4. Select OK to confirm all selections.

RK3 WEB BROWSER TAB

HOME PAGE

1. Enter the URL for the default home page that the web browser will navigate to.

USE PROXY SERVER

2. Check this box to enable the use of a web proxy server. In most cases this option will not be used.

- Enter the host name or the IP address of the proxy server
- Enter the Port number used by the proxy server

ADJUST WEB PAGES TO REDUCE HORIZONTAL SCROLLING

3. Check this box to enable the browser to automatically resize web pages to fit on the screen. In most cases, this will reduce the amount of scrolling needed to view the entire width of a web page, however some websites will not appear correctly when this option is enabled.

4. Select OK to confirm all selections.

RK3 CLOCK TAB

SET CLOCK FROM PC WHEN DOWNLOADING

1. Check this box to automatically synchronize the control device's clock with the clock on your PC when you download the program to the device. (Make sure the PC's clock is set correctly when using this option.)

ENABLE NTP SYNCHRONIZATION

2. Check this box to enable automatic clock setting via the Network Time Protocol. Enabling NTP requires either an NTP server on your local network or access to an NTP server on the internet.

3. Enter the address of the NTP server you would like to use. If you have constant internet access, you can use the default value. If not, input the address of an NTP server on the local network.

TIME ZONE

4. Choose the time zone for the location that the device will be installed in. This setting must be set correctly for NTP and automatic Daylight Saving Time adjustment to function correctly.

AUTOMATICALLY ADJUST FOR DAYLIGHT SAVING TIME

5. Check this box to enable automatic Daylight Saving Time adjustment. (Make sure the time zone is set correctly when using this option.)

6. Select OK to confirm all selections.

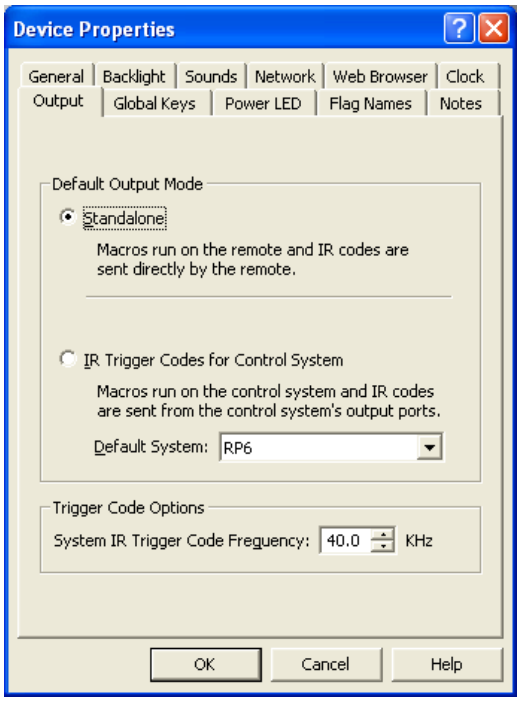
NOTE: To insert the time onto an RK3 page, create a button, right click and go to the Edit Text option, then choose the Control Variable button select the time format to be displayed on the button.

RK3 OUTPUT TAB

DEFAULT OUTPUT MODE

1. Change the default output mode by selecting one of the two available options listed.

Note: To have any single button on the device operate in a different output mode or trigger a different control processor from the device default, you must edit the Button Properties Output Tab (See Output Tab - Chapter 6 for more information on editing a buttons properties).



STANDALONE

In-wall control devices are set to the Standalone output mode by default when a control processor is not included in a system file. In this mode, devices output IR commands and issue macros to components directly.

IR TRIGGER CODES FOR CONTROL SYSTEM

In-wall control devices are set to the IR Trigger Codes for Control System output mode by default when a control processor is included in a system file. In this mode, devices send IR trigger codes to the control processor which outputs IR commands and macros, and also provides access to additional features such as RS-232 commands, IR routing, power sensing and relay control.

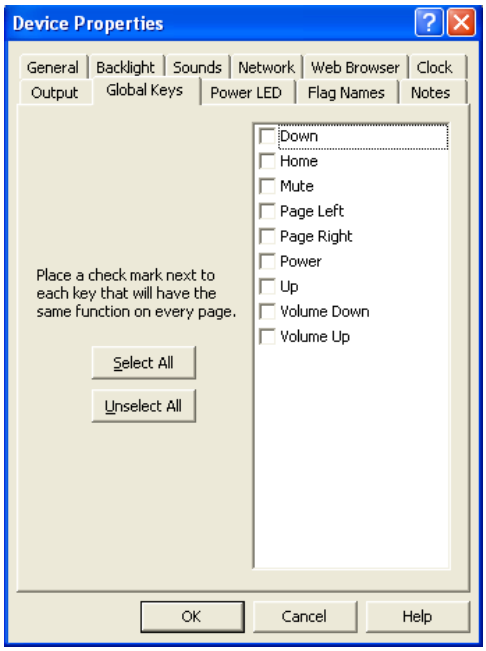
2. Choose which control processor a device triggers by default (all control processors included in the system file are displayed for selection in the drop down list.)

3. Adjust the IR Trigger Code carrier frequency to improve IR trigger code reliability when using an IR receiver and a control processor.

4. Choose OK to confirm the new settings.

RK3 GLOBAL KEYS TAB

The command programming for Global keys is common to every page of a remote control device.



1. Switch a key from unique to Global by choosing the Global Keys tab in the Device Properties dialog or by clicking the right mouse button on the key and choosing "Make This Key Global".

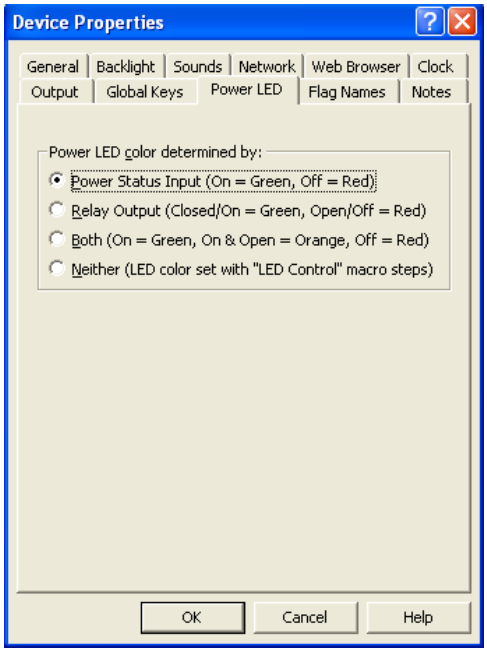
2. Place a check mark next to all Global keys.

3. Select OK to confirm all selections.

Important Note: Using the Global Keys tab does not preserve previously programmed commands. Use the right button context menu of a selected button and select “Make this Key Global” to designate the command on that button and that page to be the global command.

RK3 POWER LED TAB

The Power LED color can be set depending on the status of the built in Power Status Inputs and Relays or by using Led Control macro steps.



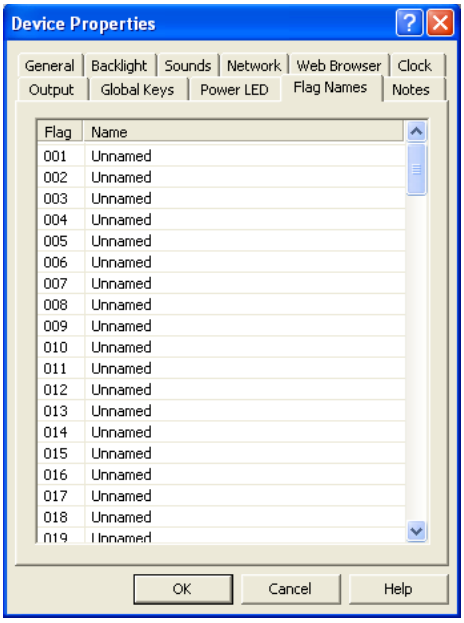
1. Choose how the Power LED color will be determined.

POWER STATUS INPUT
Onlythe voltage present on the PWR STATUS input will determine the color.
RELAY OUTPUT
Onlythe current setting of the RELAY CTRL output will determine the color.
BOTH
Boththe voltage present on the PWR STATUS input and the current setting of the RELAY CTRL output will determine the color.
NEITHER
LEDControl steps within macros will determine the color.

\

2. Choose OK to confirm the new settings.

RK3 FLAG NAMES TAB



1. Input the names of the flags to be associated with this device in a Flag Macro Step.

Note: Flags are used in macros to keep track of a component or remote device's status and act based on that status. For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Flags exist on a per-device basis, therefore you must name each flag used by each remote device or contol processor. (See Working with Macros - Chapter 8 for more information on programming macros using Flags).

2. Choose OK to confirm the new settings.

RK3 NOTES TAB

1. Enter any device specific notes for future reference.

Note: This field does not affect the functionality of the device, it is for your informational purposes only.

2. Choose OK to confirm the new settings.

T4 GENERAL TAB

ENABLE TILT SWITCH

1. Enabling the Tilt Switch allows the internal tilt switch to turn on the display and button backlight when the remote control is handled. This option is enabled by default.

DISABLE KEYPAD BACKLIGHTS

2. Check this box to turn off the backlight on the hard buttons.

IGNORE FIRST PRESS FROM POWER DOWN MODE

3. Enabling this option causes the device to ignore the first button press if the unit is powered down (the backlight is off.) The first button press will wake up the device and turn on the backlight, but will not activate any programmed command or macro.

POWER DOWN TIME

4. Adjust the amount of time the unit stays awake after the last button press of the touchscreen. The time is variable from 1 second to 60 seconds (default is 10 seconds).

VIDEO INPUT STANDARD

5. Select the type of Video Input Standard that will be used for all of the video feeds

NTSC = USA/Canada

PAL = Europe/Asia/Australia

LOW BATTERY WARNING TIME

6. Set the low battery warning time to determine when the low battery icon appears on the LCD screen. Choose one of the three available times, Normal (default time), Short or Long.

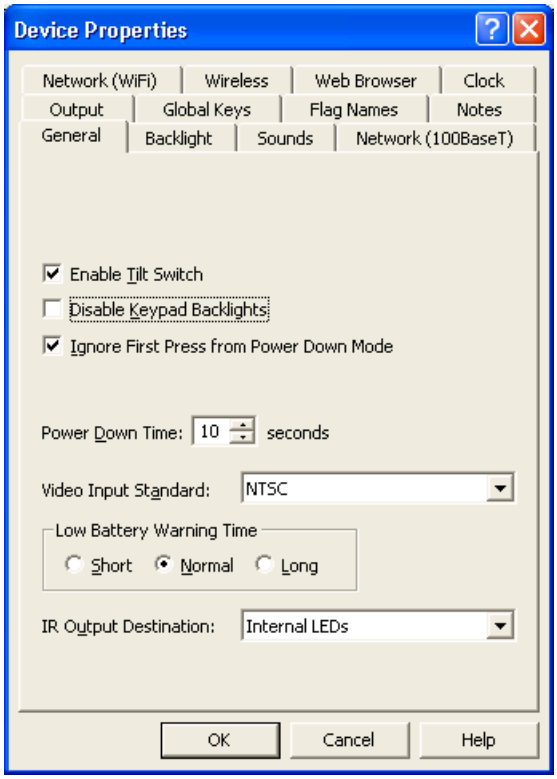
IR OUTPUT DESTINATION

7. Select how infrared codes should be delivered from the T4

Internal LED - sends IR directly from the T4

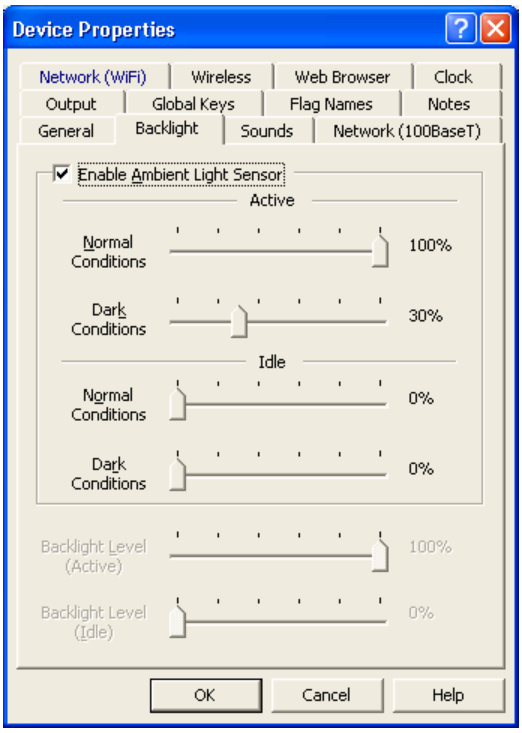
Hardwire (Requires EM4) - IR is sent hard-wired through the EM4 expansion module

8. Choose OK to confirm the new settings.



T4 BACKLIGHT TAB

ENABLE AMBIENT LIGHT SENSOR



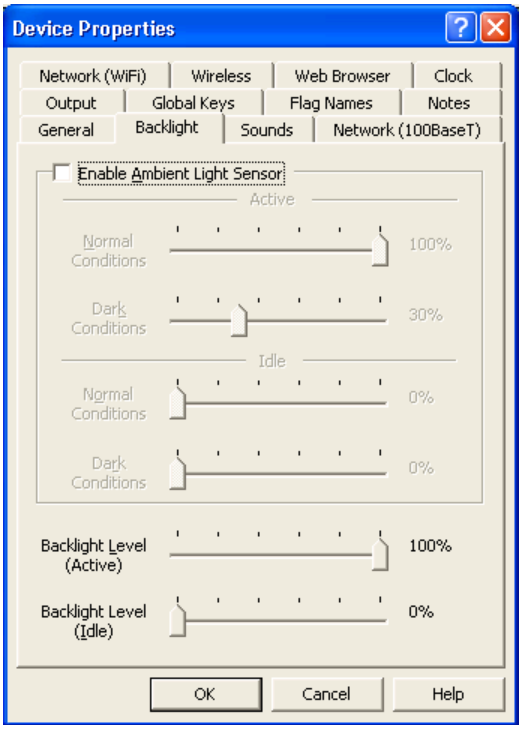
1. Check this box to enable a built-in light sensor to determine the current room lighting conditions and change the backlight levels according to these conditions and the current activity status of the control device.

BACKLIGHT LEVELS

2. Use these sliders to adjust the backlight setting for normal lighting conditions and dark lighting conditions when the Ambient Light Sensor is enabled for both Active and Idle status.

Active Status = Device is in use

Idle Status = Power Down Time has expired (set on the "General" tab)



BACKLIGHT LEVEL (ACTIVE)

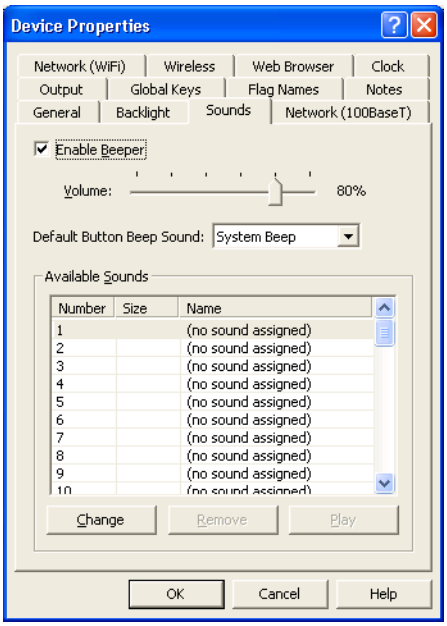
3. Use this slider to adjust the backlight setting for when the Ambient Light Sensor is disabled and the control device status is Active.

BACKLIGHT LEVEL (IDLE)

4. Use this slider to adjust the backlight setting for when the Ambient Light Sensor is disabled and the control device status is Idle.

5. Choose OK to confirm the new settings.

T4 SOUNDS TAB



ENABLE BEEPER

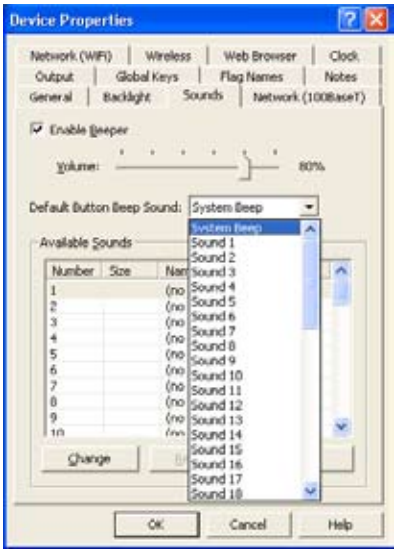
1. Check this box to enable the beeper. If this box is checked, the remote control will play the default button beep sound every time a button is pressed.

VOLUME

2. Set the Volume slider to set volume level of the beeper.

DEFAULT BUTTON BEEP SOUND:

3. Determines the default sound for all buttons on the control device. System beep is the built-in beep sound. Choose from the available sounds in the drop down list to change the device default.



Drop Down List of Available Sounds

AVAILABLE SOUNDS

4. Add to the list of Available Sounds by selecting Change. An Open Sound File dialog box appears and allows you to select a *.wav file.

- Remove a file from the list by selecting Remove.
- Test an added sound file by selecting Play
- The only limitation on sound length is the amount of available memory on the remote device.

5. Choose OK to confirm the new settings.

Open Sound File Dialog Box

T4 WEB BROWSER TAB

HOME PAGE

1. Enter the URL for the default home page that the web browser will navigate to.

USE PROXY SERVER

2. Check this box to enable the use of a web proxy server. In most cases this option will not be used.

- Enter the host name or the IP address of the proxy server
- Enter the Port number used by the proxy server

ADJUST WEB PAGES TO REDUCE HORIZONTAL SCROLLING

3. Check this box to enable the browser to automatically resize web pages to fit on the screen. In most cases, this will reduce the amount of scrolling needed to view the entire width of a web page, however some websites will not appear correctly when this option is enabled.

4. Select OK to confirm all selections.

T4 CLOCK TAB

SET CLOCK FROM PC WHEN DOWNLOADING

1. Check this box to automatically synchronize the control device's clock with the clock on your PC when you download the program to the device. (Make sure the PC's clock is set correctly when using this option.)

ENABLE NTP SYNCHRONIZATION

2. Check this box to enable automatic clock setting via the Network Time Protocol. Enabling NTP requires either an NTP server on your local network or access to an NTP server on the internet.

3. Enter the address of the NTP server you would like to use. If you have constant internet access, you can use the default value. If not, input the address of an NTP server on the local network.

TIME ZONE

4. Choose the time zone for the location that the device will be installed in. This setting must be set correctly for NTP and automatic Daylight Saving Time adjustment to function correctly.

AUTOMATICALLY ADJUST FOR DAYLIGHT SAVING TIME

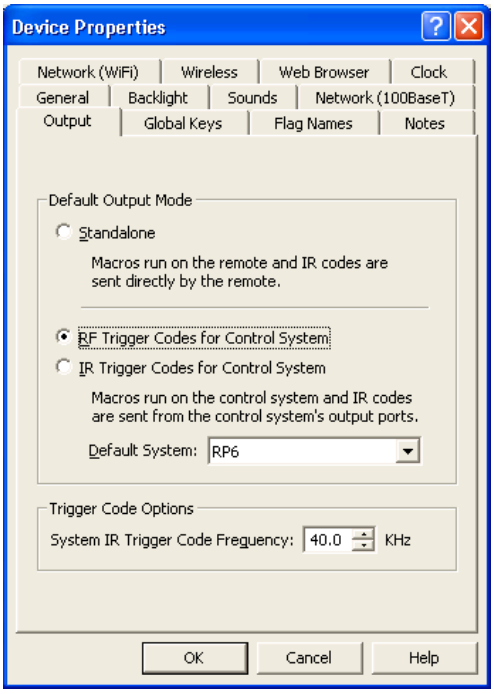
5. Check this box to enable automatic Daylight Saving Time adjustment. (Make sure the time zone is set correctly when using this option.)

6. Select OK to confirm all selections.

NOTE: To insert the time onto a T4 control device page, create a button, right click and go to the Edit Text option, then choose the Control Variable button select the time format to be displayed on the button.

T4 OUTPUT TAB

DEFAULT OUTPUT MODE



1. Change the default output mode by selecting one of the two available options listed.

Note: To have any single button on the device operate in a different output mode or trigger a different control processor from the device default, you must edit the Button Properties Output Tab (See Output Tab - Chapter 6 for more information on editing a buttons properties).

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IR TRIGGER CODES FOR CONTROL SYSTEM

In-wall control devices are set to the IR Trigger Codes for Control System output mode by default when a control processor is included in a system file. In this mode, devices send IR trigger codes to the control processor which outputs IR commands and macros, and also provides access to additional features such as RS-232 commands, IR routing, power sensing and relay control.

2. Choose which control processor a device triggers by default (all control processors included in the system file are displayed for selection in the drop down list.)

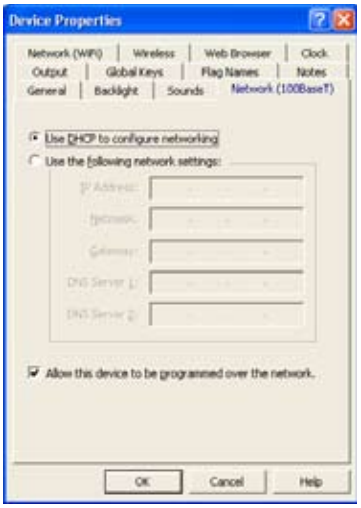
3. Adjust the IR Trigger Code carrier frequency to improve IR trigger code reliability when using an IR receiver and a control processor.

4. Choose OK to confirm the new settings.

T4 NETWORK TAB

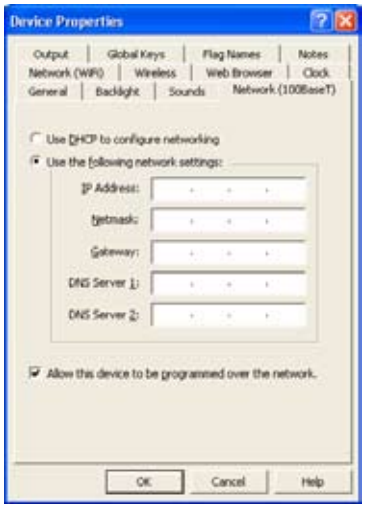
Use the Network(100BaseT) tab for hardwired Ethernet when using the EM4 Expansion Module. Use the Network(WiFi) tab to use the built in wireless networking adapter for wireless Ethernet.

DHCP



1. Check this box to configure the device's network interface using DHCP. You must have a DHCP server (such as a router or cable/DSL modem) on the network for this to work. In most cases, this is the option you should use.

MANUALLY CONFIGURE NETWORK SETTINGS



2. Use this selection to configure the device's network interface using a static IP address. The values can be obtained by contacting your ISP or your network administrator.
- Enter the device's static IP Address
- Enter the network's:
  - Netmask
  - Gateway IP Address
  - DNS Server 1
  - DNS Server 2 (If only one is available, leave blank)

ALLOW THE DEVICE TO BE PROGRAMMED OVER THE NETWORK

3. Check this box to allow the device to be programmed remotely via the device's ethernet interface. If you uncheck this box you will have to use a direct USB connection to update the device's programming. Unchecking this box provides increased security by preventing the device's programming from being altered over the network.

4. Select OK to confirm all selections.

T4 WIRELESS TAB

Use the Network(WiFi) tab to configure the built-in wireless networking adapter for wireless Ethernet.

ENABLE WIRELESS NETWORK ADAPTER (802.11b)

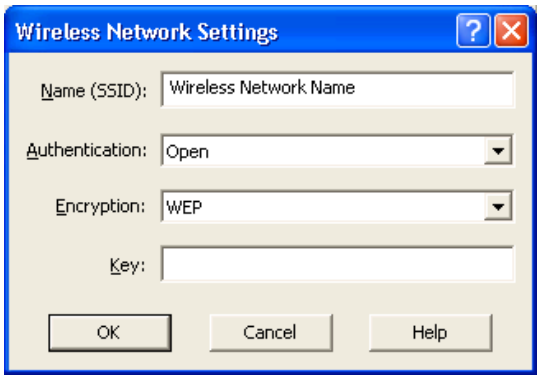
1. Check this box to use the built-in wireless networking adapter for wireless Ethernet.

ENABLE WIRELESS LAN STATUS LED

2. Check this box to enable the LED which will display the connection status to a wireless network.

WIRELESS NETWORKING CONFIGURATION

3. Use these buttons to add wireless networking configurations.
- Add - Click this button to enter a wireless network's configuration.
- Delete - Click this button to delete a wireless network configuration.
- Edit - Click this button to edit a wireless network's configuration.
- Move Up - Click this button to move a wireless network up in the connection priority list.
- Move Down - Click this button to move a wireless network down in the connection priority list.



NAME (SSID)

4. Enter the name of the wireless network.

AUTHENTICATION

5. Select the authentication type of the wireless network.
Choose from - Open, Shared Key or WPA-PSK

ENCRYPTION)

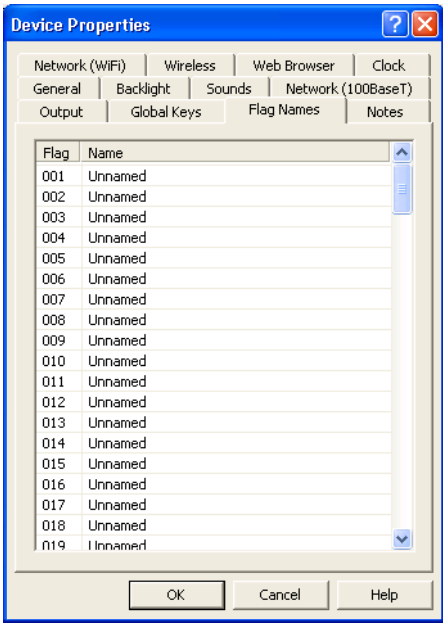
6. Select if the WEP encryption is being used when using Open or Shared Key Authentication, or TKIP encryption when WPA-PSK is being used.

KEY

4. Enter the wireless network encryption key.

5. Select OK to confirm all selections.

T4 FLAG NAMES TAB

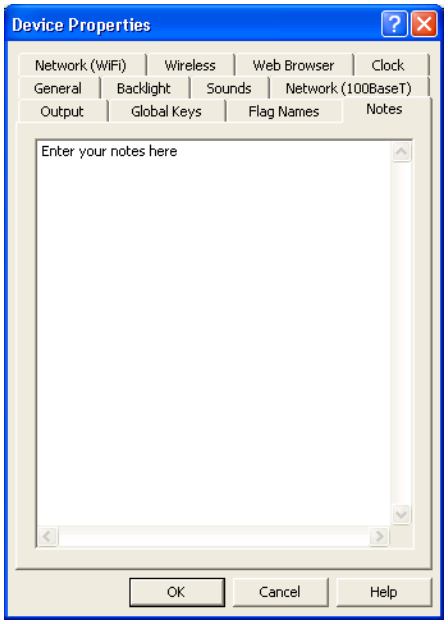


1. Input the names of the flags to be associated with this device in a Flag Macro Step.

Note: Flags are used in macros to keep track of a component or remote device's status and act based on that status. For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Flags exist on a per-device basis, therefore you must name each flag used by each remote device or contol processor. (See Working with Macros - Chapter 8 for more information on programming macros using Flags).

2. Choose OK to confirm the new settings.

T4 NOTES TAB



1. Enter any device specific notes for future reference.

Note: This field does not affect the functionality of the device, it is for your informational purposes only.

2. Choose OK to confirm the new settings.

T3 GENERAL TAB

ENABLE TILT SWITCH

1. Enabling the Tilt Switch allows the internal tilt switch to turn on the display and button backlight when the remote control is handled. This option is enabled by default.

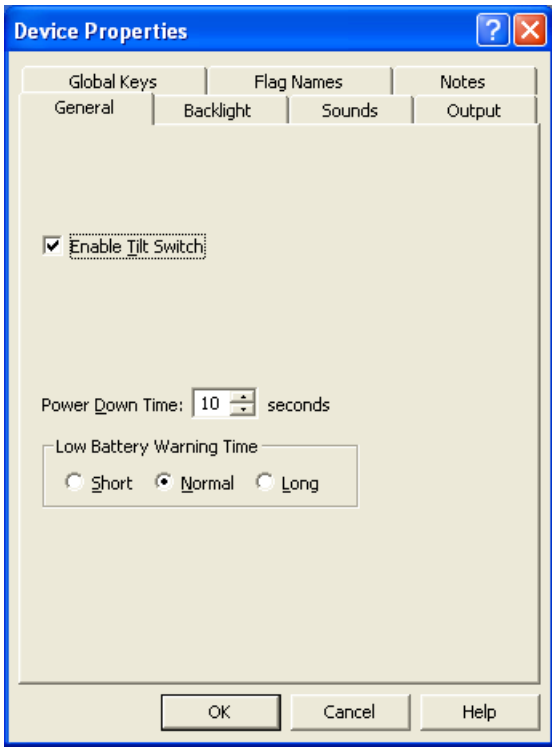
POWER DOWN TIME

2. Adjust the amount of time the unit stays awake after the remote is set down after use. The time is variable from 1 second to 60 seconds (default is 10 seconds). During sleep mode, the remote control uses virtually no battery power.

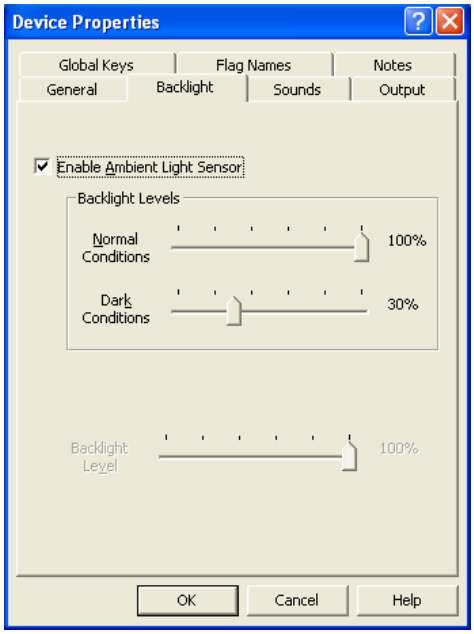
LOW BATTERY WARNING TIME

3. Set the low battery warning time to determine when the low battery icon appears on the LCD screen. Choose one of the three available times, Normal (default time), Short or Long.

4. Choose OK to confirm the new settings.



T3 BACKLIGHT TAB

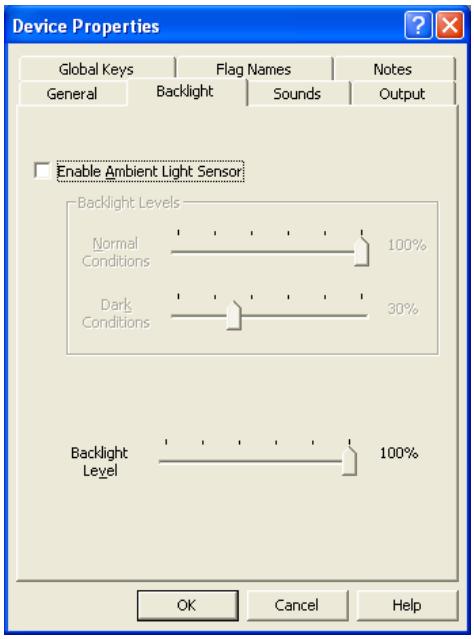


ENABLE AMBIENT LIGHT SENSOR

1. Check this box to enable a built-in light sensor to provide one of two different backlight levels depending on the current room lighting conditions. This option is enabled by default.

BACKLIGHT LEVELS

2. Use these sliders to adjust the backlight setting for normal lighting conditions and dark lighting conditions when the Ambient Light Sensor is enabled.

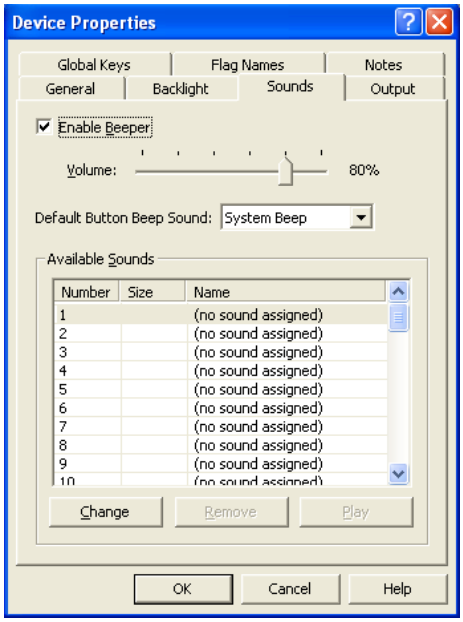


BACKLIGHT LEVEL

3. Use this slider to adjust the backlight setting for all conditions when the Ambient Light Sensor is disabled.

4. Choose OK to confirm the new settings.

T3 SOUNDS TAB



ENABLE BEEPER

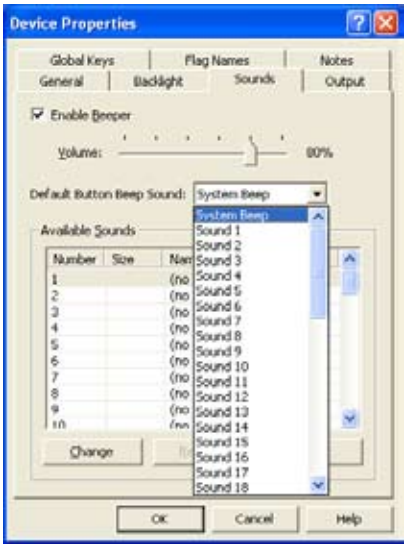
1. Check this box to enable the beeper. If this box is checked, the remote control will play the default button beep sound every time a button is pressed.

VOLUME

2. Set the Volume slider to set volume level of the beeper.

DEFAULT BUTTON BEEP SOUND:

3. Determines the default sound for all buttons on the control device. System beep is the built-in beep sound. Choose from the available sounds in the drop down list to change the device default.

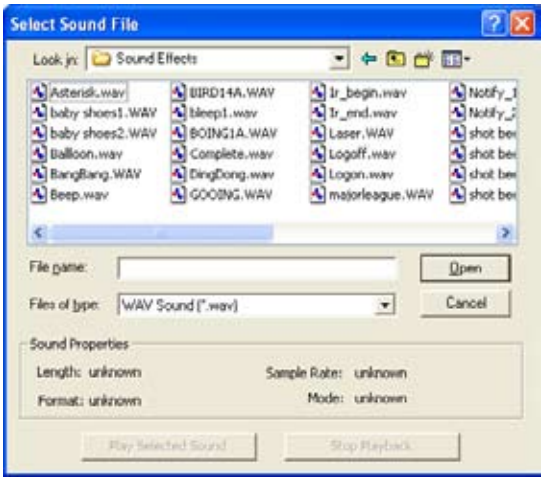


Drop Down List of Available Sounds

AVAILABLE SOUNDS

4. Add to the list of Available Sounds by selecting Change. An Open Sound File dialog box appears and allows you to select a *.wav file.

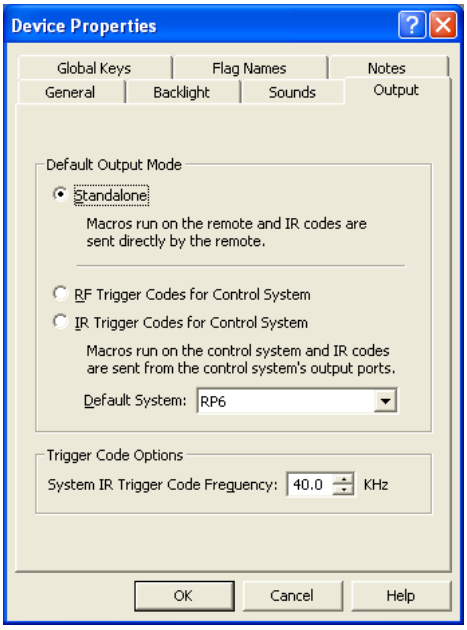
- Remove a file from the list by selecting Remove.
- Test an added sound file by selecting Play
- The only limitation on sound length is the amount of available memory on the remote device.



Open Sound File Dialog Box

T3 OUTPUT TAB

DEFAULT OUTPUT MODE



1. Change the default output mode by selecting one of the three available options listed on the Device Properties Output Tab.

Note: To have any single button on the remote control device operate in a different output mode or trigger a different control processor from the device default, you must edit the Button Properties Output Tab (See Output Tab - Chapter 6 for more information on editing a buttons properties).

STANDALONE

AnyIR commands that you assign to buttons will be output directly by the infrared output on the remote device, and the device will process any macros attached to buttons. Actions that require a control processor will need to be created on the control processor in a System Macro and added to a macro attached to a button. (See Understanding System Macros - Chapter 8 for more information on System Macros.)

RF TRIGGER CODES FOR CONTROL SYSTEM

In this mode, all commands and macros that you assign to buttons will be stored in the control processor instead of the device. Each button on the device will send an RF "trigger" code to the control processor that tells it which command and/or macro to process.

Note: In this mode, macros are also much more reliable. There is only a single "trigger" code sent from the device to the control processor to start the macro, after which the control processor will run the entire macro to completion. However, since the macros are not running on the remote control device, it is not possible for the macro to affect the remote control in any way, such as changing pages or making sounds. To make these functions possible refer to the instructions for Standalone output mode above.

IR TRIGGER CODES FOR CONTROL SYSTEM

This mode is identical to the "RF Trigger Codes for Control System" mode, except that an IR code is used to trigger the control processor instead of an RF code. (See Generate IR Trigger Codes for System Macros - Chapter 8 for information on obtaining IR trigger codes to be programmed into third-party devices.)

Note: Commands and macros are stored in the control processor in this mode, and all of the notes regarding macro processing in the RF Trigger Codes section apply.

2. Choose which control processor a remote control device triggers by default (all control processors included in the system file are displayed for selection in the drop down list.)

3. Adjust the IR Trigger Code carrier frequency to improve IR trigger code reliability when using an IR receiver and a control processor (this adjustment may be required only if a component controlled by the control processor is in direct line of sight with the IR output of the interface device.)

4. Choose OK to confirm the new settings.

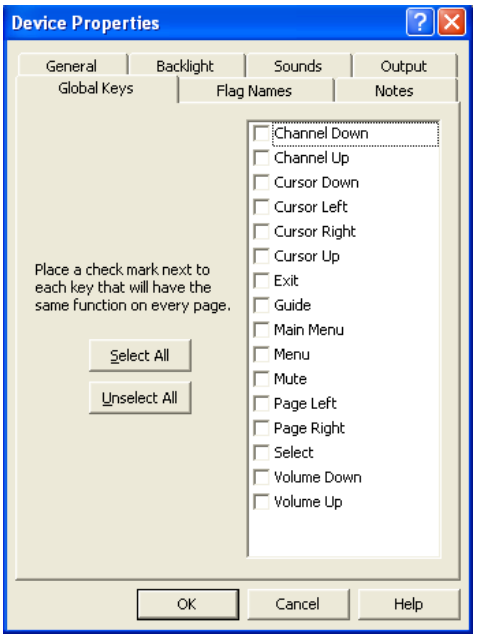
T3 GLOBAL KEYS TAB

The command programming for Global keys is common to every page of an remote control device.

1. Switch a key from unique to Global by choosing the Global Keys tab in the Device Properties dialog or by clicking the right mouse button on the key and choosing "Make This Key Global".

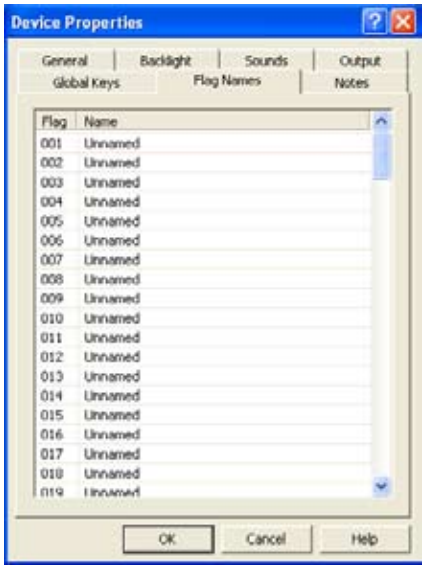
2. Place a check mark next to all Global keys.

3. Select OK to confirm all selections.



Important Note: Using the Global Keys tab does not preserve previously programmed commands. Use the right button context menu of a selected button and select “Make this Key Global” to designate the command on that button and that page to be the global command.

T3 FLAG NAMES TAB



1. Input the names of the flags to be associated with this device in a Flag Macro Step.

Note: Flags are used in macros to keep track of a component or remote device's status and act based on that status. For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Flags exist on a per-device basis, therefore you must name each flag used by each remote device or contol processor. (See Working with Macros - Chapter 8 for more information on programming macros using Flags).

2. Choose OK to confirm the new settings.

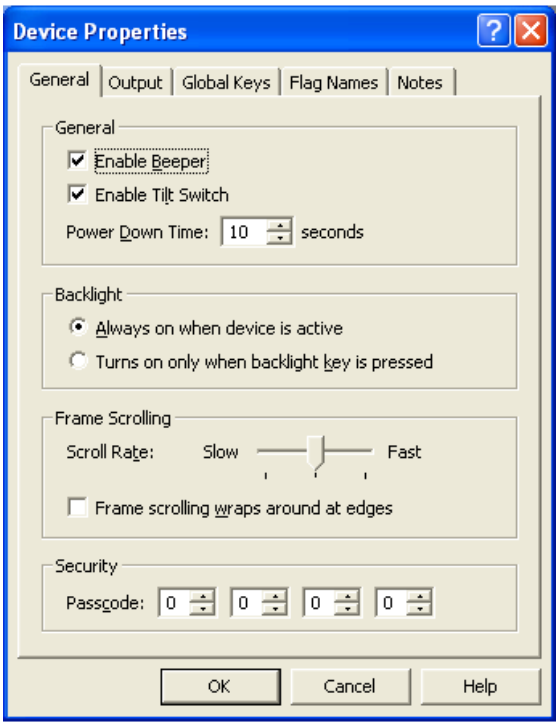
T3 NOTES TAB

1. Enter any device specific notes for future reference.

Note: This field does not affect the functionality of the device, it is for your informational purposes only.

2. Choose OK to confirm the new settings.

T2+ GENERAL TAB



ENABLE BEEPER

1. Check this box to enable the beeper. If this box is checked, the remote control will beep every time a button is pressed. This option is enabled by default.

ENABLE TILT SWITCH

2. Enabling the Tilt Switch allows the internal tilt switch to turn on the display and button backlight when the remote control is handled. This option is enabled by default.

POWER DOWN TIME

3. Adjust the amount of time the unit stays awake after the remote is set down after use. The time is variable from 1 second to 60 seconds (default is 10 seconds). During sleep mode, the remote control uses virtually no battery power.

BACKLIGHT

4. Choose one of the two backlighting options, on when device is active or only on when the backlight keys is pressed.

FRAME SCROLLING RATE

5. Slide this control to set how fast the frames scroll left and right when the frame scroll arrows are pressed.

FRAME SCROLLING WRAPS AROUND EDGES

5. Select the frame scrolling wraps around at edges check box and the page frames will cycle back to the first or last frame when using the frame right and left arrows.

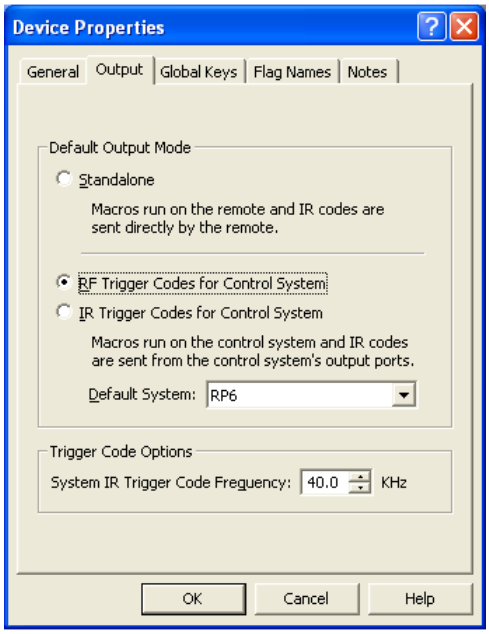
SECURITY

6. Passcode: (default is 0000) Allows you to set the passcode that the Clear All function on the remote's control panel page as well as the Secured Button Option function that is available on all buttons.

7. Choose OK to confirm the new settings.

T2+ OUTPUT TAB

DEFAULT OUTPUT MODE



1. Change the default output mode by selecting one of the three available options listed on the Device Properties Output Tab.

Note: To have any single button on the remote control device operate in a different output mode or trigger a different control processor from the device default, you must edit the Button Properties Output Tab (See Output Tab - Chapter 6 for more information on editing a buttons properties).

STANDALONE

AnyIR commands that you assign to buttons will be output directly by the infrared output on the remote device, and the device will process any macros attached to buttons. Actions that require a control processor will need to be created on the control processor in a System Macro and added to a macro attached to a button. (See Understanding System Macros - Chapter 8 for more information on System Macros.)

RF TRIGGER CODES FOR CONTROL SYSTEM

In this mode, all commands and macros that you assign to buttons will be stored in the control processor instead of the device. Each button on the device will send an RF "trigger" code to the control processor that tells it which command and/or macro to process.

Note: In this mode, macros are also much more reliable. There is only a single "trigger" code sent from the device to the control processor to start the macro, after which the control processor will run the entire macro to completion. However, since the macros are not running on the remote control device, it is not possible for the macro to affect the remote control in any way, such as changing pages or making sounds. To make these functions possible refer to the instructions for Standalone output mode above.

IR TRIGGER CODES FOR CONTROL SYSTEM

This mode is identical to the "RF Trigger Codes for Control System" mode, except that an IR code is used to trigger the control processor instead of an RF code. (See Generate IR Trigger Codes for System Macros - Chapter 8 for information on obtaining IR trigger codes to be programmed into third-party devices.)

Note: Commands and macros are stored in the control processor in this mode, and all of the notes regarding macro processing in the RF Trigger Codes section apply.

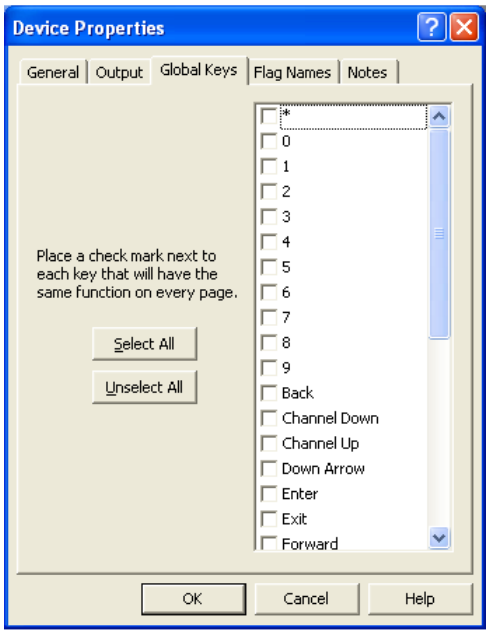
2. Choose which control processor a remote control device triggers by default (all control processors included in the system file are displayed for selection in the drop down list.)

3. Adjust the IR Trigger Code carrier frequency to improve IR trigger code reliability when using an IR receiver and a control processor (this adjustment may be required only if a component controlled by the control processor is in direct line of sight with the IR output of the interface device.)

4. Choose OK to confirm the new settings.

T2+ GLOBAL KEYS TAB

The command programming for Global keys is common to every page of a remote control device.



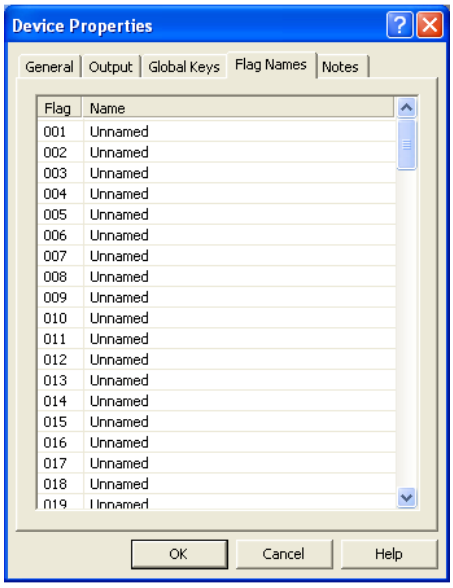
1. Switch a key from unique to Global by choosing the Global Keys tab in the Device Properties dialog or by clicking the right mouse button on the key and choosing "Make This Key Global".

2. Place a check mark next to all Global keys.

3. Select OK to confirm all selections.

Important Note: Using the Global Keys tab does not preserve previously programmed commands. Use the right button context menu of a selected button and select “Make this Key Global” to designate the command on that button and that page to be the global command.

T2+ FLAG NAMES TAB



1. Input the names of the flags to be associated with this device in a Flag Macro Step.

Note: Flags are used in macros to keep track of a component or remote device's status and act based on that status. For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Flags exist on a per-device basis, therefore you must name each flag used by each remote device or contol processor. (See Working with Macros - Chapter 8 for more information on programming macros using Flags).

2. Choose OK to confirm the new settings.

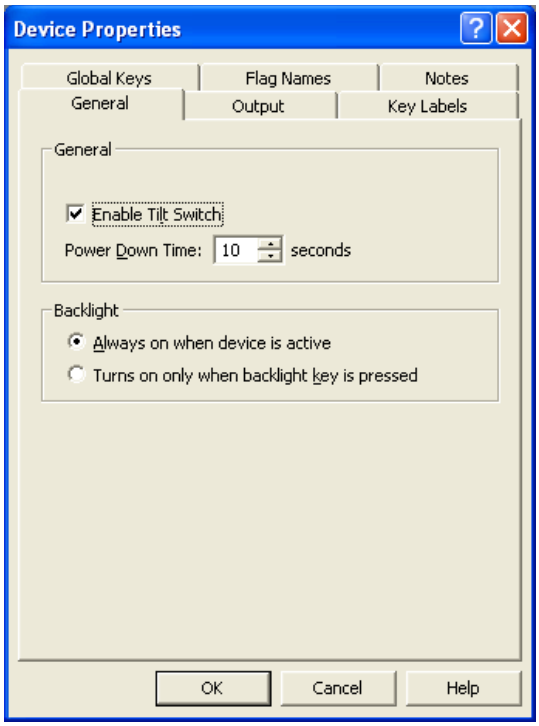
T2+ NOTES TAB

1. Enter any device specific notes for future reference.

Note: This field does not affect the functionality of the device, it is for your informational purposes only.

2. Choose OK to confirm the new settings.

T1 GENERAL TAB



ENABLE TILT SWITCH

1. Enabling the Tilt Switch allows the internal tilt switch to turn on the button backlight when the remote control is handled. This option is enabled by default.

POWER DOWN TIME

2. Adjust the amount of time the unit stays awake after the remote is set down after use. The time is variable from 1 second to 60 seconds (default is 10 seconds). During sleep mode, the device uses virtually no battery power.

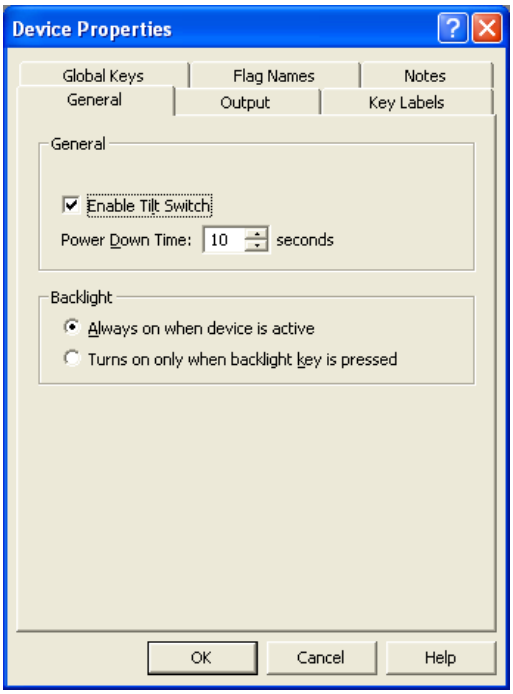
BACKLIGHT

3. Choose one of the two backlighting options, on when the remote is active or only on when the backlight key is pressed.

4. Choose OK to confirm the new settings.

T1 OUTPUT TAB

DEFAULT OUTPUT MODE



1. Change the default output mode by selecting one of the three available options listed on the Device Properties Output Tab.

Note: To have any single button on the remote control device operate in a different output mode or trigger a different control processor from the device default, you must edit the Button Properties Output Tab (See Output Tab - Chapter 6 for more information on editing a buttons properties).

STANDALONE

AnyIR commands that you assign to buttons will be output directly by the infrared output on the remote device, and the device will process any macros attached to buttons. Actions that require a control processor will need to be created on the control processor in a System Macro and added to a macro attached to a button. (See Understanding System Macros - Chapter 8 for more information on System Macros.)

RF TRIGGER CODES FOR CONTROL SYSTEM

In this mode, all commands and macros that you assign to buttons will be stored in the control processor instead of the device. Each button on the device will send an RF "trigger" code to the control processor that tells it which command and/or macro to process.

Note: In this mode, macros are also much more reliable. There is only a single "trigger" code sent from the device to the control processor to start the macro, after which the control processor will run the entire macro to completion. However, since the macros are not running on the remote control device, it is not possible for the macro to affect the remote control in any way, such as changing pages or making sounds. To make these functions possible refer to the instructions for Standalone output mode above.

IR TRIGGER CODES FOR CONTROL SYSTEM

This mode is identical to the "RF Trigger Codes for Control System" mode, except that an IR code is used to trigger the control processor instead of an RF code. (See Generate IR Trigger Codes for System Macros - Chapter 8 for information on obtaining IR trigger codes to be programmed into third-party devices.)

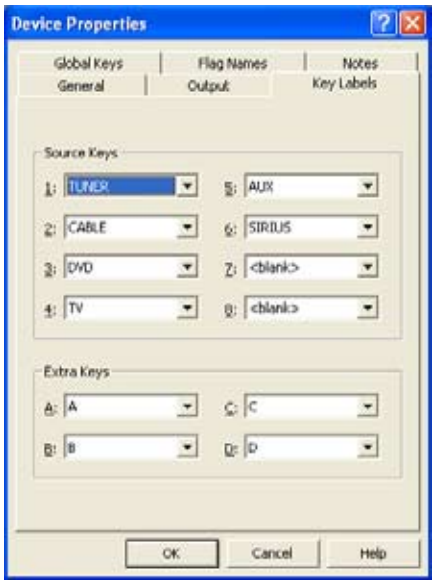
Note: Commands and macros are stored in the control processor in this mode, and all of the notes regarding macro processing in the RF Trigger Codes section apply.

2. Choose which control processor a remote control device triggers by default (all control processors included in the system file are displayed for selection in the drop down list.)

3. Adjust the IR Trigger Code carrier frequency to improve IR trigger code reliability when using an IR receiver and a control processor (this adjustment may be required only if a component controlled by the control processor is in direct line of sight with the IR output of the interface device.)

4. Choose OK to confirm the new settings.

T1 KEY LABELS TAB

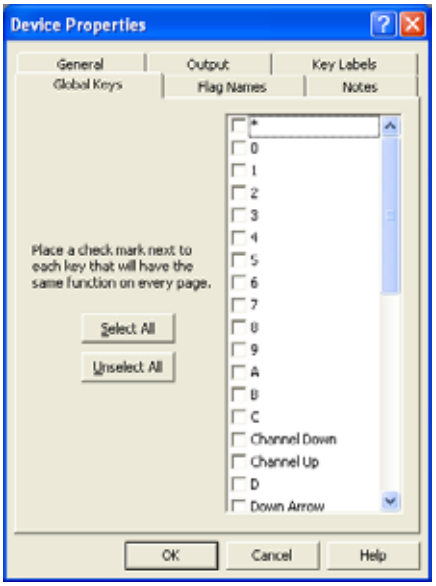


1. Choose a Label for each of the available source keys. The labels in the pull-down list correspond to the key cap set included with the device.

2. Choose a Label for the Extra Keys section to match the key caps you have assigned to the blank spaces on the keypad.

3. Select OK to confirm the labels.

T1 GLOBAL TAB



The command programming for Global keys is common to every page of a remote control device.

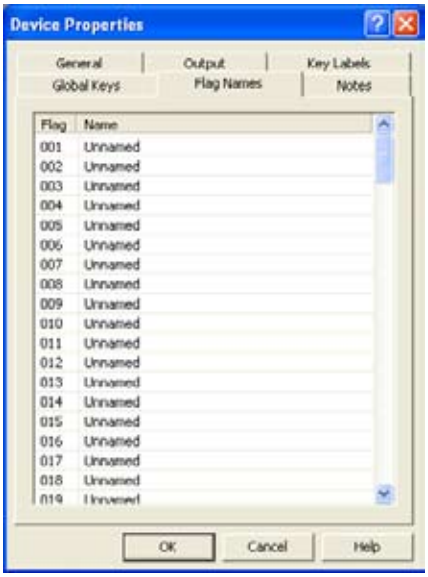
1. Switch a key from unique to Global by choosing the Global Keys tab in the Device Properties dialog or by clicking the right mouse button on the key and choosing "Make This Key Global".

2. Place a check mark next to all Global keys.

3. Select OK to confirm all selections.

Important Note: Using the Global Keys tab does not preserve previously programmed commands. Use the right button context menu of a selected button and select “Make this Key Global” to designate the command on that button and that page to be the global command.

T1 FLAG NAMES TAB



1. Input the names of the flags to be associated with this device in a Flag Macro Step.

Note: Flags are used in macros to keep track of a component or remote device's status and act based on that status. For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Flags exist on a per-device basis, therefore you must name each flag used by each remote device or contol processor. (See Working with Macros - Chapter 8 for more information on programming macros using Flags).

2. Choose OK to confirm the new settings.

T1 NOTES TAB

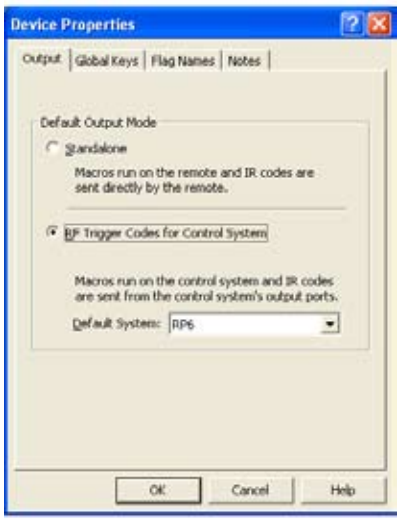
1. Enter any device specific notes for future reference.

Note: This field does not affect the functionality of the device, it is for your informational purposes only.

2. Choose OK to confirm the new settings.

U1 OUTPUT TAB

DEFAULT OUTPUT MODE



1. Change the default output mode by selecting one of the two available options listed on the Device Properties Output Tab.

Note: To have any single button on the remote control device operate in a different output mode or trigger a different control processor from the device default, you must edit the Button Properties Output Tab (See Output Tab - Chapter 6 for more information on editing a buttons properties).

STANDALONE

Sincethe U1 cannot send IR commands, the Standalone mode is only used when the Button Test Macro Step is used. In this case, System Macros are set up on the Control Processor and are triggered by the remote device based upon the result of the Button Test (Double Clicked, Held down or Tapped). (See Understanding System Macros - Chapter 8 for more information on System Macros.)

RF TRIGGER CODES FOR CONTROL SYSTEM

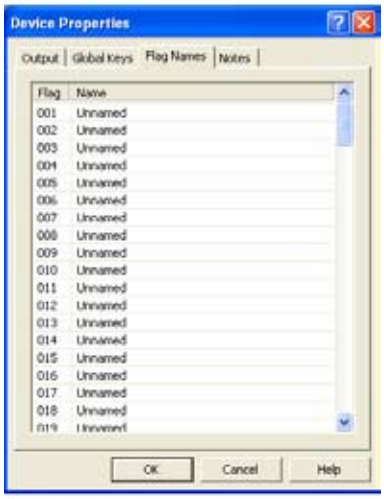
In this mode, all commands and macros that you assign to buttons will be stored in the control processor instead of the device. Each button on the device will send an RF "trigger" code to the control processor that tells it which command and/or macro to process.

Note: In this mode, macros are also much more reliable. There is only a single "trigger" code sent from the device to the control processor to start the macro, after which the control processor will run the entire macro to completion. However, since the macros are not running on the remote control device, it is not possible for the macro to affect the remote control in any way, such as changing pages or making sounds. To make these functions possible refer to the instructions for Standalone output mode above.

2. Choose which control processor a remote control device triggers by default (all control processors included in the system file are displayed for selection in the drop down list.)

3. Choose OK to confirm the new settings.

U1 GLOBAL TAB



The command programming for Global keys is common to every page of a remote control device.

1. Switch a key from unique to Global by choosing the Global Keys tab in the Device Properties dialog or by clicking the right mouse button on the key and choosing "Make This Key Global".

2. Place a check mark next to all Global keys.

3. Select OK to confirm all selections.

Important Note: Using the Global Keys tab does not preserve previously programmed commands. Use the right button context menu of a selected button and select “Make this Key Global” to designate the command on that button and that page to be the global command.

U1 FLAG NAMES TAB

1. Input the names of the flags to be associated with this device in a Flag Macro Step.

Note: Flags are used in macros to keep track of a component or remote device's status and act based on that status. For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Flags exist on a per-device basis, therefore you must name each flag used by each remote device or contol processor. (See Working with Macros - Chapter 8 for more information on programming macros using Flags).

2. Choose OK to confirm the new settings.

U1 NOTES TAB

1. Enter any device specific notes for future reference.

Note: This field does not affect the functionality of the device, it is for your informational purposes only.

2. Choose OK to confirm the new settings.

RP6 OUTPUT PORT NAMES TAB

1. Enter a name here for each Output port. This name will be displayed in all dialogs where IR outputs can be selected. For example, if the main theater has two DVD players, name the outputs "Theater DVD 1" and "Theater DVD 2".

2. Select OK to confirm all selections.

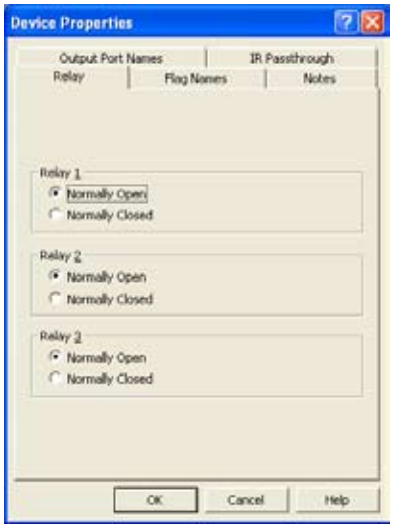
RP6 IR PASSTHROUGH

1. Enable IR Passthrough - Check this box to allow all IR signals sent directly to the IR input to passthrough to the selected IR outputs. This setting does not affect which ports can be used to output commands and macros from the control system. (This option is enabled by default.)

2. Check the boxes of all individual outputs that you wish to enable for IR passthrough.

3. Select OK to confirm all selections.

RP6 RELAY TAB



1. Select the normal position for relays 1, 2 and 3 to be either open or closed.

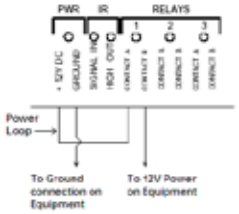
2. Select OK to confirm all selections.

RP6 RELAY CONTROL EXAMPLES

The three relays in the RP-6 can provide contact closure or switching control for loads up to 3A/30VDC each. All three relays are Normally Open when not energized, but they can be programmed to behave Normally Closed as long as power is applied to the RP-6.

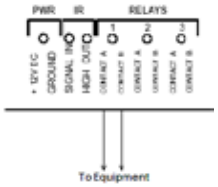
12V TRIGGER EXAMPLE

To use a relay as a voltage trigger, connect the positive side of a power supply to CONTACT A, and connect CONTACT B and the ground side of the power supply to the desired device. If the desired trigger voltage is +12VDC, it can be sourced directly from the RP-6.



CONTACT CLOSURE EXAMPLE

For contact closure control, simply connect the A and B contact terminals of a relay to the desired device.



RP6/RP1 FLAG NAMES TAB

1. Input the names of the flags to be associated with this device in a Flag Macro Step.

Note: Flags are used in macros to keep track of a component or remote device's status and act based on that status. For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Flags exist on a per-device basis, therefore you must name each flag used by each remote device or contol processor. (See Working with Macros - Chapter 8 for more information on programming macros using Flags).

2. Choose OK to confirm the new settings.

RP6/RP1 NOTES TAB

1. Enter any device specific notes for future reference.

Note: This field does not affect the functionality of the device, it is for your informational purposes only.

2. Choose OK to confirm the new settings.

Chapter 5. Working with Pages

INTRODUCTION TO PAGES

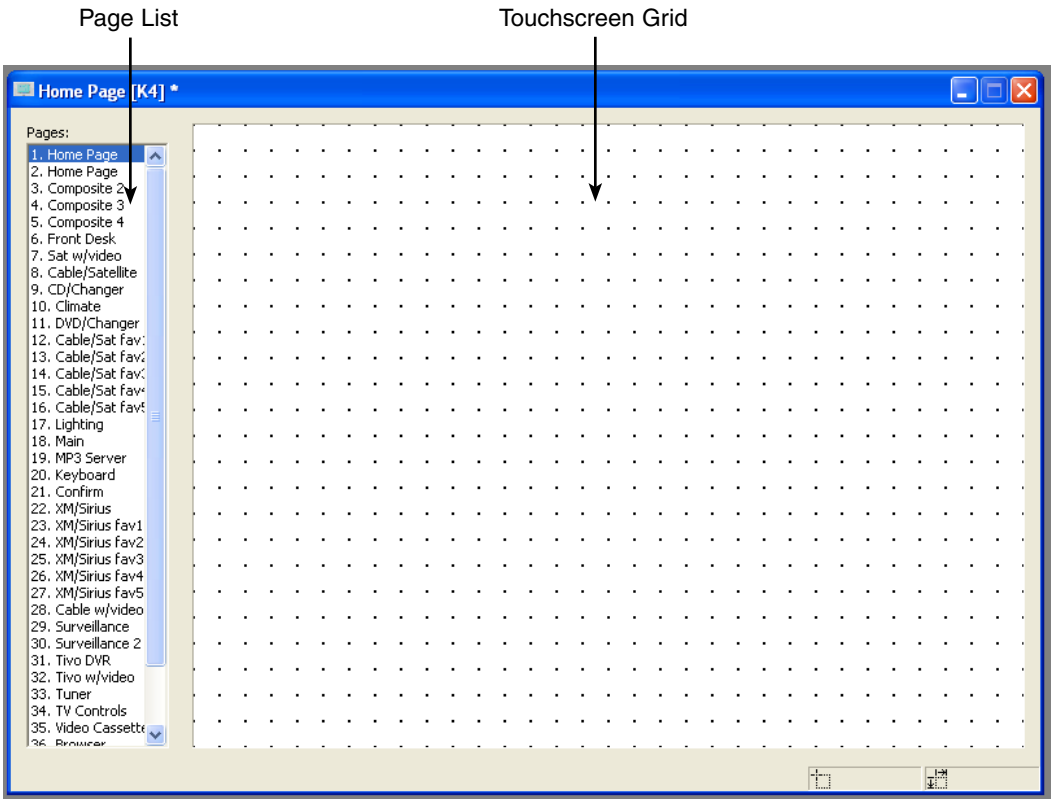
TheaterTouch remote control devices organize and store all individual IR commands, text labels, macros and programmable actions for the keypad buttons and touchscreen buttons in groups called pages. Buttons on each page are then programmed to operate the individual components in a system.

Page programming for each TheaterTouch remote control device differs depending on the model. The following sections of this chapter detail the programming steps for each model.

K4 IN-WALL UNIVERSAL CONTROLLER DESIGN WINDOW

The K4 In-Wall Universal Controller provides up to 200 pages that organize and store the programming of touchscreen buttons. Pages are added individually and displayed in the page list of the design window. The page list order may be changed by clicking on the page you wish to move, holding the mouse button down, then dragging it to the desired location in the list.

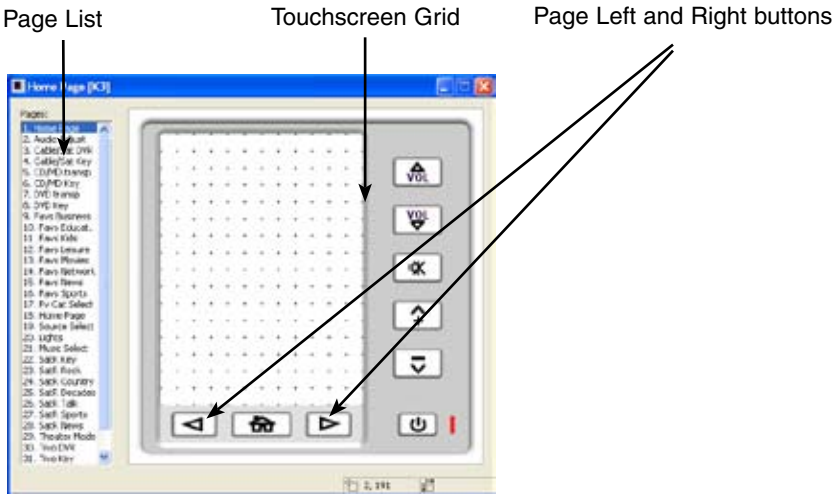
Page links must be programmed using touchscreen buttons to display the pages of a particular source component in proper order.



RK3 IN-WALL UNIVERSAL CONTROLLER DESIGN WINDOW

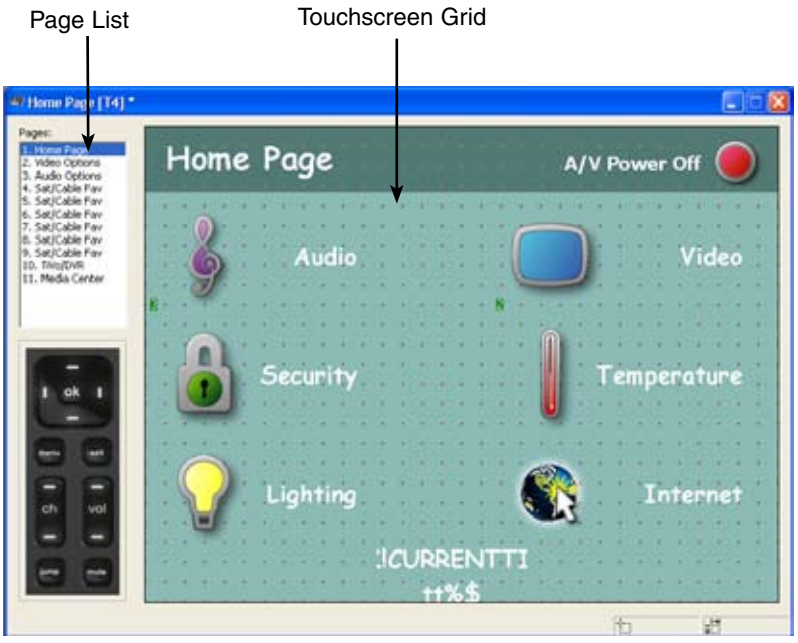
The RK3 In-Wall Universal Controller provides up to 200 pages that organize and store the programming of touchscreen and hard buttons. Pages are added individually and displayed in the page list of the design window. The page list order may be changed by clicking on the page you wish to move, holding the mouse button down, then dragging it to the desired location in the list.

Page Left and Right buttons can be programmed with page links to easily display multiple pages of a particular source component in proper order.



T4 REMOTE CONTROL DESIGN WINDOW

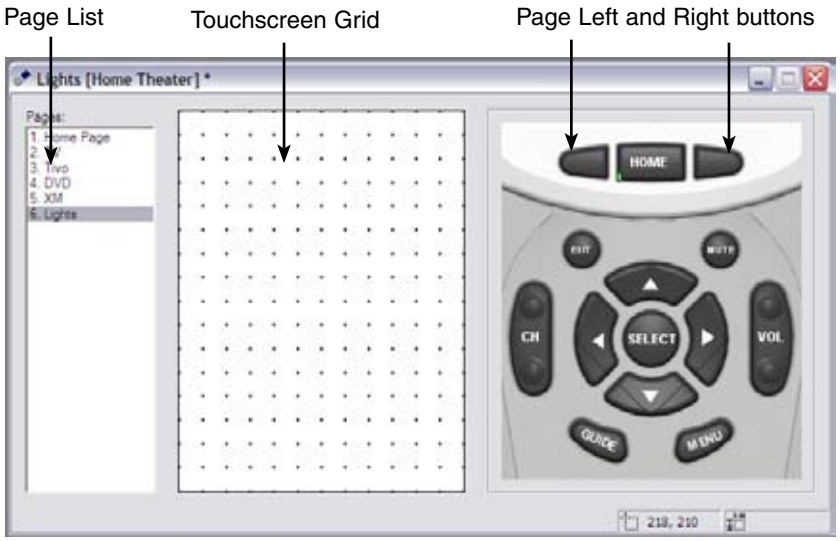
RK3 In-Wall Universal Controller provides up to 200 pages that organize and store the programming of touchscreen and hard buttons. Pages are added individually and displayed in the page list of the design window. The page list order may be changed by clicking on the page you wish to move, holding the mouse button down, then dragging it to the desired location in the list. Page links must be programmed using touchscreen buttons to display the pages of a particular source component in proper order.



T3 REMOTE CONTROL DESIGN WINDOW

The T3 Remote Control provides up to 200 pages that organize and store the programming of hard buttons and touchscreen buttons. Pages are added individually and displayed in the page list of the design window. The page list order may be changed by clicking on the page you wish to move, holding the mouse button down, then dragging it to the desired location in the list.

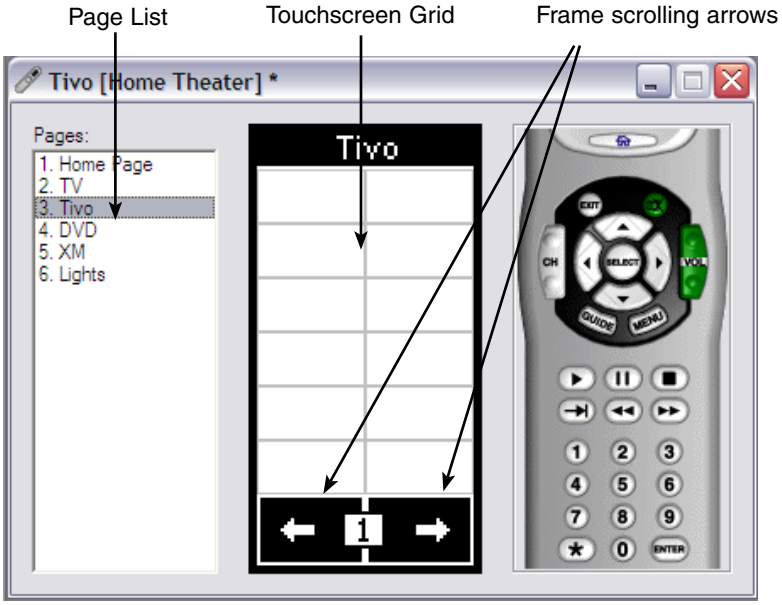
Page Left and Right buttons can be programmed with page links to easily display multiple pages of a particular source component in proper order.



T2+ REMOTE CONTROL DESIGN WINDOW

The T2+ Remote Control provides up to 64 pages that organize and store the programming of hard buttons and touchscreen buttons. Pages are added individually and displayed in the page list of the design window. The page list order may be changed by clicking on the page you wish to move, holding the mouse button down, then dragging it to the desired location in the list.

Each page has up to twelve frames that are accessed by scrolling left and right with the arrows at the bottom of the touchscreen grid. Unused frames after the last used frame on a page are automatically discarded when the remote control is programmed.

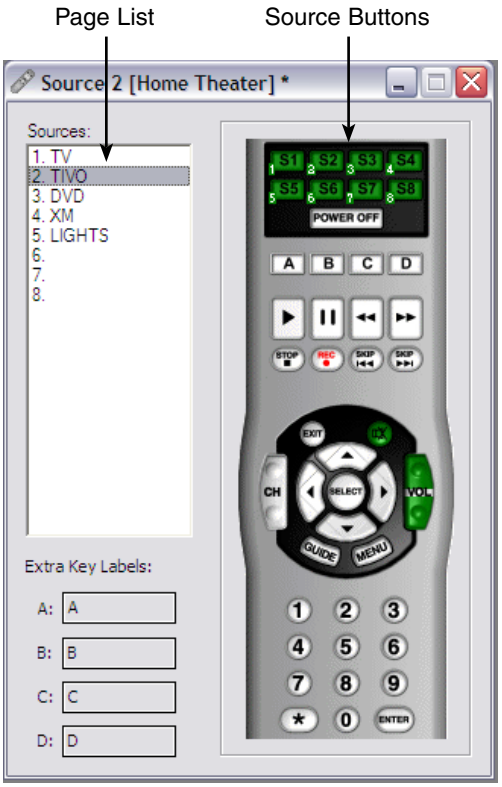


T1 REMOTE CONTROL DESIGN WINDOW

The T1 Remote Control provides eight pages that organize and store the hard button programming. These pages are numbered 1-8 and displayed in the page list of the design window.

The eight source buttons provided (S1-S8) are permanently set to global mode (indicated by the green color) and page linked to select the matching numbered page by default (indicated by the number located at the lower left corner). An LED indicator behind each source button illuminates to indicate the selected page.

Source buttons should be programmed with macros to properly activate the system and corresponding source components.

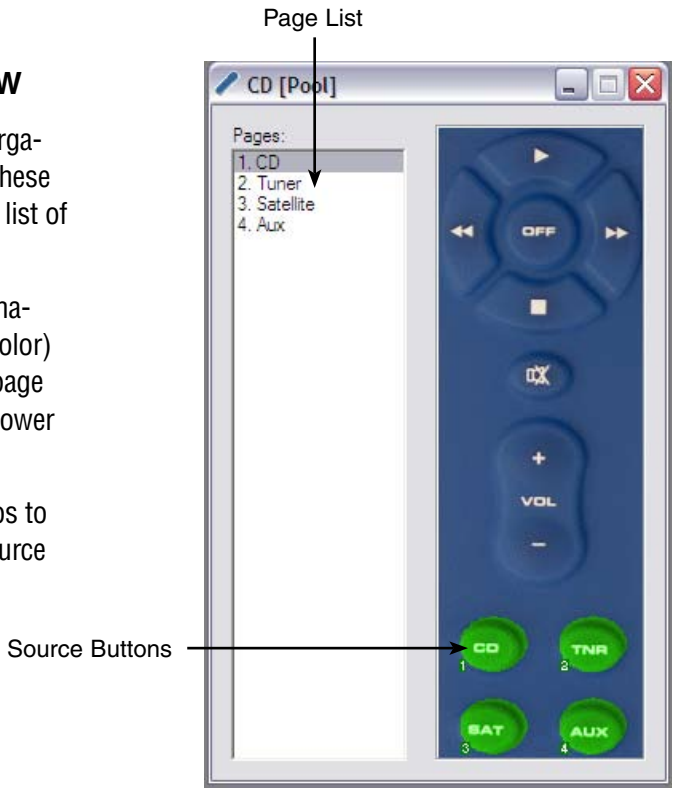


U1 REMOTE CONTROL DESIGN WINDOW

The U1 Remote Control provides four pages that organize and store the programming of hard buttons. These pages are numbered 1-4 and displayed in the page list of the design window.

The four source buttons provided (S1-S4) are permanently set to global mode (indicated by the green color) and page linked to select the matching numbered page by default (indicated by the number located at the lower left corner).

Source buttons should be programmed with macros to properly activate the system and corresponding source components.



ADDING A PAGE (K4/RK3/T4/T3/T2+)

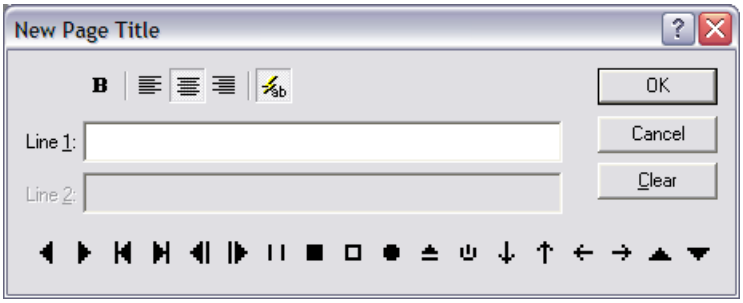
1. Select the remote control in the device list.

2. Choose New Page from the Page Menu or select the New Page icon on the Toolbar.

3. Enter a name for the page in the New Page Title dialog, this is usually the name of the component, such as: CD, Satellite, Lights and so on.

4. Choose OK to confirm the new page.

5. Repeat this procedure for each page you wish to add.



DELETING A PAGE (K4/RK3/T4/T3/T2+)

1. Select the page to be deleted from the Page List.

2. Choose Delete Page from the Page menu or select the Delete Page icon on the Toolbar.

3. Choose Yes in the Delete Page confirmation box.

DUPLICATING A PAGE (K4/RK3/T4/T3/T2+)

Pages on remote controls with touchscreens can be instantly duplicated. This is useful when pages share common buttons like transport controls or channel macros. One page can be created with these buttons and duplicated as many times as needed.

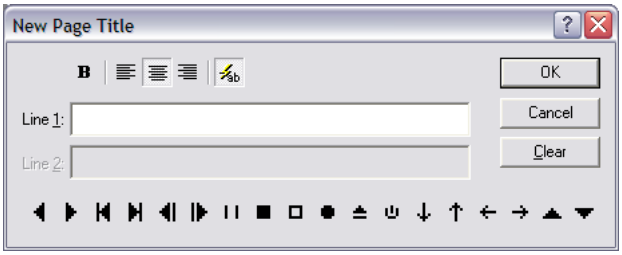
1. Select the page to be duplicated from the page list.

2. Choose Duplicate Page from the Page menu or select the Duplicate Page icon on the Toolbar.

3. Give the new page a different name.

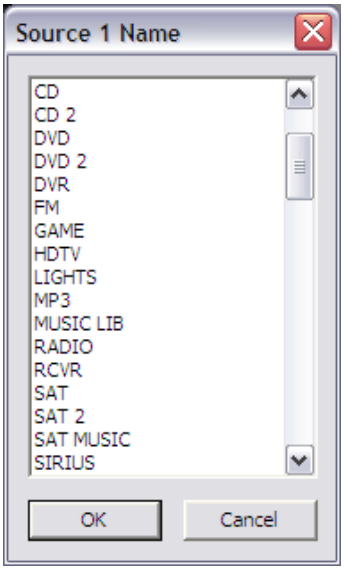
4. Choose OK to add the new page.

The new page appears at the end of the page list.



RENAMING A PAGE

RENAMING A PAGE (T1)



1. Select a page in the page list.

2. Choose Edit Page Title from the Page menu or select the Rename Page icon .

3. Select the desired source button title from the list of names in the source name window.

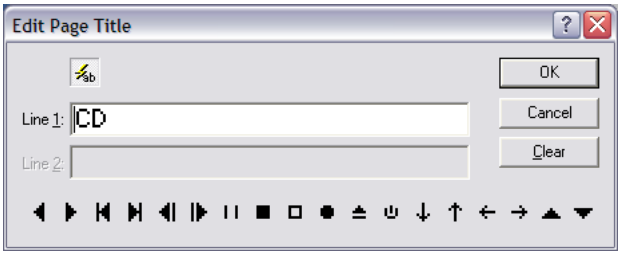
4. Choose OK to confirm the new name.

The new name is updated in the page list of the design window.

RENAMING A PAGE (K4/RK3/T4/T3/T2+/U1)

1. Select a page in the Page list.

2. Choose Edit Page Title from the Page menu or select the Rename Page icon .

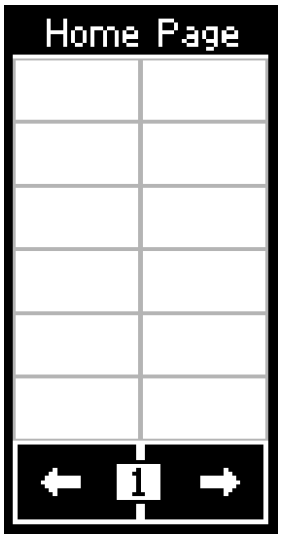


3. Specify the new page name.

4. Choose OK to confirm the new name.

The new name is updated in the page list of the design window.

INSERTING AND DELETING FRAMES (T2+)



Each page of the T2+ has up to twelve frames on the touchscreen grid that are accessed by scrolling left and right with the arrows at the bottom.

INSERT FRAME COMMAND (PAGE MENU)

This command inserts a blank frame at the current frame position, and shifts all existing frames one frame to the right.

DELETE FRAME COMMAND (PAGE MENU)

This command deletes all of the buttons on the current frame, and shifts all existing frames one frame to the left.

INSERTING A PRE-DEFINED PAGE (K4/RK3/T4/T3/T2+)

TheaterTouch Designer comes with a library of pre-defined pages for many common types of equipment that you can insert into your Touchscreen and customize as desired.
The page library is accessed through the PageWizard tool.

To add a pre-built page to your file:

1. Select a touchscreen remote control from the Device list.

2. Choose Page Wizard from the Page menu or select the Page Wizard icon on the Toolbar.

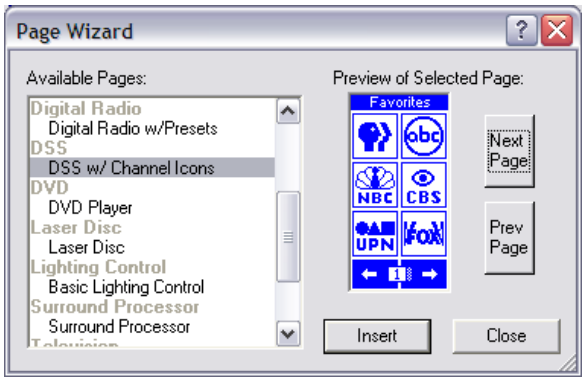
3. Scroll through the list of available pages and select the one you want. If there is more than one page available with additional buttons for a particular source, you can use the Next Page and Prev Page buttons to see the previews.

4. Select the Insert button to add the page(s) to your file.

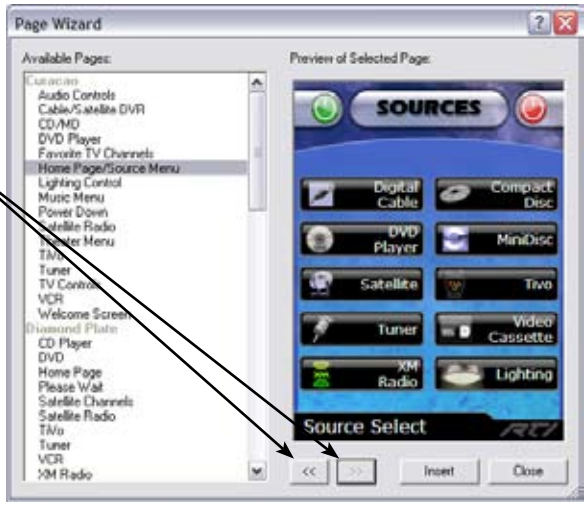
5. Choose the Close button to close the dialog box.

The new page(s) appear at the end of the page list. Choose the editing tools to customize the button style to fit the rest of your file and to place commands, page links and macros on the buttons.

T2+ Page Wizard



T3 Page Wizard



LINKING A PAGE TO A BUTTON

The TheaterTouch Designer software gives you the ability to link pages. When a button with a page link is pushed on the remote control, the linked page becomes active, in essence turning the page.

Page links are indicated by a small green box containing the number of the linked-to page in the lower left corner of the button.

1. Select the Assign Pages tool from the Tool Palette.

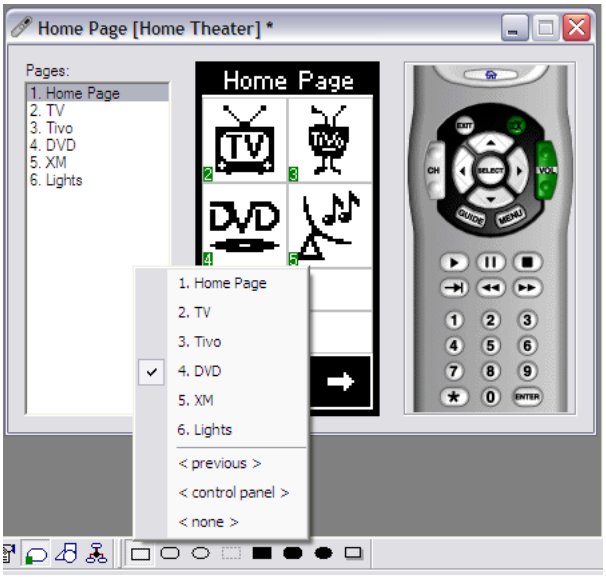
2. Place the mouse cursor over the button that you wish to assign a page link.

3. Click the left mouse button.

4. Select the page name you wish to link to from the pop-up menu.

A green square appears in the lower left corner of the button that corresponds to the linked page.

Depending on the device, one or two additional options may be available for page linking. The <control panel> link will switch to the built-in "Control Panel" page, and the <previous> option will take you back to the last page that was displayed. Assigning a link to either of these options works the same as assigning a link to a standard page.



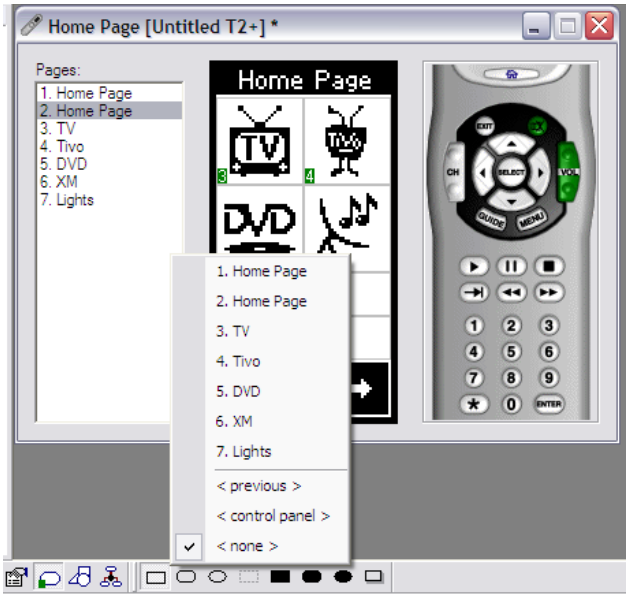
REMOVING A PAGE LINK

1. Select the Assign Pages tool from the Tool Palette.

2. Place the mouse cursor over the button from which you wish to remove the page link.

3. Click the left mouse button.

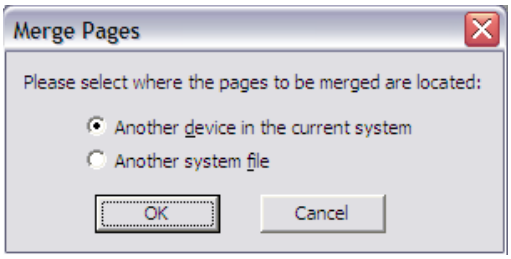
4. Select the <none> item from the bottom of the pop-up menu.



MERGING PAGES (K4/RK3/T4/T3/T2+)

Merging Pages inserts one or more pages from an existing device into the one that is currently selected for editing. These pages can be taken from a compatible device in the current system file or from one in another file.

1. Choose Merge Pages from the File menu or select the Merge Pages tool on the Toolbar.



2. Select where the pages are located, in (a) another device in the current system or in (b) another system file, then choose OK to confirm your choice.

3. If you selected (a) another device in the current system, choose from the list located in the Select Device dialog box, choose Open, and then go to step 6 on the next page. Otherwise, go to step 4.

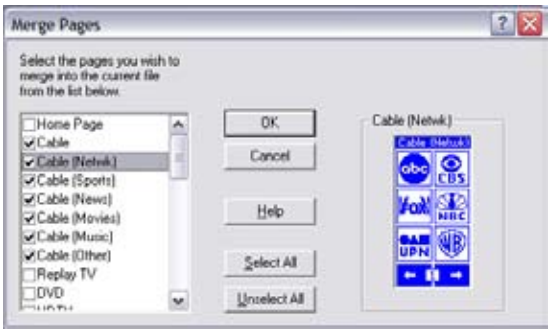
4. If you selected (b) in another system file, choose from the list of files located in the Open dialog box, choose Open, and then go to the next step.

5. An error message will appear if a file chosen for page merging does not include a compatible device. If this occurs, choose OK and go back to step 1 to select a different file.

6. Place a check next to each page you would like to merge into the current device.

7. Highlight a particular page to preview the contents.

8. When finished selecting pages, choose OK and all graphics, IR codes and macros will be imported to the device.



All of the marked pages in the list are placed at the end of the page list of the current device.

Chapter 6. Working with Buttons

INTRODUCTION TO BUTTONS

Buttons are the functional elements of a TheaterTouch system. Remote control devices include keypad buttons that you program with frequently used commands. Devices that include a touchscreen allow for more buttons that you draw and program using the TheaterTouch Designer software tools. All TheaterTouch system buttons can be associated with commands, macros, and page links.

DRAWING BUTTONS

1. Select a touchscreen remote from the Device list.

2. Select a page from the Page list. When programming a monochrome device (T2+), select the desired frame number for that page using the scroll left and right arrows at the bottom.

3. Select the style of button from the button drawing tools located in the Tool Palette. When programming a color device, choose the border style and the normal vs. active border, text and fill colors from the popup menus.

Note: Remote controls with color touchscreens have buttons have two states - Normal and Active. Normal refers to the default style of the button and Active refers to the style of the button while it is pressed.

4. Select the Draw Button tool from the Tool Palette.

5. Place the mouse cursor on the touchscreen grid in the design window where one corner of the new button will be.

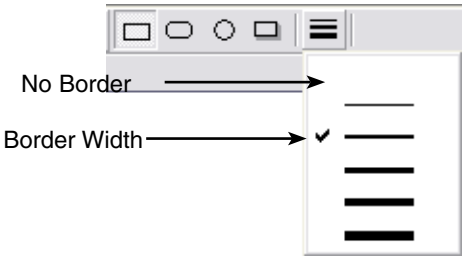
6. Click and hold the left mouse button and drag the mouse to the opposite corner of the new button.

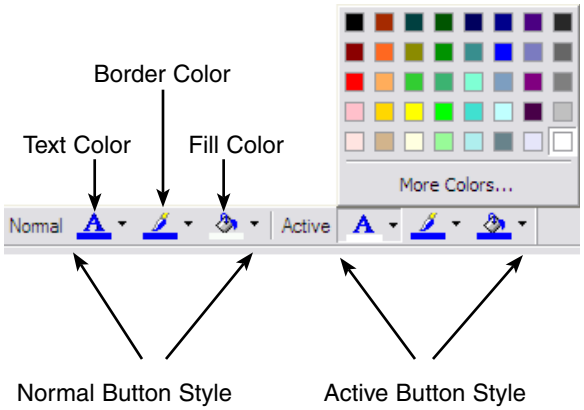
7. Release the left mouse button when the button has the desired shape and size.

Repeat this procedure for each button you wish to add.

Button Drawing Tools T2+ Touchscreen

Button Drawing Tools Color Touchscreen K4/RK3/T3





SELECTING BUTTONS

The Select Button tool is used to select all buttons for cutting, copying, moving, resizing, or property editing.

To select a single button:

1. Click the Select Button tool on the Tool Palette.
2. Place the mouse on the button and click the left mouse button.
3. When the button is selected, it is painted in red.

To select a group of buttons located directly next to each other:

1. Click the Select Button tool on the Tool Palette.
2. Placethe mouse cursor next to the first button in the group and click the left mouse button (the mouse cursor can be placed directly on the first button when programming a monochrome touchscreen.)
3. Draw a rectangle around the buttons you wish to select (either in the touchscreen or in the keypad buttons).
4. When a button is selected, it is painted in red.

To select a group of buttons that are not located directly next to each other:

1. Select the Select Button tool on the Tool Palette.
2. Hold down the Shift key on your keyboard (when selecting buttons in a monochrome touchscreen, hold down the CTRL Key).
3. Click the buttons you wish to select (either in the touchscreen or the keypad buttons).
4. When a button is selected, it is painted in red.

All buttons on the touchscreen grid can be selected by choosing Select All from the Edit menu. Selecting Remove Selection from the Edit menu or clicking the left mouse button in an empty portion of the touchscreen grid will remove any current selections. Choose Delete from the Edit menu to remove the selected buttons from the touchscreen grid.

DELETING BUTTONS

1. Select the Delete tool from the Tool Palette.

2. Place the mouse cursor over the button you want to delete.

3. Click the left mouse button.

4. Select "Delete Button" from the pop-up menu.

CHANGING BUTTON STYLES

To change an existing button's style. (K4/RK3/T3)

1. Select the button or group of buttons to change with the Select Button tool.

2. Select the new styles and colors for the buttons from the Button Styles bar.

To change an existing button's style (T2+):

1. Select the Draw Button tool from the Tool Palette.

2. Select the style of button from the Button Styles bar.

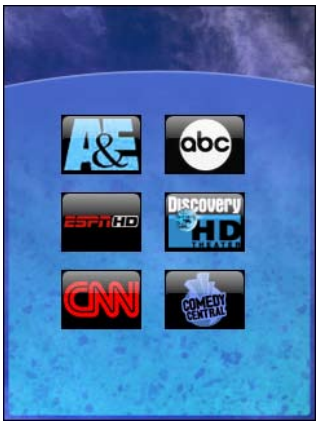
3. Place the mouse cursor over the button you wish to change.

4. Click the left mouse button.

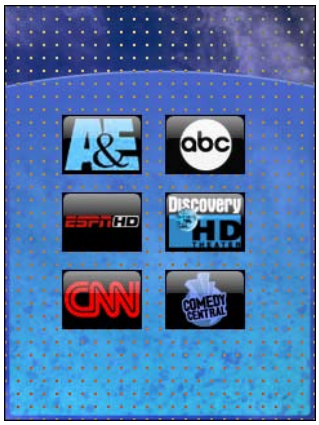
USING THE GRID (K4/RK3/T4/T3)

The Use Grid command on the Options menu toggles the alignment grid on and off when editing color device files. With the alignment grid off, you can drag buttons to any position on the screen. With the grid on, the buttons will automatically snap to the nearest grid position as you drag them. You can adjust the grid spacing using the Grid Spacing commands on the Options menu.

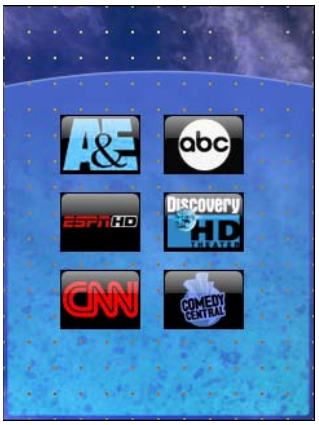
Grid Off



Grid On



10 x 10 Spacing



20 x 20 Spacing

ARRANGING BUTTONS (K4/RK3/T4/T3)

The selected button(s) can be arranged on the touchscreen of a color device using the tools in the alignment bar.

Bring to Front - Click this button to make the selected button(s) appear in front of all other buttons.

Send to Back - Click this button to make the selected button(s) appear behind all other buttons.

Bring Forward - Click this button to move the selected button(s) one step closer to the top of the button order. Since the button order includes all buttons on the page, you may not see any change after clicking this button, if the next button in the order does not overlap the selected button. Click this button repeatedly until the selected buttons are at the desired position in the button ordering.

Send Backward - Click this button to move the selected button(s) one step closer to the bottom of the button order. Since the button order includes all buttons on the page, you may not see any change after clicking this button, if the next button in the order does not overlap the selected button. Click this button repeatedly until the selected buttons are at the desired position in the button ordering.

These features are also available from the right-button context menu.

MOVING BUTTONS (K4/RK3/T4/T3/T2+)

To move buttons on the touchscreen grid:

1. Select the Button tool from the Tool Palette.

2. Select the button or group of buttons.

3. Hold down the left mouse button to drag the selection to a new location.

4. Release the left mouse button to place the buttons.

MOVING BUTTONS (K4/RK3/T4/T3)

Color devices have additional options available when moving buttons.

1. Holddown the CTRL key while dragging the selected buttons to make a copy of the buttons, leaving the original buttons in their original positions.

2. Hold down the ALT key while dragging the buttons to turn off grid snap while the buttons are dragged.

3. Hold down the SHIFT key and use the ARROW keys to move a selected button or group of buttons 1 pixel at a time.

4. Use the Arrow buttons  from the Alignment Toolbar to move a selected button or group of buttons 1 pixel at a time.

MOVING BUTTONS - Continued

For color devices, you also can use the tools on the Alignment Bar to arrange many buttons with a single operation. You must have more than one button selected to enable these tools. In addition, the tools on the Alignment Bar use the concept of an anchor button when you have multiple buttons selected. To change the anchor button among the buttons that are selected, hold down the SHIFT key and click on the button that you wish to make the anchor of the selection. The anchor button is indicated by filled red rectangles in the corners of its selection rectangle, while all other buttons are painted with white and red rectangles in their corners.

Align Left - Select this button to move all the selected buttons so that their left edges line up with the left edge of the "anchor" button. The buttons will be moved horizontally but not vertically by this command.

Align Center - Select this button to move all the selected buttons so that their horizontal centers line up with the horizontal center of the "anchor" button. The buttons will be moved horizontally but not vertically by this command.

Align Right - Select this button to move all the selected buttons so that their right edges line up with the right edge of the "anchor" button. The buttons will be moved horizontally but not vertically by this command.

Align Top - Select this button to move all the selected buttons so that their top edges line up with the top edge of the "anchor" button. The buttons will be moved vertically but not horizontally by this command.

Align Middle - Select this button to move all the selected buttons so that their vertical centers line up with the vertical center of the "anchor" button. The buttons will be moved vertically but not horizontally by this command.

Align Bottom - Select this button to move all the selected buttons so that their bottom edges line up with the bottom edge of the "anchor" button. The buttons will be moved vertically but not horizontally by this command. You must have more than one button selected to use this command.
These features are also available from the right-button context menu.

RE-SIZING BUTTONS

Existing buttons on the LCD display may be re-sized at any time. The text on a button may be clipped if the button's size is reduced, but any associated command or macro will not be lost.
To re-size a button:

1. Select the Select Button tool from the Tool Palette.
2. Select the button you wish to re-size by clicking on it with the left mouse button. Note that to resize a button, only one button can be selected. If the selection can be resized, small boxes will appear in the red border on all four sides.
3. Position the mouse over the edge of the button that you would like to resize, click the left mouse button, and drag the mouse to change the size.
4. Release the mouse button when you have the desired size.

RE-SIZING BUTTONS - Continued

For color devices, you can use the Resize Tools on the Alignment Toolbar to resize many buttons with a single operation. In addition, the Resize Tools use the concept of an anchor button when you have multiple buttons selected. To change the anchor button among the buttons that are selected, hold down the SHIFT key and click on the button that you wish to make the anchor of the selection. The anchor button is indicated by filled red rectangles in the corners of its selection rectangle, while all other buttons are painted with white and red rectangles in their corners.

Make Same Width - Click this button to make all of the selected buttons the same width as the "anchor" button, while leaving their heights unchanged.

Make Same Height - Click this button to make all of the selected buttons the same height as the "anchor" button, while leaving their widths unchanged.

Make Same Size - Click this button to make all of the selected buttons the same width and height as the "anchor" button.

Make Same Style - Click this button to make all of the selected buttons the same style and color as the "anchor" button.

These features are also available from the right-button context menu.

EDITING BUTTON TEXT

1. Select the **Edit Text** tool from the **Tool Palette**.

2. Place the mouse cursor over the button where you want to add or edit text.

3. Click the left mouse button.

4. Enter the text in the Edit Button Text dialog

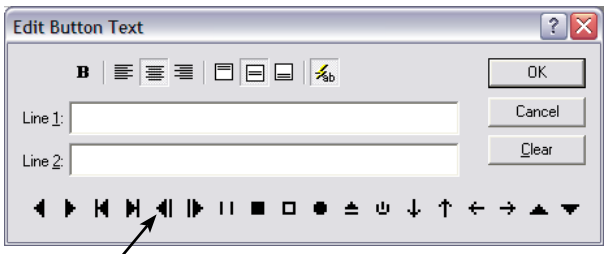
5. Clickon any of the symbols to insert them into the active line

6. Insert a Control Variable such as the time (K4/RK3 only.)

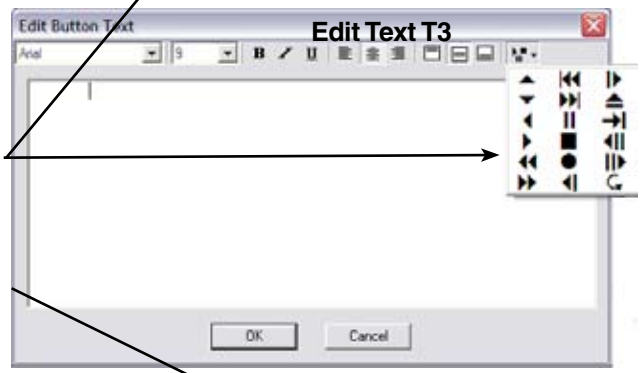
6. Click OK

.

Edit Text T2+



Edit Text T3



Edit Text K4/RK3

EDITING BUTTON TEXT - Continued

You can use any of the options in the **Edit Button Text** dialog to customize the button.

Make the text bold.

Make the text italicized.

Underline the text.

Justify the text to left side of the button.

Center the text horizontally in the button.

Justify the text to the right side of the button.

Shift the text to the top of the button.

Center the text vertically in the button.

Shift the text to the bottom of the button.

Enable the auto-complete feature, which will automatically finish typing the name for commonly used buttons.

ADDING BITMAPS TO BUTTONS

Buttons can be added by dragging and dropping bitmaps stored in the Bitmap tab of the Library Browser. There are two main parts to the Bitmap tab of the Library Browser:

LIBRARY LIST

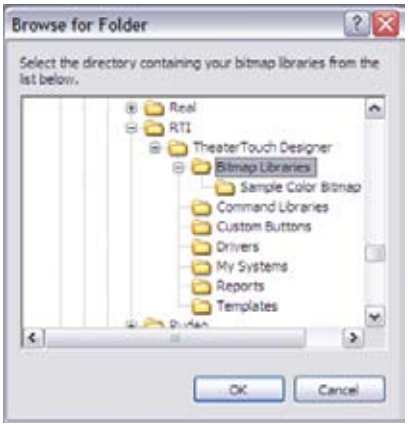
The Library list shows the name of the currently selected library. To change the selected bitmap library:

1. Click on the down arrow on the right side to show all libraries in the current directory.

2. Select the desired Bitmap Library from the drop down list.

LIBRARY LIST - Continued

Library Browser



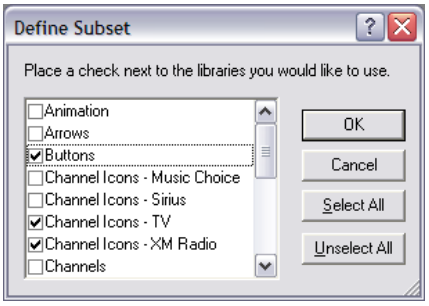
To change the current Bitmap Library directory:

1. Select Set Bitmap Library Directory from the Options menu.
2. Select a new directory from the directory tree.
3. Choose OK to confirm the new directory.

Four special items are listed in the Library List:

1. **All libraries** - Shows all the bitmaps from all the libraries in the current directory together in the Bitmap List.
2. **All black & white libraries** - Shows all the bitmaps from all .bml files in the current directory.
3. **All color libraries** - Shows all the color bitmaps but not bitmaps from .bml files.
4. **Selected libraries** - Shows all the bitmaps from multiple libraries in the current directory. When you select this option, a dialog box will pop up where you can choose which libraries you would like to display.

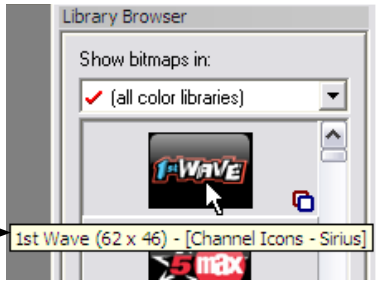
Selected Libraries



BITMAP LIST

The Bitmap list shows all the bitmaps in the currently selected library or libraries.

Holding your mouse over any bitmap causes a title and size to appear in a small ToolTip.



To place a bitmap on the design window:

1. Select the Bitmap tab in the Library Browser.
2. Select a bitmap library in the pull down menu and browse the list for the desired bitmap.
3. Position the mouse over the bitmap. Hold the left mouse button and drag the bitmap to the touch-screen grid.
4. Release the left mouse button to place the bitmap on the touchscreen grid.

ADDING BITMAPS TO BUTTONS

If you drop the bitmap onto an empty section of the touchscreen grid, a new button is automatically created with the default style, and the bitmap is placed on that button. If you drop a bitmap onto an existing button, the button must be large enough to accommodate the bitmap and any text or bitmap already on that button will be replaced.

NOTE: You cannot drag color bitmaps onto a T2+.

Some of the items in the bitmap list may be marked with one of the following icons:

 This bitmap has both a "normal" and an "active" image.

 This bitmap is a page background.

 This bitmap will create multiple buttons when it is dropped onto the touchscreen grid.

When dragging bitmaps onto a color remote device, you can use the following modifier keys to change what happens when the bitmap is dropped:

CTRL - Force a new button to be created for this bitmap even if you are currently dropping it on top of an existing button. If you do not hold down the CTRL key, the bitmap will be added to the existing button.

SHIFT - Use this bitmap as the "Active" image. If you do not hold down the SHIFT key, the bitmap will be used as the "Normal" image. If the bitmap has an  icon, both the normal and active images will be set when you drop the image onto your file. You do not need to hold down the SHIFT key in this case.

ALT - If this image is marked as a background image (with the  icon), it will be created as a regular button. If it is not marked with the  icon, it will be used as a background.

CUSTOM BUTTONS AND BITMAPS (T2+)

The TheaterTouch Designer software comes with two additional programs for creating custom graphics for monochrome devices (T2+). These programs are very similar in appearance and functionality and both programs can be accessed from the Library menu within the TheaterTouch Designer program.

The **Button Bitmap Editor** is for creating and editing button bitmaps for such things as channel and transport icons.

The **Custom Button Editor** is for creating and editing custom buttons for such things as company logos or complex groups of controls.

Custom Buttons have several fundamental differences from Bitmaps:

1. Custom Buttons must specify an image of the entire button. Bitmaps are smaller, and therefore can be placed on buttons with the standard border styles.
2. Custom Buttons can contain more than one active button area, so a whole group of related controls can be created as a single Custom Button. Bitmaps are indivisible, and must be placed separately onto individual buttons.
3. Custom Buttons must provide an image for both the Up (normal) and Down (pressed) states of the button. Bitmaps provide only the Up image. The Down image of a Bitmap is created by simply inverting it.
4. Custom Buttons can be any size, up to the entire display size (but each active area must be four squares by four squares or smaller). Bitmaps are limited to a handful of pre-defined sizes.

Given these characteristics, Custom Buttons are most appropriate for complex or large groups of controls, such as a customized set of transport controls for a DVD player, or a large company logo. Bitmaps are most appropriate for small pictures that don't need a full button to display, such as TV channel icons or small logos. Since Bitmaps don't have a Down image, they take half as much memory to store in the device, so more Bitmaps can be created.

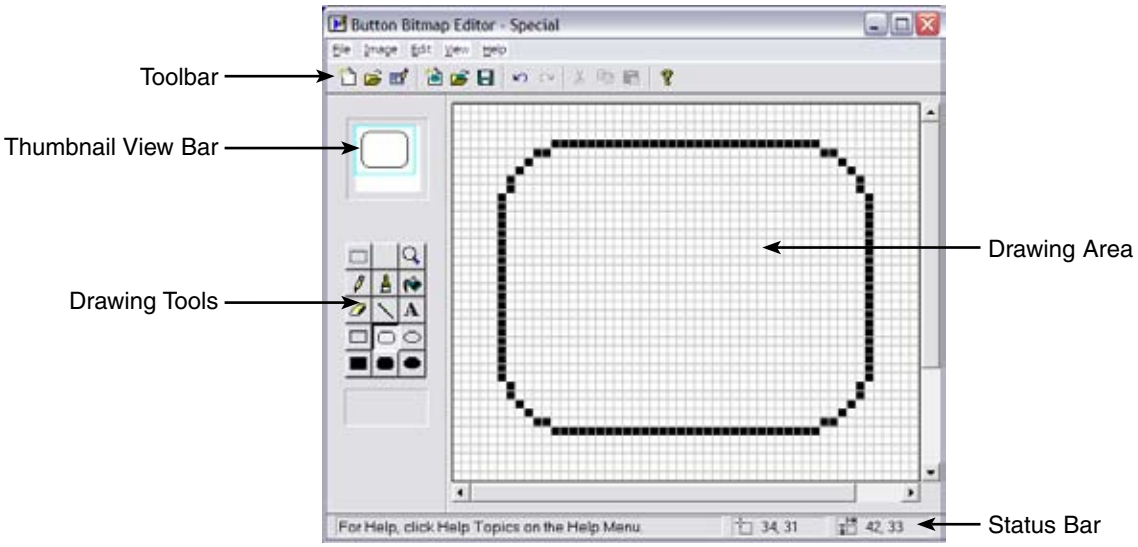
Custom Buttons are stored within Libraries, not as individual files. Before you can design your own Custom Buttons, you must create a new library file using the Custom Button Editor or Button Bitmap Editor. The library file can have many Custom Buttons within it.

IMAGE EDITORS (T2+)

BUTTON BITMAP EDITOR

The Button Bitmap Editor is used to create or modify Bitmaps for use with TheaterTouch Designer software. A Bitmap is a small image that is placed on a button, which provides an optional border around the image.

Bitmap Editor Screen



CUSTOM BUTTON EDITOR

The Custom Button Editor is used to create or modify Custom Buttons for use with TheaterTouch Designer software. A Custom Button is a set of related buttons that are drawn and placed as a unit.

Custom Button Editor Screen

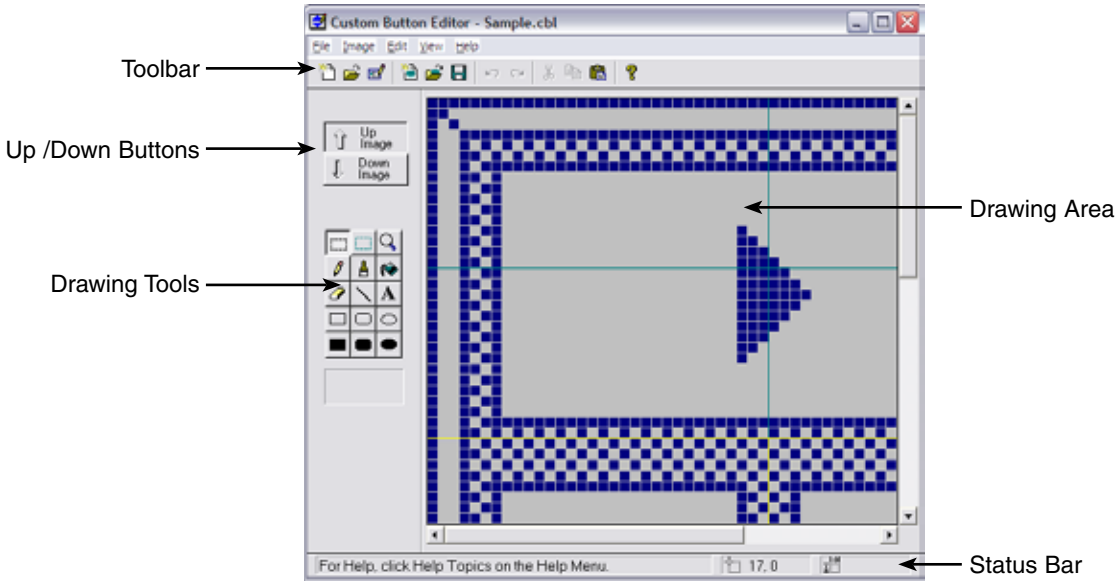


IMAGE EDITORS

Toolbar – Icons for easy access to frequently used programming features.

Thumbnail View (Bitmap Editor) - The Thumbnail view shows a 1:1 view of the current icon regardless of the zoom level that the Drawing Area is currently using. The colored frame in the Thumbnail View indicates which portion of the image is displayed in the Drawing Area. You can turn this frame on and off choosing the View menu and selecting the Show Thumbnail Zoom Frame command.

Up/Down Buttons (Custom Button Editor) - Click on the "Up Image" button to display the Up Image in the Drawing Area, or click on the "Down Image" button to display the Down Image.
The Up Image is the picture that is normally displayed on the TheaterTouch screen. The Down Image is the picture that is displayed if the button is pressed or has its "Reversed" property set.

Drawing Tools - Icons for easy access to the tools used for editing images.

Drawing Area – The Drawing Area is where the current image is displayed for editing. The scroll bars to the right and bottom of the Drawing Area allow you to pan to different portions of the image if the window is too small (or the Zoom level too large) for you to see the whole image at once. Clicking the mouse buttons in this area will carry out the function of the currently selected Drawing Tool.

Status Bar - The Status Bar is divided into three panes.

1. The left-most pane displays a short help message.
2. The middle pane displays the current position of the cursor on the Bitmap (not the current window).
3. The right-most pane displays the size in pixels of the current selection or drawing object. As a selection or drawing object (such as a rectangle) is drawn, this pane will indicate the size of the object.

TOOLBAR

The toolbar provides instant access to commonly used Button Bitmap Editor and Custom Button Editor functions.

CreateNew Library Command – Use this command to create a library to hold your custom buttons or bitmaps. The built in libraries that come with the software are read-only and new images cannot be saved to them. This command should only be used when a new library is desired. If you want to create a new image, use the **Create New Image Command**.

Open Library Command – Use this command to open existing libraries. The currently open library, if any, will be closed.

TOOLBAR - Continued

Edit Library Command – Use this command to rename or delete a custom button or bitmap in a library that you created. The built in libraries that come with the software are read-only and images cannot be edited. This command is not available unless a Bitmap Library is open.

CreateNew Image Command – Use this command to create a new image in the currently open library in the **Bitmap Editor**, the **New Bitmap Size** dialog will be displayed, where you can select the size for the new Bitmap. The built in libraries that come with the software are read-only and new images cannot be saved to them.

Open Image Command – Use this command to open an existing image in the currently open library for editing. When you choose the **Open Image** command, the **Open Image** dialog box is displayed to allow you to select which image to edit. This command is not available unless a Bitmap Library is open.

Save Image Command – Use this command to save the current image to the currently open library. If the image has already been saved, this command updates the existing version. If the image has never been saved before, this command is the same as the Image **Save Image As** command, and displays the **Edit Title** dialog for you to enter a name. This command is not available unless a library is open and an image is being edited.

Undo Command – Use this command to reverse the last change you made to the image. Choose the **Undo** command again to reverse the previous change. A maximum of 64 changes are reversible with the Undo command. The **Undo** command can only reverse editing changes to the current image. It cannot undo changes to a library, and the **Undo** information is destroyed when the image is closed or the view is toggled between the Up and Down images in the Custom Button Editor.

Redo Command – Use this command to cancel the effect of the last **Undo** command. Choose the **Redo** command again to cancel the next Undo. A maximum of 64 changes can be canceled with the **Redo** command. The **Redo** command can only cancel Undo commands to the current image. The Redo information is destroyed when the image is closed, when the view is toggled between the Up and Down images, or when other editing changes are made to the image.

Cut Command – Use this command to move the selected sections to the Clipboard, this replaces the selection with solid white. Since the Clipboard is shared between applications, you can use it to exchange images with other programs. For example, you can start work on an image in an Image Editor, select and copy it to the Clipboard, and then paste it into Windows Paint for further modifications. You can also copy an image from Paint and paste it into an Image Editor.

TOOLBAR - Continued

Copy Command – Use this command to copy selected sections to the Clipboard. This command does not alter the current image. Since the Clipboard is shared between applications, you can use it to exchange images with other programs. For example, you can start work on an image in an Image Editor, select and copy it to the Clipboard, and then paste it into Windows Paint for further modifications. You can also copy an image from Paint and paste it into an Image Editor.

Paste Command – Use this command to place previously cut or copied sections from the clipboard back onto the touchscreen grid and switches the Button Bitmap Editor or Custom Button Editor into **Selection** mode. You can drag the pasted sections to the desired position on the page. You can use this to move images between the Button Bitmap Editor and the Custom Button Editor. This command is not available if the data on the Clipboard is not in bitmap format.

Help Topics – Use this command to open the Help Topics dialog box for more help.

DRAWING TOOLS

The Drawing Tools provide access to all the tools used by the Button Bitmap Editor and Custom Button Editor.

Selection Tool - The **Selection** Tool is used to define a rectangular selection region on the image. To define a selection, click the left mouse button in the Drawing Area where one corner of the selection rectangle should be placed, drag the mouse to the opposite corner, and release the mouse button.

Button Selection Tool (Custom Button Editor only) - The **Button Selection** Tool defines the active button areas on a Custom Button image. To define a button selection, click the left mouse button in the Drawing Area where one corner of the selection rectangle should be placed, drag the mouse to the opposite corner, and release the mouse button. To remove an existing button selection, place the mouse cursor inside of the selection you wish to remove and click the right mouse button.

Zoom Tool - The **Zoom** Tool is used to magnify portions of the image. Click the left mouse button over a spot in the Drawing Area to "Zoom In" (make the image larger) or click the right mouse button over a point to "Zoom Out" (make the image smaller). The **Zoom** commands on the **View** menu can also be used to change the Zoom level.

DRAWING TOOLS - Continued

Pencil Tool - The **Pencil** Tool is used to color individual pixels on the image. Click the left mouse button in the Drawing Area to turn the pixel under the Pencil point black, and click the right mouse button to turn the pixel white.

Brush Tool - The **Brush** Tool acts like the Pencil Tool, but colors a larger portion of the image. The Brush Size, the size of the shape that the Brush draws, can be changed by clicking on a different sized brush in the rectangular area below the drawing tools, or by choosing a size from the Brush Size menu under the View menu. Click the left mouse button in the Drawing Area to turn the pixels under the Brush black, and click the right mouse button to turn the pixels white.

Fill Tool - The **Fill** Tool is used to color large portions of the image. Several Fill Patterns are available in the rectangular area below the drawing tools. To use the Fill Tool, choose the desired Fill Pattern, and then click the left mouse button inside of the area to fill. The Fill Tool will color the image with the Fill Pattern in all directions until it encounters a black line or the edge of the image. If the fill is to be contained to the inside of a shape, be sure that there are no gaps in the shape's border.

Eraser Tool - The **Eraser** Tool is identical to the Brush Tool except that clicking the left mouse button draws in white, and clicking the right mouse button draws in black.

Line Tool - The **Line** Tool is used to draw straight lines on the image. To draw a black line, click and hold the left mouse button in the Drawing Area where one end of the line should go, move the mouse to the other end of the line, and release the mouse button. To draw a white line, follow the same steps but click the right mouse button instead of the left.

Text Tool - The **Text** Tool is used to place text on the image. To place text, click the left mouse button in the Drawing Area, and the **Place Text** dialog will appear. Enter the desired text in the dialog and click OK. The text will appear in a blue selection rectangle, where it can be placed precisely on the image.

Rectangle Tool - The **Rectangle** Tool is used to draw rectangles on the image. Click the left mouse button in the Drawing Area where one corner of the rectangle should be placed, drag the mouse to the opposite corner, and release the mouse button. To draw a white rectangle, follow the same steps but click the right mouse button instead of the left. The portions of the image in the center of the rectangle are not affected by this tool.

DRAWING TOOLS - Continued

Rounded Rectangle Tool - The **Rounded Rectangle** Tool is used to draw rectangles with rounded corners on the image. The radius of the corners is the same as that of "Radius" buttons on the TheaterTouch. Click the left mouse button in the Drawing Area where one corner of the rounded rectangle should be placed, drag the mouse to the opposite corner, and release the mouse button. To draw a white rounded rectangle, follow the same steps but click the right mouse button instead of the left. The portions of the image in the center of the rounded rectangle are not affected by this tool.

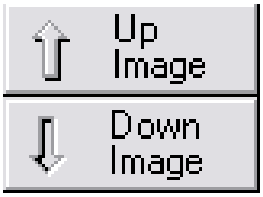
Circle Tool - The **Circle Tool** is used to draw circles and ovals on the image. Click the left mouse button in the Drawing Area where one corner of the imaginary rectangle that bounds the circle should be placed, drag the mouse to the opposite corner, and release the mouse button. To draw a white circle, follow the same steps but click the right mouse button instead of the left. The portions of the image in the center of the circle are not affected by this tool.

FilledRectangle Tool - The **Filled Rectangle** Tool is used to draw rectangles filled with a Fill Pattern on the image. Several Fill Patterns are available in the rectangular area below the drawing tools. To use the **Filled Rectangle** Tool, choose the desired Fill Pattern, click the left mouse button in the Drawing Area where one corner of the rectangle should be placed, drag the mouse to the opposite corner, and release the mouse button. To draw a solid white rectangle, follow the same steps but click the right mouse button instead of the left.

Filled Rounded Rectangle Tool - The **Filled Rounded Rectangle** Tool is used to draw rectangles with rounded corners filled with a Fill Pattern on the image. Several Fill Patterns are available in the rectangular area below the drawing tools. To use the **Filled Rounded Rectangle** Tool, choose the desired Fill Pattern, click the left mouse button in the Drawing Area where one corner of the rectangle should be placed, drag the mouse to the opposite corner, and release the mouse button. To draw a solid white rounded rectangle, follow the same steps but click the right mouse button instead of the left.

Filled Circle Tool - The **Filled Circle** Tool is used to draw circles and ovals filled with a Fill Pattern on the image. Several Fill Patterns are available in the rectangular area below the drawing tools. To use the **Filled Circle** Tool, choose the desired Fill Pattern, click the left mouse button in the Drawing Area where one corner of the imaginary rectangle bounding the circle should be placed, drag the mouse to the opposite corner, and release the mouse button. To draw a solid white circle, follow the same steps but click the right mouse button instead of the left.

UP IMAGE-DOWN IMAGE TOOL (Custom Button Editor Only):



Click on the **Up Image** button to display the Up Image in the Drawing Area, or click on the **Down Image** button to display the Down Image.

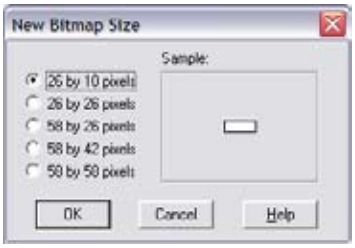
All Custom Buttons have two totally separate images, an Up image, which represents the button in its normal state; and a Down image, which represents the button in its pressed state. The Up image is the picture that is normally displayed by the TheaterTouch, unless the button has its **Reversed** property set, in which case the Down image is normally displayed.

In most cases, you will find it easiest to create the Up image first. As a starting point for creating the Down image, you may want to select the whole Up image, copy it to the **Clipboard**, switch to the Down image, and paste the image from the **Clipboard**.

At this point, you can use the editor to modify the image you pasted to make it the Down image. If a simple reversal is all you need, the **Invert Selection** command on the **Edit** menu will do the trick.

NEW BITMAP SIZE DIALOG BOX (Button Bitmap Editor Only):

The New Bitmap Size dialog box opens when you select the Create New Image command in the Button Bitmap Editor. You can choose from the five sizes listed in the dialog box, a sample of the size will be displayed in the Sample section.



26 by 10 pixels = 1 section wide by 1 section high, which is the smallest button bitmap size.

26 by 26 pixels = 1 section wide by 2 sections high, which is the standard channel icon size.

58 by 26 pixels = 2 sections wide by 2 sections high, which is one-third of the touchscreen

58 by 42 pixels = 2 sections wide by 3 sections high, which is half of the touchscreen.

58 by 58 pixels = 2 sections wide by 4 sections high, which is two-thirds of the touchscreen.

ADDING A CUSTOM BUTTON (T2+)

The Custom Button Library dialog allows you to select which Custom Button to place on the touchscreen grid.

1. Select the Place Custom Button tool from the Tool Palette.

2. Select the library in which the custom button you want is located by clicking the Open Library button, selecting the library and clicking Open.

3. Default directory is: [C:\Program Files\RTI\TheaterTouch Designer\Custom Buttons]

4. Select a button name and a preview of the button will appear in the Custom Button Library Browser.

5. Choose OK to insert the custom button on the touchscreen grid and close the Custom Button Library Browser.

6. Drag the custom button to the proper place on the page.

EDITING A BUTTON'S PROPERTIES

The **Edit Button Properties** dialog allows you to edit many different attributes of a button.

To open the **Edit Button Properties** dialog box:

1. Select the **Edit Button Properties** tool from the **Tool Palette**.

2. Select the button you want to edit, either touchscreen or keypad buttons

Not all of the tabs and/or controls will be available simultaneously. Only the options relevant to the button being edited will be shown.

GENERAL TAB (K4/RK3/T3)

The General Tab allows adjustments to the appearance and behavior of the selected button.

POSITION

1. Adjustable display of the selected button's X and Y position.

SIZE

2. Adjustable display of the selected button's width and height in pixels.

BUTTON OPTIONS

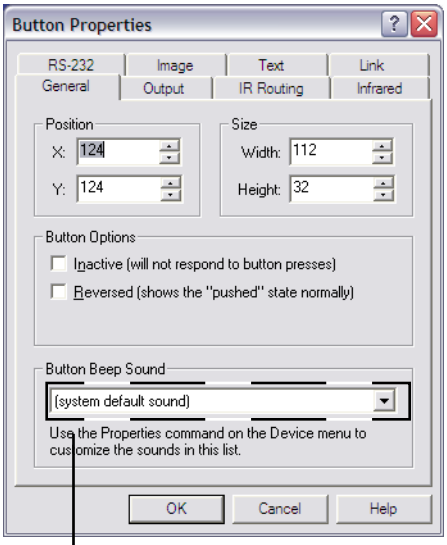
3. SelectingInactive causes the selected button to ignore button presses. This is useful when buttons are used as frames or decorations on the touchscreen and you do not want the active image to appear when they are pressed. If there is another button underneath an inactive button, that button that button will act on a button press.

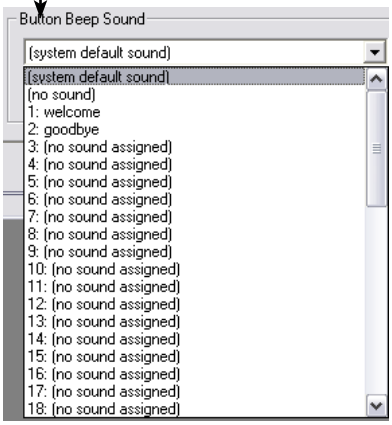
Selecting Reversed causes the selected button to display its normal image when pressed and its active image at all other times.

BUTTON BEEP SOUND

4. Choose the sound that this button will make when pressed. Use the Sounds tab of the Device Properties to load sound files into this list.

5. Choose OK to confirm the new settings.

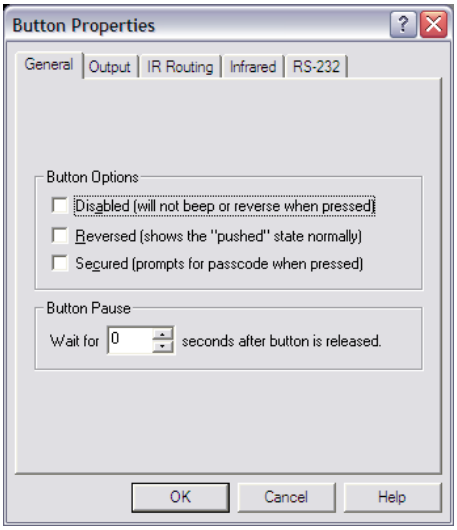




GENERAL TAB (T2+)

The General Tab allows adjustments to the appearance and behavior of the selected button.

BUTTON OPTIONS:



1. Select Disabled to cause the selected button to ignore button presses.

2. Select Reversed to cause the selected button to reverse its normal and active images.

3. Select Secured to require that a security code be entered before the action (command, macro, or page link) associated with this button is run. The security code is set with the Properties command in the Device menu.

BUTTON PAUSE

4. Enter the number of seconds you wish the device to pause after releasing the selected button. This setting is useful if you need the button to appear active for an extended period of time, preventing the user from pressing any more buttons while, for instance, a projector or television warms up.

5. Choose OK to confirm the new settings.

GENERAL TAB (T1)

BUTTON PAUSE

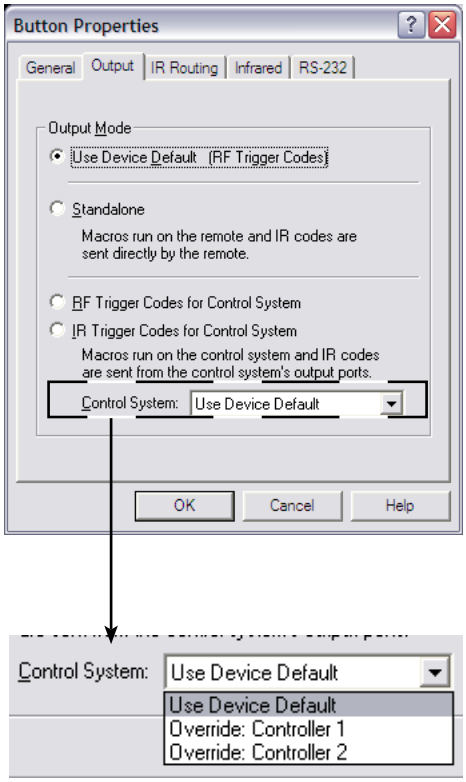
1. Enter the number of seconds you wish the device to pause after releasing the selected button. This setting is useful if you need the button to appear active for an extended period of time, preventing the user from pressing any more buttons while, for instance, a projector or television warms up.

2. Choose OK to confirm the new settings.

OUTPUT TAB (ALL DEVICES)

The Output Tab allows the selected output mode for the selected button to be set to a mode that is different from the device default.

OUTPUT MODE



1. Select Use Device Default to set the output type for the selected button to the system default. The system default is selected with the Properties command in the Device menu.

2. Select Standalone to force the selected button to transmit IR directly from the device, regardless of the default setting. Selecting this option will also cause any macro on the selected button to run on the device instead of the control system. Use this setting if you want the device to send out IR from the device and an RF trigger to the Control Processor to run a system macro.

3. Select RF Trigger Codes for Control system to force the selected button to transmit RF to the control system regardless of the default setting. Selecting this option will also cause any macro on the selected button to run on the control system instead of the device.

4. SelectIR Trigger Codes for Control system to force the selected button to transmit IR for the control system regardless of the default setting. Selecting this option will also cause any macro on the selected button to run on the control system instead of the device.

Note: These settings are normally not changed unless the system contains a mixture of RF and IR commands.

5. Choose the control system that the command for the selected button will trigger.

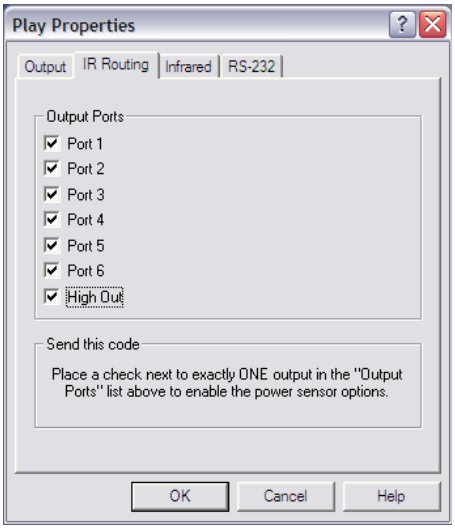
Note: This setting is only changed when more than one control processor is included in the system.

6. Choose OK to confirm the new settings.

IR ROUTING TAB (ALL DEVICES COMMUNICATING WITH AN RP6)

The IR Routing Tab allows IR commands to be addressed to specific IR output ports of the RP6 control processor and to be issued conditionally with the use of power sensing modules. This provides a method of discrete control for identical components and proper power management of components with toggle power commands.

OUTPUT PORTS

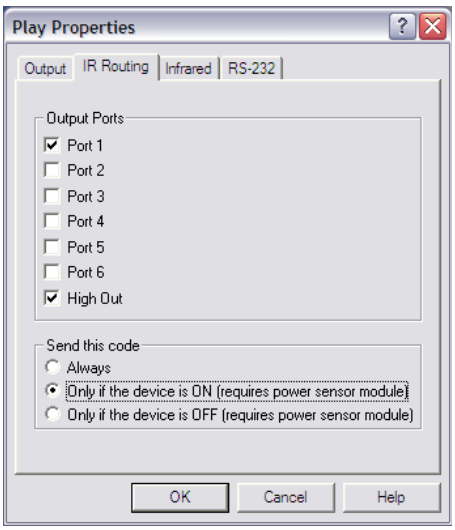


1. Select the output ports on the control system for the IR of the selected button.

2. Selecting exactly one numbered IR port enables the use of power sensing modules to conditionally issue a command on the selected button.

3. Choose "Always" to have the command issued regardless of a condition. This option should also be checked if no power sensor is connected to the selected IR output.

4. Choose "Only if the device is ON" to issue the command if a power sensing module senses that a component is on.



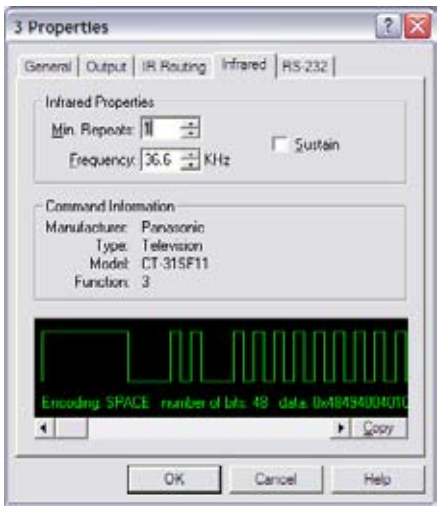
5. Choose "Only if the device is OFF" to issue the command if a power sensing module senses that a component is off.

6. Choose OK to confirm the new settings.

INFRARED TAB (ALL DEVICES)

The Infrared Tab allows adjustments of the IR command stored on the selected button.

INFRARED PROPERTIES



1. **Min. Repeats** - Enter in this box the number of times that the repeating part of the IR code is sent by the remote. Some infrared receivers need a command to be repeated a certain number of times to work properly, and some may not work properly if the command is repeated at all. Change this setting only if you are having trouble with a command.

2. **Frequency** - This box shows the carrier frequency of the IR code. This is set automatically. You should not need to change this value unless directed to do so by Technical Support.

3. **Sustain** - Check this box to control whether or not the IR code should repeat if the button is held down. Most infrared codes will transmit continuously as long as the button is held down, but some infrared receivers may not work properly if the command is repeated at all. If the Sustain button is checked, the code will be transmitted for as long as the button is held down, or the Minimum Repeat times, whichever is greater. If the Sustain button is not checked, the code will be transmitted only the Minimum Repeat number of time regardless of how long the button is held down.

4. **Command Information** – Lists the details of the IR command stored in the selected button.

5. **IR Waveform** – This window shows a graphical representation of the Infrared waveform for the command on the selected button. Use the scroll bar on the bottom to view the entire IR waveform. Select Copy to place a picture of the IR waveform on the clipboard.

6. Select OK to Confirm the new settings.

RS-232 TAB (ALL DEVICES)

The RS-232 Tab allows an RS-232 command to be assigned to the selected button. The RS-232 function is available only if you include a control processor in the system.

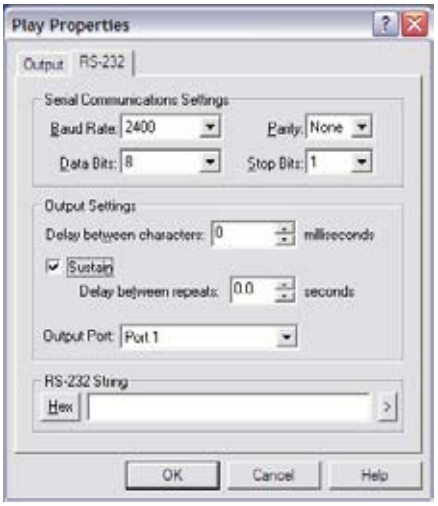
CREATE NEW RS-232 CODE

1. Select Create New RS-232 Code to add an RS-232 command to the selected button.

SERIAL COMMUNICATION SETTINGS

2. Select the desired communications Baud Rate, Data Bits, Parity and Stop Bits from this control. The rates must match the equipment you are controlling. Consult the documentation for the equipment being controlled to obtain the proper values (if you do not find a stop bit value, leave the default of 1.)

OUTPUT SETTINGS



3. Delay between characters – This adjusts the amount of time the device waits after each character of a string is sent out. Increasing the wait time provides additional time for slow receiving equipment. This value will not require adjustment with most equipment.

4. Sustain – Select Sustain to have the RS-232 string sent repeatedly for as long as the button is held down.

5. Delay between repeats – Set the amount of time between repetitions of the RS-232 code. This option is only available when the Sustain option is selected. RS-232 commands are issued quickly and should be set to .1 or .2 seconds to obtain acceptable ramping rates for volume and channel up or down commands.

6. Output Port – Select the output port connected to the component receiving the RS-232 command.

RS-232 STRING

7. Hex – Select this button to toggle between editing the RS-232 command in ASCII mode and Hex mode.

8. Choose OK to confirm the new settings.

Note: A red letter C on the button indicates the command.

Note: If you should need more than 200 characters in a command, you can make a macro with two or more command strings without any time delay between them. See Adding an RS-232 Command to a Button - Chapter 7 for more details about entering command strings.

IMAGE TAB (K4/RK3/T4/T3)

The Image Tab allows image files (*.bmp, *.jpg; *.jpeg, *.png, *.gif, *.tif; *.tiff, *.ico) to be imported directly to the color touchscreen.

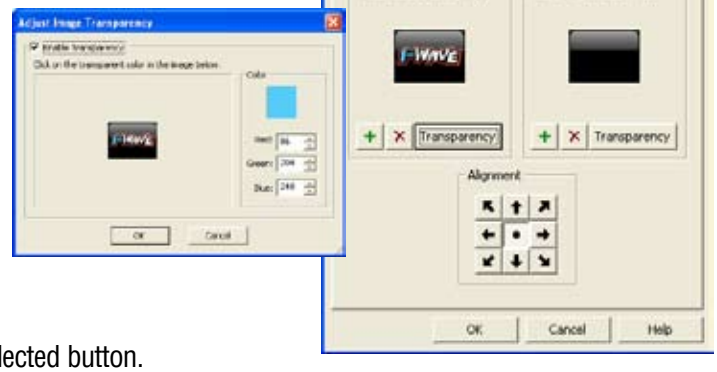
NORMAL AND ACTIVE IMAGE

1. Displays a preview of the selected buttons normal image (button not pressed) and active image (button pressed) along with the image size in pixels (W x H).

ADD OR DELETE IMAGE

2. Select + for either the Normal or Active Image to specify an image for the selected button. Select × for either the Normal or Active image to remove an image.

TRANSPARENCY



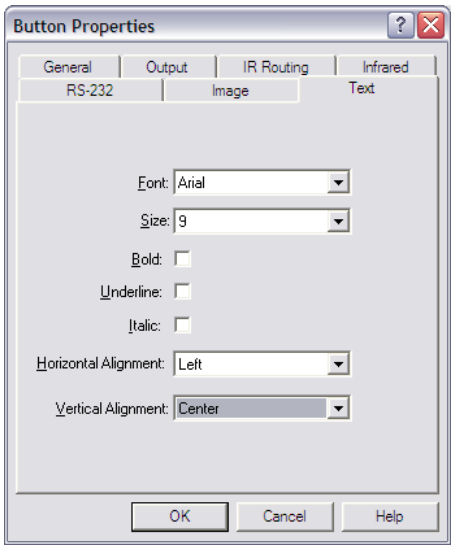
2. The transparency of non-alpha channel bitmaps can be adjusted by clicking the Transparency button. This will open the Adjust Image Transparency dialog box, then click on the color you wish to make transparent and click OK.

ALIGNMENT

3. Select the alignment of the image within the selected button.

4. Select OK to confirm the new settings.

TEXT TAB (K4/RK3/T4/T3)



FONT, SIZE

1. Specify the text font and font size of the selected button from drop down lists.

BOLD, UNDERLINE, ITALIC

2. Check these boxes to apply attributes to the selected buttons text.

HORIZONTAL ALIGNMENT

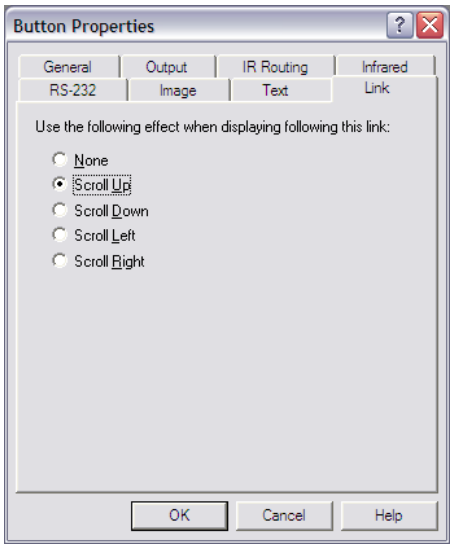
3. Select the Horizontal alignment of the image within the selected button.

VERTICAL ALIGNMENT

4. Select the Vertical alignment of the image within the selected button.

5. Select OK to confirm the new settings.

LINK TAB (K4/RK3/T4/T3)



1. Specify the special transition effect when switching pages.

None - Do not use any special transition effect when switching pages.

ScrollUp - Scroll the page off the top of the screen when switching pages.

ScrollDown - Scroll the page off the bottom of the screen when switching pages.

ScrollLeft - Scroll the page off the left side of the screen when switching pages.

ScrollRight - Scroll the page off the right side of the screen when switching pages.

2. Select OK to confirm the new settings.

EDITING THE PROPERTIES OF MULTIPLE BUTTONS

The Edit Button Properties dialog allows you to edit the different attributes of a group of buttons.

To edit the properties of multiple buttons at once:

1. Select the buttons using the **Select Button** tool from the **Tool Palette**.

2. Click the right mouse button on one of the selected buttons, either touchscreen or keypad buttons and choose **Edit Properties**.

NOTES ABOUT MULTIPLE SELECTIONS:

1. When you have more than one button selected, it is possible that they will initially have different settings for some or all of the check boxes. In that case, the following meanings apply to the check box:

All the buttons in the selection will retain their original values for this setting.

All the buttons in the selection will have this setting set to TRUE

All the buttons in the selection will have this setting set to FALSE

2. When you have more than one button selected, and they have different values for the numerical fields, they will be left blank. If you DO NOT enter a number, all the buttons will retain their original setting. If you DO enter a number, all the buttons will be set to that value.

3. When you have more than one button selected, and they have different values for the named fields, they will be listed as mixed or multiple. If you DO NOT change the name, all the buttons will retain their original setting. If you DO change the name, all the buttons will be set to that value.

EDIT MENU FUNCTIONS

The Edit menu can be used to cut, copy and paste buttons. Buttons that are cut or copied keep their commands and macros intact.

CUTTING AND COPYING BUTTONS

1. Use the Select Button tool  from the Tool Palette to select the button(s).

2. Choose either the Cut Command  or the Copy Command  from the toolbar.

3. The button(s) are now on the clipboard.

PASTING BUTTONS

1. Select the page you want to paste the button(s) on from the page list.

2. Choose the Paste Command  from the Toolbar.

3. Move the button(s) to the proper place on the page.

IMPORTING GRAPHICS (K4/RK3/T4/T3)

Since the copy and paste functions are shared between most applications in Windows, you can use these functions to exchange images with other programs when editing a color device.

For example:

1. Start work on an image in Windows Paint, select it and use the copy function.

2. Switch to TheaterTouch Designer and open the color device for editing.

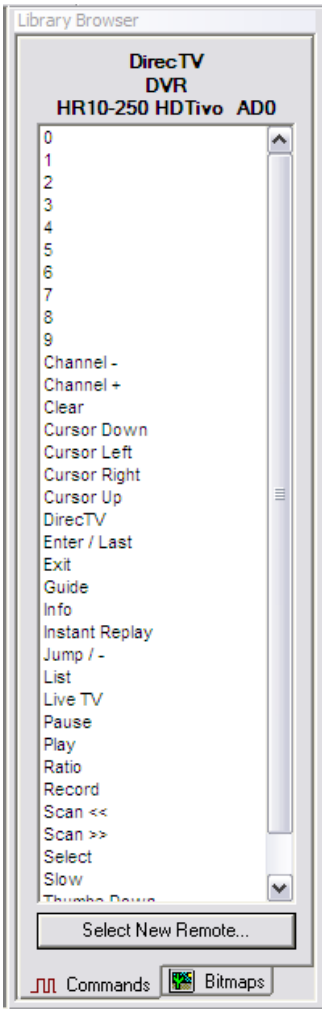
3. Choose Paste from the Edit Menu or place the mouse in the touchscreen grid of the color device and select Paste from the right click menu.

4. A button with the image appears in the touchscreen grid of a color device.

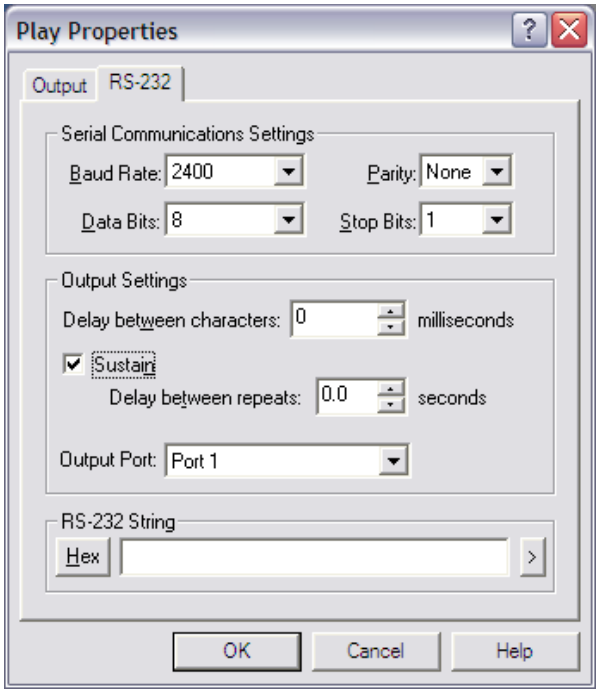
Chapter 7. Working with Commands

INTRODUCTION TO COMMANDS

Commands (including infrared and RS-232 codes) are programmed on to the buttons of the devices in a system. IR codes can be added to a button by dragging them from the command list in the Library Browser. RS-232 codes are added using the RS-232 tab located in Button Properties dialog box.



Library Browser
Command List



Button Properties RS-232 Tab

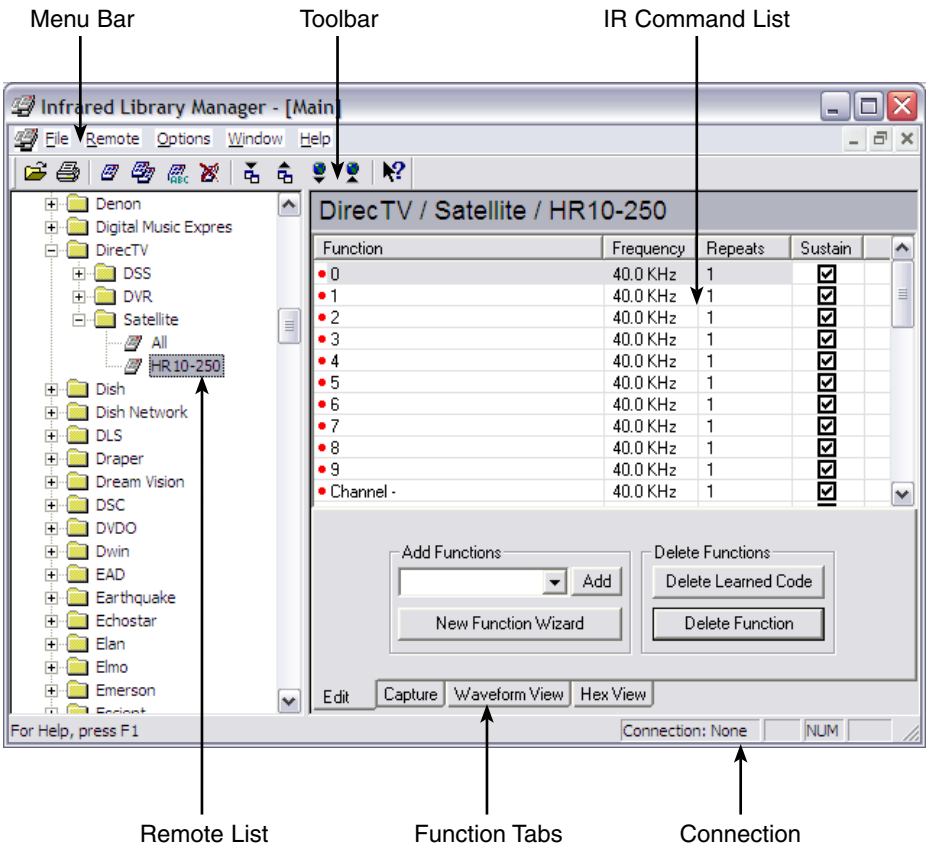
INTRODUCTION TO THE IR LIBRARY MANAGER

The Infrared Library Manager is a software program that is used to create or modify Infrared Command Libraries. An "Infrared Command Library" is a collection of Infrared codes grouped into units called "Remotes". Infrared Command Libraries store Infrared codes from remote controls that can be placed on buttons or in macros. Typically, you will have a single Infrared Command Library that contains all of your Infrared codes.

The IR Library Manager software program is made available from the Library menu. To use the IR Library Manager:

1. Choose IR Library Manager from the Library menu from the TheaterTouch Designer toolbar.

2. From here, you can decide to (1) create a new library of commands or (2) add to or edit an existing library by choosing from the File menu either New or Open.



Menu Bar – Provides drop down menus of all programming features.

Toolbar – Icons for easy access to frequently used programming features.

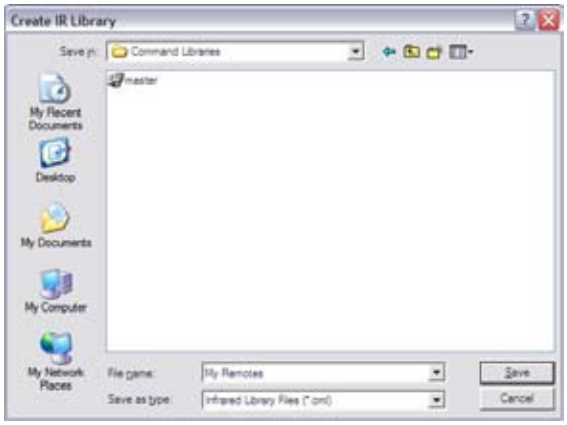
Remote List – Displays the brand, type and model of the remotes included in the command library.

IR Command List – Displays an editable list of the IR codes and their function for the selected remote.

Function Tabs – Programming option tabs for adding and editing individual functions and IR codes.

Connection – Displays the current connection status of the IR capture device.

CREATING A NEW IR COMMAND LIBRARY



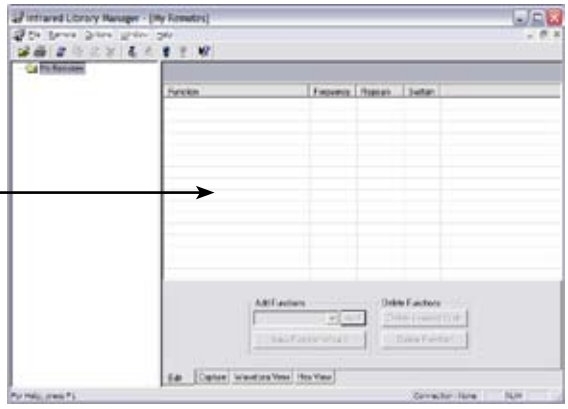
1. Choose New from the File menu, the Create IR Library dialog box will appear.

2. Enter the name of the new library in the File name box.

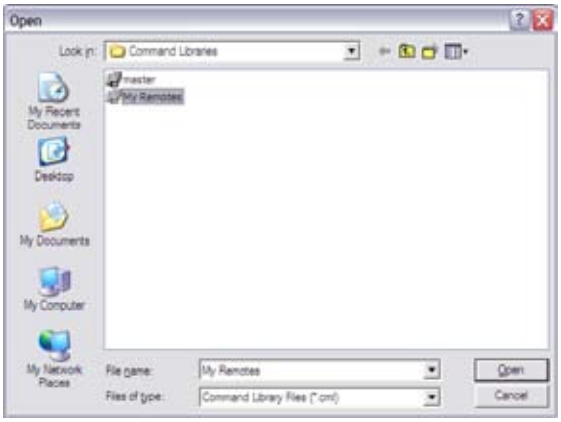
3. Be sure to save your new file in the Command Libraries folder of the TheaterTouch Designer software folder.

4. Choose the Save button to create the library.

Once you choose the Save button, the IR Library Manager window will show there are no remotes in that library, the fields will be empty.



OPENING AN EXISTING IR COMMAND LIBRARY

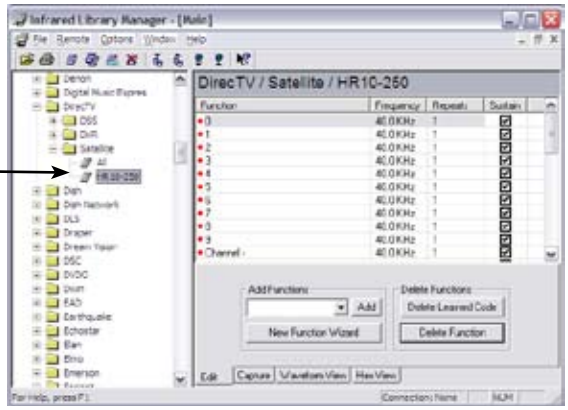


1. Choose Open from the File menu or select the Open icon from the Toolbar.

2. When the Open IR Library dialog box appears, select the library command file you wish to open.

3. Select the Open button.

Once you select the Open button, the IR Library Manager window will open showing you the remotes that are in that particular library.



IMPORTING AN IR COMMAND LIBRARY

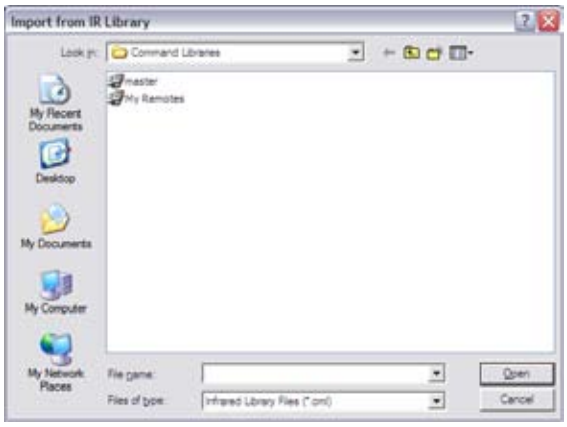
This programming option allows you to import all remotes from one library file into the current library.

1. Choose Import from the Remote menu or select the Import Remote icon .

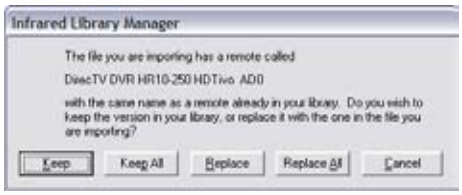
2. The Import IR Library dialog box will appear.

3. Choose the library you wish to import from the file directories.

4. Select Open to import the library.



Note: If any of the remotes in the file being imported have the same names as remotes in the current library, you will be warned and asked which version to keep.



EXPORTING AN IR COMMAND LIBRARY

This programming option allows you to export selected remotes from one library file into a new library file.

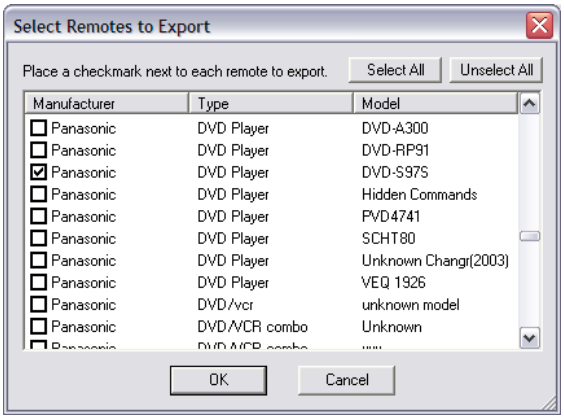
1. Choose Export from the Remote menu or select the Export Remote icon .

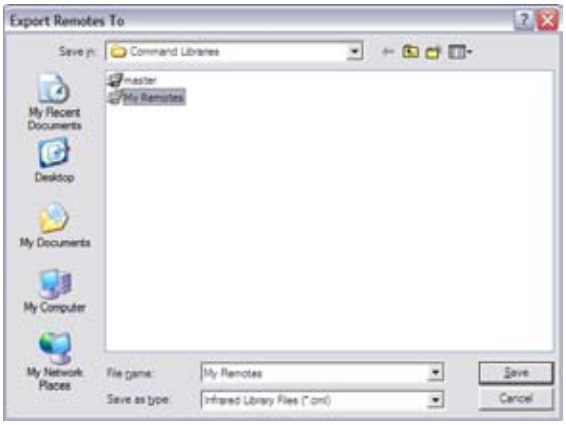
2. The Select Remote to Export dialog box will appear.

3. Choose the remotes you wish to export from the remote list.

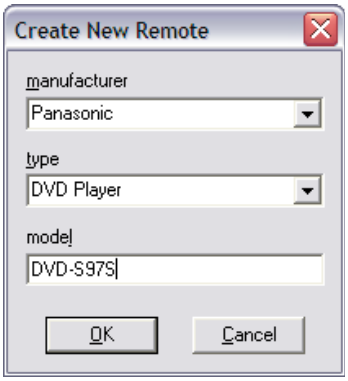
4. Choose OK and the Export Remotes to dialog box appears

5. Enter a name and directory for the new library file and choose OK to save the file.





ADDING A NEW REMOTE



1. Choose New from the Remote menu or select the New Remote icon .

2. The Create New Remote dialog box will appear.

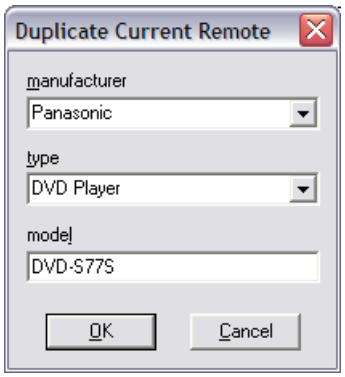
3. Enter the manufacturer's name and the equipment type for the remote control being added (such as TV, VCR, CD, Lights and so on) in the appropriate fields or choose the name and type from the drop down lists.

4. Enter the model number of the component operated by the remote.

5. Choose OK to add the remote to the IR Command Library.

DUPLICATING A REMOTE

Use this programming option to create a new remote that is an exact copy of the selected remote in the current IR Command Library.



1. Choose Duplicate from the Remote menu or select the Duplicate Remote icon .

2. The Duplicate Current Remote dialog box will appear.

3. Edit the new manufacturer's name and equipment type for the remote control being duplicated (such as TV, VCR, CD, Lights and so on) in the appropriate fields or choose the name and type from the drop down lists.

4. Edit the model number of the component operated by the remote.

5. Choose OK to duplicate the remote into the IR Command Library.

RENAMING A REMOTE

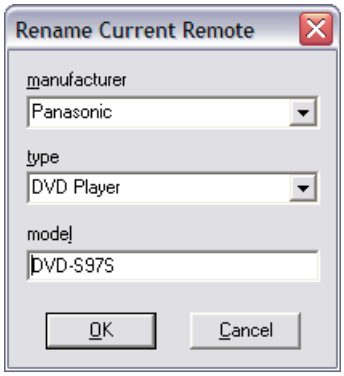
1. Choose Rename from the Remote menu or select the Rename Remote icon .

2. The Rename Current Remote dialog box will appear.

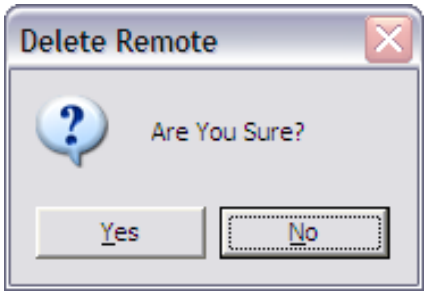
3. Edit the new manufacturer's name and equipment type for the remote control being duplicated (such as TV, VCR, CD, Lights and so on) in the appropriate fields or choose the name and type from the drop down lists.

4. Edit the model number of the component operated by the remote.

5. Choose OK to rename the remote in the IR Command Library.

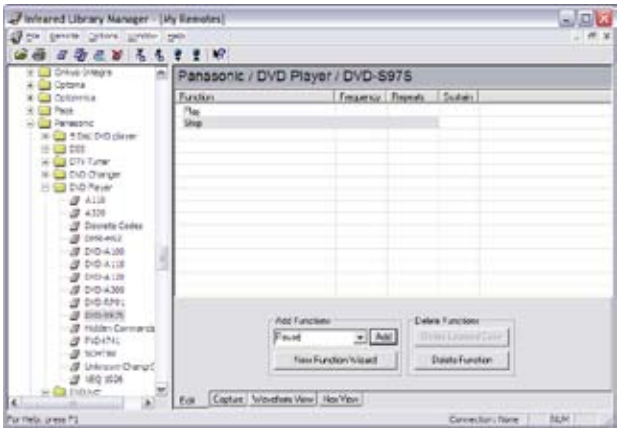


DELETING A REMOTE



1. Choose Delete from the Remote menu or select the Delete Remote icon .
2. The Delete Remote dialog box will appear.
3. Choose OK to delete the remote from the IR Command Library.

ADD FUNCTIONS TO A REMOTE

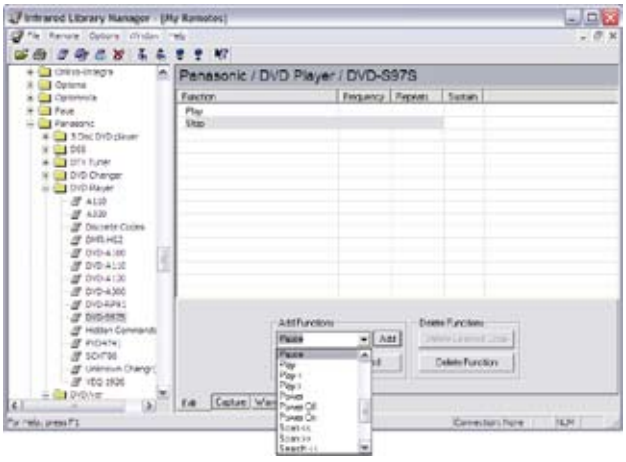


The Edit tab is where you create and edit individual functions for a remote file.

To add functions to the currently selected remote:

1. Type the function name in the "Add Functions" box and click the Add button.
2. The added function appears in the Function list.
3. Repeat step 1 for each function to be added.

Note: The “Add Functions” box also includes a pull down list where you can choose from a list of standard functions. If the remote type is recognized, the list will be filtered to functions only appropriate for that remote type.



USING THE NEW FUNCTION WIZARD

If you are entering a commonly used component to the IR Library, the New Function Wizard option activates to enable quick access to commonly use functions for that type of remote.

1. Choose the New Function Wizard button from the New Remote dialog box.
2. The New Function Wizard dialog box appears.
3. Check the functions you wish to add to the Function list.
4. Use Check All to select the entire list and Uncheck all to deselect the entire list.
5. Choose OK to confirm the selected functions.

DELETING FUNCTIONS FROM A REMOTE

You can delete functions by selecting them in the function list and then clicking the "Delete Function" button. If you wish to remove the IR code but leave the function title (so you can re-learn the codes), select the function and click the "Delete Learned Code" button.

EDITING FUNCTIONS IN A REMOTE

Select the property you wish to edit in the function list and make the changes directly in the list. For example, if you want to change the name of a code, select the function name in the function list and type in the new name. You can also edit the frequency, number of repeats, and sustain in the same manner (see Editing IR Codes - Chapter 7 for more information). Note that you must have the Edit tab active to be able to edit the items in the list.

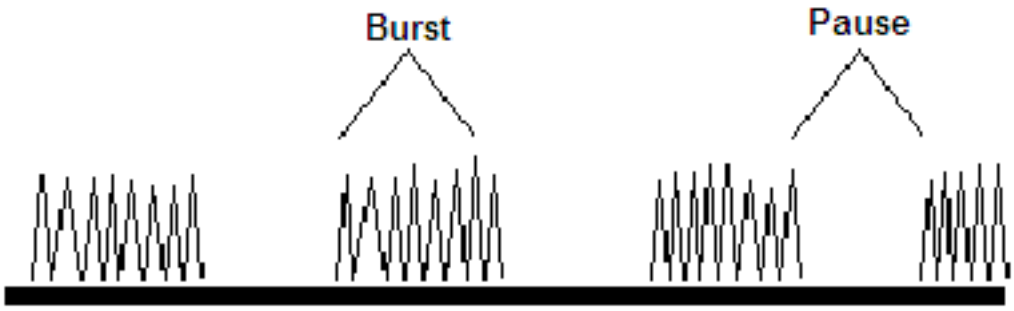
INTRODUCTION TO IR CODES

Two types of infrared codes are most commonly used for consumer electronics products: Frequency Modulated and Pulsed.

FREQUENCY MODULATED

This type of transmission modulates the IR energy at a fixed carrier frequency. The vast majority of consumer electronics remote controls use a carrier frequency around 40kHz, although the carrier can range from 15kHz to 455kHz or higher. The TheaterTouch is designed to reproduce carrier frequencies between 15kHz and 460kHz.

The actual code consists of bursts of IR energy modulated at the carrier frequency, separated by pauses.
The code is defined by the length of each burst and each pause, as well as by the carrier frequency.



PULSED IR CODES

This type of transmission does not use a carrier frequency.
Pulsed codes are common in cable TV converter boxes.

HOW THE THEATERTOUCH LEARNS IR CODES

There are many different encoding schemes used for IR codes. The burst and pause times have fixed lengths, variable lengths, or some combination of the two. To learn the code, the IR-PRO "records" a sample of the code in a manner similar to the way a tape recorder records sound. Once a sample of the code has been taken, it is analyzed to find any repeating patterns.

Some codes continuously repeat themselves for as long as the button is pressed. Others send a code followed by a "keep alive" pattern. Some codes don't repeat at all. Any of the above types of codes can also have some sort of preamble in front of them. It is very important to capture the preamble in this type of code. The IR learning buffer of the IR-PRO is large enough to accommodate the preamble.

When a repeating pattern is found, extra repeats are stripped off before the code is stored in memory. The number of repeats is also stored so the code can be reproduced accurately.

If the buffer was filled up during learning, it is assumed that the pattern should be repeated for as long as the key is pressed. This is common for commands such as Volume, Balance, and Scan— functions that may need to be continuously repeated. For these types of commands, **Sustain** is set **ON** as the Edit IR default. If the buffer is not filled, **Sustain** is set **OFF** and the repeat pattern is displayed as the **Minimum Repeats**.

The default **Minimum Repeats** for a code with **Sustain ON** is one. This means the repeating pattern will repeat at least one time when the button is pressed. You can edit this if necessary, in the Edit IR mode of Infrared Library Manager software.

If the code uses a carrier frequency, that frequency is also stored with the code.

HINTS FOR LEARNING IR CODES

The following suggestions can help insure more reliable code captures:

1. Make sure you hold down the button on the donor remote until the code capture process is complete. You will be notified when to move on to the next function.

2. Always place the capture unit and the donor remote control on a flat surface. You may find it necessary to elevate the donor or the capture unit with a book or similar object to align them vertically.

3. Once you have learned a code from a remote, try not to move it until you have learned all the codes. If you do accidentally move the remote or IRPro, you should re-align them.

4. It is VERY IMPORTANT to make sure the donor remote is using fresh batteries. The capture unit needs a strong IR signal to properly learn a code. If the frequency read-out in the ALIGN mode is 0.0 kHz, then the code is a pulsed type. In this case, you should transmit the commands to the capture unit from as far away as you can without getting an error message.

5. If you always get an error message when trying to learn a code, you should try moving the donor remote up and down or back and forth. If this does not help, try tapping the buttons on the donor instead of holding them down.

HINTS FOR LEARNING IR CODES - Continued

6. Many codes can be made more reliable if the number of repeat times is increased. This is especially true for codes assigned to buttons that are likely to be briefly “tapped” or for commands that are part of a macro.

7. Increasing the number of repeat times increases the probability of the code “getting through”, however, increasing the number of repeats may cause some devices to see more than one button press. This is essentially a trade-off between increased reliability and an increase in the length of time required to transmit a code. This can take a bit of fine-tuning on complicated macros.

NOTE: Keep in mind that the IR transmit LEDs may not be located in the center of the donor remote. It may be necessary to place the remote off-center to get a reliable capture.

ADDING IR CODES TO THE IR LIBRARY

Select the Capture tab to learn IR codes for the functions in the current library (select the Edit tab to add the function titles prior to learning any IR codes).

Choose the "Enable Capture" button to allow IR codes to be captured. If a USB capture box is detected, it will automatically be used when the "Enable Capture" button is selected. If you do not have a USB capture box, the Infrared Library Manager will automatically try to use a Serial capture device. You can see which type of capture unit is in use by looking for the "Connection" pane of the Status Bar.

Important: If the "Connection" pane indicates a Serial connection and you are using a USB device, un-plug the USB device, wait five seconds, re-connect it and try again.

CAPTURING IR CODES WITH AN IR-PRO LEARNING DEVICE

The first step in capturing IR codes with an IR-PRO learning device is to align the donor remote correctly. This step is very important, as it allows the Infrared Library Manager to determine the carrier frequency of the donor remote.

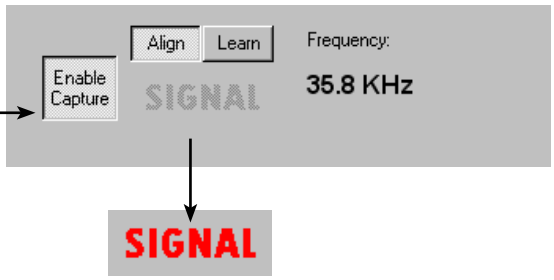
1. Connect the IR-PRO to a free USB port on your PC.

2. Select the Capture tab.

3. Choose the Enable Capture button.

4. Choose the Align button.

5. When the device is in Align mode, you will see the following on the Capture tab:



6. Hold down any key on the donor remote, and move it around in front of the capture unit until the signal strength meter turns red and the frequency reading is stable.

Once the remote is properly aligned:

1. Select the "Learn" button. The Infrared Library Manager will automatically highlight the first function in the current library without an associated IR code.

2. If you want to learn another function, select it in the function list. Your Capture tab should now look like this:

3. Press and hold down the requested function ("Play" in this case) until the Infrared Library Manager learns the code and moves on to the next code.

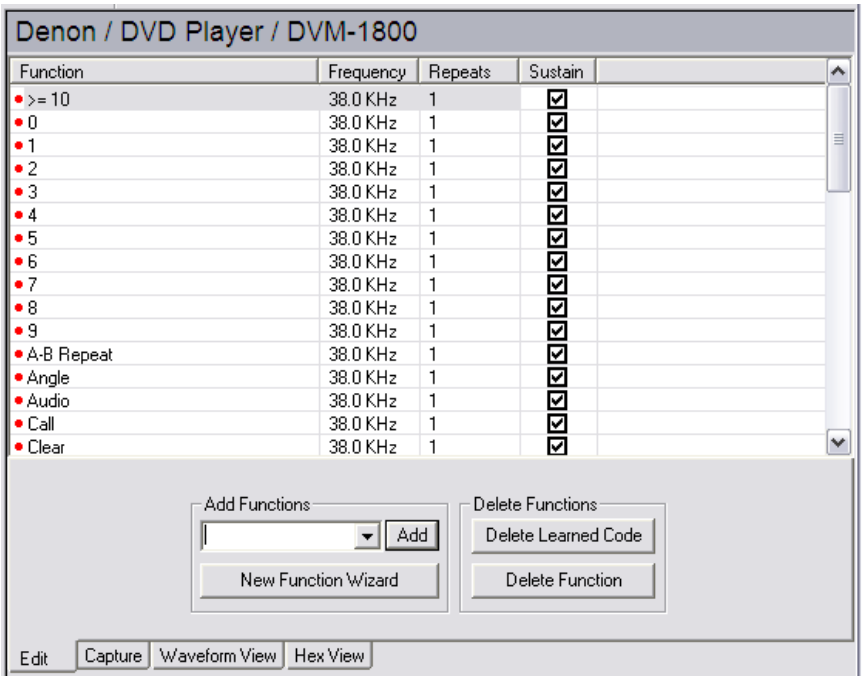
Important: Once you have the donor remote aligned, try to avoid moving it while capturing codes. If the remote does move out of position, select the Align button and go through the alignment procedure again. If you are having problems communicating with your USB device, see Troubleshooting Communications Problems - Chapter 12.

EDITING IR CODES

Most infrared codes will transmit continuously as long as the remote control key is held down. This means that either the entire code or some part of it is being repeated over and over.

The Infrared Library Manager software allows you to adjust the number of command repeat times and to enable or disable continuous transmission.

Select the property you wish to edit in the function list and make the changes directly in the list.



Repeats - Enter in this box the number of times that the repeating part of the IR code is sent by the remote. Some infrared receivers need a code to be repeated a certain number of times to work properly, and some may not work properly if the code is repeated at all. Change this setting only if you are having trouble with a code.

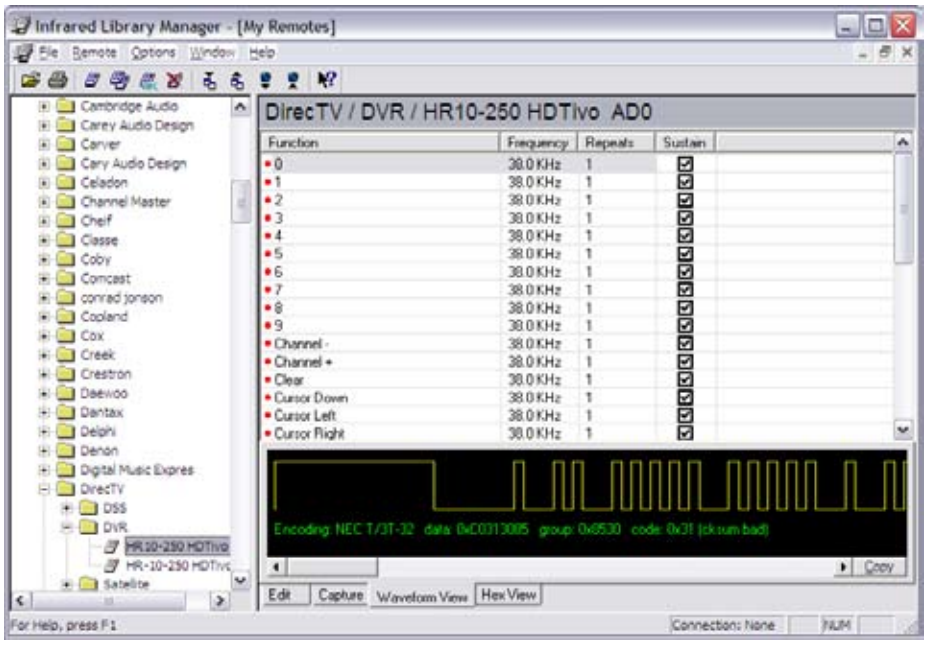
Frequency - This box shows the carrier frequency of the IR code. This is set automatically. You should not need to change this value unless directed to do so by Technical Support.

Sustain - Check this box to control whether or not the IR code should repeat if the button is held down. Most infrared codes will transmit continuously as long as the button is held down, but some infrared receivers may not work properly if the command is repeated at all. If the Sustain button is checked, the code will be transmitted for as long as the button is held down, or the **Minimum Repeat** times, whichever is greater. If the Sustain button is not checked, the code will be transmitted only the **Minimum Repeat** number of time regardless of how long the button is held down.

VIEWING IR CODES

WAVEFORM VIEW

The Waveform View tab allows you to see a picture of the currently selected Infrared code. This information may be useful to Technical Support if you are having problems learning or using an Infrared code.



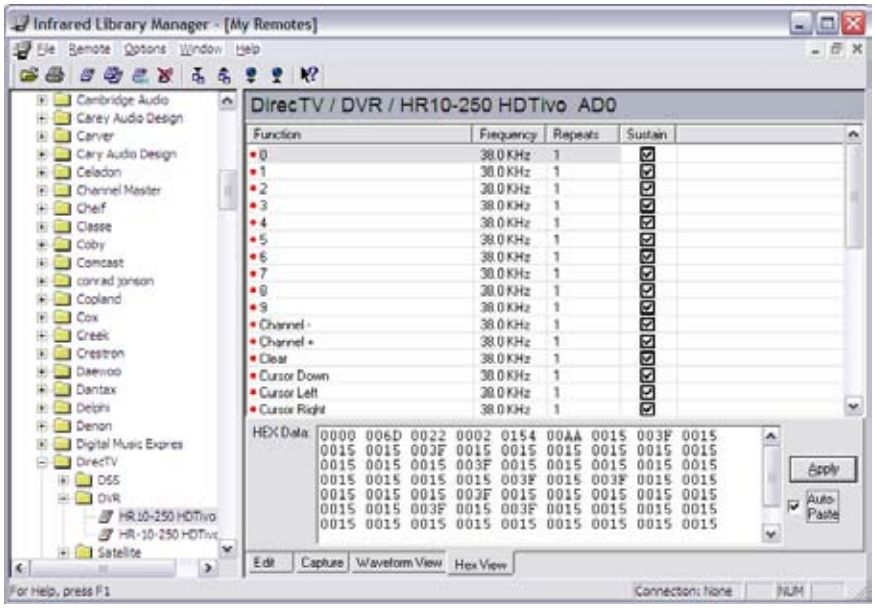
Yellow Waveform - This portion of an infrared code is sent once.

Green Waveform - This portion of an infrared code is repeated.

Red Waveform - This represents a portion of the infrared code that is very long and is shortened for display purposes.

HEX VIEW

The Hex View tab allows you to import, export, and edit codes in the fully learned Hex format (those that start with 0000.) All other codes must be converted to this format first.



To use the Hex View:

1. Select a function in the function list. If there is already an Infrared code associated with that function, it will be converted to Hex format and displayed in the "HEX Data" field. If you select a function that does not have an Infrared code, the "HEX Data" box will be empty.

2. Type in the Hex data for the code, or copy it from an external program (such as a web browser), and then right-click in the "HEX Data" box and choose "Paste" from the menu.

3. Select Apply to update the Infrared code in the library

If you are converting a large number of codes, you can use the "Auto-Paste" feature to save time.

To use the Auto-Paste function:

1. Click on the Edit tab and add the names of functions you have hex codes for.

2. Select the Hex View tab and check the "Auto-Paste" box.

3. Switch over to the application containing the hex data for the currently selected code. In that application, select & copy the hex data to the clipboard.

4. The Infrared Library Manager will automatically see the data being copied and paste it to the currently selected function, then it will automatically move to the next function, ready for you to copy the next function's data.

5. Repeat step 3 until all of the codes have been added.

Note: Not all codes in the library can be represented in Hex format. If you try to view a code that cannot be represented in Hex, you will see "<<this code is not representable in HEX format>>" in the HEX Data field.

UPDATING THE RTI MASTER IR COMMAND LIBRARY

Please follow the steps listed below to update the RTI Master IR Command Library:

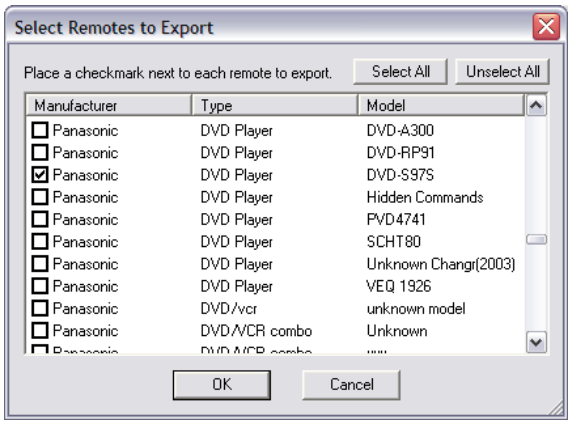
1. Before you download the updated IR Command Library, rename the library file that you currently use to store codes that you learn. This command library can usually be found in the following directory: C:\Program Files\RTI\TheaterTouch Designer\Command Libraries. We recommend renaming this current file **user.cml**.
2. Download the new master library from our website at: http://www.rticorp.com and choose Dealer Log In.
3. Log in using your provided dealer password.
4. The Master Command Library File is available for download in the Infrared codes section. This downloads the entire new library as a file labeled **master.cml**. Save the file to a location where you can easily find it again, we recommend saving it to C:\Program Files\RTI\TheaterTouch Designer\Command Libraries.

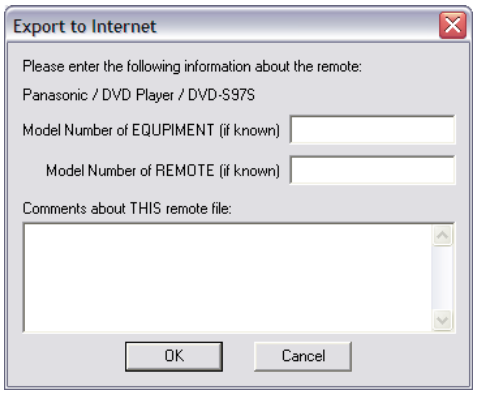
Please note: As a result of the new master library being a read only file you will not be able open it within the IR Library Manager. It can only be opened within the Theater Touch Designer program for use when programming a RTI Remote Control System.

EXPORT REMOTES TO THE INTERNET

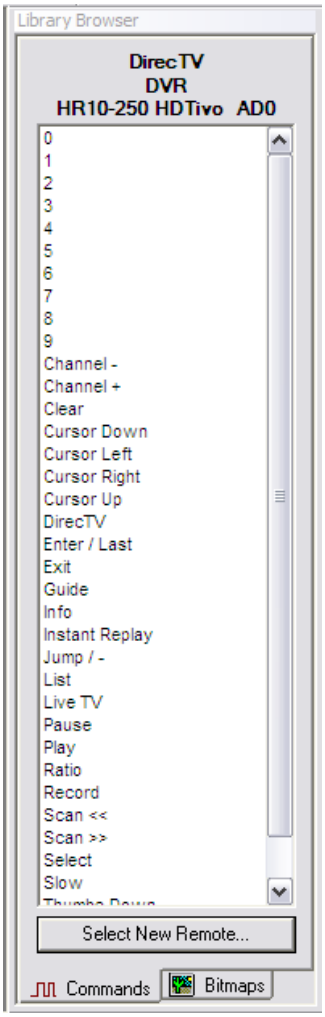
The RTI Master Command Library relies on contributions from users like you. If you have a remote that is not represented in the library, please use the "Export to Internet" command to upload it.

1. Choose Export to the Internet from the Remote menu or select the Export to the Internet icon .
2. The Select Remote to Export dialog box will appear.
3. Check the remotes you wish to export from the remote list.
4. Choose OK and the Export to Internet dialog box appears.
5. Enter the model number of the equipment and the remote control. Also, enter any special comments or notes associated with the remote being exported.
6. Choose OK to export the remote.
7. Repeat step 5 for each remote being exported.





ADDING AN IR COMMAND TO A BUTTON



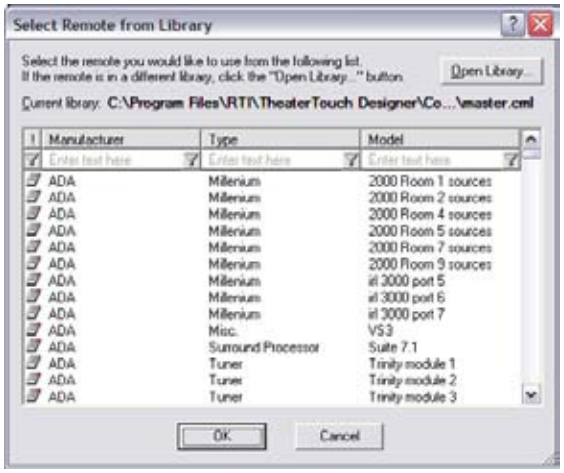
The Infrared tab of the Library Browser allows you to assign IR commands to the buttons in your device by dragging them onto the buttons in the design window.

The name of the current remote is listed at the top of the Infrared window, and the codes in that remote are listed in the list below the remote name.

To add any of these commands to a button:

1. Select a command name holding the left mouse button and drag it to a button.
2. A red letter C appears in the button to indicate that an IR command is assigned.
3. You can also create a new button with the selected command by dragging it to an empty space on the touchscreen grid.

To select a new remote to display:



1. Choose the "Select New Remote" button in the Commands Tab of the Library Browser.
2. Remotes are listed by manufacturer, type, and model in the Select Remote from Library window; select the remote you would like to display from this list. You can also select the column headings to change how the list is sorted. If a remote is in a different library or if a library is not open, choose the Open Library button to find the library you are looking for and repeat.
3. Choose OK to confirm the selected remote.

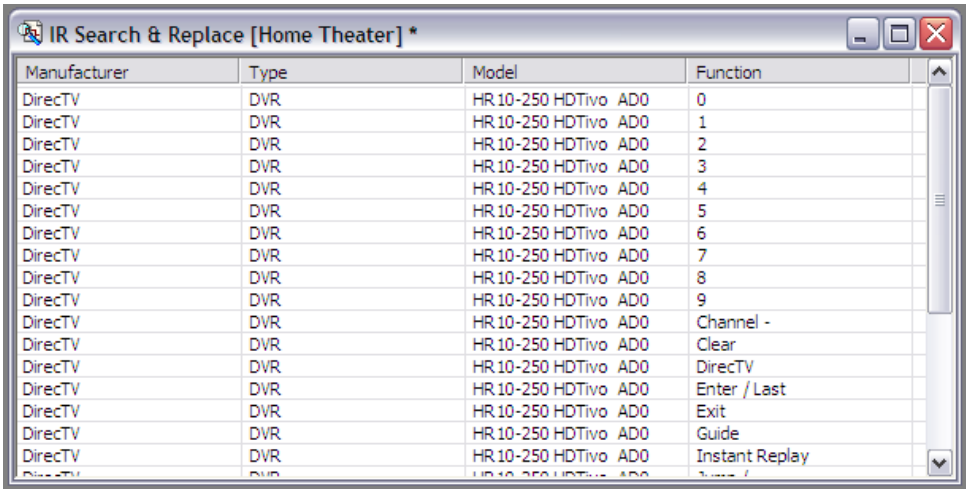
Note: Remotes that are already used in the current file are displayed at the top of the list with a red remote icon.

IR SEARCH & REPLACE

The IR Search & Replace list is used to replace all occurrences of one IR command with another throughout an entire device. You can use the IR Search & Replace list to assist in switching one component for another. For example, if you have several pages of channel macros created for one brand of satellite receiver you can use the IR Search & Replace feature to replace it with another brand without editing every channel macro individually.

Using the IR Search & Replace mode:

1. Select the IR Search & Replace command from the Edit menu.
2. The IR Search & Replace list will appear, listing all of the IR commands used in the current device. Note that there will be only a single listing for each command, even if it is used more than once in the device.



Manufacturer	Type	Model	Function
DirecTV	DVR	HR10-250 HDTivo ADO	0
DirecTV	DVR	HR10-250 HDTivo ADO	1
DirecTV	DVR	HR10-250 HDTivo ADO	2
DirecTV	DVR	HR10-250 HDTivo ADO	3
DirecTV	DVR	HR10-250 HDTivo ADO	4
DirecTV	DVR	HR10-250 HDTivo ADO	5
DirecTV	DVR	HR10-250 HDTivo ADO	6
DirecTV	DVR	HR10-250 HDTivo ADO	7
DirecTV	DVR	HR10-250 HDTivo ADO	8
DirecTV	DVR	HR10-250 HDTivo ADO	9
DirecTV	DVR	HR10-250 HDTivo ADO	Channel -
DirecTV	DVR	HR10-250 HDTivo ADO	Clear
DirecTV	DVR	HR10-250 HDTivo ADO	DirecTV
DirecTV	DVR	HR10-250 HDTivo ADO	Enter / Last
DirecTV	DVR	HR10-250 HDTivo ADO	Exit
DirecTV	DVR	HR10-250 HDTivo ADO	Guide
DirecTV	DVR	HR10-250 HDTivo ADO	Instant Replay

3. Use the Infrared tab of the Library Browser to select the remote containing the new commands.

4. Find the commands you want to replace in the IR Search & Replace list, and then drag them from the Library Browser onto the commands listed in the IR Search & Replace list. Each time you drag and drop onto the IR Search & Replace list, the command that you drop a new command on is replaced in every location that it is used in the current device.

5. When you have finished replacing commands, click the "X" in the upper corner of the IR Search & Replace window to go back to editing your device.

ADDING AN RS-232 COMMAND TO A BUTTON

RS-232 commands are added to a button using the Button Properties RS-232 tab described in Chapter 6.

Enter the string that will be sent to the RS-232 device RS-232 string text box. If the "Hex" mode button is selected, enter the RS-232 string directly as a sequence of two character hexadecimal codes. If the "Hex" mode button is not selected, you can type plain text into this field, and you can also use the following special characters (called “Escape Sequences”):

\a	Alert / Bell (Control-G)
\b	Backspace (Control-H)
\e	Escape (Control-[)
\f	Form Feed (Control-L)
\n	Line Feed (Control-J)
\r	Carriage Return (Control-M)
\t	Tab (Control-I)
\v	Vertical Tab (Control–K)
****	Backslash
\xHH	Hexadecimal constant (where H is a hex digit from 0-9 or A-F)
\dNNN	Decimal constant (where N is a digit from 0-9). All three digits **MUST** be entered, so you may need to add leading zeros.

Note: Because the backslash {\} character is used to introduce each Escape Sequence, you must use the \\ form to enter a backslash character, if one is needed by your string.

DELETING A COMMAND FROM A BUTTON

1. Select the Delete tool  from the Tool Palette.

2. Place the mouse cursor over the button with the command you wish to delete.

3. Click the left mouse button.

4. Select Delete IR Code from the popup menu.

Chapter 8. Working with Macros

INTRODUCTION TO MACROS

The Macro Editor is used to create macros for buttons. A macro is a sequence of commands that is activated with a single button press. A macro may contain unlimited steps. Several types of commands can be added to each macro. Buttons with macros can be moved, cut, copied, and pasted to other pages without discarding the codes attached and are indicated by a small black box with the letter 'M' in the upper left corner.

The set of commands available for programming the steps in a macro will be different for each device. The title bar of the Macro Editor will indicate "Standalone mode" or "System mode" to remind you of which device the macro is running on. See Understanding System Macros - Chapter 8 for more information.

USING THE MACRO EDITOR

The main Macro Editor window contains several important sections. On the left side of the window is the macro being edited. Individual steps in the macro can be clicked and dragged up or down to change the order of the macro. They can also be dragged to the wastebasket at the bottom of the window to delete them from the macro. Most of the command types can also be double-clicked to edit their properties.

Adding new steps to the macro is as simple as selecting the desired step from the right side of the window and dragging it into the desired position in the macro.

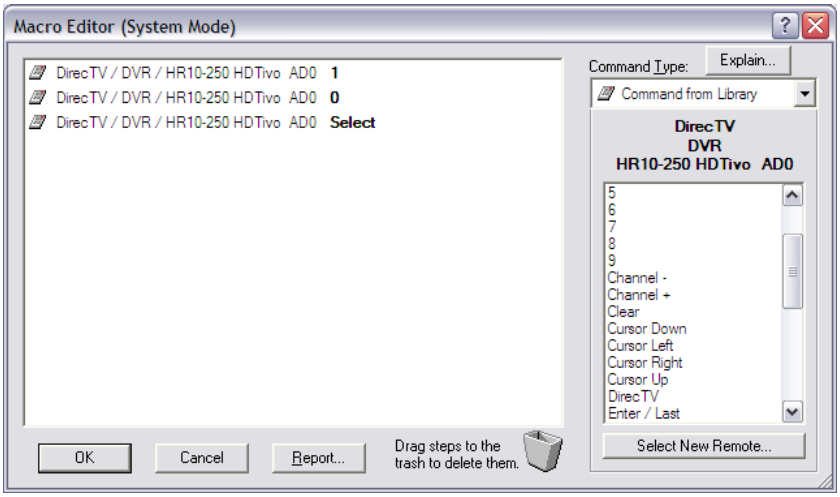
To add a new macro or edit an existing macro on a button:

1. Select the **Edit Macro** tool from the **Tool Palette**.

2. Click the button to which you would like to add a new macro or edit an existing macro.

3. Use the tools in the **Macro Editor** window to add, insert, and delete commands.

4. Click **OK** in the **Macro Editor** window to save changes to the macro, or click **Cancel** to discard them.

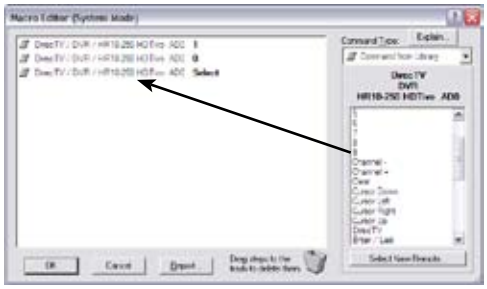


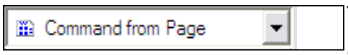
USING THE MACRO EDITOR - Continued

Report command – Select this button to place a listing of all steps in the current macro in your web browser, in a format suitable for printing.

Trash Can – Drag and drop steps from the macro into the wastebasket to delete them.

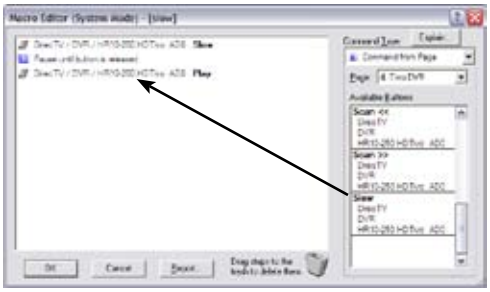
The Command from Library macro step type causes the macro to output an Infrared command. Infrared commands are added by dragging the desired function(s) from the IR Command list to the macro display on the left side of the Macro Editor. You can use the "Select New Remote" button to change remotes, and use more than one remote in a macro. If you do not have access to the Command Library with the desired function, but it is assigned to a button in the current device, use the Command from Page option to add it to the macro.



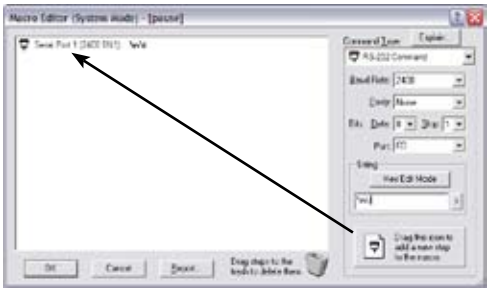


The Command from Page macro step type causes the macro to output an Infrared command. The command is taken from a button in the current device. Select the page containing the desired command, and then drag it from the "Available Buttons" list to the macro.

This should be used for maintaining devices for which the Command Library is not available. If the desired command is in a Command Library, use the Command from Library option.

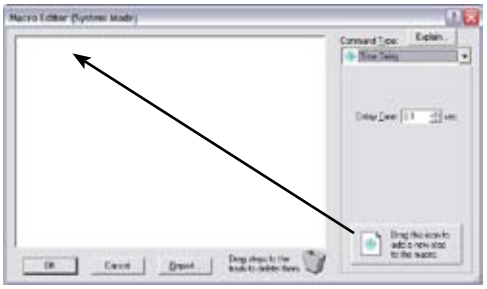


(System Control Processor must be present) The RS-232 Command macro step type causes the macro to output an RS-232 command, using the control processor and an RS-232 output cable (CM-232 Module). The RS-232 parameters (baud rate, parity, data bits, and stop bits), output port, and the RS-232 control string can all be customized using the available controls. You can switch between editing in HEX mode and text mode by clicking the "Hex Edit Mode" button. After you have set the desired parameters and entered the command string, drag the RS-232 icon from the lower right to the macro display on the left. Release the mouse button at the location where you would like to add the RS-232 step.



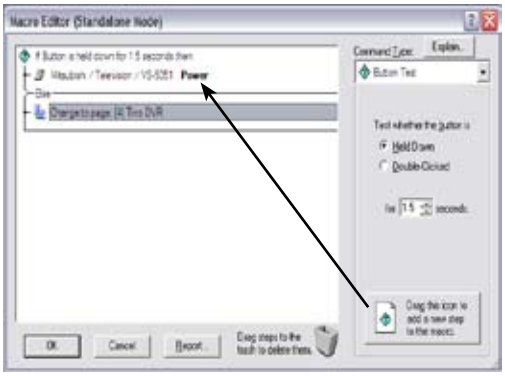
USING THE MACRO EDITOR - Continued

The **Time Delay** step causes the macro to pause for the time specified by the **Delay Time** spin box. The time can be adjusted from 0.1 to 240 seconds. After you have set your desired delay time, drag the **Time Delay** icon from the lower right to the macro display on the left. Release the mouse button at the location where you would like to add the time delay step.

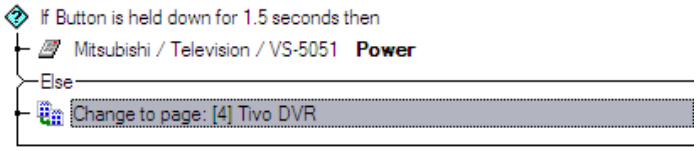


Note: By default there is a 0.3 second time delay after IR commands included in a macro.

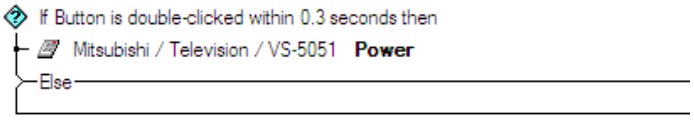
(Standalone Mode Only) The Button Test step causes the macro to execute a group of steps ONLY IF the button that the macro is attached to is pressed (or not pressed, or double-clicked, depending on the option selected). After selecting options, drag the Button Test icon from the lower right to the macro display on the left.



The **Button Test** steps are conditional statements or "Else" commands meaning that if the condition is met the first command will be sent and if the condition is not met the second command will be sent.

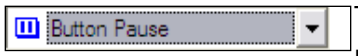


Held Down - In the example above, if the button is held down for 0.3 seconds, the **ON** command will execute. If the button is not held down for 0.3 seconds, the command will not execute. This can be used to make a source button that switches pages if pressed briefly, or switches pages and turns equipment on if held down for the specified amount of time. This can also be used to send a command when pressed briefly, or send a different command when held down.

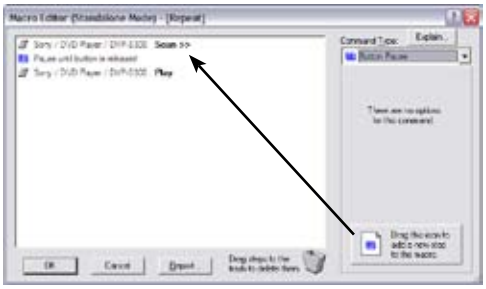


Double-Clicked – In the example above, if the button is double-clicked within 0.3 seconds, the ON command will execute. If the button is not double-clicked within 0.3 seconds, the command will not execute. This can be used to make a source button that switches pages if pressed once, or switches pages and turns equipment on if double-clicked within the specified amount of time. This can also be used to send a command when pressed once, or send a different command when double-clicked.

USING THE MACRO EDITOR - Continued



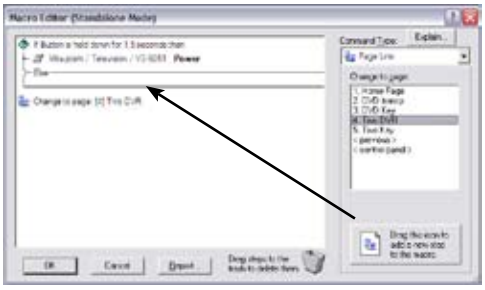
The Button Pause step causes the macro to stop executing until the button it is attached to is released, at which time the rest of the macro is executed. Drag the Button Test icon from the lower right to the macro display on the left.



Sony / DVD Player / DVP-S300 **Scan >>**
Pause until button is released
Sony / DVD Player / DVP-S300 **Play**

In the example above, if you press and hold the button that the macro is attached to, the macro will execute the first command and pause until the button is released, then execute the rest of the commands in the macro. This works well for commands like Scan on some VCR's and DVD players, which you need to send the Play command to stop the Scan function. This also works well for RS-232 commands, having the option of a command on the button press and another command on the button release.

(Standalone Mode Only) The Page Link step causes the device to change the displayed page and/or frame.



If you have put a Page Link on a button as well as in a macro, the Page Link on the button will be the last visible change, making the Page Links in the macro useless.

Animation: If you wish to create an animation sequence, create pages for each step of the animation. Next create a page link to each page in the correct sequence. A time delay may be added between the page link steps to adjust the speed of the animation.

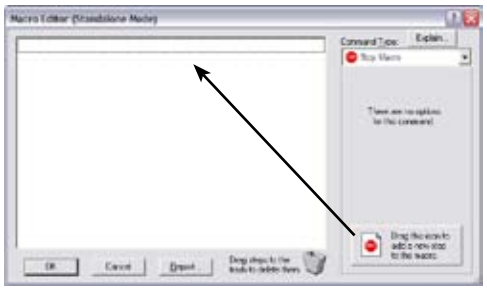
If Button is held down for 1.5 seconds then
Mitsubishi / Television / VS-5051 **Power**
Else
Change to page: [4] Tivo DVR

In the example above, if you hold the button with macro down for more than 1.5 seconds, the device will issue a power command and then change pages using the Page Link step with the Button Test step in a macro.

USING THE MACRO EDITOR - Continued

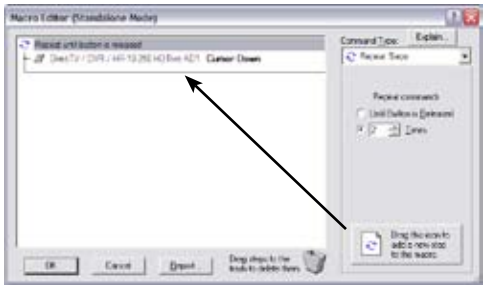
The Stop Macro step causes the macro to stop executing at the point where it is inserted.

Macros automatically stop when they reach the end, so you should not normally need to insert a Stop Macro step. It is intended for use in conjunction with the Button Test step, where you can have the macro stop if a condition is met.



The Repeat Steps step causes the macro to output a group of steps multiple times. Set the options to continuously repeat the following macro steps for as long as the button is held down or to have the steps the indicated number of times. You can enter any repeat count from 1 to 60.

This step is used most often to sustain an RS232 command.

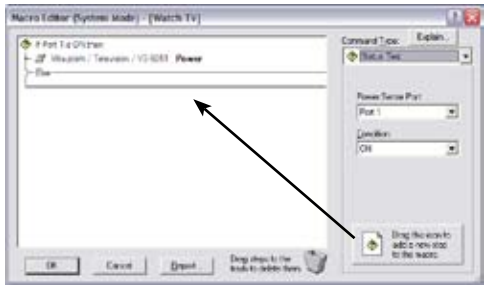


(System Control Processor must be present)

The Status Test step causes the macro to execute or not execute a group of steps based on the status of an input or output line.

Select the input or output line you would like to monitor from this list then select the condition you would like to check for on the selected input/output line.

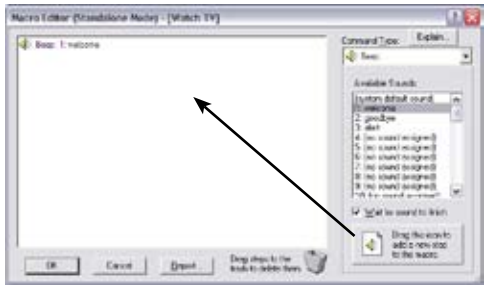
Note: This option requires either an RP-6 along with a VPS-1 or SPS-1, or an RP-1 which tests the status of it's built-in power sensor.



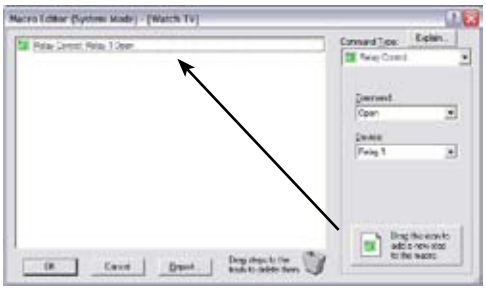
(Standalone Mode Only)

The Beep step causes the device sound an internal beeper. The beeper will sound regardless of the Enable Beeper setting in the Device Properties dialog.

Check the wait for the sound to finish check box to make the macro stop before moving on to the next step. If this box is not checked, the sound will play while the macro continues to run. If this box is not checked and the device is already playing a sound, this sound will be skipped.

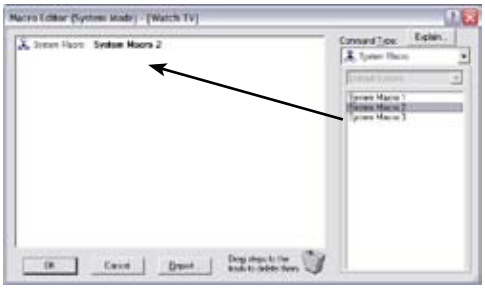


USING THE MACRO EDITOR - Continued



Relay Control **(System Control Processor must be present)**

The Relay Control step is used to change the current state of one of the device's relay outputs. Select the action you would like for the relay output then select the number of the relay to control.

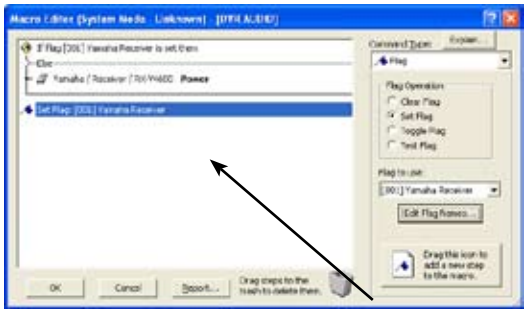


System Macro **(System Control Processor must be present)**

The System Macro step is used to trigger a system macro stored in the control processor. This step is used within a standalone mode button macro when steps such as button tests, page links or sending IR commands, need to take place on the device and IR/RS232 commands need to be sent from the control processor with a single button press. The interface device sends a signal to the control processor telling it to begin running the desired system macro. The macro on the interface device will then immediately move on to the next step.

Note: If you try to trigger two system macros in a row from a standalone-mode macro (macro on a button set to standalone output mode), the control processor will likely not have finished processing the first macro before it is told to run the second. Therefore, you must insert a time delay step in the interface device's standalone macro that is at least as long as the control processor will take to run each system macro. Placing a system macro step in a macro that is already running on the control processor, however, does not need the extra time delay added. In this case, the original macro will not continue running until the system macro completes.

See the Understanding System Macros - Chapter 8 for more information.

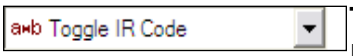


Flag The Flag step is used to keep track of a component or a remote device's status and act based on that status. There are multiple flags available, which you set or clear under macro control. You can use the "Test Flag" option to take different actions based on whether or not a certain flag is set.

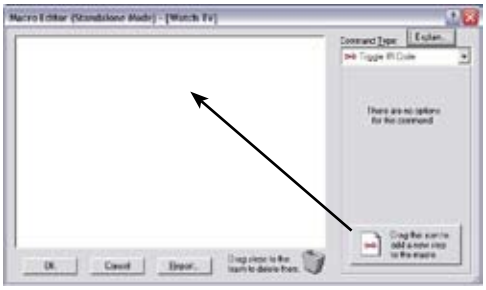
For example, you can use this functionality to make discrete power ON and OFF macros for components for which you have only toggle codes. Use the "Set Flag" option when you turn on the component, the "Clear Flag" when you turn it off, and the "Test Flag" option to determine if a power command should be sent based on the flag status. A tech bulletin can be found on our website at www.rticorp.com/dealers describing this process.

Note: Flags exist and are named on a per-device basis (Flags can be named within the Macro Editor or within the Device's Properties.) Flag 001 on one remote device is not related to Flag 001 on the control processor. A macro can set, clear, and test only those flags within the device it is running on. In particular, this means that System macros and Standalone macros will operate on a completely different set of flags.

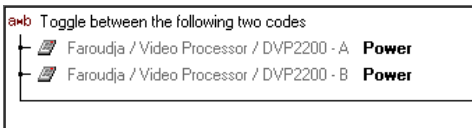
MACRO EDITOR - Continued



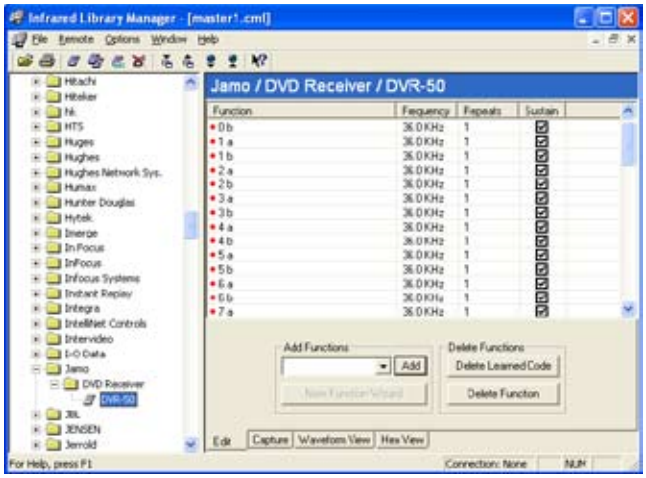
Toggle IR Code - Toggle bit IR codes are used on remotes that have two full sets of IR codes for every button on the remote.
In order to control devices with toggle bit IR codes you will need to create a macro for each control function of your device, as displayed in the screen shot below. Using the toggle bit macro step, drag the (a) and (b) version of the code and place it between the (toggle bit) brackets within the macro editor window.



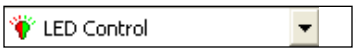
In this example, the initial button press executes the **A** command and the second button press executes the **B** command.



When learning codes from a toggle bit remote, you will need to learn both versions of infrared code that exist on each button. You will need to duplicate each function name, as shown below, when preparing to learn a toggle device into the IR library. After entering the function names, you are ready to learn both versions of the code. Remember that each button press of a toggle bit device will alternate between two different IR codes.

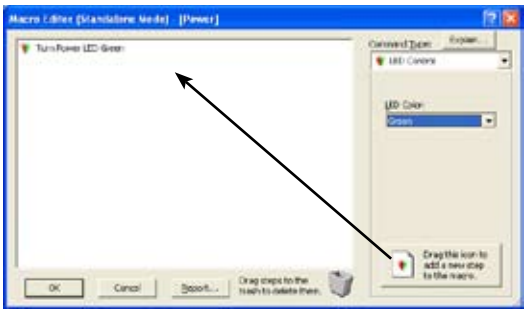


MACRO EDITOR - Continued

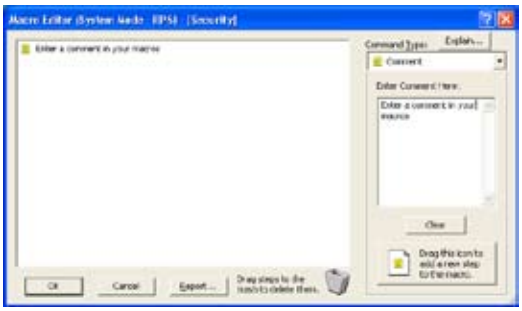


(RK3 Only)
(Standalone Mode Only)

The LED Control macro step is used to change the color of the Power LED. Select the color you would like it be and place the step within the macro.



Comment - The Comment macro step will not be acted upon, it is simply available for writing yourself a note within a complex macro.



DELETING A MACRO

To delete a macro from a button:

1. Choose the **Delete** tool from the **Tool Palette**.

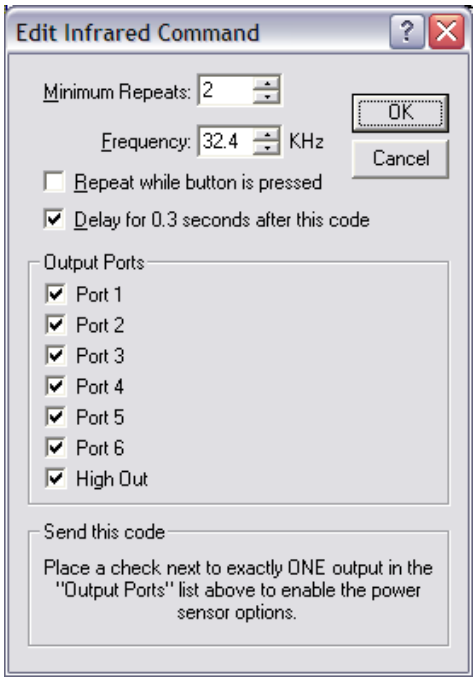
2. Place the mouse cursor over the button with the macro you wish to delete.

3. Select the left mouse button and choose Delete Macro from the popup menu.

EDITING AN INDIVIDUAL STEP IN A MACRO

To edit an individual step in a macro you must have the macro displayed in the Macro Editor.

1. Double click on the step in the macro you want to edit and an edit dialog box appears with the options appropriate for that step.



For example the **Edit Infrared Command** options are:

Minimum Repeats - Enter in this box the number of times that the repeating part of the IR code is sent by the remote. Some infrared receivers need a command to be repeated a certain number of times to work properly, and some may not work properly if the command is repeated at all. Even if a command works properly, increasing the number of repeat times may be necessary if the command is to be used in a macro. Since macro commands are not automatically sustained while a button is pressed, they may need to automatically repeat more times to be recognized.

Frequency – Shown in this box is the carrier frequency of the IR code, this is set automatically. You should not need to change this value unless directed to do so by Technical Support.

Repeat while button is pressed - Check this box to cause this IR code to be repeated for as long as the button is held down.
Note: Only one command in any macro can have this property set.

Delay for 0.3 seconds after this code - Check this box to automatically pause for 0.3 seconds after this code is sent. This is the default setting, and normally should be left checked. This delay gives the receiving equipment time to process each code before the next one is sent.

Output Ports: See the IR Routing Tab - Chapter 6 for the details on these options.

UNDERSTANDING SYSTEM MACROS

In general, you should program your IR codes and macros directly on the device programming screens and TheaterTouch Designer will automatically store them in the Control Processor (if present in the system workspace) and generate the required RF trigger codes with no additional effort on your part. Therefore, it is not necessary to explicitly create macros directly on the control processor for them to be run there. However, TheaterTouch Designer only allows macro steps valid for the output mode of the button they are created on and therefore there are scenarios that require the creation of System Macros.

Note: In the following descriptions, "device" refers to the remote or keypad that initiates the macro (e.g. T1/T2+ etc) and "control processor" refers to the back-end device running the macros (e.g. RP-6/RP-1).

Scenarios requiring System Macros

1. You wish to send IR codes directly from the device or use local features (page changes, button tests, etc.) on a device and send IR/RS-232 codes stored in the control system from within a single button macro.

In this case, you will have to create at least two macros — the macro that runs on the device and the System Macro that runs on the control processor. In the System Macro, put all of the IR/RS-232/Relay/etc. commands that need to be run by the control processor. Next, on the device set the button's output property to Standalone mode on the Output tab of the Edit Button Properties dialog. This will cause any macro you create on that button to run from the device – enabling you to use all of the local IR & standalone features available on the device. Finally, in the device's button macro, select the "System Macro" option and select the System Macro that you created on the control processor. This will send an RF or IR trigger code (as appropriate) to cause the control processor to run the System Macro you created.

2. You wish to trigger the macros with third-party remotes or keypads.

In this case, you will have to create each macro on the System Macro screen, and then use the commands under the Device/Generate IR Trigger Codes menu to create IR codes. You can then program these codes into your third-party devices to trigger the System Macros you have created.

3. You wish to re-use a single macro from within several other macros.

You can use System Macros to factor out common control functionality into a single macro, that you can call from many other macros in your system. For example, you can create a System Macro that contains the Power On commands for your system. Then, when creating other macros, you can insert a System Macro step that calls the common Power On macro you created. This allows you to easily change components by editing only the single Power On System Macro. All other macros that reference this will automatically reference the updated version after it is changed.

CREATING SYSTEM MACROS ON THE CONTROL PROCESSOR

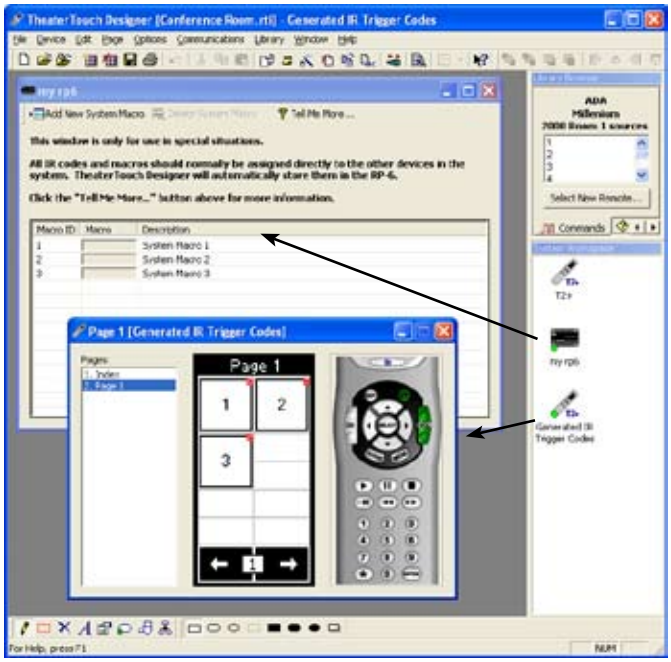
1. Left click on the Control Processor in the system workspace, this will open the System Macro Editor.
2. Click on the "Add New System Macro" button
3. Input a description of the macro.
4. Left click on the gray button next to the description to open the System Macro Editor and create your macro, inputting the IR commands, RS232 commands etc. that need to be sent from the Control Processor.

GENERATE IR TRIGGER CODES FOR SYSTEM MACROS

There are three options located in the Device menu for generating IR trigger codes for system macros. These codes can be used to launch a system macro on a control processor using an IR receiver or the codes can be learned into third party remotes and keypads. The system controller must be selected for these options to appear.

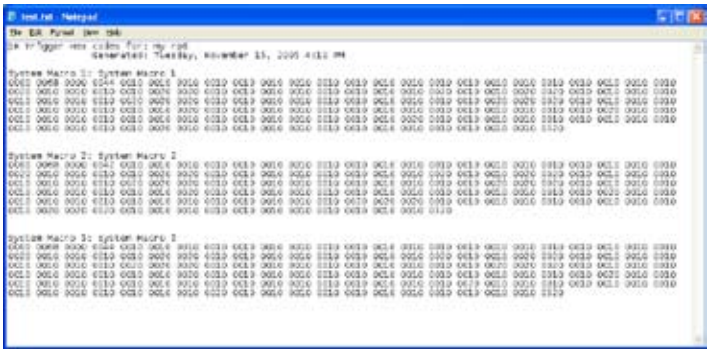
CREATE NEW T2+ WITH CODES

This menu option creates a new T2+ device with a set of buttons containing trigger codes for each system macro you have created for this system. You can send this file to a device and use it to teach the IR trigger commands into third-party remotes and keypads, so the third-party devices can trigger the desired system macros.



HEX FORMAT

This menu option generates a text file containing trigger codes for each system macro you have created for this system. The codes are in HEX format, which you can copy and paste into the programming software for third-party devices, and have those devices trigger the indicated system macros.



COPY HEX DATA FOR CURRENTLY SELECTED MACRO (DEVICE MENU)

This menu option places an IR code that will trigger the currently selected macro onto your computer's clipboard. The IR code is in HEX format. You can paste this code into programming software for third-party devices you wish to have trigger this system macro.

USING THE CHANNEL MACRO WIZARD (K4/RK3/T4/T3/T2+)

The Channel Macro Wizard helps you create and maintain groups of macros consisting primarily of numbers. It was designed to speed the creation of television station macros, but it can also be used to set up macros that select discs in a CD jukebox, and macros that tune to specific radio stations.

Before using the Channel Macro Wizard, you must draw the buttons for which you wish to create the channel macros. This picture illustrates the type of page for which the Channel Macro Wizard is designed.

To use the Channel Macro Wizard:

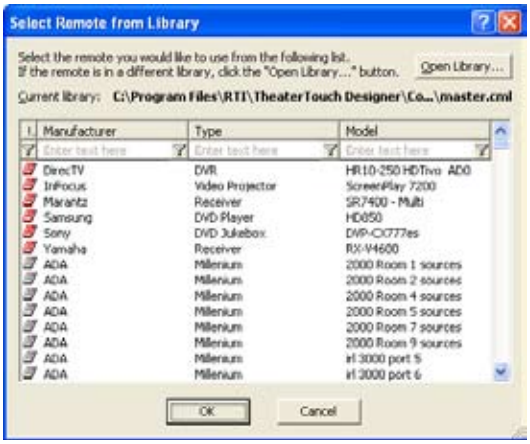
1. Select Channel Macro Wizard from the Edit menu.

2. Click the Select New Remote button.

3. Choose the remote that will be used to create the macros. Choose Open Library if the remote is not in the current library.

4. Select the ports under IR Routing that this macro should be sent to. This should only need to be changed if you have identical components that you don't want to control simultaneously.

5. Select the Next>> button.



USING THE CHANNEL MACRO WIZARD - Continued

The next step defines any "boilerplate" commands that must be inserted before or after each macro. In this example, the cable box requires the "Ok/Select" button to be pressed after the channel numbers are entered, so the "Ok/Select" command is placed in the 'Do this AFTER each macro' list. If you need to select a specific TV/Processor/Preamp/etc. input before each channel, or send commands to control an IR switcher, the 'BEFORE' list is a good place to put the command.

The 'BEFORE' and 'AFTER' lists are full-fledged macros, and can contain commands from other remotes/libraries as well as time delays and other special commands.

1. Select the Add/Edit button in the BEFORE or AFTER section if you choose to add commands. This will open the Macro Editor where you can select the commands using the Macro Editor commands. If you need help with these commands, see the "Using the Macro Editor" section.

The final step in using the Channel Macro Wizard is to create the individual macros. To create each macro, use the following procedure:

1. Choose the pages that contain the channel buttons from the pull-down menu, we are creating macros for the "Favorites" page.

2. Choose a button for which to create a macro. Here we have chosen the "Fox" button. If there is a macro on this button already it will be displayed in the existing macro window.

3. Use the number buttons on the right to enter the channel number (111 in this case).

4. Click the save button.

5. Repeat steps 2-4 for each macro you wish to create.

6. When you have created all of the macros you need, click the Close button.

CREATING A NEW SCROLLING LIST (T2+)

The Scrolling List option located in the Device menu creates a scrollable page with buttons and macros for each CD/DVD in a jukebox, cable/satellite channel or any other component with many selections available. When selected, the Scrolling List Properties dialog appears and is where you enter information about the list.

SCROLLING LIST PROPERTIES

The following properties are available:

Title - Enter in this box a name for the scrolling list.

First Disc Number - Select the starting disc or song number for the particular jukebox that you are using. This is usually one or zero, but doesn't have to be. The purpose of this number is to allow the Disc Number Macro Wizard to build the correct infrared codes to control the jukebox.

Total Number of Discs - Select the total number of discs that are going to be in your list. This should usually be equal to the total capacity of the jukebox, even if you are not currently using every position. This makes it easier to append discs in the future.

Disc Number Macro Wizard - Click on this button to run a wizard that automatically builds the macros for each entry in the list. After executing the wizard, you can still make manual changes to any of the macros. Warning: Running this wizard will overwrite any existing macros in the list.

Sort Order - Select the criteria for sorting the list entries when they are displayed on the device's display.

Use Up/Down keys to scroll - Check this box if you want the keypad's up and down hard keys to perform the same scrolling function as the Up and Down arrow buttons at the bottom of the touchscreen. If this option is selected, any commands or macros assigned to the up and down hard keys will be ignored when the scrolling list is displayed.

DISC NUMBER MACRO WIZARD

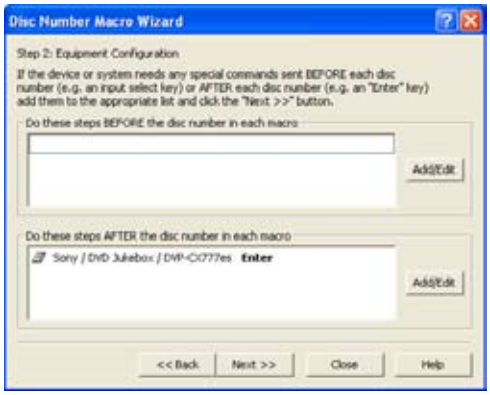
Select the Disc Number Macro Wizard to automatically build macros that will access each item in the scrolling list.

1. Click on the Select New Remote button to use a different remote.

2. Select which ports this macro should be sent to if IR routing is necessary. (You should only need to change this if you have multiple identical components.)

3. Choose Next>> to proceed to the next step

DISC NUMBER MACRO WIZARD - Continued



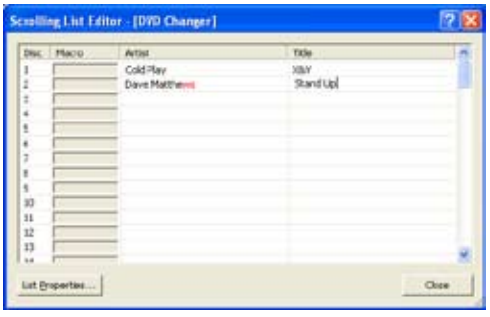
The next step defines any "boilerplate" commands that must be inserted before or after each macro. In this example, the Sony DVD Changer requires the "Enter" button to be pressed after the Disc numbers are entered, so the "Enter" command is placed in the 'Do this AFTER each macro' list. If you need to select a specific TV/Processor/Preamp/etc. input before each channel, or send commands to control an IR switcher, the 'BEFORE' list is a good place to put the command. The 'BEFORE' and 'AFTER' lists are full-fledged macros, and can contain commands from other remotes/libraries as well as time delays and other special commands.

1. Select the **Add/Edit** buttons in the BEFORE or AFTER section if you choose to add commands. This will open the **Macro Editor** where you can select the commands using the **Macro Editor** commands. If you need help with these commands, see the "**Using the Macro Editor**" section.
2. Select Next>> to proceed to the next step.

CREATE MACROS

1. Select Next>> to have the wizard create the macros for all the items in the list.
2. Choose close and the Scrolling List appears.

SCROLLING LIST EDITOR



The Scrolling List Editor is used to add, remove, or change entries in a scrolling list. It displays a table that contains the artist and title information for every item in the scrolling list, as well as a button to edit the macro associated with each item.

A list can be populated with an existing list from Microsoft Excel by using the copy/paste function. The Excel spreadsheet must be formatted using two columns to match the scrolling list. Copy both columns of the spreadsheet and paste into the fist row and column in the scrolling list editor and the scrolling list will be properly populated.

The space available for the artist and title information on the touchscreen is limited. If you enter strings longer than the available space, the portions that will not fit on the display are shown in red type. You can ignore this and allow the strings to be truncated to fit, or you can abbreviate the text so that it fits on the display.

Select the button in the Macro column to edit the macro that will be run when the item is selected. If you have not already done so, use the Disc Number Macro Wizard in the Scrolling List Properties dialog to automatically create macros for every item.

Chapter 9. Working with Objects (K4/RK3/T4)

INTRODUCTION TO OBJECTS

The Object tab of the Library Browser allows you to assign objects (web browser, IP camera, video) and the commands to control these objects to the buttons in your device by dragging them in the design window. The name of the current object library is listed at the top of the Object window, and can be changed by pulling down the Objects list. The Objects and Commands that the library contains are listed in the Commands list.

OBJECTS

To add an Object click the object name (those denoted with a blue circle) and drag the it into the touchscreen grid. If the object requires more information, you can enter it in the fields below the Commands list. Objects always create a new button and therefore cannot be dragged onto an existing button, however a bitmap may be placed behind this button for decorative purposes.

COMMANDS

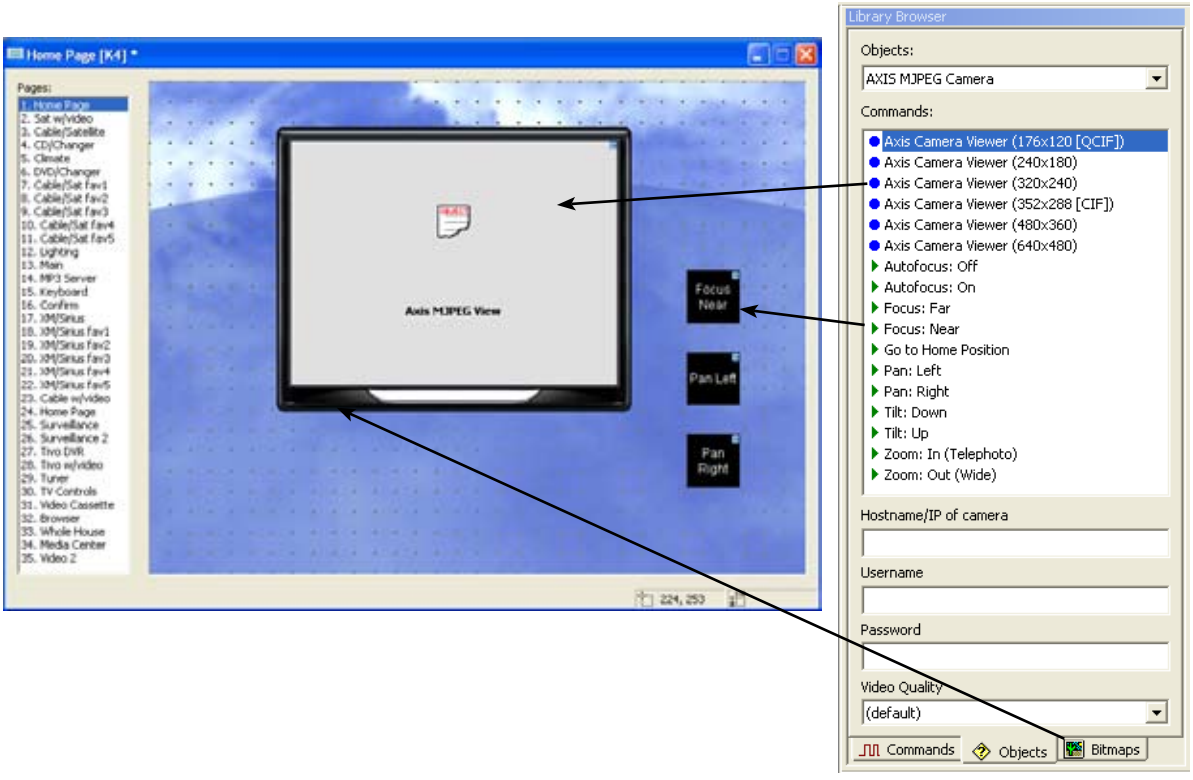
To add a command to a button, click the command name in the list and drag it over to the button. If the command requires additional information, you can enter it in the fields below the Commands list. You can also create a new button with the selected command already attached by dragging the code to an empty space on the touchscreen grid.

OBJECT AND COMMAND PARAMETERS

To edit the parameters of an existing Object or Command,

1. Select the **Edit Button Properties** tool  from the **Tool Palette**.

2. Select the Object or Command Button you want to edit and select the Command tab.



USING OBJECTS AND COMMANDS

AXIS or PANASONIC MJPEG CAMERA

Axis and Panasonic MJPEG cameras broadcast video over IP that can be displayed in a video viewer on ethernet enabled devices. Commands that control the cameras can also be assigned to buttons on the touchscreen grid.

- Input the appropriate information in the fields below the Commands list.
- Choose the window size that you wish to have display the video and drag it into the touchscreen grid.
- Add any commands used to control the camera by dragging them into the touchscreen grid to either an existing button or to an empty space to create it's own button.

GENERIC MJPEG VIEWER

You can use this object if you wish to use an MJPEG camera that is not directly supported (e.g. anything other than Axis or Panasonic) or to allow the full request URL to be entered for the camera, even if it is one that is supported. For example, both the Axis and Panasonic have many more parameters (compression level, input switching, other video resolutions, frame rate, etc) that you can adjust. So if you wanted to retrieve Axis video at QCIF resolution at 15 frames per second with maximum compression, there is no way to do that using the Axis object, but you can look up the syntax in the Axis documentation and build the request URL yourself to get this and use the Generic MJPEG object to display the video.

- Enter the complete MJPEG video URL in the field below the Commands list.
- Drag the MJPEG viewer into the touchscreen grid and adjust to desired size.

ESCIENT FIREBALL CONTROL

Devices with video inputs can display and control the Escient Fireball Interface

- Choose the video input that will connected to the Escient Fireball (S-Video is recommended).
- Select whether or not the screen should be allowed to go dim while this page is displayed.
- Select the connection you will be using to communicate with the Escient Fireball.
    - Enter the IP Address of the Escient Fireball.

COMPOSITE VIDEO

Devices with video inputs can display composite or S-video feeds in either a full screen or adjustable window.

- Choose the default input for the video viewer from the drop down menu below the Commands list .
- Choose the video viewer size that you wish to have display the video and drag it into the touchscreen grid. This window can be resized further using the button resize tools, if desired.
- If needed, add the Select Input command to control which video feed will be displayed in the video viewer by dragging it onto the touchscreen grid to either an existing button or to an empty space to create it's own button.
- Select whether or not the screen should be allowed to go dim while this page is displayed.
- Select whether or not the video object should be allowed to go full screen upon touching it.

HTTP REQUEST

The HTTP Request object is used to issue arbitrary HTTP requests. Many IP-controllable devices can be controlled by requesting specially formatted URLs from them. For example, if you are using the "Generic MJPEG Viewer" object to display video, you can use the HTTP Request objects to send pan, tilt and zoom commands to the IP camera. Any data returned by the device in response to the request is discarded. If you are trying to load a specific URL into the web browser object, use the "Go to specified URL" command of the web browser object.

- Drag the Request URL command onto the touchscreen grid to either an existing button or to an empty space to create it's own button

WEB BROWSER

Ethernet enabled interface devices with an internet connection can browse the internet with the Web Browser object.

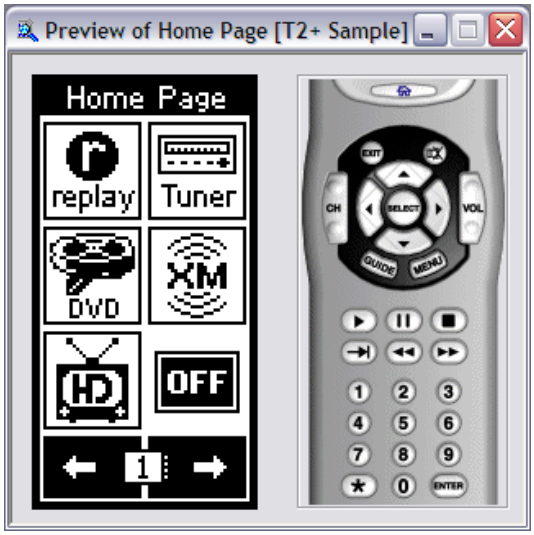
- Input the Default URL of the web page that will be displayed in the Web Browser.
- Add the Internet Explorer Web Browser object to the touchscreen grid and adjust to desired size.
- Add any commands used to control the web browser by dragging them onto the touchscreen grid to an existing button or to an empty space to create its own button

Chapter 10. TheaterTouch Designer Finishing Touches

PREVIEWING YOUR FILE

The Preview mode in TheaterTouch Designer allows you to see exactly what your file will look like when it is sent to the TheaterTouch remote.

Select the Preview Mode Command  from the Toolbar.



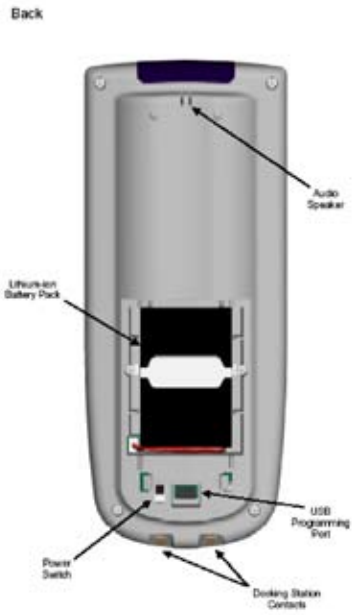
This command starts the device emulator which allows you to test the file you are currently editing. While in Preview Mode, you can click the buttons on the Preview Window to see how they will respond.

Right-click anywhere on the color device emulator and choose "Close" from the menu to exit Preview Mode.

If you are editing a monochrome device, the design window is replaced by the Preview Window, which allows you to see your device exactly as it will look when sent to the physical device.

Choose the Preview Mode command a second time to exit Preview Mode for a monochrome device.

SENDING A PROGRAM TO A DEVICE



SENDING A PROGRAM USING A USB CABLE

1. Connect the device to the PC using the appropriate USB cable. TheaterTouch Designer will automatically detect which device is connected and use the appropriate port.

2. Select the Send to Device icon or choose the Send to Device command from the Communications menu

3. Select the Send button next to the device you wish to update. All buttons, macros, and IR codes are sent. Any existing program in the device is replaced with the information you send.

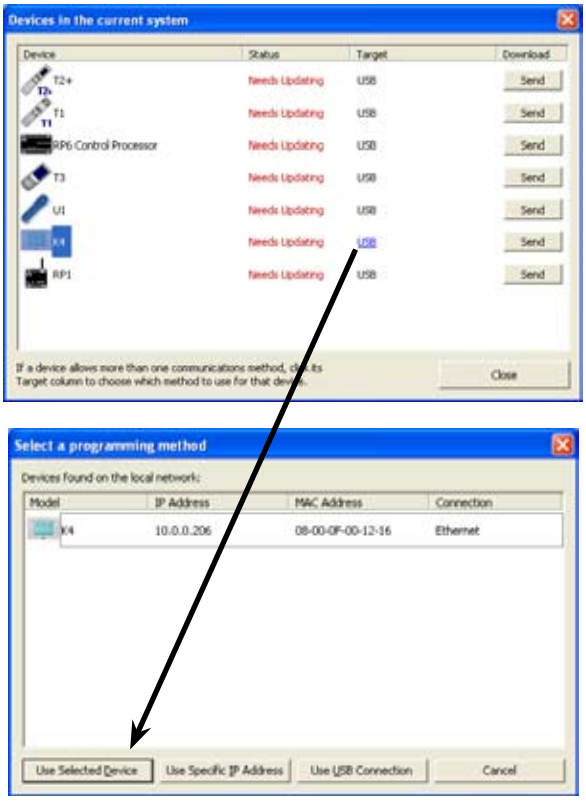
SENDING A PROGRAM TO AN ETHERNET ENABLED DEVICE

Devices with ethernet capabilities and the "Allow the device to be programmed over the network" option enabled, may be programmed via the ethernet interface.

1. Click on the device's Target column to access the network programming method.

2. Click on the device in the device list.

Choose one of the following programming methods.



USE SELECTED DEVICE METHOD

3. Click "Use Selected Device" to identify the device by it's MAC address.

4. Click on the Send button.

Note: This programming method only works if both the device and the programming PC are on the same local network, but it allows the PC to always find the device, even if the DHCP Server assigns it a different IP address. This is the recommended network programming method.

USE SPECIFIC IP ADDRESS METHOD

3. Click on "Use Specific IP Address" and enter the IP address of the device to be downloaded to.

4. Click on the Send button.

Note: This option can be used to update the programming over the internet if the device has a public IP address, or if a VPN connection is configured to access the network that the device is on.

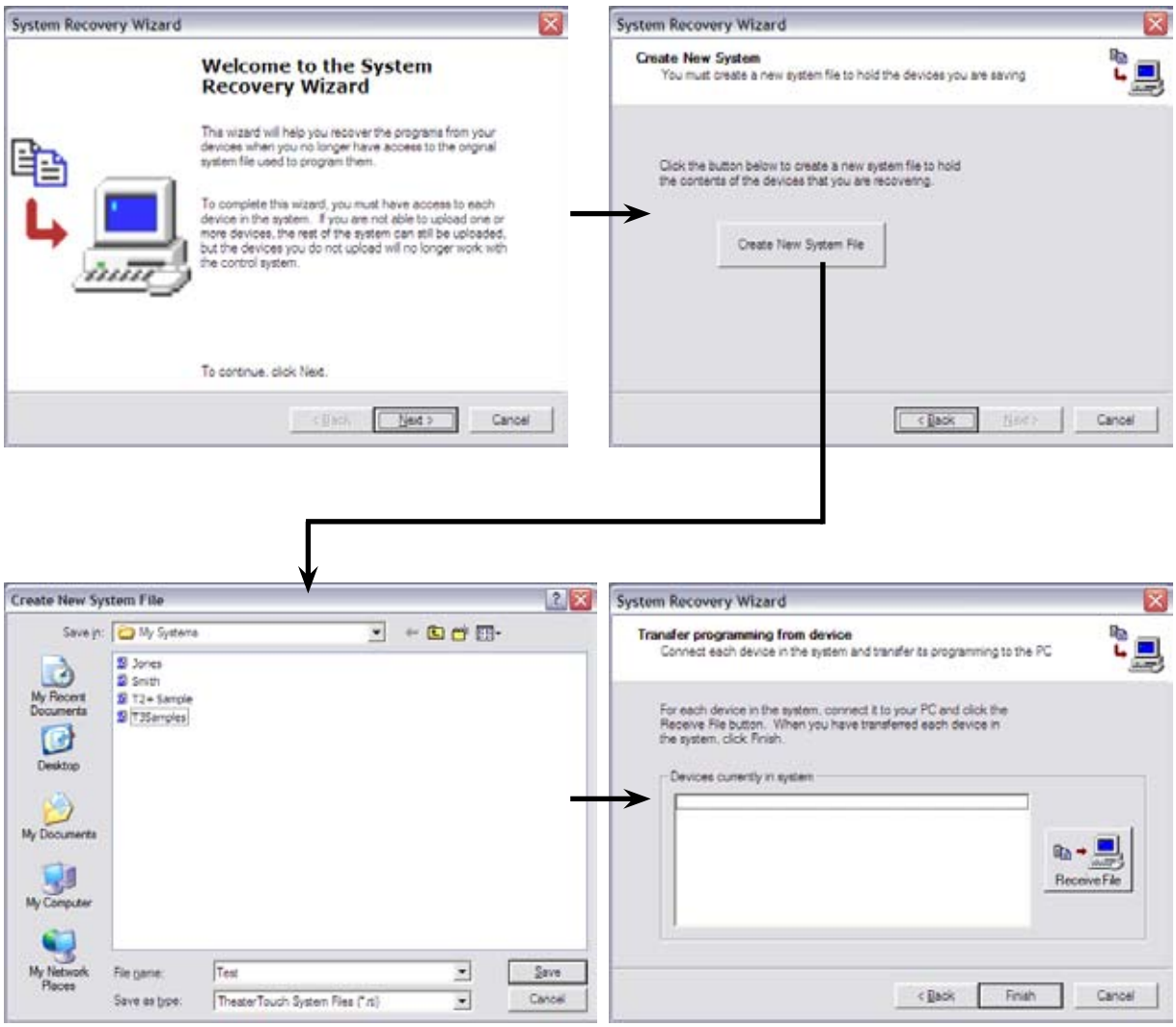
RECEIVING A PROGRAM FROM A STANDALONE DEVICE

If the attached device is not part of a control system, you can retrieve the program from it using the Receive from Device from the Communications menu. You must have a system file open before you can use this command. All buttons, macros, and IR codes will be received. The uploaded device will appear as a new device in the currently open system.

RECEIVING A PROGRAM FROM A CONTROL SYSTEM DEVICE

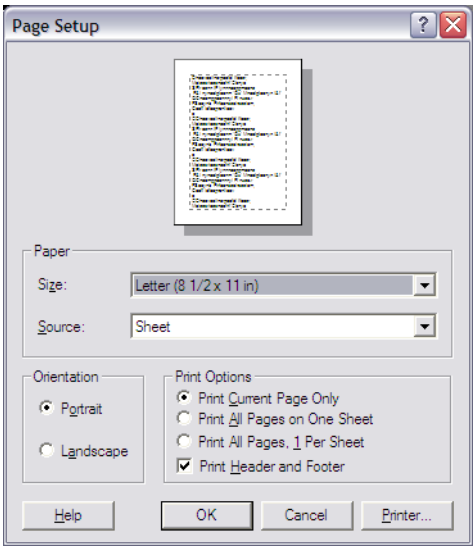
If the attached device is a part of a control system, you must use the System Recovery Wizard command on the Communications menu. This will create a new system file and prompt you to upload all of the devices in the system.

Note: These options should be used as a last resort to retrieve a system file. Regular system updates should be performed on the original RTI system file created in the TheaterTouch software.



Chapter 11. TheaterTouch Designer Utilities

PRINTING PAGES (K4/RK3/T4/T3/T2+)



TheaterTouch Designer comes with the ability to print the individual pages and frames of your color and monochrome devices for reference purposes.

You set print options from the Page Setup command on the File menu.

This menu option opens the Page Setup dialog box, where you can select the printer and paper sources you would like for your printed output.

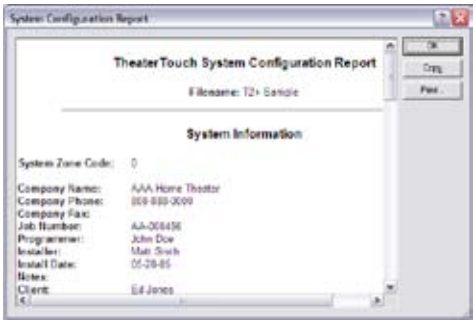
In addition, you can select from the following three print modes:

Print Current Page Only - Prints a life-sized image of all frames of the currently displayed page.

Print All Pages on One Sheet - Prints all frames from all pages in the current device on a single sheet of paper, scaling them to fit as necessary.

Print All Pages, 1 Per Sheet - Prints life-sized images all pages in the current device, with all frames from each page grouped together on individual sheets of paper.

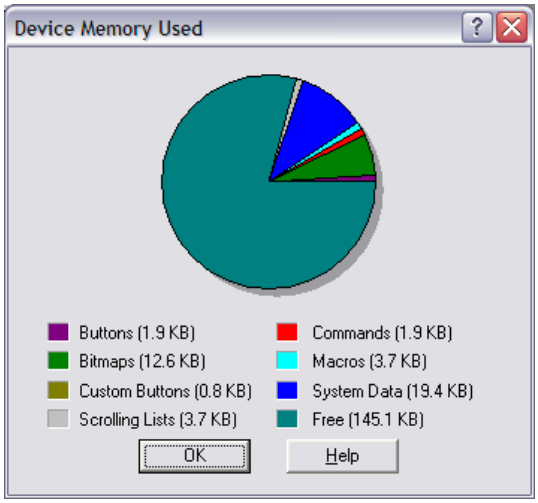
PRINTING SYSTEM CONFIGURATION REPORTS



Choose System Configuration Report from the file menu to view a summary report on all of the devices in the current system file. This report can be printed for reference. You can also click the "Copy" button to place the report on the Windows Clipboard, where it can be pasted into a word processor and edited further.

CHECKING MEMORY USAGE

It is possible, though not likely, to create a file with more information than a device can hold. To make sure this does not happen, select **Check Memory Usage** from the **Edit** menu to see how large the current file is.



The **Remote Memory Used** dialog displays the amount of space that buttons, bitmaps, custom buttons, commands, and macros take up in the device's memory. The pie chart in the dialog represents the amount of memory that each of the object types uses.

If the memory is more than 100% full, the **Free** line will show a negative amount of memory, and will be flashing red. In this case, the following warning will be displayed in the dialog box:

All of the object types share the available memory in the device. You will need to delete some information from your device before you will be able to send it to the physical device. The graph will help you to determine which object type (buttons, bitmaps, etc.) are using the most memory.

FIRMWARE VERSION

Choose Get Firmware Version from the Communications menu to the firmware version of the currently attached device. This information may be useful to Technical Support if you are having problems programming or operating your device.

Choose Update Firmware form the Communications menu to send a new firmware image to the attached device. The latest firmware files are available at www.rticorp.com in the dealer login area.

Chapter 12. Troubleshooting

If you have any difficulty, read through these troubleshooting tips and common questions before contacting technical support.

If you continue to have difficulties, contact technical support.

DISPLAY IS DIM, BLANK OR UNREADABLE

Make sure the battery pack is snapped on the remote properly and that the battery is charged.

Try adjusting the contrast of the touchscreen on the Control Panel page of the remote. By nature, the contrast of an LCD screen changes with temperature, so if the remote is cold the display will be dark and will lighten as it warms. (Refer to Chapter 2 for more details on changing display properties)

The remote may have timed out, turning off the display. You can change the Time Out time on the Control Panel page of the remote to your liking. (Refer to Chapter 3 for more details)

COMMUNICATION PROBLEMS

Here is a list of common communications problems and solutions:

1. Make sure the USB cable is the one that was supplied with the device, and ensure that both ends are connected securely.

2. Close all programs running in the background. Other programs (such as anti-virus software) can interfere with communications operations.

3. If the device is battery powered, make sure the battery is sufficiently charged. If the battery is low it may affect communications. If the device has a wall power supply, make sure it is getting power.

4. Try disconnecting the USB cable, waiting five seconds, and then re-connecting. Make sure the device is not busy (running a macro or initializing, for example) when you connect the cable.

5. If you are connecting the device through a USB hub, try removing the hub and connecting the device directly to your PC.

6. Windows 98 only: Make sure Windows has correctly identified your device. If you are prompted for your Windows CD when first attaching the device, you must complete the on-screen instructions before software will be able to use the USB port.

INFRARED PROBLEMS

The TheaterTouch and TheaterTouch Designer software are compatible with infrared (IR) commands with carrier frequencies between 15kHz and 460kHz. This covers the vast majority of remotes available to date, including Bang & Olufsen® (most of which use 455kHz) and Vidikron® (some of which use 333kHz).

However, some older Pioneer® Elite remotes have a carrier frequency of 1.125MHz and are not compatible with most IR products, including the TheaterTouch and TheaterTouch Designer software. You can however use IR commands from regular (non-Elite) Pioneer® remotes, which have a carrier frequency of 40kHz. These regular Pioneer® IR commands operate the basic functions of the Elite products.

The following suggestions can help insure more reliable codes:

1. Make sure you hold down the button on the donor remote until the code capture process is complete. (You will be notified when to move on to the next function.)

2. Always place the capture unit and the donor remote control on a flat surface. You may find it necessary to elevate the donor or the capture unit with a book or similar object to align them vertically.

3. Once you have learned and tested a code from a remote, try not to move it until you have learned all the codes. If you do accidentally move either remote, you should re-align them.

4. It is VERY IMPORTANT to make sure the donor remote is using fresh batteries. The capture unit needs a strong IR signal to properly learn a code. If the frequency read-out in the ALIGN mode is 0.0 kHz, then the code is a pulsed type. In this case, you should transmit the commands to the capture unit from as far away as you can without getting an error message.

5. If you always get an error message when trying to learn a code, you should try moving the donor remote up and down or back and forth. If this does not help, try tapping the buttons on the donor instead of holding them down.

6. Go into the Infrared tab of the button properties and adjust the number of repeats. Some equipment may only work with 0 repeats while others may require as many as 4-5 and in extreme cases 7-8 or more. If the command is in a macro, the level of repeats can be accessed by double clicking on the step in the macro.

7. Gointo the Infrared tab of the button properties and adjust the frequency up or down in small steps then retest the command after each change.

8. If a system controller is being used, you can disable the IR Passthrough if it is not being used. Click on the system controller and go into the properties on the Device menu, go to the IR Passthrough tab and disable it completely or just on the port used by the component experiencing problems.

If you are using an IR repeater system, make sure it is working flawlessly with the donor remote, if not you need to fix or repair the IR system. The TheaterTouch remote even with its advanced features cannot overcome these kinds of problems.

Keep in mind that the IR transmit LEDs may not be located in the center of the donor remote. It may be necessary to place the remote off-center to get a reliable capture.

UNABLE TO LEARN COMMANDS

If for some reason you are unable to learn commands into the TheaterTouch, or you cannot get commands to work, contact Technical Support to see if we can help you.

You may wish to check our web site to see if the codes are already available.

If need be we can try to learn the commands for you at our factory by sending us the donor remote.

If successful, we can send you the commands via E-mail or on diskette so you can insert them into your remote file. It will also be posted on our web site for others to use.

MACRO PROBLEMS

If you are having problems with missed commands in macros but the IR commands work fine when placed on individual buttons try editing the **Minimum Repeats** in the **Macro Editor** to increase the number of times the command is repeated.

Click on the **Edit Macro** tool from the **Tools** dialog box on the bottom of the main screen, click on the button on which the macro you are having trouble with is. When the **Edit Macro** dialog box opens, double-click on the specific IR command you are having the trouble with, when the **Edit Infrared Command** dialog box opens, change the number of repeats to 4 or 5 to start with and if that doesn't work, bump it up to 7 or 8.

As always, when you make any changes to your file, be sure to send the new file to the remote and thoroughly test your changes.

Minimum Repeats is usually set between 0 and 3, but some commands may need to be repeated more times. You can set the number of repeats as high as you need to get consistent results.

Notes