



# Technical Reference Guide

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## Pre-installed Support Tools

As part of our commitment to provide the best support possible, we have pre-installed a copy of LogMeIn software on to your music server. LogMeIn allows CasaTunes Technical support to remotely access your music server over the Internet, in the event CasaTunes Technical Support needs to access your music server to resolve an issue.

CasaTunes will only access your music server when requested to assist in resolving an issue you may have with your system and for no other purposes. CasaTunes Technical Support will only access your music server after we receive verbal (for example, when on the phone with CasaTunes Support), or written (for example, via email) authorization to access your music server. As part of the authorization process you must provide a valid CasaTunes serial number.

If you are a dealer, and are installing or trouble-shooting CasaTunes on behalf of a customer, you can request a LogMeIn invitation from CasaTunes Technical Support, which will enable you to remotely access your customer's music server. As part of the authorization process, you will also be required to provide a valid CasaTunes serial number.

BY PURCHASING A CASATUNES MUSIC SERVER, YOU AGREE TO THE USE OF THIS REMOTE ACCESS SOFTWARE BY CASATOOLS, LLC. IN NO EVENT SHALL CASATOOLS, LLC BE LIABLE FOR INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES RELATING TO THE USE OF THIS REMOTE ACCESS SOFTWARE.

If you would like us to remove this software from your CasaTunes music server or have any questions about this software, please contact CasaTunes Technical Support by e-mail at <mailto:support@CasaTunes.com>, or by phone 1-888-855-2272 x2 / 1-970-979-9229 x2.



# What are sources?

While using CasaTunes itself is straightforward, it is helpful to understand the concept behind sources. This varies, depending on whether you are using our complete, self-contained System (just add simple, non-switching amplifiers) or our Streamers that supply music and control for 3rd party audio distribution systems.

## *What are sources in CasaTunes Systems?*

Built into your CasaTunes music system is a software based digital switch with volume, equalization, power and source to zone routing control. This differs from most other products and from our Streamers, where the switching and volume control is typically performed by a separate matrix switching amplifier.

Each input on the built-in switch is referred to as a source, and each output is referred to as a zone or simply a room. You can switch any source to any room, or switch any source to any combination of rooms. Using the CT-4+ as an example, the CT-4+ music system includes an internal switch with six inputs and five outputs.

### **Room Outputs**

Four of the outputs in our CT-4+ example are analog audio outputs and one is an optical digital output (hence, the +). The four analog outputs are high quality pre-amplified outputs that typically go to our CT-AMP-1240 or other non-switching amplifiers. They are preset at the factory to use the built in CD quality DAC. The optical digital output is typically connected to an AV Receiver (more on that later).

### **Sources**

Our example CT-4+ music system includes 5 built in CasaTunes Players (called “Built-in Sources” in our CasaSetup program) and 1 external input. Each CasaTunes Player is independent of the other, and each Player can play different music. Since there are as many internal media player sources as there are wired rooms, you can listen to different players in each room.

The external input on the CT-4+ can be used to connect external source equipment to your music system, for example, a cable-box, portable digital player, door/paging phone, etc.

The way you configure the Players are flexible. On larger systems, such as the CT-8+, where there are a large number of Players available, many installers setup their Players as music channels and assign a playlist to each Player. This allows you to quickly change the music you’re listening to in a room by simply changing the source for a room. Other installers assign Players to each family member (as an easy way to share the system without interfering with each other), while others treat each Player as a unique player or streamer (as we have done). You could select to use a combination of these.

In the rest of this document, you may see us refer to sources as a general term for Players and external sources.

## *What are sources in CasaTunes Streamers?*

The CasaTunes Streamers supply multiple streams of music to audio distribution systems from Audio Authority, Channel Vision, NuVo, RTI, Russound and SpeakerCraft. In addition to supplying the music streams, our CasaTunes Streamers also control these systems providing a powerful whole house audio solution.

With our streamers, the routing of music from sources to rooms takes place in the audio distribution system, under control of CasaTunes (and our control apps).

Using the CT-4S with an RTI AD-8X as an example, the AD-8X is a switch with eight inputs and eight outputs.

### **Room Outputs**

The AD-8X has eight outputs. These are the room outputs. They show up in CasaTunes' setup program and can be controlled by CasaTunes just like the room outputs of the CasaTunes systems.

### **Sources**

Our example CT-4S Streamer with AD-8X includes 8 source inputs. These are the inputs going into the AD-8X. The CT-4S has five streams. Four of these are CD quality analog outputs that can be connected to any of the eight source inputs of the AD-8X. The fifth is a digital optical output, which can go to a digital optical to analog converter to be used as a fifth stream going to the AD-8X. (High quality USB DACs can be added to the Streamer, too).

With the CT-4S/AD-8X combo, audio from cable boxes, satellite TV, tuners and other devices can also be connected to the AD-8X source inputs. CasaTunes has built in control for some tuners.

# How do I access CasaTunes?

## Control

You can control CasaTunes from a browser, Android or iOS smartphone or tablet. We recommend using the Android and/or iOS Apps.

This guide assumes that you are using an iPad and/or iPhone for control. The bulk of the screenshots presented will be for these devices.

To access your CasaTunes music server from an Android or iOS smartphone and tablet, simply download the CasaTunes App from the various App Stores via Wi-Fi and follow the startup instructions.

To access CasaTunes from a web browser, simply enter the following URL:

Mac - <http://CasaServer.local/CasaTunes>

Windows - <http://CasaServer/CasaTunes>

Other - <http://IPADDRESS/CasaTunes>, where *ipaddress* is the IP address of the CasaTunes server

## Setup

For setting up CasaTunes, you will use a browser. To access CasaTunes setup program from a web browser, simply enter the following URL:

Mac - <http://CasaServer.local/CasaSetup>

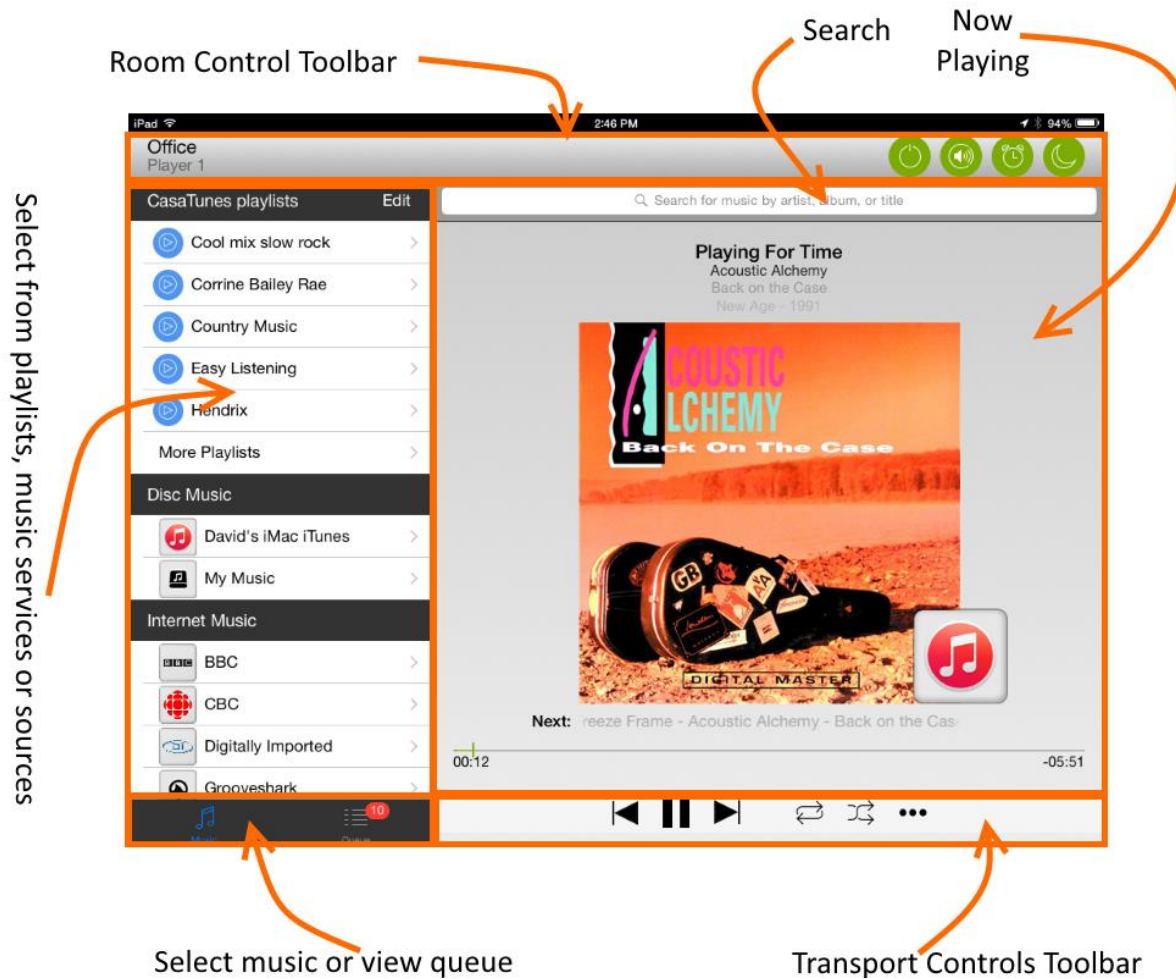
Windows - <http://CasaServer/CasaSetup>

Other - <http://ipaddress/CasaSetup>, where *ipaddress* is the IP address of the CasaTunes server

# Control using the CasaTunes iOS app

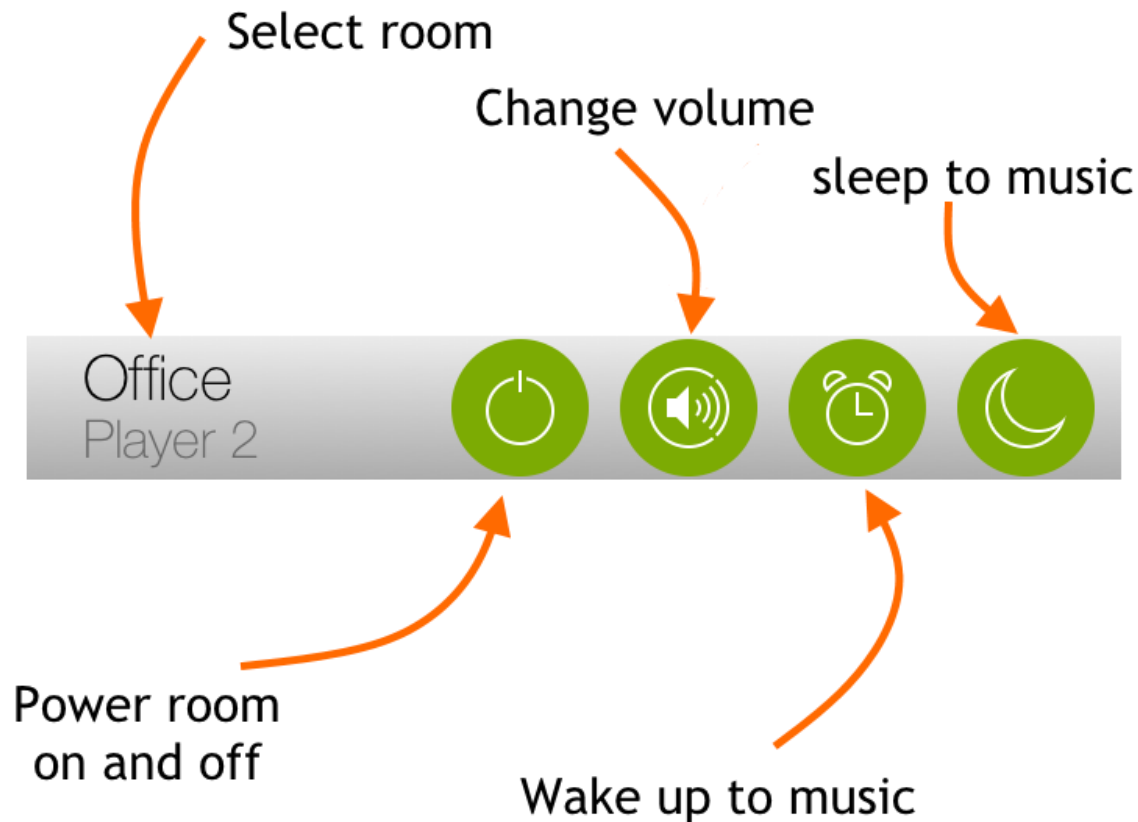
## How is the CasaTunes iOS UI organized?

The following describes the iOS iPad App. The iPhone app is similar.



## Room Control

The *Room Control Toolbar* displays the current room you are controlling and the selected source for the room. From this toolbar, you can select a different room, power the room on and off, change the volume (and EQ settings), and configure waking up and sleeping to music.

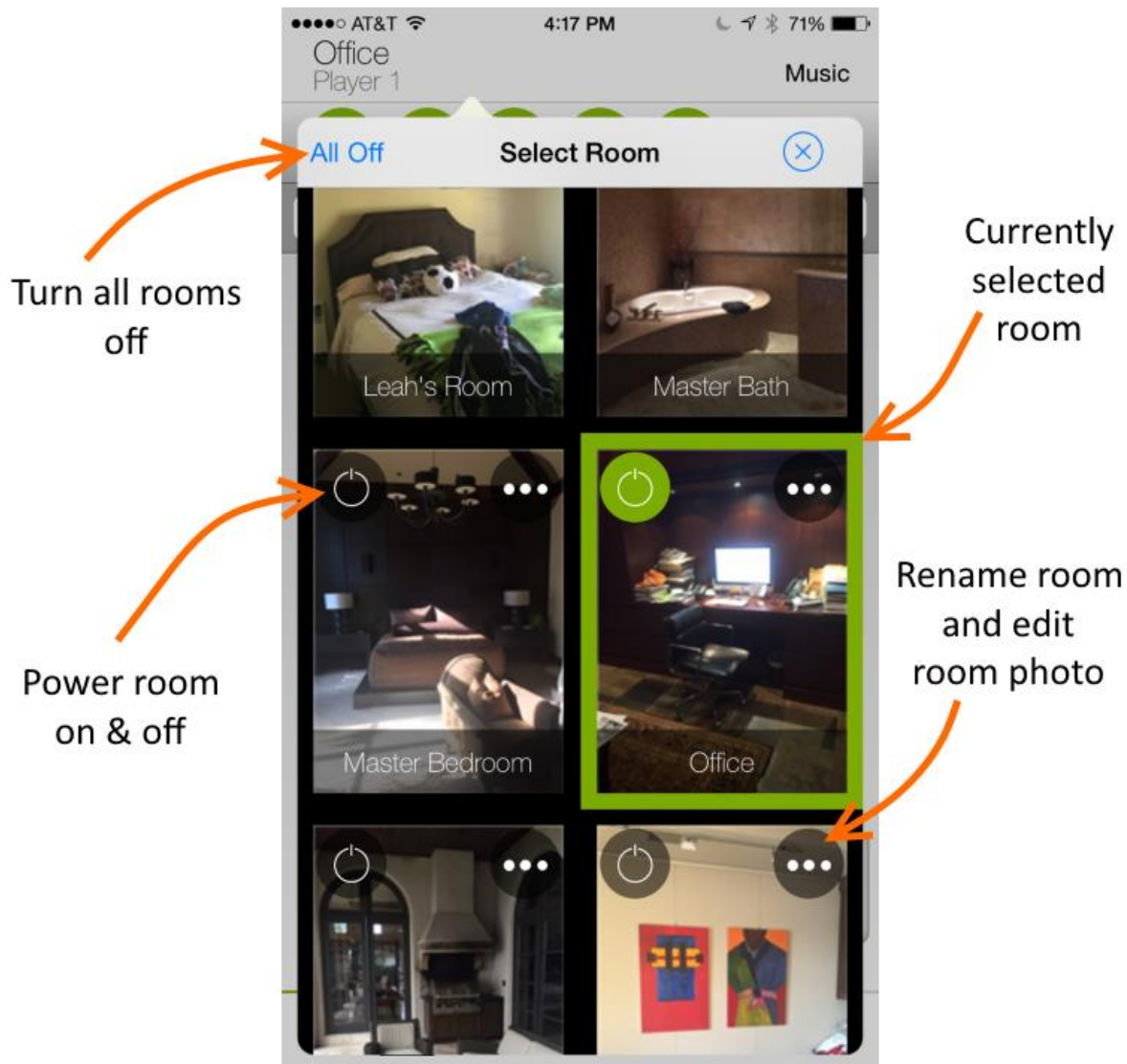


While you can change the volume for a room by pressing the *Change Volume* button on the *Room Control Toolbar*, the easiest way to change the volume is to swipe your finger up or down on the *Now Playing* view. Swipe up to increase the volume, and swipe down to lower the volume.

Similarly, you can double-tap the *Now Playing* view to power the room on and off.

## How do I change the current room?

To change the current room to be controlled, simply touch the room name in the *Room Control Toolbar* to display a list of rooms and room groups to select from.



From this view you can quickly select which room to control (by touching the middle of the image of the room), power rooms on and off, turn all rooms off, rename a room, and manage the image to be associated with a room.

## Room Images

A new feature now available in the new iOS Apps is the capability to assign a photo to each room. The room images are used to switch the room to control, and are also displayed when the room is powered off.

To set the image for a room, use your iOS device to take a photo of each of your rooms, and then select the photo to use for each room by selecting the “...” button for the room. The assigned photos are automatically uploaded on to your CasaTunes music server, so they are then available on your other iOS devices. If you would prefer to simply view a list of rooms, without images, you can configure this in the Settings App for CasaTunes.

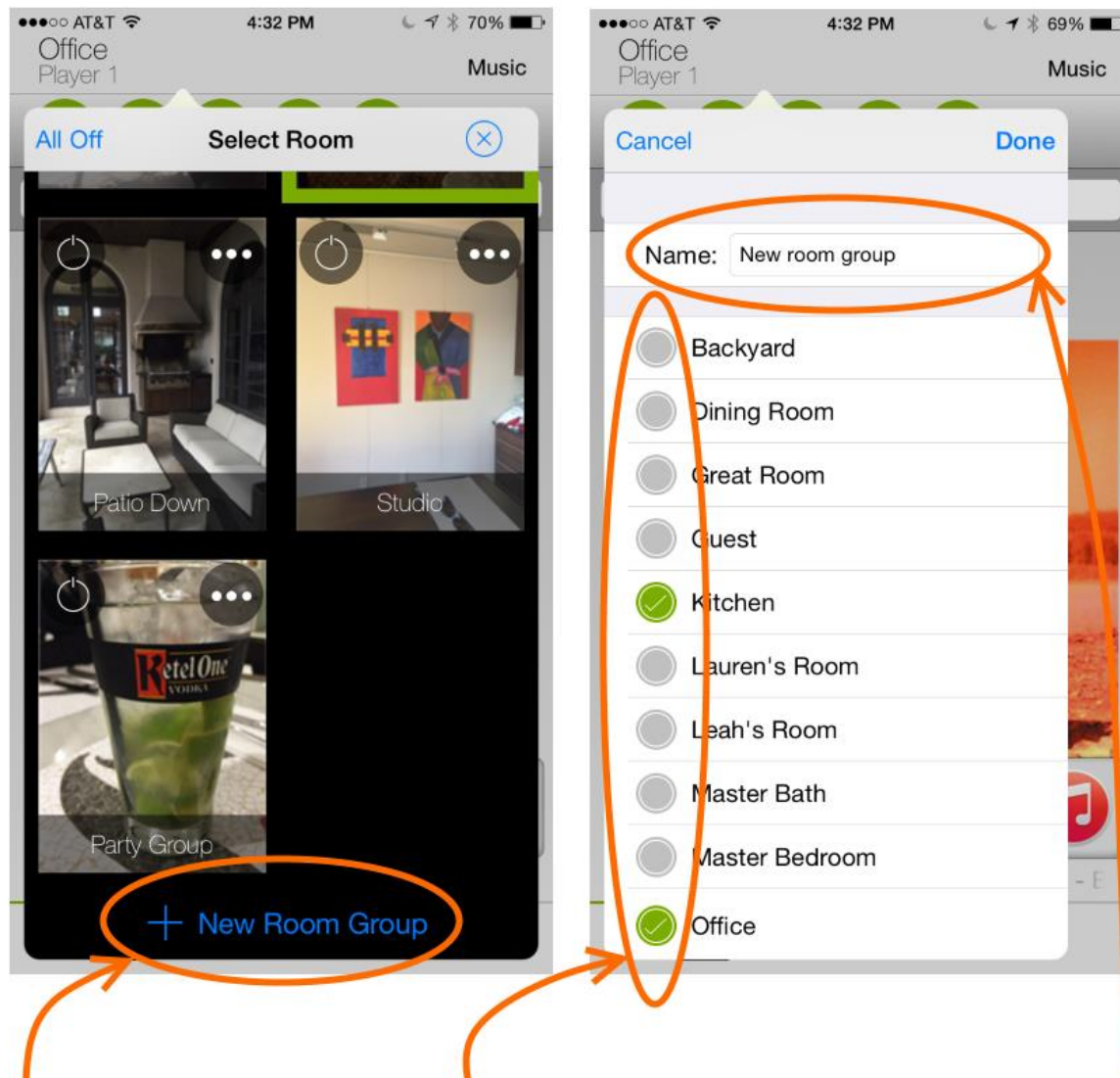
An example of using Room Images is in the [“How do I change the current room?”](#) section.



## What are room groups?

A room group allows you to manage a group of rooms as if it were just another room. Room groups are ideal for implementing scenes, like a party scene, evening scene, etc.

You can create room groups using CasaSetup and the iOS Apps. When you power a room group, it will power all the rooms in the group and switch all rooms in the room group to the same source and play the same music. When you adjust the volume for a room group, the volume is adjusted equally for all rooms, while preserving any difference in volume between rooms.



Create new  
room group

Select the room  
for the room group

Enter a name for  
the new room group

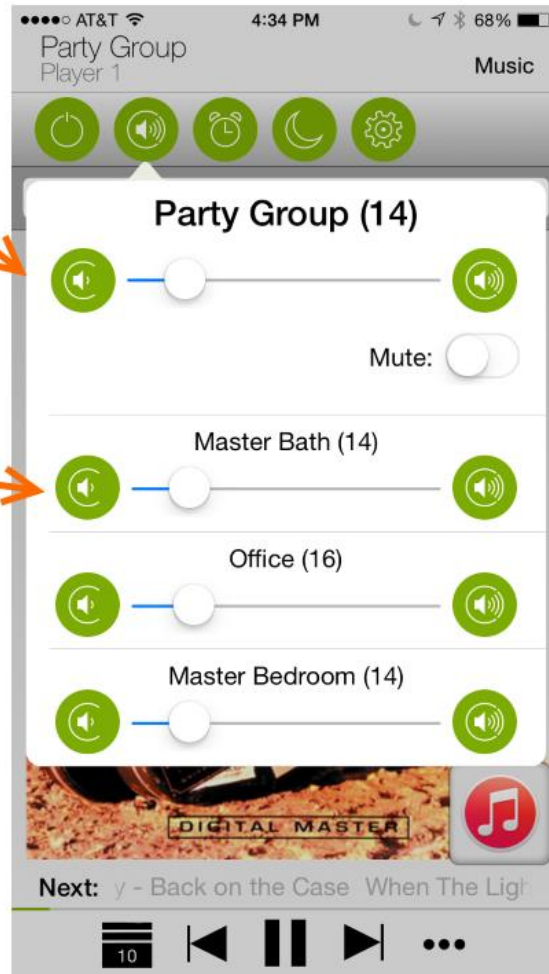
To create a room group using the iOS App, touch the room name in the *Room Control Toolbar* and scroll down to the bottom of the view, and press “+ New Room Group”. Simply select the rooms to include in your room group and provide a name for the new room group.



When managing the volume for a room group CasaTunes displays a master volume control for the room group, as well as individual volume controls for each room, simplifying volume control for the room group.

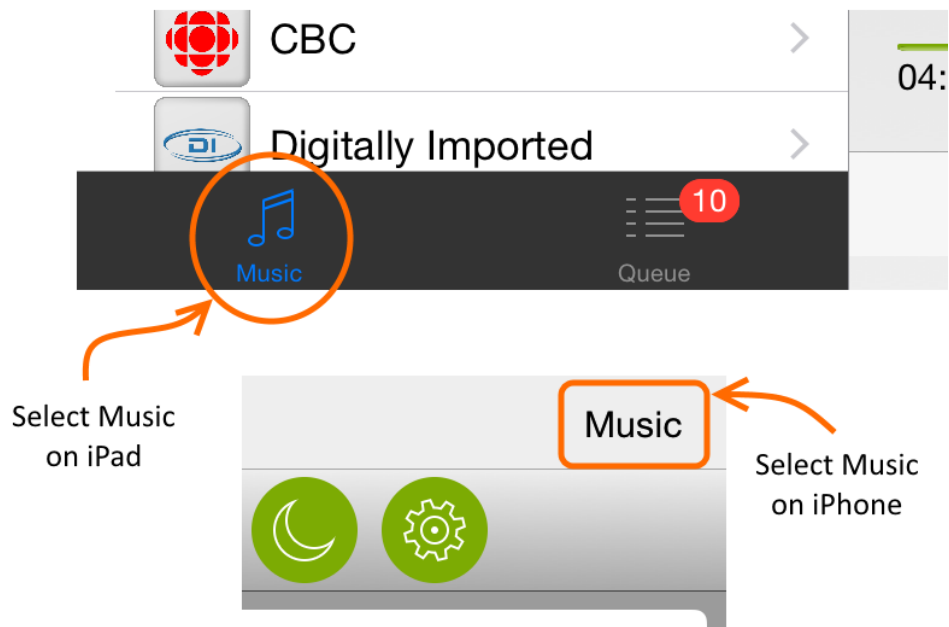
Master room group  
volume control

Individual room  
volume controls

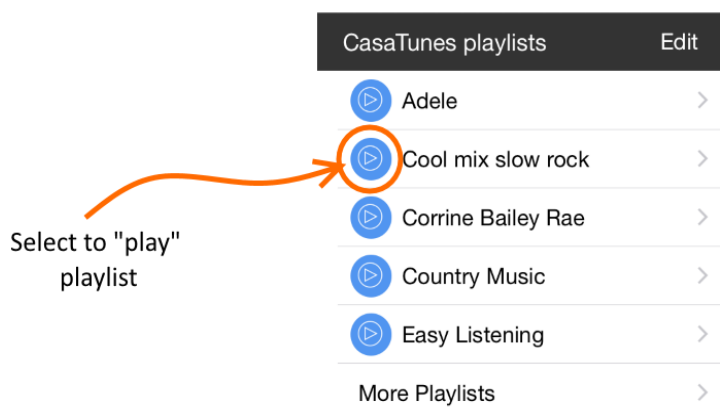


## How do I select different music to play in a room?

To select different music to play in a room on the iPad you must first select the Music tab on the bottom left hand side, while on the iPhone App you select the "Music" button. From this view you can quickly select a playlist, select a different source, or browse and select music from one or more music services.



To play one of the playlists simply select the *Play* button.



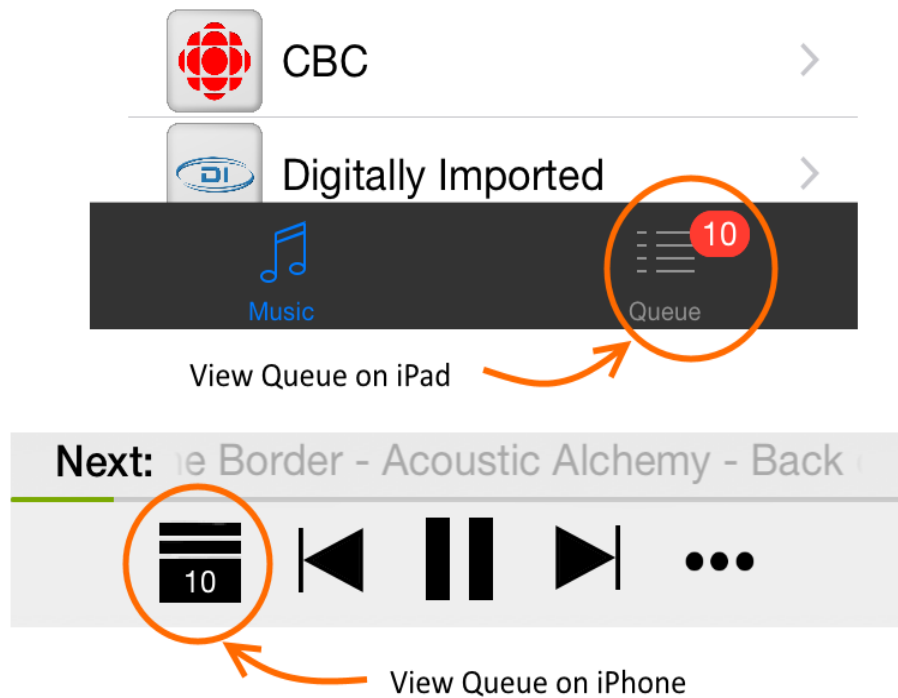
CasaTunes supports a large number of music services, including Grooveshark, Pandora, Slacker, Spotify, and TuneIn.

In addition to Internet music services, CasaTunes also supports playing music stored locally on the music server and music residing on the network (including music from uPnP/DLNA media servers)

## How do I change the current song that is playing?

You can change the current song that is playing by selecting the Queue. To view the Queue on the iPad select the Queue tab item on the bottom left hand side. To view the Queue on the iPhone App, select the

Queue button from the *Transport Controls Toolbar*. The Queue option is only available when you have selected multiple tracks.

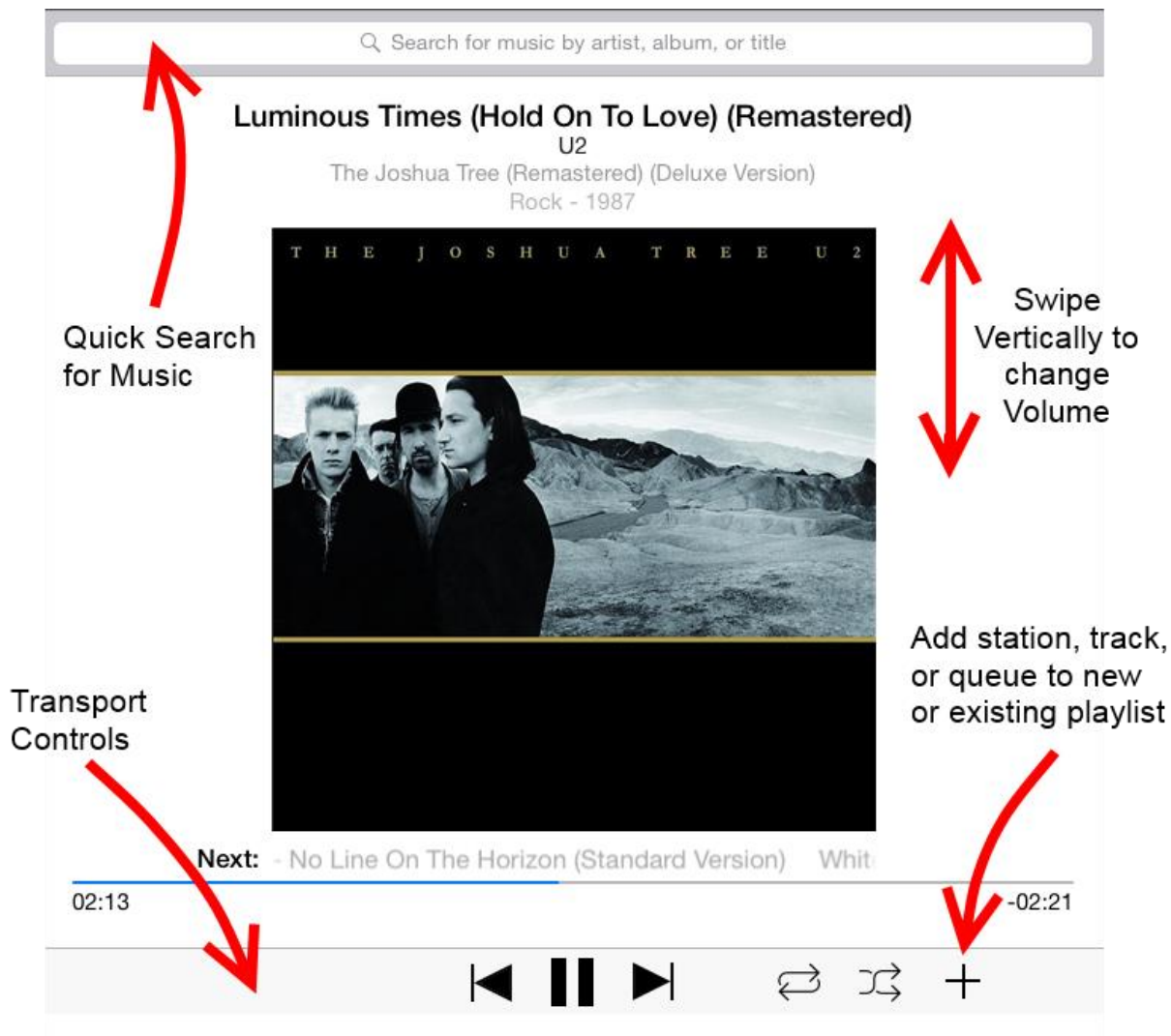


From the Queue view you can quickly select a different song in the list to play, and you can manage the Queue, including reordering and/or deleting songs from the Queue.

## What's Playing?

The Now Playing screen displays the current song or station that is playing, and depending on the music service, the next song. It provides the familiar transport controls for moving between songs, pausing music, etc.

You can quickly search the current music service for music. Simply touch the *Search* bar and CasaTunes will preset the search text to match the name of the current playing artist, making it easy to search for more songs by the same artist. You can search for music by title, artist, album name, station name, etc. As part of the search results, CasaTunes also provides the option to search additional music services, providing an **aggregated** search across all configured music services. You can quickly create or add songs to a CasaTunes playlist by pressing the '+' or '...' icon.



## Waking up to music

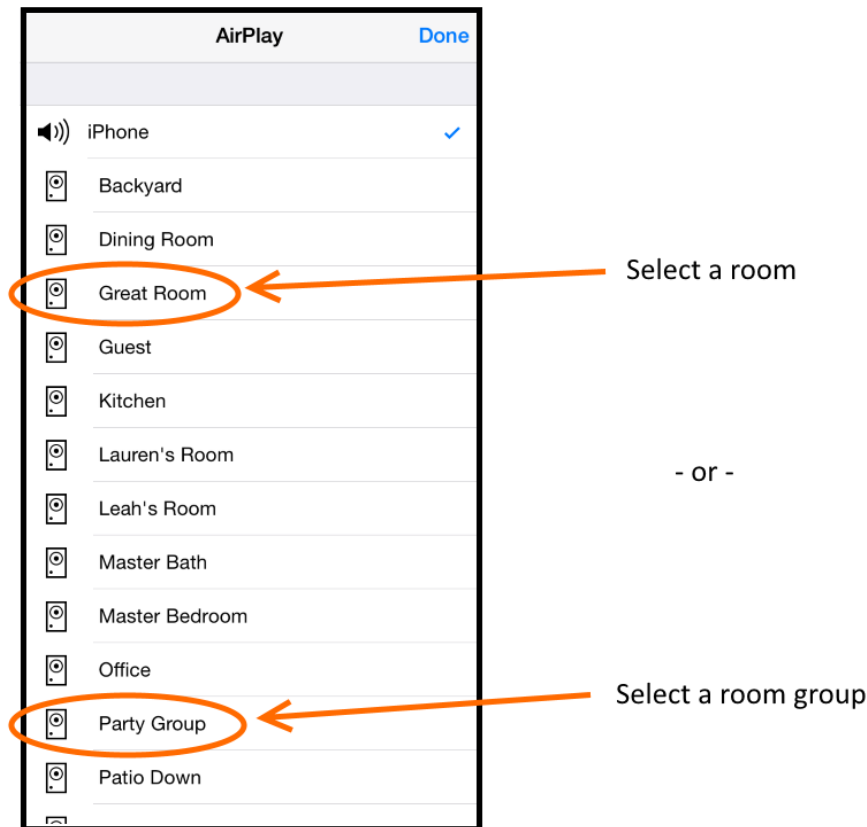
CasaTunes provides a flexible scheduler that allows you to wake up to your favorite music on your schedule! CasaTunes ramps the volume up slowly when you wake up and ramps the volume down slowly when you have enabled sleeping to music, a perfect way to start and end your day.

The screenshot displays the 'Edit Scheduled Event' interface. At the top, there are four circular icons: a power button, a speaker, an alarm clock, and a moon. Below these is a header bar with 'Cancel', 'Edit Scheduled Event', and 'Done' buttons. The main content area contains several settings:

- Start Time:** 8:00 AM
- End Time:** None
- Scheduled Days:** Every Day
- Volume (20):** A slider with a white knob positioned at 20. The slider has blue speaker icons at both ends.
- Ramp Volume:** A green toggle switch that is currently turned on.
- Source:** Current
- Playlist:** None

## Seamless AirPlay Integration

By default, every wired room **and room group** in CasaTunes is automatically published as an **AirPlay speaker**. You can stream music from your iPhone, iPad, and iPod touch to any room or room group, by simply swiping from the bottom of the screen on your iOS device and selecting the room or room group from the list of displayed rooms



With CasaTunes, you can stream music from multiple devices to different rooms and room groups all at the same time. Selecting a room group, allows you to stream to more than one room at a time without needing to manually switch the rooms to the AirPlay source using the CasaTunes App.

The beauty of the CasaTunes implementation is that it works the way Apple users expect it to work, and unlike other solutions, the customer does not need to switch Apps, turn on rooms, switch sources, etc. before being able to listen to music via AirPlay. **In fact, the customer never needs to use the CasaTunes App to stream music to a room, or even groups of rooms, using AirPlay.** CasaTunes automatically powers the room on & off, assigns an unused source to use, and responds to volume changes from your iOS music app (or using the hard buttons on your iOS device), making it a truly seamless experience for the user.

Best of all, streaming music via AirPlay works with all your music Apps on your iOS devices, providing customers access to an unlimited number of Apps and music services.

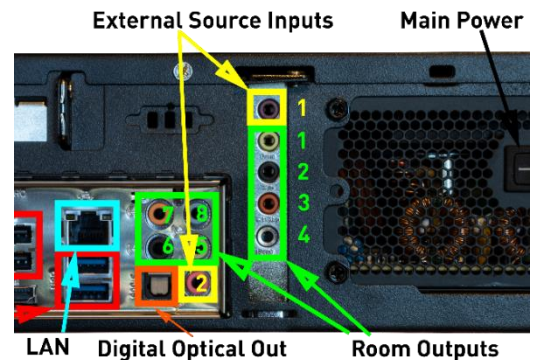
# How to use Chromecast Audio with CasaTunes.

## Step-by-step installation

### For CasaTunes Systems – (For Streamer controlled 3<sup>rd</sup> party switch, skip this section)

Plug the audio cable supplied with the Chromecast Audio into an external source input. For example, you would plug the cable into the either External Source Input jack, 1 or 2, on a CT-8+, shown. Check the quick install guide that came with your CasaTunes System if you need help finding the input jack.

Go to <http://CasaServer/CasaSetup> on your local network (<http://CasaServer.local/CasaSetup> on a Mac) and go to the “Sources” page. Highlight the external input that the Chromecast Audio is plugged into and give it a useful name. Choose Unsupported Source for Source type and make sure Hide Source is not checked. When done, make sure you click “Save” at the top of the page. You are ready to play music through CasaTunes.



External Input Sources	Chromecast Settings
Doorbell	Source name: Chromecast
Chromecast	Source type: Unsupported Source
External Input 3	<input type="checkbox"/> Hide Source

### For CasaTunes Streamer controlled third party audio distribution systems


For a CasaTunes Streamer that controls a third party switch, plug the audio cable into an available source input. You will need to use a 3.5mm to RCA connector stereo cable between the Chromecast Audio and the third party switch input. For example, on an Audio Authority SF-16M, plug the cable between the Chromecast and one pair of the sixteen inputs on the rear panel of the SF-16M.

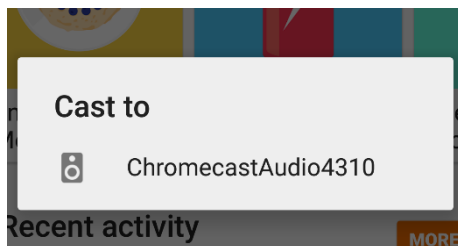
Go to <http://CasaServer/CasaSetup> on your local network (<http://CasaServer.local/CasaSetup> on a Mac) and go to the “Sources” page. Highlight the Source that the Chromecast Audio is plugged into and give it a useful name. Choose Unsupported Source for Source type and make sure Hide Source is not checked. When done, make sure you click “Save” at the top of the page.



Sources	Chromecast Settings
Chromecast	Source name: Chromecast
Player 1	Source type: Unsupported Source

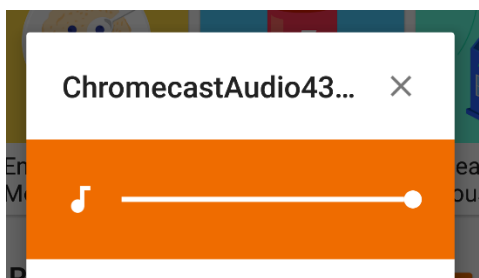
## Playing music through CasaTunes

Start a Chromecast Audio enabled app, like Google Play Music. Pick the music you want to listen to and play it. Click on the Cast symbol, , and click on the “Cast To” window.

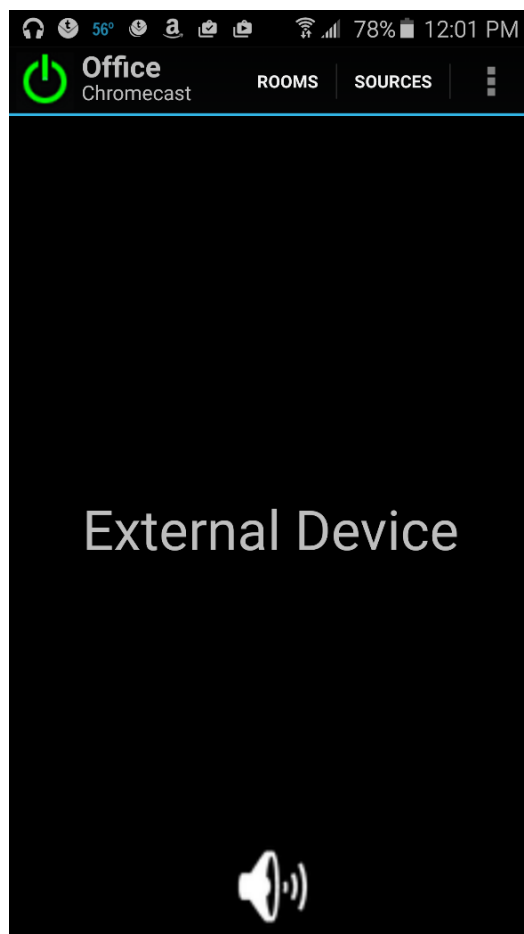


Use your CasaTunes control app to switch to the Chromecast source in any of your rooms.

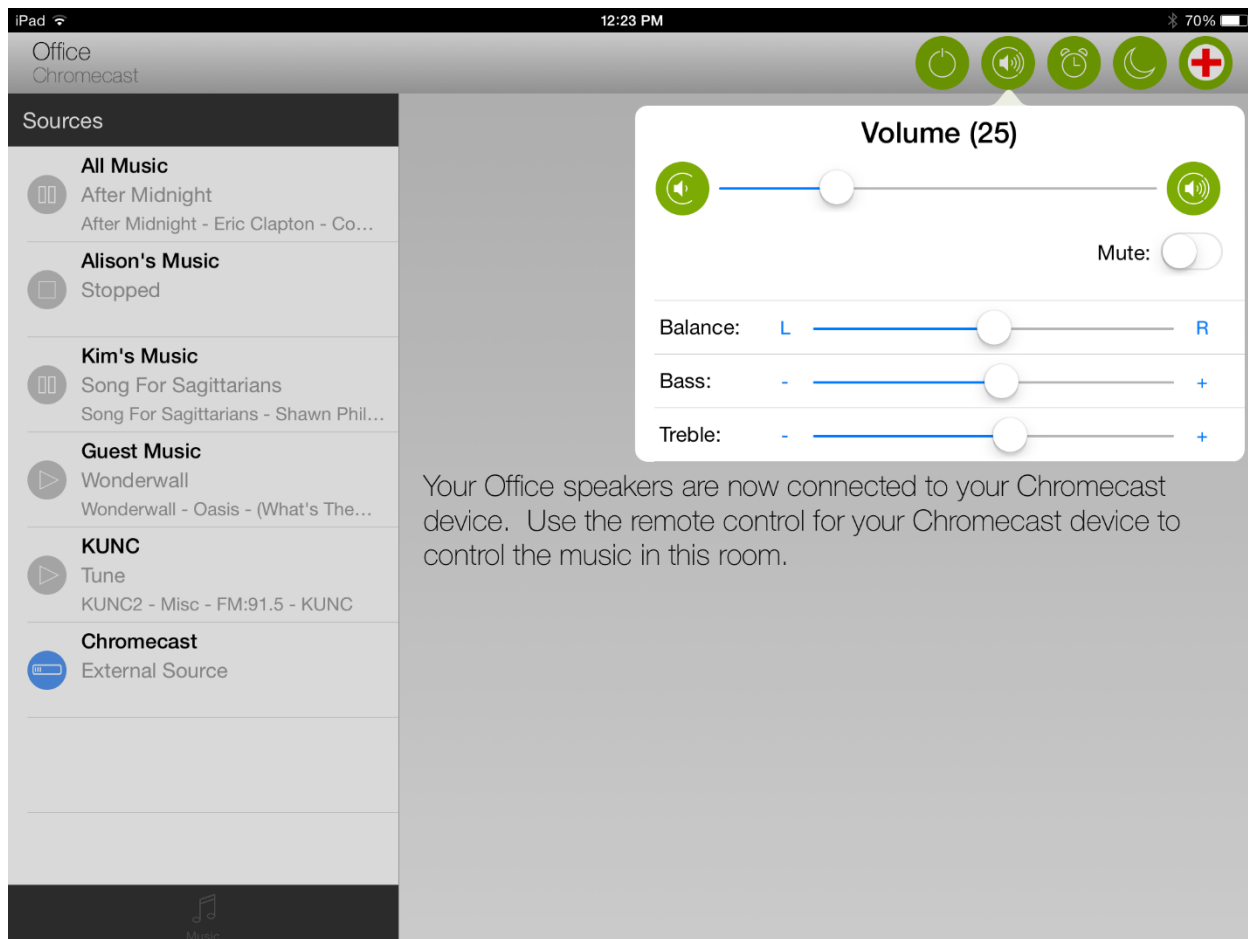
Since the Chromecast audio volume control is very slow, when you want to change the volume we recommend leaving the volume all the way up in the Android device (or other device you are casting from) and controlling the volume using the CasaTunes volume control. See the following note for special instructions for the iPhone and iPad CasaTunes control app.



NOTE: if you use the CasaTunes iOS app (iPad or iPhone) to control CasaTunes, you will see a message telling you to use the Chromecast device to control the room. We still recommend not using the Chromecast Audio device to control the volume. The iOS app's volume control does work and works much faster, so you can ignore the message when you wish to adjust the volume, as shown on next page.

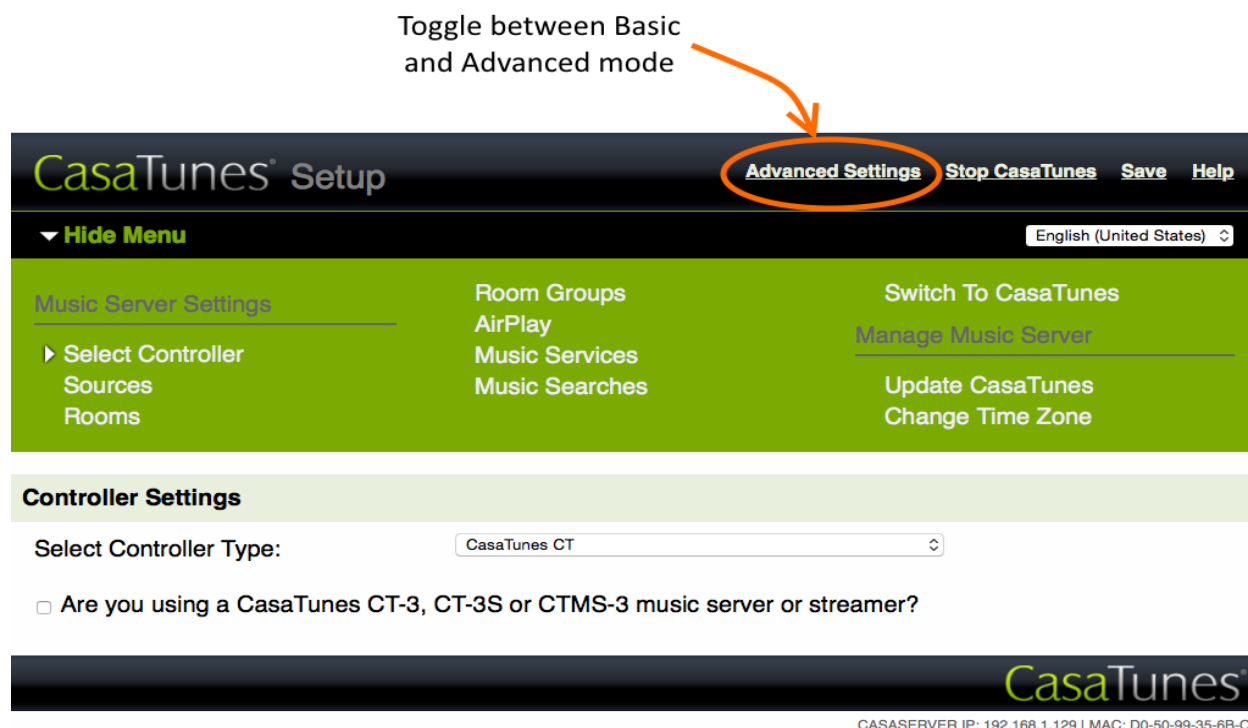






# Configuring CasaTunes- CasaSetup

CasaTunes provides a separate tool, called CasaSetup, for configuring CasaTunes. CasaTunes maintains a distinct separation between what it considers installer tasks and user tasks. CasaSetup is a tool intended for use by the installer, while the Apps are intended for use by the home owner.



To access CasaSetup from a web browser, simply enter the following URL:

Mac (or iPad) - <http://CasaServer.local/CasaSetup>

Windows - <http://CasaServer/CasaSetup>

Other - <http://IPAddress/CasaSetup>

You use the CasaSetup utility to configure your system, rooms, room groups, sources, music services, AirPlay settings, etc.

## Basic vs. Advanced Setup Modes

You can toggle CasaSetup to operate in one of two modes: Basic or Advanced. In Basic mode, installers can quickly configure the system type, sources, zones and music services.

The Advanced mode provides more options and finer control over these same settings as well as additional capabilities, like configuring triggers, doorbell chimes, AV Receiver integration, remote control, etc.

## Enabling AirPlay Speakers

CasaTunes can stream to AirPlay devices, including Speakers, Apple TV, AirPort Express, AV Receivers, and other devices. By default CasaTunes does not enable streaming to AirPlay devices. To enable these you will need to access the AirPlay tab in CasaSetup, and check the *Enable transmitting CasaTunes music to AirPlay speakers*.

### AirPlay Speakers

- ☐ Enable transmitting CasaTunes music to AirPlay speakers

Controller Delay (50 ms): 

Note: When you enable this setting, you may notice a slight delay when starting a song due to the AirPlay protocol (usually about 2 seconds). This is normal.

Use the Room tab in CasaSetup to configure each of the AirPlay devices CasaTunes discovers. Once configured as a room, the room appears and behaves the same as any wired room in the system. When playing a source on both wired and AirPlay devices, CasaTunes constantly synchronizes the streams.

CasaTunes supports AirPlay speakers and devices that are password protected, devices that provide local power and volume control, and compressing (lossless) streams to AirPlay devices.

### Adding music to your music server

You can copy music to your music server either via drag 'n drop or by syncing your iTunes library on one or more desktops and laptops using CasaTunesSync for Windows and Mac.

To copy music to your server simply copy the music to the shared volume \\CasaServer\WMPMusic

For more information on the CasaTunesSync utility, please refer to the following document: [How to install, setup and use CasaTunesSync](#) in the Music Services section of our Tech Notes at [www.CasaTunes.com/guides](http://www.CasaTunes.com/guides) or watch the video: [How to add iTunes music to CasaTunes](#) at [www.youtube.com/CasaTunes](http://www.youtube.com/CasaTunes).

## Adding more music Apps from MySqueezeBox.com

CasaTunes is compatible with MySqueezeBox.com. See the [SqueezeBox App Compatibility List](#) shown in our Tech Notes at [www.CasaTunes.com/guides](http://www.CasaTunes.com/guides).

For more information on how to configure CasaTunes to use a MySqueezeBox.com app please check out the following [How to Play Pandora and other music services in CasaTunes](#) at [www.youtube.com/CasaTunes](http://www.youtube.com/CasaTunes).

## Custom doorbell chime

You can configure CasaTunes to play a custom chime when the doorbell is pressed. To trigger the doorbell chime connect the doorbell trigger to the "TRIGGER IN" input on the trigger card. You will need to supply your own doorbell trigger hardware.

To configure CasaTunes to support a doorbell trigger, you must toggle CasaSetup into the Advanced Settings mode and configure the CasaTunes Mute, Page and Doorbell Chime Settings (see below).

**CasaTunes Setup** [Basic Settings](#) [Stop CasaTunes](#) [Save](#) [Help](#)

▼ Hide Menu English (United States) ▼

**Music Server Settings**

- Select Controller
  - Sources
  - Rooms
  - Room Groups
  - AirPlay

**Music Services**

- Music Searches
- Tracking Music

**Advanced Server Settings**

- Third Party Control

**Switch To CasaTunes**

**Manage Music Server**

- Update CasaTunes
- Remotely Access Server
- Project Information
- Change Time Zone

**Controller Settings**

Select Controller Type: CasaTunes CT ▼

☐ Are you using a CasaTunes CT-3, CT-3S or CTMS-3 music server or streamer?

☐ Configure music server as a multi-stream player?

▼ CasaTunes Keypad Settings

Text to display on CasaTunes Keypads when idle: CasaTunes

▼ CasaTunes Mute, Page and Doorbell Chime Settings

Enable mute, page or doorbell chime when triggered? Play doorbell chime ▼

Trigger mute, page or chime when the "TRIGGER IN" signal goes from: Low to High ▼

Select doorbell chime to play: CasaBell 7 Seconds NoDelay ▼

New CasaTunes version 5.00.150107 is available

CasaTunes

CasaTunes displays the list of doorbell chimes available. To add your own custom doorbell chime, simply copy your chime (or music) file into [\\CasaServer\CasaData\Chimes](#) shared folder

## Seamless AV Receiver Integration

You can integrate your Living Room or Master Bedroom AV Receiver to be an integral part of your whole house music system. CasaTunes will use your AV Receiver as the power amplifier and control it using either IP or RS232 control. Once configured, an AV Receiver powered room appears just like any other room in the home.


CasaTunes supports many popular single and multi-zone AV Receivers including: Denon, Integra/Onkyo, Marantz, Pioneer, Sony, and Yamaha.

To start, connect one of the pre-amplifier outputs on the music server to an input on your AV Receiver. When using a CT-4+ and CT-8+ music server, we recommend you use the digital output.

If you are going to control the AV Receiver using a serial port, then connect the serial port on your music server to your AV Receiver, otherwise make sure the AV Receiver is connected to the network.


To control the AV Receiver by CasaTunes via IP or RS232 run CasaSetup. Go to the “Rooms” page, click on Advanced Settings (upper right), click on the Room you will be using the AV Receiver with and select the Enable AV Receiver option for the room. You must also configure the room to use a fixed volume output, select the type of AV Receiver, the zone to use on the AV Receiver, the protocol to use (either IP or RS232), the serial port or IP Address to use, and which input on the AV Receiver to use.

In the example below, we connect the output from the Living Room to the CD Input on the Denon AV Receiver.


 **Configure AV Receiver for room**

☒ **Enable AV Receiver control**

Select AV Receiver:

Denon1 (Main Room) - Generic Denon Receiver using IP Coi 

Configure Protocol:

Ethernet 


IP Address:

192.168.1.50

Port:

23

Select AVR Source:

CD 

## *Adding music to your music server*

You can copy music to your music server either via drag 'n drop or by syncing your iTunes library on one or more desktops and laptops using CasaTunesSync for Windows and Mac.

To use drag 'n drop to copy music to your server simply copy the music to the shared volume \\CasaServer\WMPMusic

To use the CasaTunesSync utility to copy music, please refer to the following document: [How to use CasaTunesSync](#) or watch the video: [How to add iTunes music to CasaTunes](#)

## **Pro-actively manage your customer sites**

Your CasaTunes system provides several features to help you pro-actively manage your customers CasaTunes experience.

Firstly, you can remotely manage your customers CasaTunes music server, so that you do not have to roll out a truck in the event your customer runs into an issue. To setup your system for remote management, you will need to contact CasaTunes Tech Support.

Secondly, you can configure whether or not CasaTunes should automatically install new upgrades as they become available. CasaTunes continuously releases new updates which include new features and bug fixes about 4-6 times a year. If you decide not to turn on automatic updates, there is a single-button update available in CasaSetup for you to use to manually install an upgrade.

Thirdly, each time you change your configuration or install a new upgrade, CasaTunes automatically backs up your configuration to the cloud, so that it can be restored in the event of a catastrophic system failure. You will need to contact CasaTunes Tech Support to restore a previously backed up configuration.

Fourthly, we provide a built-in Internet monitoring tool so you can monitor the condition of your customers Internet service. Poor internet service can affect the reliability of Internet music services.

Lastly, you can configure CasaTunes to send you an email notification in the event the system fails (for example, a power failure or some other condition occurs). CasaTunes will automatically try to recover from a failure, and will again notify you by email if it was successful or not. This is extremely helpful for you to monitor the stability of your customers CasaTunes installation.

# Home Automation and Control Systems Integration

You can control CasaTunes from various different home automations systems.

CasaTunes provides out-of-the-box support for Bitwise, Control4, Loxone, On Controls, Roomie, and RTI. For more information on how CasaTunes integrates with these automation and control systems, please refer to the following:

Control4: <http://www.casatunes.com/control4>

On Controls: <http://www.casatunes.com/oncontrols>

Loxone: <http://www.casatunes.com/loxone>

RTI: <http://www.casatunes.com/rti>

## Controlling CasaTunes via the CasaTunes REST APIs

CasaTunes provides various options for programmatically controlling CasaTunes. The simplest option is to use our Serial API for IP and/or RS232. However, for more sophisticated control, the preferred way is to use our REST APIs. These are the same APIs we use to create the iOS and Android Apps.

To view the documentation and test out the CasaTunes REST APIs, simply enter the following URL:

Mac (or iPad) - <http://CasaServer.local/CasaDev>

Windows - <http://CasaServer/CasaDev>

Other - <http://IPAddress/CasaDev>

CasaTunes REST API Documentation

CasaTunes®

OverviewREST APISEnumsImages

### Overview

CasaTunes exposes a rich set of RESTful APIs for managing CasaTunes. These are the same APIs used by CasaTunes own Apps. You can utilize the CasaTunes REST interface for ad-hoc control of CasaTunes using a browser, curl, home automation systems, or for integration with 3rd party controls, or to create a custom User Interface.

For maximum compatibility, all APIs are supported via the **GET** method. This tool provides a sandbox tool so you can try out the REST calls.

The base URI for accessing a CasaTunes REST API is: **`http://casaserver:8735/api/v1`**

You should change casaserver to the name or IP address of your music server, if different.

The CasaTunes REST APIs are available in **CasaTunes 5 or later**.

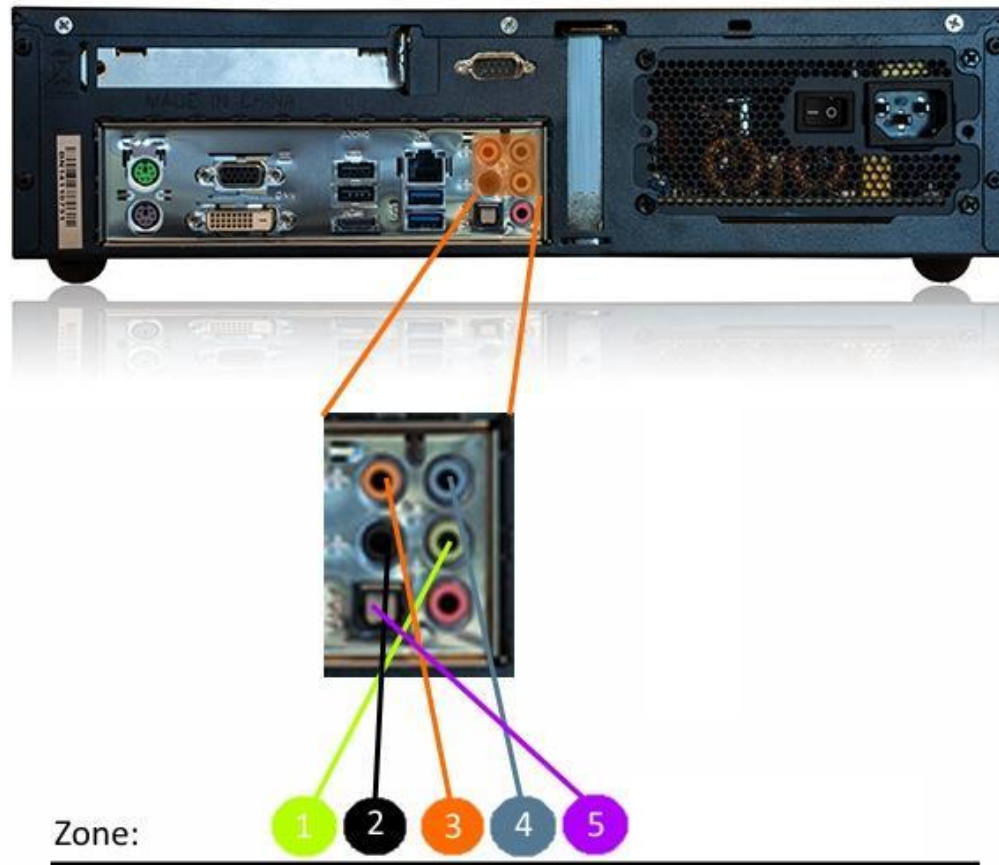
Please contact [Support@CasaTunes.com](mailto:Support@CasaTunes.com) for support.

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## Appendix A: Build to Order Tool

Following is an example of what you will see when you use the tool to build a CT-4+ using our free [Build to Order Tool](#) (link found on our home page)!

### Music Server Configuration

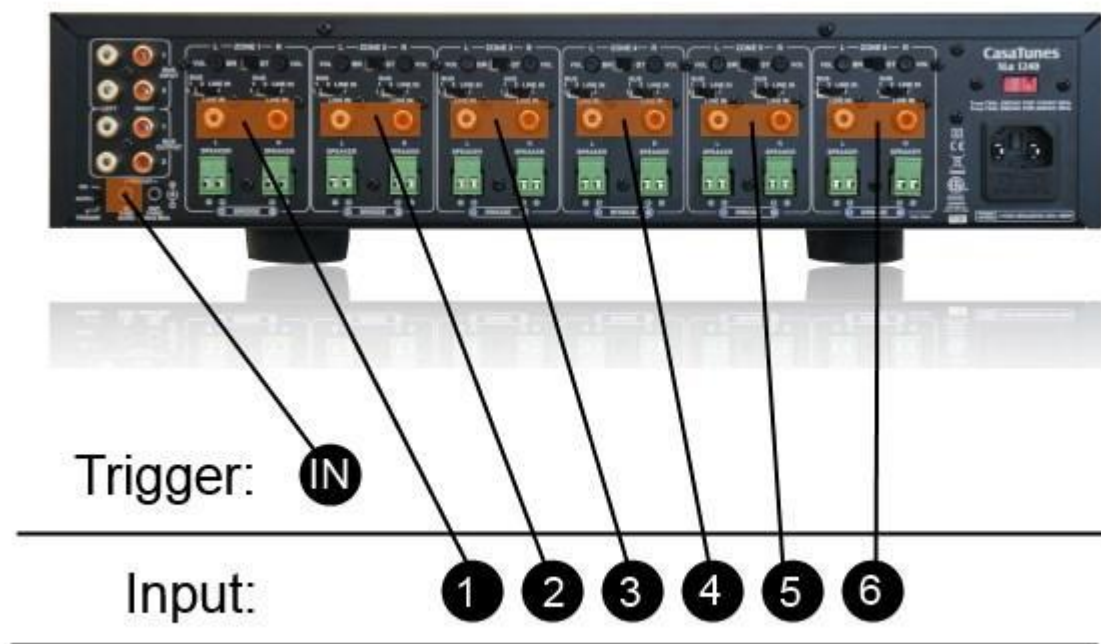


Zone	Description	Connects To
1	Kitchen	Amplifier
2	Dining Room	Amplifier
3	Master Bedroom	Amplifier
4	Study	Amplifier
5	Living Room	AV Receiver (Main Zone)

### Amplifier Connections

Your setup requires 1 amplifier: AMP-1





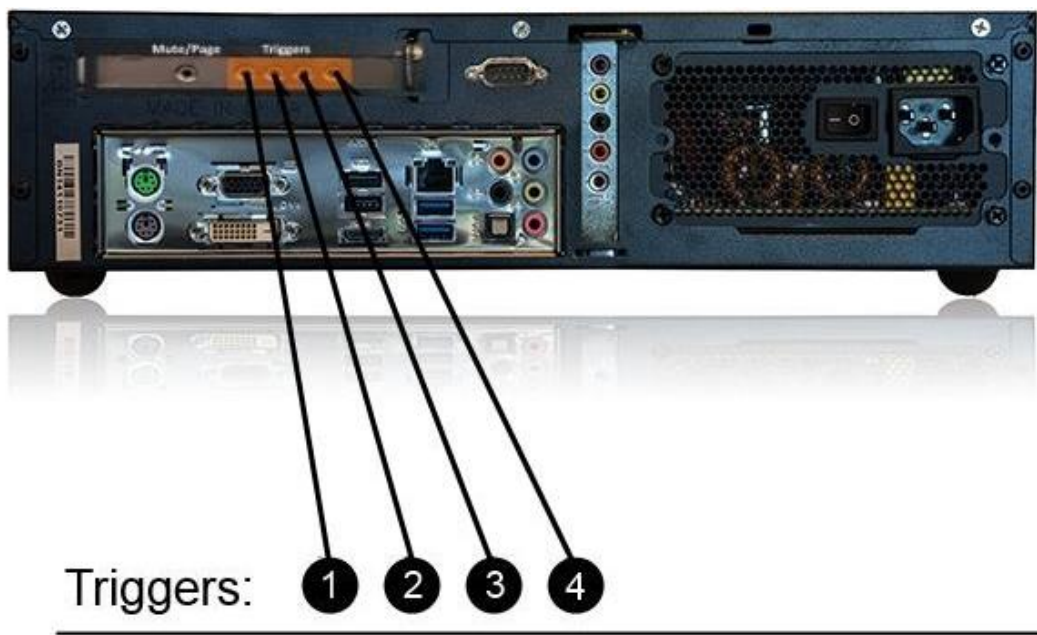
Zone	Room	Amplifier ID	Input
1	Kitchen	AMP-1	1
2	Dining Room	AMP-1	2
3	Master Bedroom	AMP-1	3
4	Study	AMP-1	4

Connect one end of the included 3.5mm stereo cable into the zone on the music server and connect the other end to your amplifier as per the illustrations above.

*Using Triggers with CasaTunes Amplifiers*

The CasaTunes amplifier can be configured to be always on, switched on when a trigger signal is present, or switched on when the amplifier senses audio.

For both reliability and power savings, CasaTunes recommends using a trigger signal to control switching your amplifier on and off. Your system ships configured to use triggers.



Connect the triggers from your music server to each amplifier as follows:

Music Server Trigger Out	Amplifier ID
1	AMP-1

*AV Receiver Connections and Setup*

To play your CasaTunes music through your AV Receiver you must connect the music server with the AV Receiver. The AV Receiver input to use depends on the type of AV Receiver you are using. Select your receiver from the available list of receivers in CasaSetup, and it will then inform you which input to use.

## Appendix B: CasaTunes with NuVo Controllers

### Follow these steps if you are not using a NuVoNet Adapter:

If you are **NOT** using the NuVoNet adapter, and you are using CasaTunes with a NuVo Concerto, E6G Essentia, or Grand Concerto multi-room music system, download and save one of the following CasaTunes IR Libraries in the NuVo Configurator software "Library" folder. Select this library when configuring a source as a CasaTunes Player source to enable proper keypad control and integration.

IR Library for NuVo Essentia (N6G) or New Grand Concerto:

<http://casatunes-public.s3.amazonaws.com/other/nuvo/casatunes.v2.gcl>

IR Library for NuVo Old Concerto:

<http://casatunes-public.s3.amazonaws.com/other/nuvo/casatunes.v2.irc>

You are done setting up the CasaTunes Music Server.

### Follow these steps if you are using a NuVoNet Adapter (not included):

Using the NuVo Configurator Software to configure the NuVoNet Adapter

Before you can use the NuVoNet Adapter with CasaTunes, you must configure the Grand Concerto or Essentia using the NuVo provided Configurator software. You should configure the Grand Concerto or Essentia before connecting the NuVoNet Adapter, as these systems cannot be programmed with the NV-NNA connected.

To configure the Grand Concerto or Essentia to use the NuVoNet Adapter:

Connect the serial end of the USB/serial adapter coming from the CasaTunes Music server to the NuVo Grand Concerto/Essentia Controller.

Start the Grand Concerto or Essentia *Configurator* software.

Retrieve the configuration from the controller.

Select the Sources tab. Select the first CasaTunes player source you want to use with the NuVoNet Adapter. Since you can have as many as 5 sources of music from CasaTunes, you could set up the first five sources of the NuVo as CasaTunes Players.

If the source is already defined as an existing source, click on the *clear* button to delete the existing source.

Click on the *select* button to select the source component.

1. In the component window, expand the NuVo source components, and select the NV-NNA component from the list of NuVo components.

**You must specify to use the NV-NNA component even if you are using a Multi-Port (NV-MP) device**

2. Repeat steps 4 through 6 for each CasaTunes source. Make sure you record the CasaTunes Player sources that are being used (you will need to configure these for CasaTunes later using the CasaTunes Setup application).
3. After you have completed configuring your sources (and any other settings you require), select the Update System tab and click on the Download Update to the Grand Concerto or Essentia button to download any firmware updates and configuration changes to your controller. We recommend you save your configuration in case you need to reload the controller configuration at a later date.

The next step is to install the NuVoNet Adapter in your setup.

#### Setting up the NuVoNet Adapter Hardware

The NuVoNet Adapter (NV-NNA) sits between the USB/serial adapter from the CasaTunes Music Server and the Grand Concerto or Essentia. There are three connections that need to be made:

Connect the 9-pin M/F serial cable between the USB/serial adapter and the Controller port on the NV-NNA.

Connect the Cat5e cable from the *NuVoNet* port on the NV-NNA to an available NuVoNet device port.

Connect a 9-pin M/F serial cable from the *NuVo RS-232* port on the NV-NNA to the RS-232 port on the Grand Concerto or Essentia.

You are done setting up the CasaTunes Music Server.

# Appendix C: CasaTunes with “E” or “C” Series Russound Controllers

## Overview

Using the MDK-C5 and KLK-E5/6 keypads you are able to:

Display CasaTunes meta-data on the keypads

Select to play one or more CasaTunes playlists

Control playback including play, pause, and move to next and previous tracks

## Setup

To setup your Russound controller for use with CasaTunes, make sure that the Russound keypads and controller are updated to their latest firmware versions. Also in the Russound controller setup set each of the CasaTunes sources to “RNET iBridge Dock” and make sure they are Enabled (See Controller Summary).

## Keypad Interface

When you select a CasaTunes Player source, the interface presented is similar to the keypad interface for a Russound iPod device, with some minor differences.

The CasaTunes metadata, when available, is displayed on the keypad as expected in the Song, Album, and Artist fields.

The first metadata line is used to provide information on the type of music service that is currently playing (Windows Media, iTunes, TuneIn, etc.), or if the music is stopped or paused.

All the transport controls work as expected. You can play or pause a track (Note: Internet radio stations are stopped when paused), and you can move to the next or previous track (if available).

To select CasaTunes Player music using the keypads you must use CasaTunes Playlists. These Playlists can be groups of songs or individual Internet Radio stations and are set up easily using the CasaTunes browser, iOS app or Android app (see next paragraph). To select a CasaTunes Playlist from the keypad, select a CasaTunes Player source and simply scroll through the available CasaTunes playlists using the “+” and “-” buttons until the playlist you want to listen to is displayed. To start playing the Playlist press the play button.

To create a CasaTunes Playlist, use the CasaTunes browser application, iOS app or Android app to select the music you want included in your playlist, and select the option to save your selections as a playlist (“Save As Playlist”). You can create as many playlists as needed.

## Appendix D-1: Tips for RTI Dealers

Use the following to help you get started quickly.

### **If you haven't ordered, yet, follow A or B:**

- A. Are you planning on using a CasaTunes System with a plain amplifier(s) (no AD-4, AD-4x, AD-8 or AD-8x)?

In this case, you will need to purchase a CasaTunes **System** with the correct number of pre-amplified room outputs. For up to 4 rooms, use the CT-4+; for up to 8 rooms, use the CT-8+; for up to 12 rooms, CT-12; etc. The CasaTunes Systems do all of the switching internally, so the outputs are pre-amplified room outputs. The Systems also have inputs for external sources of music. This is the best solution if the customer is NOT using CasaTunes for distributing TV sound or other audio that is synchronized with video, since there is a delay from the external inputs to the room outputs.

You can use our CT-AMP-1240 for 40 watts per room. Each CT-AMP-1240 has enough amplifiers in it to handle 6 rooms. Ours Systems supply trigger outputs to turn the amp on and off, as needed.

When you receive your System, follow Step A in the next section.

- B. Are you planning on using CasaTunes with one of the RTI Audio Distribution Systems (AD-4, 4x, 8 or 8x)?

In this case, you will need to purchase a CasaTunes CT-3S (3 streams), CT-4S (4 streams) or CT-8S (8 streams) **Streamer**. Don't worry, if you already mistakenly ordered a CasaTunes System, instead of Streamer, all CT-3 and CT-4+ Systems now include everything needed to convert them to a Streamer.

Order the Streamer based on how many audio streams you need. Keep in mind that it is really nice to be able to offer enough streams that different people in the house can listen to different music. Any Streamer can work with and control even the biggest AD System(s).

When you receive your Streamer, we highly recommend that you follow Step B in the next section once you have your Streamer. For retrofitting a home that already has an AD system, you can follow Step C.

## **You already ordered CasaTunes and are ready to use our CasaTunes RTI driver. Follow A, B, or C:**

- A. Are you using a CasaTunes System (in other words, you don't need and are not using an RTI Audio Distribution System)?

Follow the Quick Start Guide for setting up the **System**.

When you get to CasaSetup, leave the Controller set as a "CasaTunes CT".

In CasaSetup, name all of your sources and rooms, set up room groups and music services.

In Integration Designer, load the CasaTunes driver and in the configuration section, pick CasaTunes System as the Type of CasaTunes Product.

Copy the source and room names from CasaSetup. "No. of Wired Rooms" refers to the number of "Rooms" displayed in CasaSetup, including Hidden ones. If you have AirPlay **outputs** enabled, put in the number of AirPlay speakers and other AirPlay devices that you will be playing music to and copy their information as instructed in the configuration page instructions.

- B. Are you using a CasaTunes **Streamer** to control and supply audio streams to an RTI Audio Distribution System? (If you are not letting the CasaTunes Streamer control the AD System and are using the AD-64 driver to control the AD System, go to the next section).

**NOTE: This method is highly recommended if you are using RTI Audio Distribution systems. There are a number of advantages to having CasaTunes control the AD systems, instead of using the AD-64 driver. Go to [Appendix D-2](#) for detailed step by step instructions on quickly installing a CasaTunes Streamer when CasaTunes controls the RTI Audio Distribution System(s).**

- C. Are you using a CasaTunes Streamer to supply audio streams to an RTI Audio Distribution System, but not to control the AD System? (In this case, you are using the AD-64 driver to control the AD System). **(We recommend using B, above.)**

Follow the Quick Start Guide for setting up the Streamer. We now include a Streamer Quick Start guide and a serial cable in the CT-4+ System boxes, in case you need to use it as a Streamer. Normally, you would order a CT-3S for three streams, CT-4S for four streams or CT-8S for eight streams.

When you get to CasaSetup, click on Advanced Settings. In the Select Controller page you will now check the box next to “Configure music server as a multi-stream player?” Click on Save. You will now see that the “Rooms” and “Room Groups” pages have disappeared, since we are not controlling the AD System in this configuration.

Name all of the CasaTunes Players (streams) in the Sources page of CasaSetup and set up the Music Services and other settings.

Do not check “Enable transmitting CasaTunes music to AirPlay speakers” in the AirPlay page.

In Integration Designer, load the CasaTunes driver and in the configuration section, pick CasaTunes Streamer as the Type of CasaTunes Product.

Enter the number of sources (streams) and name them to match CasaSetup. Finish the configuration.

In this configuration, you won’t be able to install wireless rooms using CasaTunes’ AirPlay output, but you will be able to play AirPlay music from iOS devices to CasaTunes. In this case, the CasaTunes Players (streams) will show up in the AirPlay menu on the iOS device and the customer will need to select the player for the room.



## Appendix D-2: RTI Setup - CasaTunes Streamer and RTI AD System with no RTI AD-64 driver

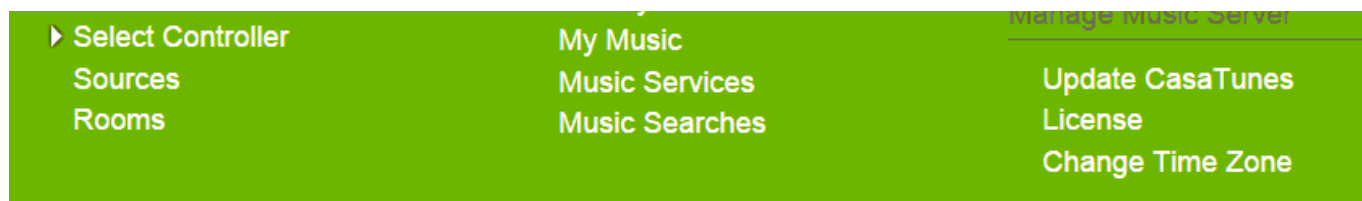
### Part 1: CasaSetup

Follow the Quick Start Guide to the point where you run CasaSetup. You should have the CasaTunes Streamer powered up and connected to the LAN. You should be working on a computer connected to the same LAN. Open a browser on your computer and go to <http://CasaServer/CasaSetup> (<http://CasaServer.local/CasaSetup> from a Mac).

We will use a CT-4S and two AD-8Xs as our Streamer/AD system combination as an example. You can control the AD-8Xs via the network or via serial. If you are controlling via serial, you will need a USB to serial adaptor for the second AD-8X (available from support, [support@Casatunes.com](mailto:support@Casatunes.com)).

### Step 1: Pick Controller Type

CasaSetup will start in the “Select Controller” page. Select the proper Audio Distribution system from the “Select Controller Type” pull-down, select the number of units, click on “Save” at the upper right of the page and then select the IP or COM ports that are used to control the two AD-8Xs. For our example configuration, you will end up like this:



#### Controller Settings

Select Controller Type:

RTI AD-8x ▼

Number of Units:

2 ▼

☐ Are you using a CasaTunes CT-3, CT-3S or CTMS-3 music server or streamer?

Use Serial (RS-232) or IP?

IP ▼

#### IP Settings

IP Address for unit 1:

192.168.0.201

TCP Port for unit 1:

23

IP Address for unit 2:

192.168.0.32

TCP Port for unit 2:

23

Next, click on “Sources”.

## Step 2: Set up the Sources (AD-8X inputs)

On the Sources page you will see the 8 inputs going into the AD-8Xs. Since we are using a CT-4S to control the AD-8Xs, we will set up 4 of the sources to use streams from the CT-4S. In our example, we will set up all the other sources to be “Unknown” source types and they will be controlled using the CasaTunes RTI driver in Integration Designer. The CasaTunes Media Players do not need to be the first sources, but all sources that are used should not be hidden.

Name the Sources the same names you will be using in Integration Designer. Here is an example Sources page:

► Sources Rooms	Music Searches	Update CasaTunes License Change Time Zone
--------------------	----------------	---

<b>Sources</b>	<b>All Music Settings</b>
All Music ►	Source name: <input type="text" value="All Music"/>
Kim's Music	Source type: <input type="text" value="CasaTunes Media Player"/>
Alison's Music	<input type="checkbox"/> Hide Source
KUNC	▼ CasaTunes Player Settings
DVD audio	Select audio device for source: <input type="text" value="Speakers (ASUS Xonar DSX Audio Device)"/>
DirectTV Music	Select speakers for source: <input type="text" value="Speaker Pair 1: (Jack Color: Lime Green)"/>
Player 7	
Player 8	

In our example, the first four sources are streams from CasaTunes. The CasaTunes streams don't have to be the first four sources. The audio going directly into the AD-8X from other sources, such as the DVD Audio, should be set up as “Unknown” Source types, like this:

All Music	Source name: <input type="text" value="DVD audio"/>
Kim's Music	Source type: <input type="text" value="Unsupported Source"/>
Alison's Music	<input type="checkbox"/> Hide Source
KUNC	
DVD audio ►	

In our example, the last two Sources are not used and the “Hide Source” checkbox should be checked.

## Next, click on “Rooms”

### Step 3: Set up the Rooms (AD-8X outputs or zones)

In our example, since we are controlling two AD-8Xs, there are 16 Rooms shown in CasaSetup.

Name all of the Rooms the same names you will be using in Integration Designer. If you are not using an AD-8X output, simply check the “Hide Room” box. Here is our example, showing the Rooms page of CasaSetup:

► Rooms License Change Time Zone

Rooms	Office Settings
1: Office ▶	Room name: <input type="text" value="Office"/>
2: Kitchen	<input type="checkbox"/> Hide Room
3: Master BR	▼ Equalization Settings
4: M. Bath	Balance (0): L <input type="range" value="50"/> R
5: Living Rm	Bass (0): - <input type="range" value="50"/> +
6: Patio S.	Treble (0): - <input type="range" value="50"/> +
7: Patio N.	▼ Volume Settings
8: Pool Rm	Maximum Volume (75): <input type="range" value="75"/>
9: Theater	
10: Exercise	
11: Garage	
12: Zone12	
13: Zone13	
14: Zone14	
15: Zone15	
16: Zone16	

In this example, Rooms 12 through 16 are not used and their “Hide Room” checkboxes would be checked.

## Next, click on “Room Groups”

### Step 4: Set up any Room Groups

CasaTunes handles all of the room grouping when controlling the AD-8Xs. To create a Room Group, click on the “Create room group” button, name the group and click on the rooms you want in the group. Later, when you are at the installation site, you can run CasaSetup again and adjust the Offsets to give a pleasing combination of rooms.

**Tip:** to make it easier to set up room groups, during this step just create the room groups you think you will need, but just put one room in each group. This will give you the room group names that you will need to enter into the CasaTunes RTI driver configuration later. Once you are on site, do the actual room group setup. For example, let’s say you want to have a brunch room group that includes the Living Rm, Kitchen and Patio N (north patio). During the initial design (now), use “Create room group” and name the room group “Brunch Group”. Check the Kitchen room and click on Save. Later, at the home, turn on the Kitchen, Living Rm and Patio N. Set all of their volume levels at a normal listening level and so that they sound good when you walk from room to room (some speakers may be less efficient and need to be set higher than others). Make sure all other rooms are off. Then, using your design computer, go to CasaSetup and click on “Record room group”. Delete the old “Brunch Group” and name the new one “Brunch Group”. Now you will have a group of rooms that will go up and down in volume using the Brunch Group controls, with the proper offsets in volume.

Here is what Brunch Group looks like when you initially design it:

The screenshot displays the CasaTunes software interface. At the top, there is a navigation bar with three main sections: 'Music Server Settings', 'Room Groups', and 'Switch To CasaTunes'. Under 'Music Server Settings', there are links for 'Select Controller', 'Sources', and 'Rooms'. Under 'Room Groups', there are links for 'AirPlay', 'Music Services', and 'Music Searches'. Under 'Switch To CasaTunes', there are links for 'Manage Music Server', 'Update CasaTunes License', and 'Change Time Zone'. Below the navigation bar, the 'Room Groups' section is active, showing a list of room groups on the left and the 'Brunch Group Settings' on the right. The 'Brunch Group' is selected, and its settings are displayed. The 'Brunch Group Settings' section includes a text field for 'Room Group name' (set to 'Brunch Group'), a checkbox for 'Reset volume when room group is turned on', and four sliders for 'Power On Volume (50)', 'Office', 'Kitchen', and 'Master BR'. Each slider has a blue bar indicating the current volume level and a speaker icon on the right.

## Next, click on “AirPlay”

### Step 5: Set up AirPlay

Tip: CasaTunes has the unique ability to be able to both send AND receive AirPlay audio. On the sending side, this means that you can send music (CasaTunes Player streams only) to rooms that were not pre-wired simply by adding AirPlay speakers in those rooms. On the receiving side, your customers can send music from their iOS (iPad, iPhone or iTunes) devices through CasaTunes to any room or room group. Because you are using CasaTunes to control the AD-8Xs, the customer will see the room and room group names when they click on the AirPlay icon on their iOS device. If the room is off, it will automatically turn on when the customer selects the room or rooms from the AirPlay list. The room or rooms will respond to the volume control on the iOS device and when they stop the music the room will automatically turn off or switch back to the previously playing music.

So, let's set it up!

First, make sure “Enable receiving AirPlay music from iPad, iPad mini, iPhone and iPod touch devices” (and iTunes running on any PC or Mac) is checked. If you check the “Always turn off....” Checkbox, it will not go back to the previous music playing in the room. Usually, you would probably leave this unchecked.

To add music to new, wireless, AirPlay rooms, check the “Enable transmitting CasaTunes to AirPlay speakers” checkbox and leave the Controller Delay to the default setting. Click on Save.

#### AirPlay Streaming Devices

- ☒ Enable receiving AirPlay music from iPad, iPad mini, iPhone, and iPod touch dev
- ☒ Always turn off the room when the AirPlay stream disconnects

#### AirPlay Speakers

- ☒ Enable transmitting CasaTunes music to AirPlay speakers

If you enable AirPlay Speakers, once you have the AirPlay speakers running and on the network, you must go back to the Rooms page, Step 3, and name the AirPlay rooms.

## Next, click on “Music Services”

### Step 6: Set up Music Services

To set up the music for your customers, you will need their credentials. Take a look at all of the services we have available on this page and view the [SqueezeBox Setup Video](#) for instructions on how to use any music services available via SqueezeBox. Follow the instructions on the Music Services page and you should end up with something like this (with the SqueezeBox highlighted in this example):

Select Controller	► Music Services	Update CasaTunes License
Sources	Music Searches	Change Time Zone
Rooms		

#### Music Services

- ☐ Grooveshark
- ☒ iPod Classic (No WiFi)
- ☐ iTunes Music
- ☐ iNetCustom
- ☒ SHOUTcast
- ☒ Spotify
- ☒ SqueezeBox (Includes Pandora, SiriusXM, Slacker and more)
- ☒ TuneIn
- ☐ uPnP
- ☒ Windows Music

#### SqueezeBox Settings

Setup an account on <http://www.MySqueezeBox.com>, then select an music apps such as Pandora, SiriusXM, and Slacker for use with CasaTunes. [SqueezeBox Setup Video](#) and Help for instructions.

Note: You must restart the SqueezeBox server below each time you your music apps.

See which [SqueezeBox Apps](#) are supported by CasaTunes.

##### ▼ SqueezeBox Account Information

User Name:

Password:

Verify Account

##### ▼ Restart SqueezeBox Server

Restart SqueezeBox Server

## Next, finalizing CasaSetup

### Step 7: Finalizing CasaSetup

Go to the Music Searches page to tell CasaTunes which music services to use when **searching** for music.

Tip: There are two basic ways for your customer to select music. All of the Music Services selected in the previous page will show up when **browsing** for music. The customer can also **search** for music by searching for a song, album or artist. The Music Searches page is used to limit the search results, for ease of use and speed. We will talk more about searching for music in the Integration Designer section. You can change this at any time without affecting your final design, so don't be afraid to check the boxes of all of the Music Services you have enabled for now!

Go to the Update CasaTunes page and change the defaults as you see fit.

Go to Change Time Zone and change the Time Zone to match your local time zone

Click on Advanced Settings at the top of the screen and then go to the Project Information page. Here you can have email notifications sent to you and you can make a backup of the project.

TIP: Even if you don't make a backup of the project, the CasaTunes system automatically backs up some important items, like the configuration settings you made in CasaSetup. No user information is backed up. This is meant solely for troubleshooting and restoring information (Sorry, we do not back up the music, so make sure your customers do!). If you or your customer accidentally do something that you need to undo, just give us a call and we can help you retrieve the settings.

While you are in CasaSetup, go to the bottom of any page and find the IP address. You will need this address in Integration Designer. It is located at the bottom right:



Next, Part 2: Configuring the CasaTunes driver in Integration Designer

## Part 2: Configuring the CasaTunes Driver in Integration Designer

### Step 1: Load the CasaTunes driver

If you don't already have it, you can download the driver and several example User Interfaces at [www.CasaTuns.com/downloads](http://www.CasaTuns.com/downloads). Start your new design and load the driver into the control system. **Do not load the AD-64 driver. CasaTunes includes the same functionality.**

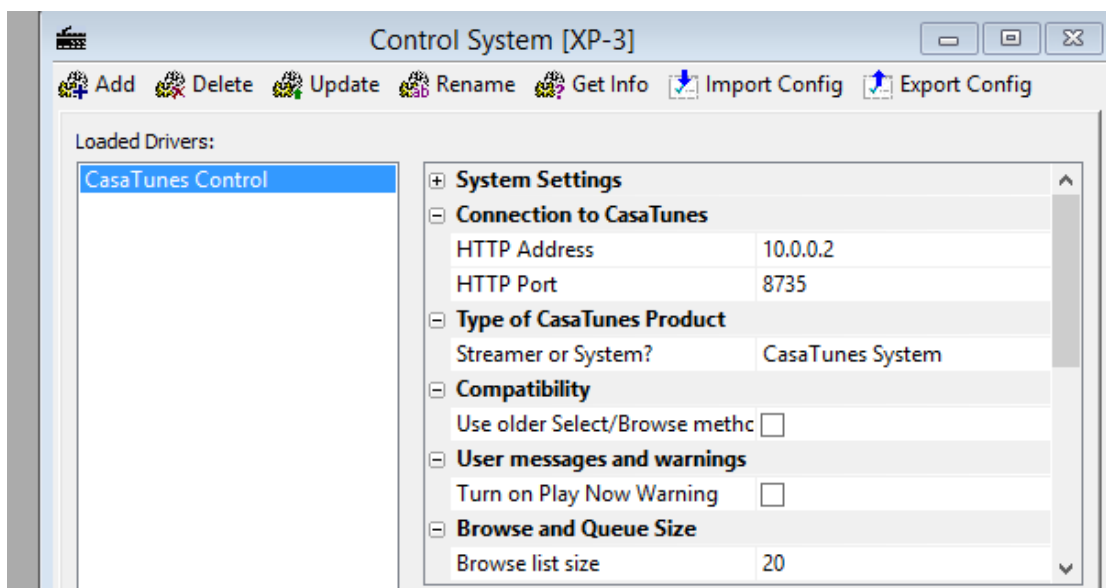
### Step 2: General Settings

Go to the driver configuration screen, put in the IP address (found in Step 6 of Part 1), select "CasaTunes System" in the "Type of CasaTunes Product" section and set the browse list size. This size determines how many items at a time are loaded into any list you create.

*Tip: For fast systems you can change this to a higher number. If the number of items in a list is bigger than the Browse list size, the customer will see a "More . . ." entry at the end of the list, which when clicked will allow them to continue browsing.*

Since you are starting a new design, we highly recommend that you leave the "Use older Select/Browse method" check box unchecked.

The "Turn on Play Now Warning", in most cases, can be unchecked. If a customer often erases a queue they are creating because they click on Play Now, instead of Add to Queue, you can check this box. If it is checked, you will need to have a warning text box and OK and Cancel buttons with the correct functions, as shown in the VP device example in CasaTunes.rti. So far, you should have something like this:



Next, Configuring Rooms and Sources



### Step 3: Configuring Rooms and Sources

In the driver configuration, put in the number or rooms.

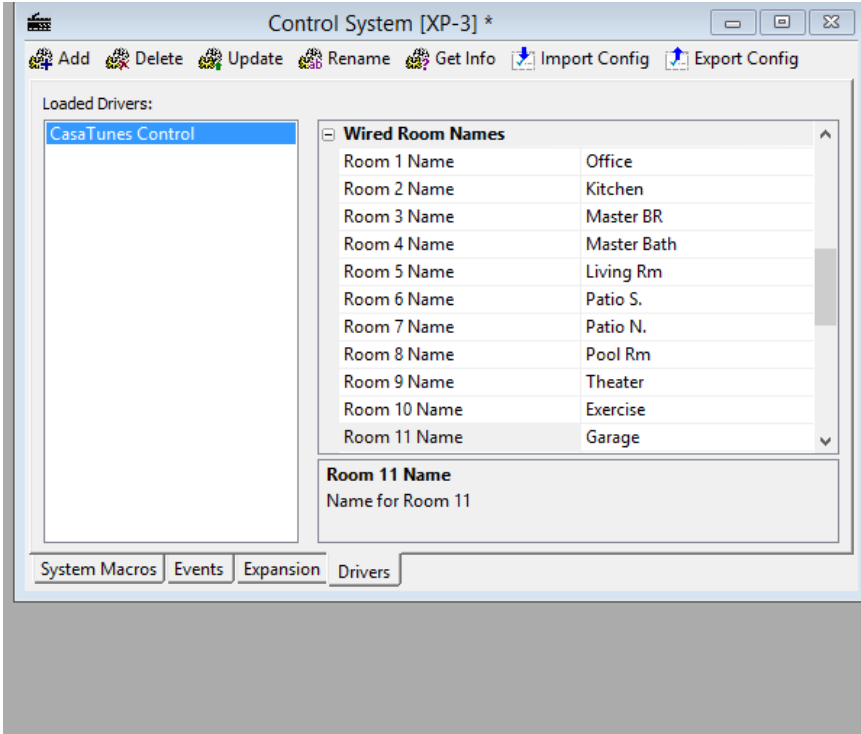
“No. of Wired Rooms” refers to the rooms that are wired to the outputs of the Audio Distribution system(s), so, in this example, we would put in 16. Always put the total number of wired rooms, even if some are not used and are Hidden in CasaSetup.

“No. of Wireless AirPlay Rooms” is the number of wireless rooms you have added using AirPlay speakers, Apple TVs, Airport Expresses, or AV Receivers that have AirPlay built in.

**TIP:** Some dealers get this confused with what a customer will see when they play music from an iOS device through CasaTunes to rooms. That is separate and does not need to be configured.

“No. of Room Groups” is the number of room groups set up in CasaSetup. If you add room groups to the system later, you will need to update this field and the room group names fields.

Enter all of the names in the Names fields, **including for Hidden Rooms**. The easiest way to do this is by copying and pasting from CasaSetup:



Rooms	
1:	Office
2:	Kitchen
3:	Master BR
4:	Master Bath
5:	Living Rm
6:	Patio S.
7:	Patio N.
8:	Pool Rm
9:	Theater

Now, configure the sources in the same way. For the AD-8X example, we enter 8 and transfer the names of all of the sources from CasaSetup in the same way as the Rooms. **Include Hidden Sources**.

Next, Finish up Configuration

## Step 4: Finishing up Configuration

If you are organizing your customer's browsing to simplify it for them, as described in the following tip, you can change the "Browse List Home Level" so that going back in a browse list, when browsing for music, never goes back farther than showing the items in a particular service.

**TIP:** Some dealers set up buttons with a music services name on the button. This way, when the customer wants to select a Pandora station, for example, they would click on a Pandora button which would take them to the browsing page with the Pandora service pre-selected. An example of this is in the Kindle Fire device in CasaTunes.rti. Note the macro in these buttons. The "Reset Browsing List" sets the browse list to the top level (level 0) and then the "Select Browse Item From List" sets the browse list to the Music Service that you wish to pre-set the browse list to (for Pandora, in the Fire example, the index is 2 as there are two other Music Services above Pandora when the list of services is displayed). Finally, the Macro change to the Browse page to show the results.

Currently, to find the indexes for the services, you will need to "cut and try". We hope to update this so that you can use the service names in the future.

Once in the Browse page, backing up the browse list is limited by the configuration setting "Browse List Home Level". You will also see a Home button in the upper left corner of the list in the Fire device. This jumps the user up the list to the level set in the "To Which Level" parameter of the "Reset Browsing List" command. In the Fire example, it is set to 1, so the user only sees the items in Pandora or whichever service they are currently browsing.

For customers that are more tech-savvy, you may wish to leave all of the level settings to 0 and not use buttons like in the Fire example. When the users want to browse for music, they would see all of their Music Services and go from there.

The last setting in the driver configuration is the "Reset Browse List After Choosing Music". In most cases this should be checked. When checked, immediately after they pick music to play, the browse list goes back to the top (limited by the "Browse List Home Level" setting, discussed above). You should try this setting both ways and decide which you feel is better.

Next, Part 3: Designing

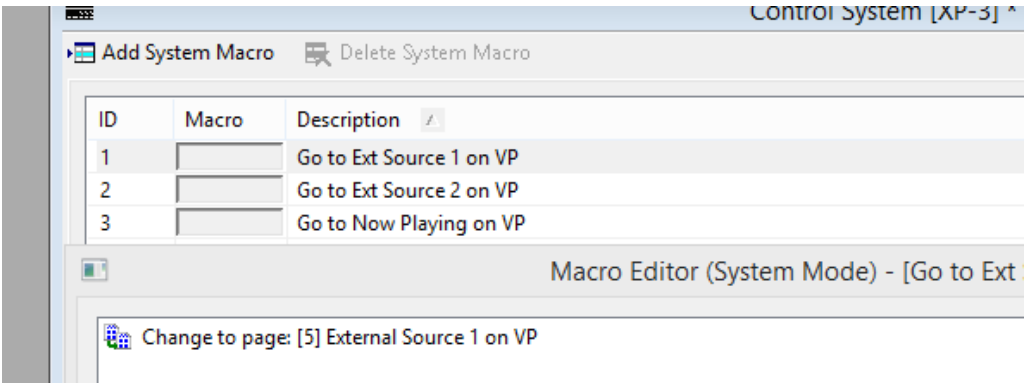
### Part 3: Designing

The CasaTunes driver is very flexible. Because of this, we have included several .rti system design files showing different features. Check out the “READ ME” device in each .rti. We will be adding more information to this Part 3, but for now, here are some tips:

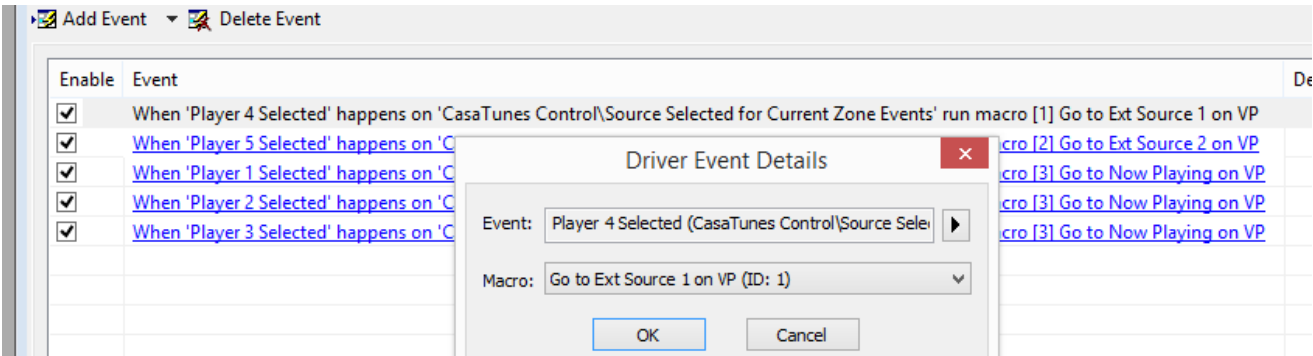
TIP: To get started quickly, we recommend you look at the VP device in CasaTunes.rti. Ignore the “Favorites” page for now (it shows how to create buttons that are only visible if you have created CasaTunes Playlists).

The VP example shows you a way to use the System Events to jump to control pages for the external music sources. Since CasaTunes creates an event when any source is chosen as the current source on a control device, you can use the event to change to the correct page – either the “Now Playing” page, which shows the music playing from CasaTunes, or one of the pages used to control the external audio sources, such as a page that has DirecTV controls. The number of sources in the CasaTunes.rti are different than the ones in our example of CasaTunes controlling two AD-8Xs, but you should get the idea from the following:

First, create Macros to go to the correct pages on VP. This shows the Macros and what is in the first Macro:



Next, create the event handlers in the Event tab of the Controller. In this case the system had three CasaTunes streaming sources and two external music sources. The first Event is shown:



Next, more Tips

TIP: To try using the CasaTunes search capability, go to either of the iPad examples in CasaTunes-iPad.rti.

The important things to know to use the search (and new Pandora station naming):

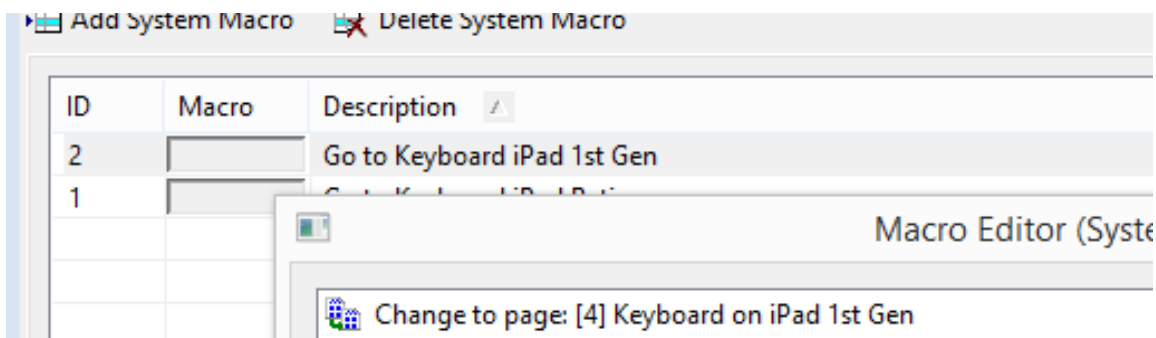
- Use a Button, like the one labeled Browse/Search Music in the CasaTunes page, to take your customer to the Browse Music page (for simplicity, leave the music browsing list on a separate page).
- If you left all of the browse list level parameters to 0, all music services will be displayed in the browse list.
- In the Browse Music page, create a button that will take the customer to the keyboard. Note the Macro that is attached to this button in the example. The reason for the logic in the Macro is that the list will be used for the results of any search. When the list is showing the results of a search, the button name will change to Browse and the customer can click on it to go back to the browse list. The text on the Search button is a variable controlled by the driver.
- In the Keyboard page, make sure you assign the functions and function parameters shown in the example, for all of the buttons.

If you follow the example carefully, when the customer clicks on Search when all of the Music Services are showing in the list, the search item entered in the keyboard will be used to search through all services. If the customer is already browsing, for example, they are down one level into the TuneIn service, if they click on the Search button, the search item entered in the keyboard will be used to search through just the service they are browsing in, in this case TuneIn.

TIP: If you have set up the Keyboard and Browse Music pages as described in the previous tip, the customer can also create new CasaTunes Playlists and Pandora stations.

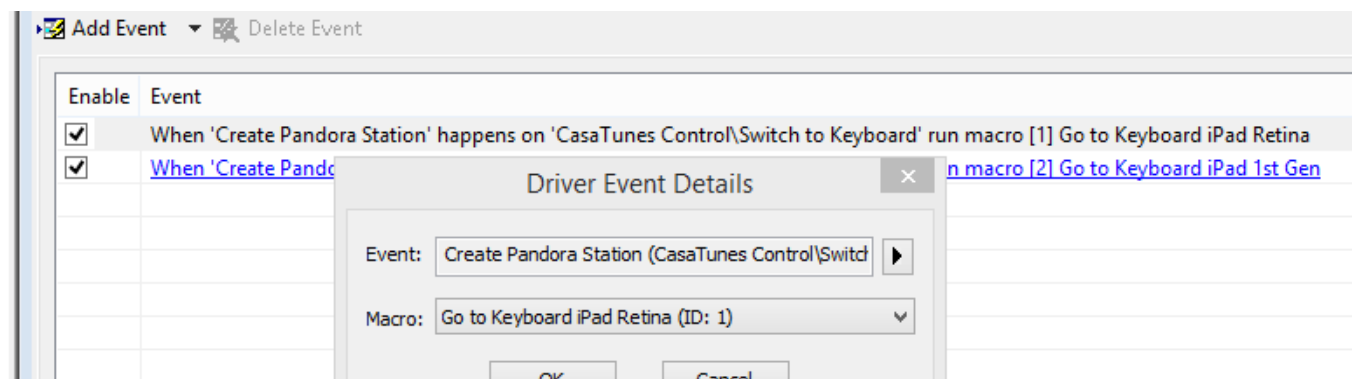
To allow creation of new CasaTunes Playlists (which will show up in the top level of browse list the next time you browse music), simply add a button with the “Save Queue as CasaTunes Playlist” command as shown in the iPad examples in CasaTunes-iPad.rti. Link the button to the Keyboard. That’s it.

To name new Pandora stations, you will need to set up a system macro and event. The system macro simply tells the device to go to the page the keyboard is on:



When the customer clicks on the Create a New Station item in the browse list when browsing Pandora the driver raises a System Event. You will need to create the event’s handler in the Events tab of the

driver configuration. Note that the event runs the Macro that you just created. Here is what the events look like:



## Appendix D-3: RTI Setup - CasaTunes Streamer and RTI AD System with RTI AD-64 driver

### Part 1: CasaSetup

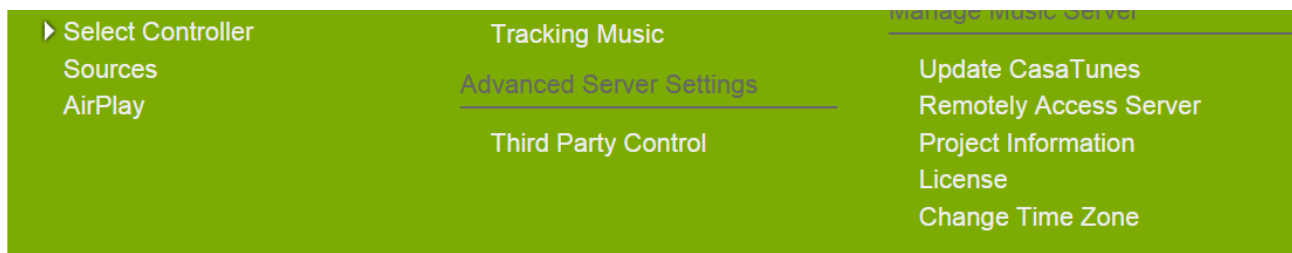
Generally it is better to let CasaTunes control the Audio Distribution system (AD system) and use Appendix D-2 instructions, but we realize this is not always possible. This procedure will also work if you are using some other type of 3<sup>rd</sup> party matrix switch or audio distribution system, you are using RTI drivers to control the switch and our driver to control our Streamer.

Follow the Quick Start Guide to the point where you run CasaSetup. You should have the CasaTunes Streamer powered up and connected to the LAN. You should be working on a computer connected to the same LAN. Open a browser on your computer and go to <http://CasaServer/CasaSetup> (<http://CasaServer.local/CasaSetup> from a Mac).

In this example we will use a CT-8S, which has eight streams, feeding an AD-8X as an example.

### Step 1: Pick Controller Type

CasaSetup will start in the “Select Controller” page. Since the Streamer is not controlling the AD system, leave the Controller Type as “CasaTunes CT” and click on Advanced Settings at the top of the screen. Check the “Configure music server as a multi-stream player?” checkbox and click on Save at the top of the screen. After clicking Save, you should see something like this:



#### Controller Settings

Select Controller Type:

CasaTunes CT ▼

- ☐ Are you using a CasaTunes CT-3, CT-3S or CTMS-3 music server or streamer?
- ☒ Configure music server as a multi-stream player?

Next, click on “Sources”.

## Step 2: Set up the Sources (Streaming Players)

On the Sources page you will see the 8 streaming Players that will feed the source inputs of your AD system. In our example, we will use 6 of the Players so that the other two source inputs on the AD-8X can be used for other audio devices.

Name the Sources the same names you will be using in Integration Designer. Click on “Hide Source” for any streaming Players that you will not be using. Here is our example Sources page:

► Sources AirPlay	Advanced Server Settings Third Party Control	Update CasaTunes Remotely Access Server Project Information License Change Time Zone
----------------------	---	--

<b>Built-in Sources</b>	<b>Jeff Beck on Pandora Settings</b>
All Music	Source name: Jeff Beck on Pandora
Alison's Music	Source type: CasaTunes Media Player
Kim's Music	<input type="checkbox"/> Hide Source
Guest Music	▼ CasaTunes Player Settings
KUNC	Select audio device for source: Speakers (2- ASUS Xonar DSX Audio Device)
Jeff Beck on Pandora ►	Select speakers for source: Speaker Pair 2: (Jack Color: Black)
Player 7	
Player 8	

Next, click on “AirPlay”

## Step 3: Set up AirPlay

To allow your customers to send music to the streaming Players, make sure “Enable receiving AirPlay music from iPad, iPad mini, iPhone and iPod touch devices” (and iTunes running on any PC or Mac) is checked.

**Important:** Verify that the “Always turn off the room when the AirPlay stream disconnects” Checkbox is **not** checked. Do not check “Enable transmitting CasaTunes music to AirPlay speakers”, as this is not available when using CasaTunes as a pure streamer.

<b>AirPlay Streaming Devices</b>
<input checked="" type="checkbox"/> Enable receiving AirPlay music from iPad, iPad mini, iPhone, and iPod touch devices
<input type="checkbox"/> Always turn off the room when the AirPlay stream disconnects
<input type="checkbox"/> Enable transmitting CasaTunes music to AirPlay speakers

Next, click on “Music Services”

## Step 4: Set up Music Services

To set up the music for your customers, you will need their credentials. Take a look at all of the services we have available on this page and view the [SqueezeBox Setup Video](#) for instructions on how to use any music services available via SqueezeBox. Follow the instructions on the Music Services page and you should end up with something like this (with the SqueezeBox highlighted in this example):

Select Controller	► Music Services	Update CasaTunes License
Sources	Music Searches	Change Time Zone
Rooms		

### Music Services

- ☐ Grooveshark
- ☒ iPod Classic (No WiFi)
- ☐ iTunes Music
- ☐ iNetCustom
- ☒ SHOUTcast
- ☒ Spotify
- ☒ SqueezeBox (Includes Pandora, SiriusXM, Slacker and more)
- ☒ TuneIn
- ☐ uPnP
- ☒ Windows Music

### SqueezeBox Settings

Setup an account on <http://www.MySqueezeBox.com>, then select an music apps such as Pandora, SiriusXM, and Slacker for use with CasaTunes. [SqueezeBox Setup Video](#) and Help for instructions.

Note: You must restart the SqueezeBox server below each time you your music apps.

See which [SqueezeBox Apps](#) are supported by CasaTunes.

▼ SqueezeBox Account Information

User Name:

Password:

Verify Account

▼ Restart SqueezeBox Server

Next, finalizing CasaSetup



## Step 5: Finalizing CasaSetup

Go to the Music Searches page to tell CasaTunes which music services to use when searching for music.

Tip: There are two basic ways for your customer to select music. All of the Music Services selected in the previous page will show up when browsing for music. The customer can also search for music by searching for a song, album or artist. The Music Searches page is used to limit the search results, for ease of use and speed. We will talk more about searching for music in the Integration Designer section. You can change this at any time without affecting your final design, so don't be afraid to check the boxes of all of the Music Services you have enabled for now!

Go to the Update CasaTunes page and change the defaults as you see fit.

Go to Change Time Zone and change the Time Zone to match your local time zone

Click on Advanced Settings at the top of the screen and then go to the Project Information page. Here you can have email notifications sent to you and you can make a backup of the project.

TIP: Even if you don't make a backup of the project, the CasaTunes system automatically backs up some important items, like the configuration settings you made in CasaSetup. No user information is backed up. This is meant solely for troubleshooting and restoring information (Sorry, we do not back up the music, so make sure your customers do!). If you or your customer accidentally do something that you need to undo, just give us a call and we can help you retrieve the settings.

While you are in CasaSetup, go to the bottom of any page and find the IP address. You will need this address in Integration Designer. It is located at the bottom right:



Next, Part 2: Configuring the CasaTunes driver in Integration Designer

## Part 2: Configuring the CasaTunes Driver in Integration Designer

### Step 1: Load the CasaTunes driver

If you don't already have it, you can download the driver and several example User Interfaces at [www.CasaTuns.com/downloads](http://www.CasaTuns.com/downloads). Start your new design and load the driver into the control system.

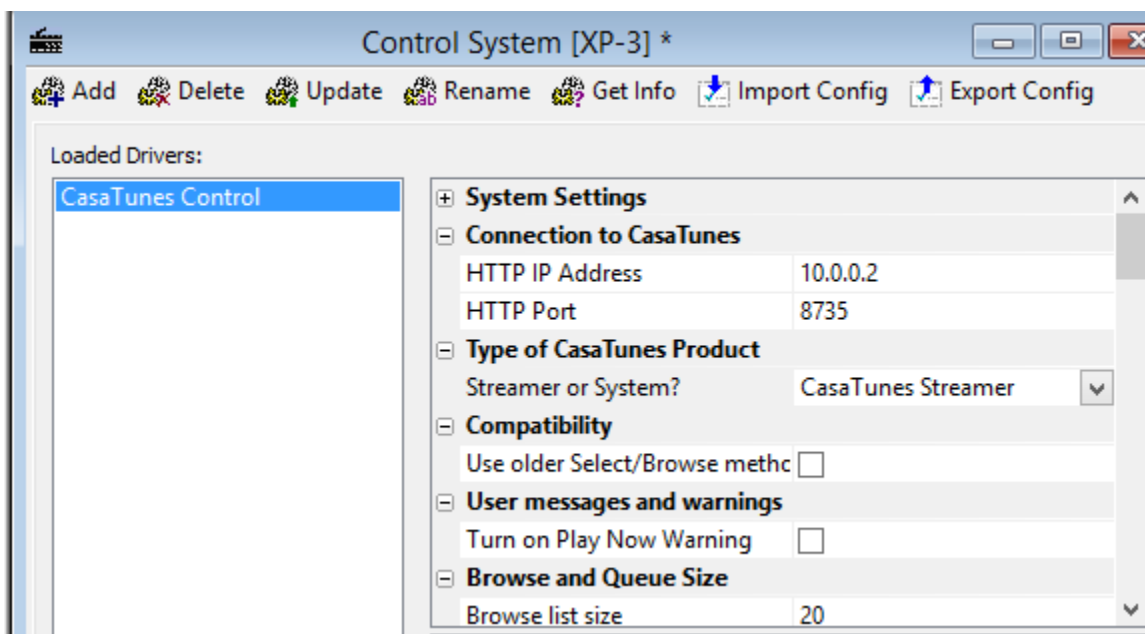
### Step 2: General Settings

Go to the driver configuration screen, put in the IP address (found in Step 5 of Part 1), select "CasaTunes Streamer" in the "Type of CasaTunes Product" section and set the browse list size. This size determines how many items at a time are loaded into any list you create.

*Tip: For fast systems you can change this to a higher number. If the number of items in a list is bigger than the Browse list size, the customer will see a "More . . ." entry at the end of the list, which when clicked will allow them to continue browsing.*

Since you are starting a new design, we highly recommend that you leave the "Use older Select/Browse method" check box unchecked.

The "Turn on Play Now Warning", in most cases, can be unchecked. If a customer often accidentally erases a queue they are creating because they click on Play Now, instead of Add to Queue, you can check this box. If it is checked, you will need to have a warning text box and OK and Cancel buttons with the correct functions, as shown in the VP device example in CasaTunes.rti. So far, you should have something like this:



Next, Configuring Sources

### Step 3: Configuring Sources

In the driver configuration, put in the number of Sources (streaming Players). This number must be the total number of Players that were shown in the Sources page of CasaSetup. In our example CT-8S, the number of Sources must be set to 8, even though two of the sources are not used.

Now, enter all of the Source names. Copy them from CasaSetup so they are exactly the same as in CasaSetup. Include Hidden Sources.

## Next, Finish up Configuration

### Step 4: Finishing up Configuration

If you are organizing your customer's browsing to simplify it for them, as described in the following tip, you can change the "Browse List Home Level" so that going back in a browse list, when browsing for music, never goes back farther than showing the items in a particular service.

**TIP:** Some dealers set up buttons with a music services name on the button. This way, when the customer wants to select a Pandora station, for example, they would click on a Pandora button which would take them to the browsing page with the Pandora service pre-selected. An example of this is in the Kindle Fire device in CasaTunes.rti. Note the macro in these buttons. The "Reset Browsing List" sets the browse list to the top level (level 0) and then the "Select Browse Item From List" sets the browse list to the Music Service that you wish to pre-set the browse list to (for Pandora, in the Fire example, the index is 2 as there are two other Music Services above Pandora when the list of services is displayed). Finally, the Macro change to the Browse page to show the results.

Currently, to find the indexes for the services, you will need to "cut and try". We hope to update this so that you can use the service names in the future.

Once in the Browse page, backing up the browse list is limited by the configuration setting "Browse List Home Level". You will also see a Home button in the upper left corner of the list in the Fire device. This jumps the user up the list to the level set in the "To Which Level" parameter of the "Reset Browsing List" command. In the Fire example, it is set to 1, so the user only sees the items in Pandora or whichever service they are currently browsing.

For customers that are more tech-savvy, you may wish to leave all of the level settings to 0 and not use buttons like in the Fire example. When the users want to browse for music, they would see all of their Music Services and go from there.

The last setting in the driver configuration is the "Reset Browse List After Choosing Music". In most cases this should be checked. When checked, immediately after they pick music to play, the browse list goes back to the top (limited by the "Browse List Home Level" setting, discussed above). You should try this setting both ways and decide which you feel is better.

## Next, Part 3: Designing

## Part 3: Designing

The CasaTunes driver is very flexible. Because of this, we have included several .rti system design files showing different features. Check out the “READ ME” device in each .rti.

NOTE: When you are using CasaTunes as a pure streamer and not controlling the AD system, you will not be using the volume and power functions and variables from the CasaTunes driver. In fact, you will not see these functions and variables when in this mode. Keep this in mind when using the example .rti system designs.

We will be adding more information to this Part 3, but for now, here are some tips:

TIP: To try using the CasaTunes search capability, go to either of the iPad examples in CasaTunes-iPad.rti.

The important things to know to use the search (and new Pandora station naming):

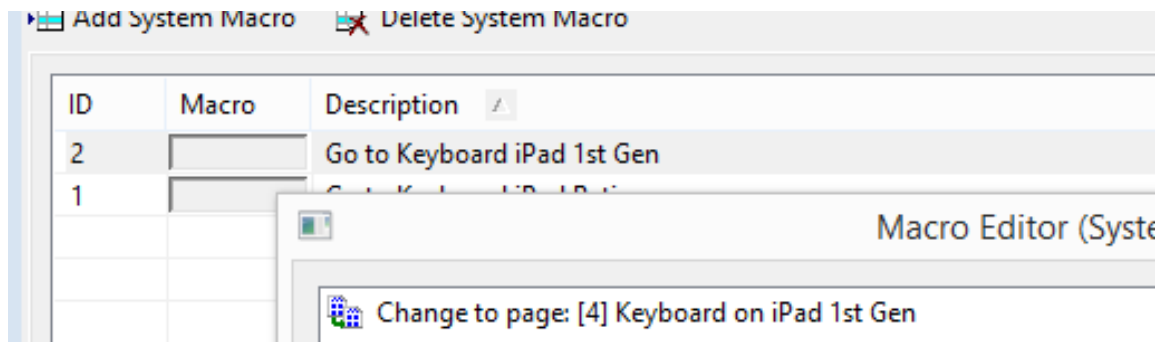
- Use a Button, like the one labeled Browse/Search Music in the CasaTunes page, to take your customer to the Browse Music page (for simplicity, leave the music browsing list on a separate page).
- If you left all of the browse list level parameters to 0, all music services will be displayed in the browse list.
- In the Browse Music page, create a button that will take the customer to the keyboard. Note the Macro that is attached to this button in the example. The reason for the logic in the Macro is that the list will be used for the results of any search. When the list is showing the results of a search, the button name will change to Browse and the customer can click on it to go back to the browse list. The text on the Search button is a variable controlled by the driver.
- In the Keyboard page, make sure you assign the functions and function parameters shown in the example, for all of the buttons.

If you follow the example carefully, when the customer clicks on Search when all of the Music Services are showing in the list, the search item entered in the keyboard will be used to search through all services. If the customer is already browsing, for example, they are down one level into the TuneIn service, if they click on the Search button, the search item entered in the keyboard will be used to search through just the service they are browsing in, in this case TuneIn.

TIP: If you have set up the Keyboard and Browse Music pages as described in the previous tip, the customer can also create new CasaTunes Playlists and Pandora stations.

To allow creation of new CasaTunes Playlists (which will show up in the top level of browse list the next time you browse music), simply add a button with the “Save Queue as CasaTunes Playlist” command as shown in the iPad examples in CasaTunes-iPad.rti. Link the button to the Keyboard. That’s it.

To name new Pandora stations, you will need to set up a system macro and event. The system macro simply tells the device to go to the page the keyboard is on:



When the customer clicks on the Create a New Station item in the browse list when browsing Pandora the driver raises a System Event. You will need to create the event's handler in the Events tab of the driver configuration. Note that the event runs the Macro that you just created. Here is what the events look like:

## Appendix E: CasaTunes with Control4

These steps assume you have already installed your CasaTunes system and it is properly setup and running.

### *Download the Control4 drivers for CasaTunes*

Download the CasaTunes drivers for Control4 onto the PC you use with Composer to configure your Control4 installation. The Control4 drivers for CasaTunes are available from the downloads page on the CasaTunes web site. This page can be found at:

<http://www.casatunes.com/downloads>

Unzip and copy the drivers into your Control4 Drivers folder. Start Composer, and if you installed the drivers correctly, Composer will automatically discover the CasaTunes components installed using SDDP.

### *To install the CasaTunes AV Switch and MSP Player drivers:*

- CasaTunes supports the Control4 SDDP protocol, simplifying setup and configuration. SDDP allows your CasaTunes devices to be automatically discovered and their IP network address to be automatically resolved. SDDP automatically downloads the CasaTunes drivers from the Control4 online driver database
- To use the SDDP capability, select the discovered tab in the Control4 Composer application. The Discovered tab displays all the discovered CasaTunes devices that are available. There will be an entry for the CasaTunes AV Switch as well as an entry for each CasaTunes MSP Player

Items			
Locations		Discovered	My Drivers
		Search	
Type	Manufacturer	Model	
A/V Switch	CasaTunes	ct:avswitch	
Media Service	CasaTunes	ct:msp-player1	
Media Service	CasaTunes	ct:msp-player2	
Media Service	CasaTunes	ct:msp-player3	
Media Service	CasaTunes	ct:msp-player4	

- In Composer, select the room where you would like to install the CasaTunes AV switch and double click on the discovered CasaTunes AV Switch. It will automatically add the AV switch to the selected room. You can rename the switch if desired.
- Now add each CasaTunes MSP Player (Type: Media Service) to the project.

- Once you have added the CasaTunes AV switch and players, you will notice in the Properties tab for each driver the IP address has been automatically configured for you, and the CasaTunes Status property for each driver should show it is now **connected**

### Connecting the outputs of the AV Switch to the various rooms (or other devices)

- In Composer, select **Connections** and select the CasaTunes AV Switch
- Connect each configured Room in the Room Control section. Connect the **AUDIO\_SELECTION** and **AUDIO\_VOLUME** connections with the **Audio EndPoint 1** and **Audio Volume 1** in the room.
- If you are feeding a pre-amplified output from CasaTunes to an AUDIO\_IN connection on another device, then select the appropriate **Audio Out x** from the Audio/Video Outputs section and connect it to the input of the device.
- To simplify setup and ensure you connect the outputs of your AV Switch to the correct rooms, you should jot down the list of rooms configured in CasaSetup. These Rooms are listed in the order they are connected to the AV Switch.

### Connecting the output of each Player to the correct input of your AV Switch

In Composer, select **System Design** and select the player to configure. The **Source ID** property specifies the number of the **Audio In** connection on the AV Switch you should connect this player to.

Now switch to the **Connections** and for each Player connect the AUDIO\_OUT for the player to the appropriate input on the AV Switch.

For more help, check out the following [How to Setup CasaTunes with Control4video](https://www.youtube.com/watch?v=Mhwtc659k8Q).  
(<https://www.youtube.com/watch?v=Mhwtc659k8Q>)

Once you have completed your configuration make sure you backup your project and update all the Directors and Navigators.

### *Configuring your CasaTunes music server as a streamer*

You can configure your CasaTunes music server as a streamer which allows it to work with other 3rd party AV switches that are supported by Control4. **This option is only available on CasaTunes CT Systems.**

To configure your CasaTunes music server as a streamer:

- Select the Controllers menu option in CasaSetup
- Select Advanced Settings
- Check the option **Configure music server as a multi-stream player?**
- Select Save

## CasaTunes AV Switch Advanced Settings

### External Inputs

The CasaTunes AV Switch supports one or more external inputs on the CasaTunes music server depending on your CasaTunes model. You can use these external inputs to feed third party audio or other music sources. The External sources are presented in the same order as they are in CasaSetup.

For example, suppose you wanted to feed the output of your home controller into CasaTunes. To configure this, follow these steps:

- Physically connect the **Audio Out** output on your home controller to the External Input 1 connector on your CasaTunes music server
- Using Composer, connect **Ext Input 1** on your CasaTunes AV Switch to the **AUDIO OUT** on your home controller

Now when you select to listen to music from your home controller in a CasaTunes room, it will automatically switch the room to the associated external input

### Wireless Speakers and Room Groups

The CasaTunes AV Switch introduces **Var Audio Out x** and **Var Room x** connections to support playing to wireless speakers and CasaTunes room groups. These Variable Audio Out/Rooms require you configure the connection as well as the "Var Room x Name" Property in Composer.

For example. Suppose you want to add a wireless speaker called **WIRELESS1** in CasaSetup to the area called Pool in your Composer Project. To configure this:

- Select the CasaTunes AV Switch
- Switch to the Connections view
- Connect **Var Room 1** to the pool room (area)
- Switch to the System Design view
- Set the property **Var Room 1 Name** to **WIRELESS1**

## Controlling your CasaTunes system using Control4

Please view the following video on [How to control CasaTunes using Control4](https://www.youtube.com/watch?v=xvREA5R3Usk).  
(<https://www.youtube.com/watch?v=xvREA5R3Usk>)



## Scheduling Music

You can schedule Control4 to wake up to music, by scheduling a CasaTunes Playlist or a playlist from a specific Music Service.

In this example, we will create a **Daily** scheduler event that will play the **Easy Listening** playlist using **Player1** every morning in the **Master Bedroom** at 8:00 am.

We start by creating a Schedule Event:

- Select **Agents** in Composer
- Select the **Scheduler** Agent
- Click Scheduler **Add...**
- Fill out the Scheduler form and name it **Daily**

Next, configure the Playlist to play on Player1:

- Select **Programming** in Composer
- In the **Device Events** list select **Scheduler**
- Select the **Daily** Schedule Event we just created
- In the Actions Window, select the **Equipment Room** and select **Player1**
- In the Player1 Specific Actions, select **Device Specific Commands**
- Select **Select Playlist** from the pull down
- Click on the “...” button to browse the available Playlists to play
- Navigate the list and select the **Easy Listening** Playlist to play
- Double click or drag the Player1 Actions to the Script window

The final step is to select the room to play the Playlist using Player1:

- In the Actions Window, select the **Master Bedroom** and select **Player1**
- Select the **Select an audio device** option
- Select **Equipment Room** ➤ **Player1** from the pull down
- Double click or drag the **Master Bedroom** Actions to the Script window
- Test your script by clicking on the **Execute** button in the Script window

Please view the following video on [How to wake up to music using CasaTunes and Control4](https://www.youtube.com/watch?v=FggcRsWuYnk).  
(<https://www.youtube.com/watch?v=FggcRsWuYnk>)

## Appendix F: CasaTunes with URC

### *Setting up CasaTunes in Streamer Mode, step by step.*

1. Install your CasaTunes Streamer using the supplied installation instructions. If you have one of our “Systems”, like our CT-4+, it can also work as a Streamer by following these instructions.
2. After powering up the Streamer, open a browser on any computer on the same network and go to <http://CasaServer/CasaSetup>.
3. In CasaSetup, click on the “Advanced Settings” button on the top right bar and check the box next to “Configure music server as a multi-stream player?”

#### Controller Settings

Select Controller Type:

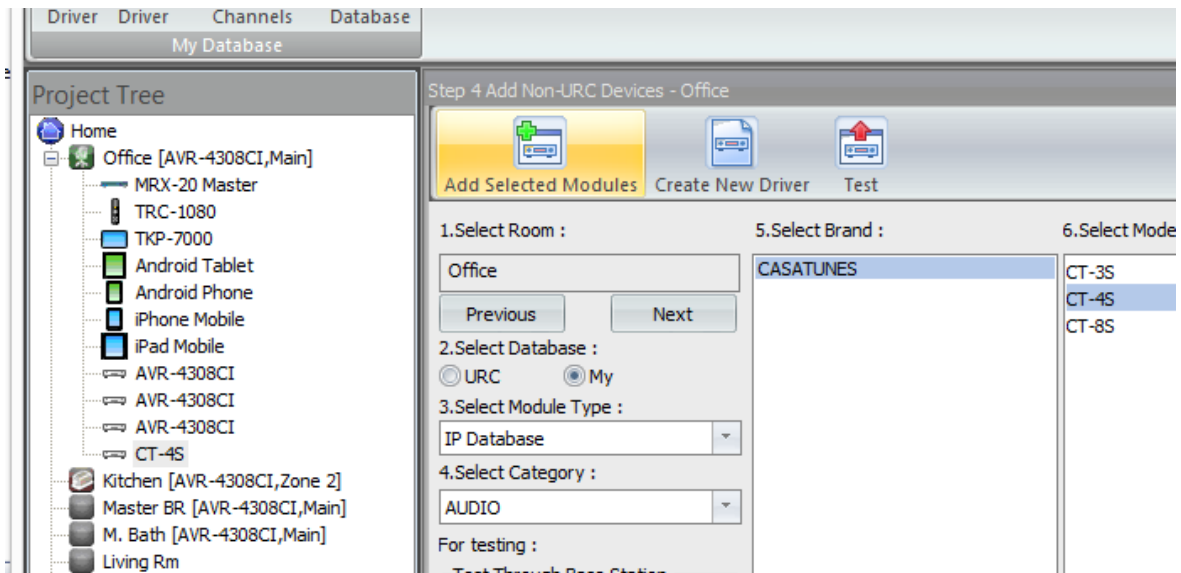
Cas

- ☐ Are you using a CasaTunes CT-3, CT-3S or CTMS-3 music server
- ☒ Configure music server as a multi-stream player?

4. All other settings should be correct from the factory. After you are done, click on Save.
5. Now go to “Sources” and name all of your “Built-in Sources”, clicking on “Save” regularly. These Sources are the Streams, outputted on the back of the system, which you will be using with URC. Each one is a separate Stream. Name them something that will make sense to your customers. The outputs of the Streams will connect to the inputs of AV Receivers or matrix switches (such as the DMS). “Hide” any Streams that you will not be using.

### *Use URC Accelerator to build your system*

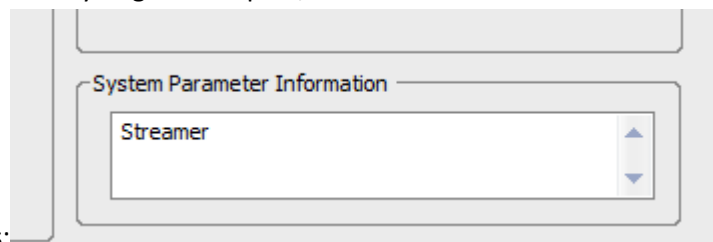
1. Open URC’s Accelerator and in the File tab, select “Import TCM Files” and import the “CasaTunesStreamer.tcm” file.
2. **Close Accelerator and restart it,**
3. Create your new project and when you get to “Program **Step 4**”, you will find the CasaTunes Module by clicking on “My”, selecting “IP Database” in Module Type and “Audio” in Category. Select CasaTunes for Brand and pick the model that matches your CasaTunes product (if you using a CT-4+, pick CT-4S. If you are using a CT-8+, pick CT-8S). Finally use “Add Selected Modules” to add the correct module for the type of streamer you have, to the main room. The following uses the CT-4S as an example:



4. In Program Step 6, put in the IP address of the CasaTunes Streamer and in the Port column, use port 8735:

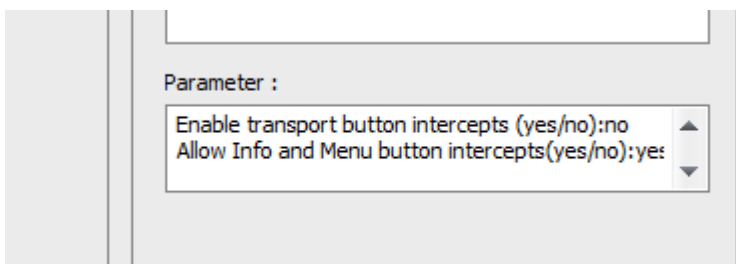
LAN & Wifi   URC Device <b>Non URC Device</b>				
Room	Device	IP Address	Port	
Office	CT-4S	10.0.0.2	8735	

5. Continue with your normal program steps. When you get to Step 11, make sure the word Streamer is in



the System Parameter Information, like this:

6. For each room, the module is set up to not allow intercepting transport hard buttons and to allow intercepting Info and Menu hard buttons to show CasaTunes information. The Info button intercept allows the customer to see some information about the music playing. You change these by changing the default to the right of the colons:



7. In Step 12, select Device Events and create your macros. The settings would look like this (make sure you put in the exact same source (stream) name as in CasaSetup) and the exact Music Service name:

Edit Automated Settings

Name :  
Service changed to Pandora

Available Devices :  
CASATUNES [Office]

Available Event :  
Music Service Event

Parameters

Changed Music Service  
Switched To

Music Service Name {Optional}  
Pandora

For Source Name  
Kim's Music

Prev Next

OK Cancel

8. In Step 12, you can also use a 2-Way Module Command to control any Source's music transport control. Since these are also in the 1-way commands, you may not need them. "Source" means the same as "Stream":

2-Way Module Command

Name :  
Hit Play in Kim's Music

Available Devices :  
CASATUNES [Office]

Available Command :  
Transport Control in a Source

Parameters

Select Action  
play

Source Name  
Kim's Music

Prev Next

Result

☒ Save the result

Variable :

OK Cancel

9.

You are also be able to set up a 2-Way Command to play any CasaTunes Playlist. Again, make sure you enter the Source (Stream) name exactly as it is in CasaSetup and CasaTunes Playlist name exactly as it is when it was created, including spaces.

10. Finish the remaining Program steps in Accelerator and download to your MRX unit and any controllers.

## Description of User Interface

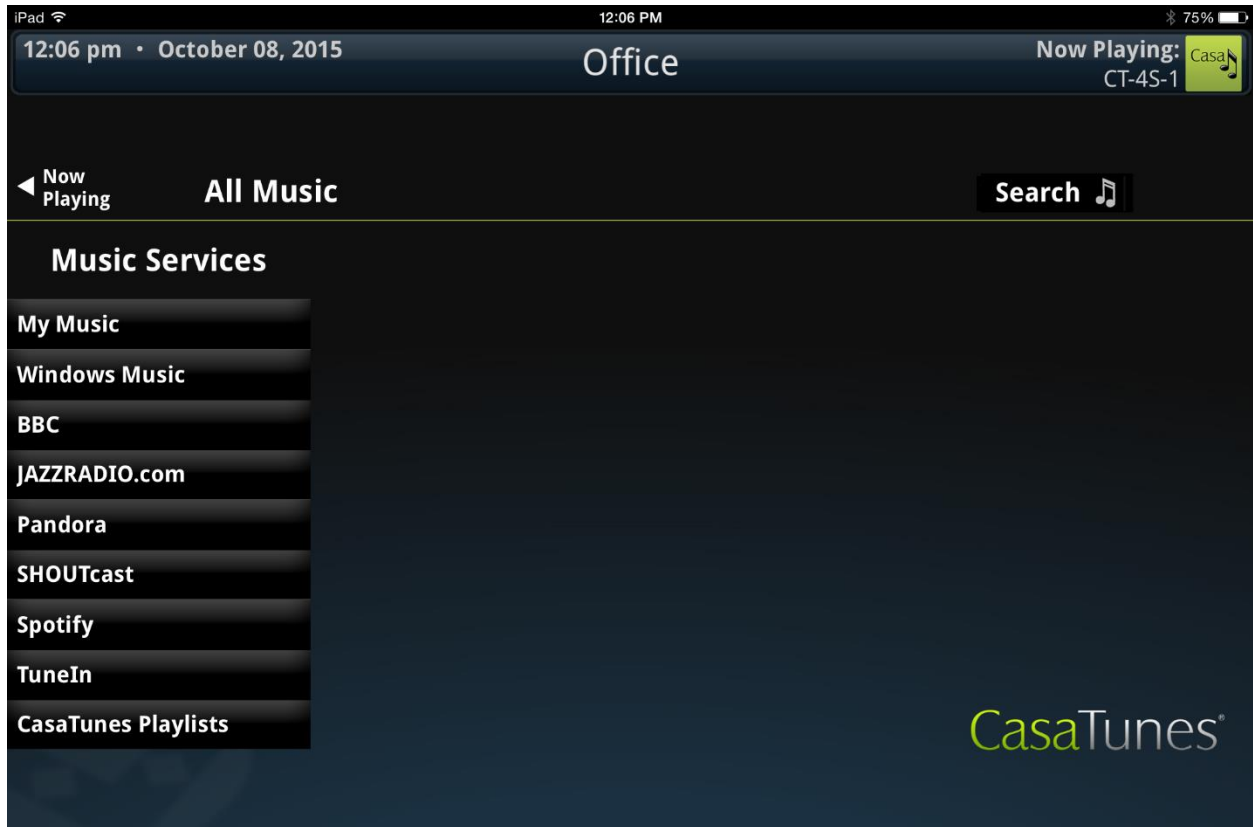
The following illustrates using an iPad with the URC Mobile app to control your CasaTunes streams. When you first select a CasaTunes stream in a URC controller it may look like the following. At this point the stream is not playing anything and the Queue is empty:



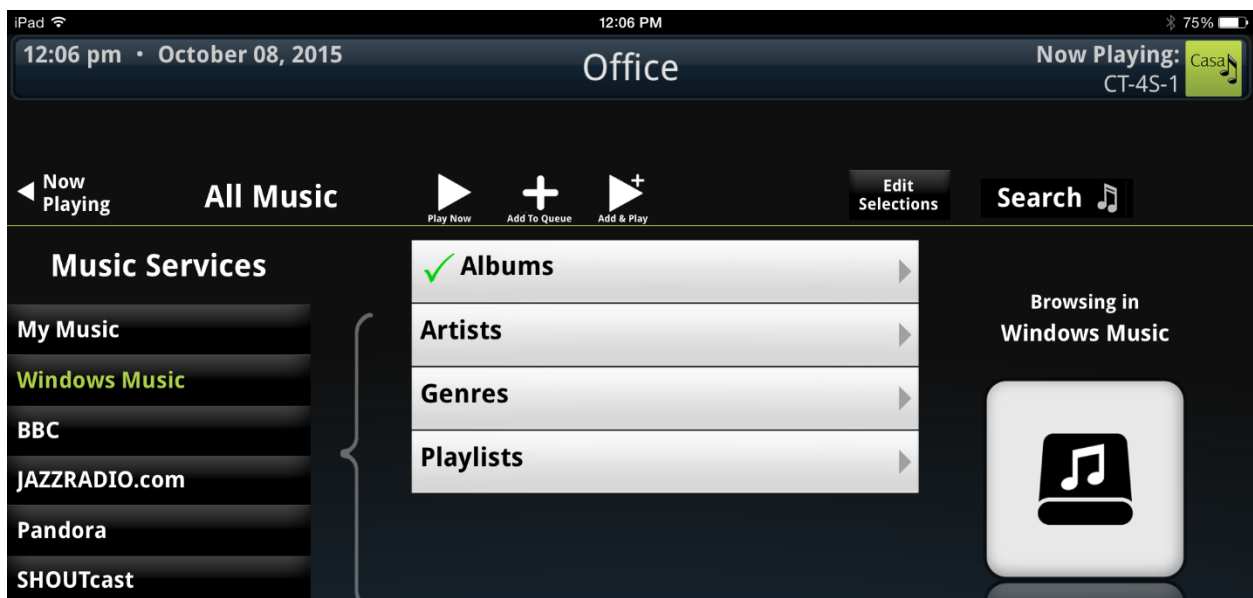
Click on the Select Music ("Select 🎵") button to select music.

## Selecting Music

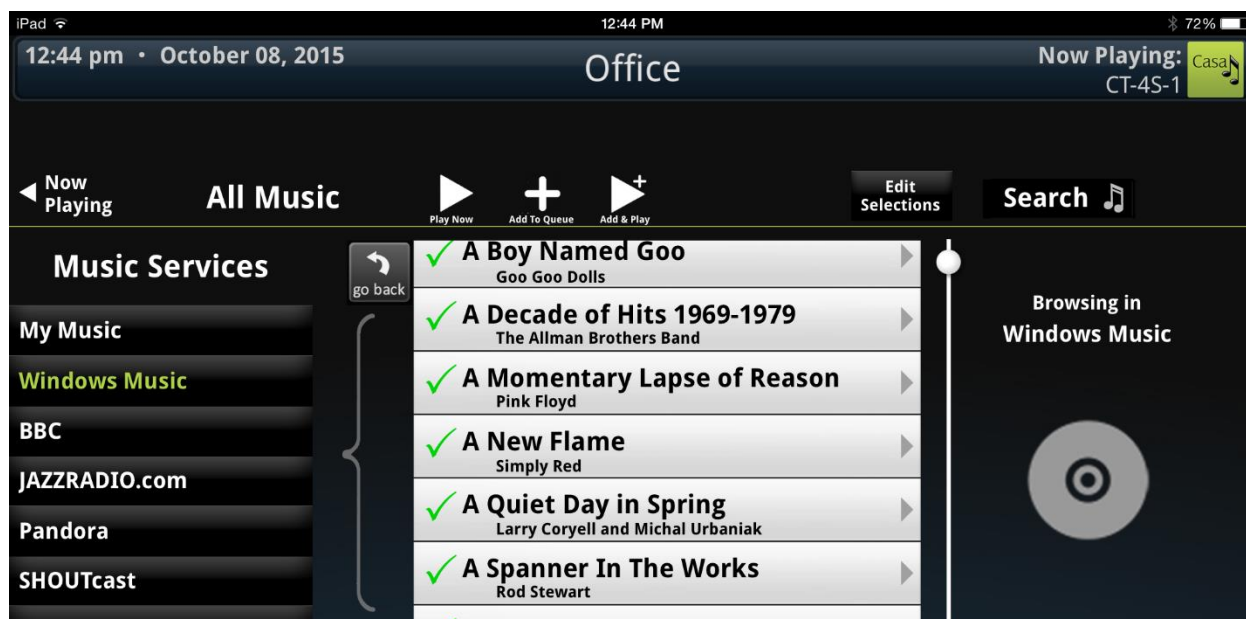
The Select Music button will take you to the music browsing page where you can browse through your music services. Your browse page may look different, depending on which music services you have available.



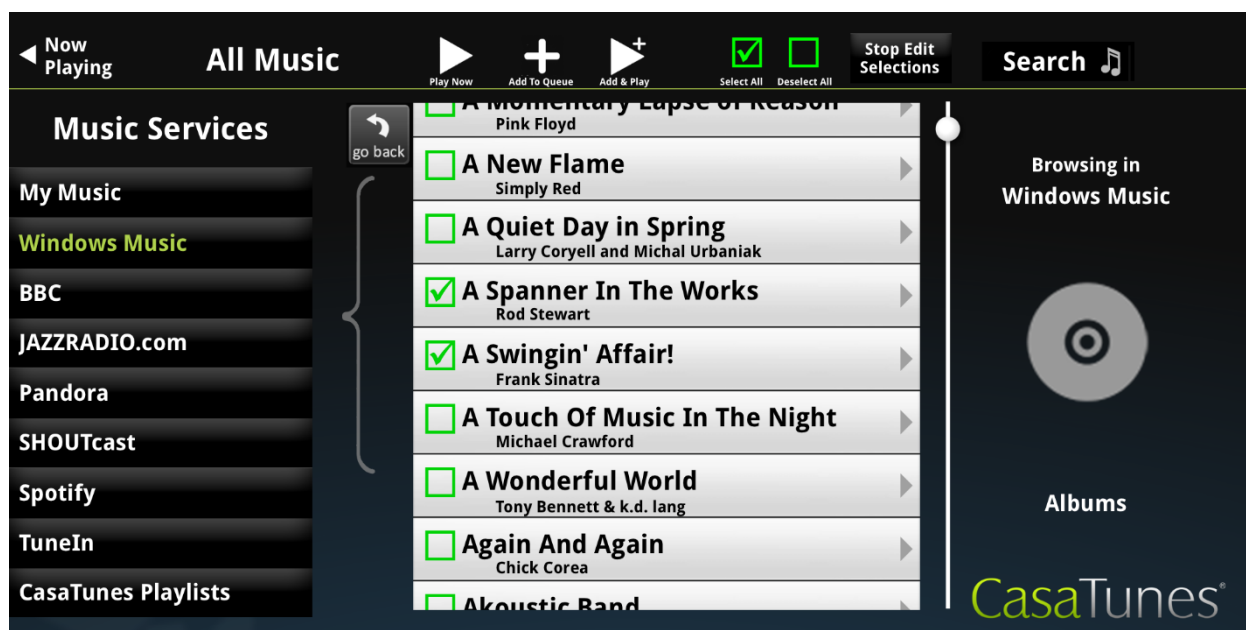
After clicking on a music service, in this case Windows Media, you will see something like this.



In the above example, since we have many albums of music stored in Windows Media format, you can see that Albums is checked. This means that you can click on the Play Now button and all of the music on those albums (all of your Windows Music, in this example) will be loaded into the queue and start playing. On the other hand, if we click on Albums, we can see a list of the albums that we have stored.



At this point, we could click on “Play Now”, and just like before, all songs will be added to the queue. If we don’t click on “Play Now”, and click on the “Change Selections” button (shown as “Edit Selections”, but this is the same), we can un-check albums and only add some of them to the queue. For example, in the following image, you will see two albums checked. This was done by clicking on “Deselect All” (the empty box on the top line) and then clicking inside the checkboxes next to the two albums we want to listen to. Now click on Play Now to start them playing.



After clicking on Play Now, the UI automatically switches back to the Now Playing screen.

In a similar way, if you wish to search for a favorite artist, song or album, just click on the Search button and type in the search item. The results will come up like when browsing for music.

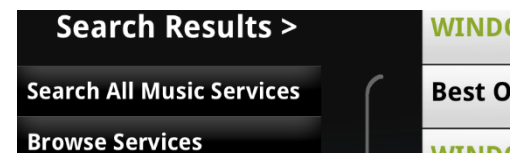
## Now Playing Screen

The now playing screen displays the currently playing Queue, the song title, album name, and other information about what is playing. For disc based music it also shows you what song will be played next. If you wish to play a different song from the queue, just click on it and it will start playing, or use the Next and Previous buttons. The Repeat button tells CasaTunes to continuously play the music forever, one more time or just this time. The Shuffle button mixes the music up in a random order.



## Search Music

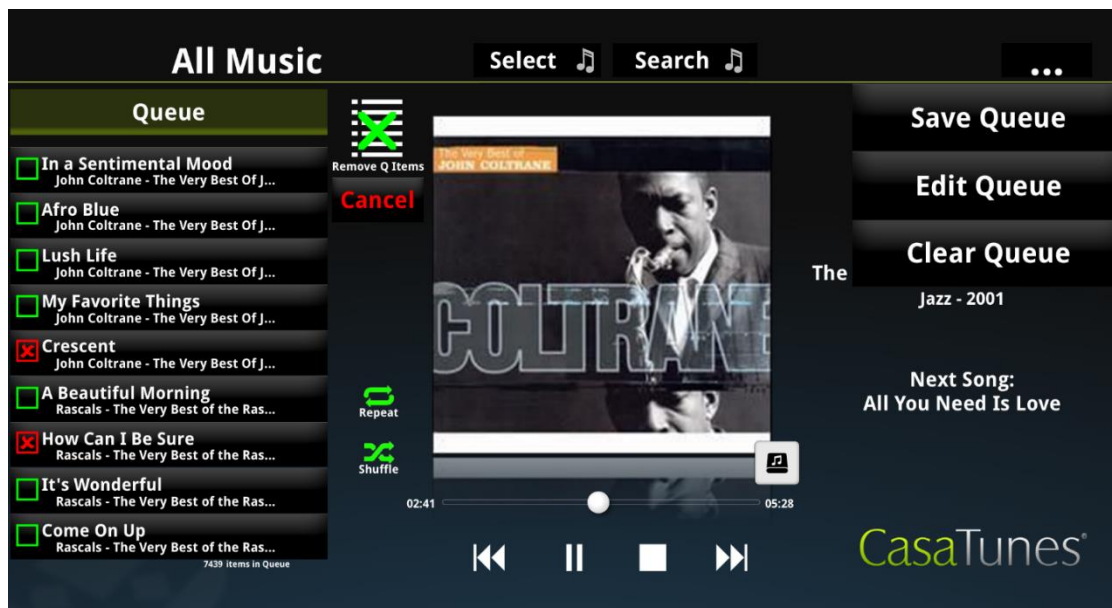
You can search for music by clicking on Search Music and entering the song title, artist or album in the pop-up touch keyboard. You will end up on a screen similar to the Select Music (browsing) screen. Searches will show results from the currently playing service. You can see more results by clicking on Search All Music Services to see expanded results. Browse Services takes you to the browsing screen.





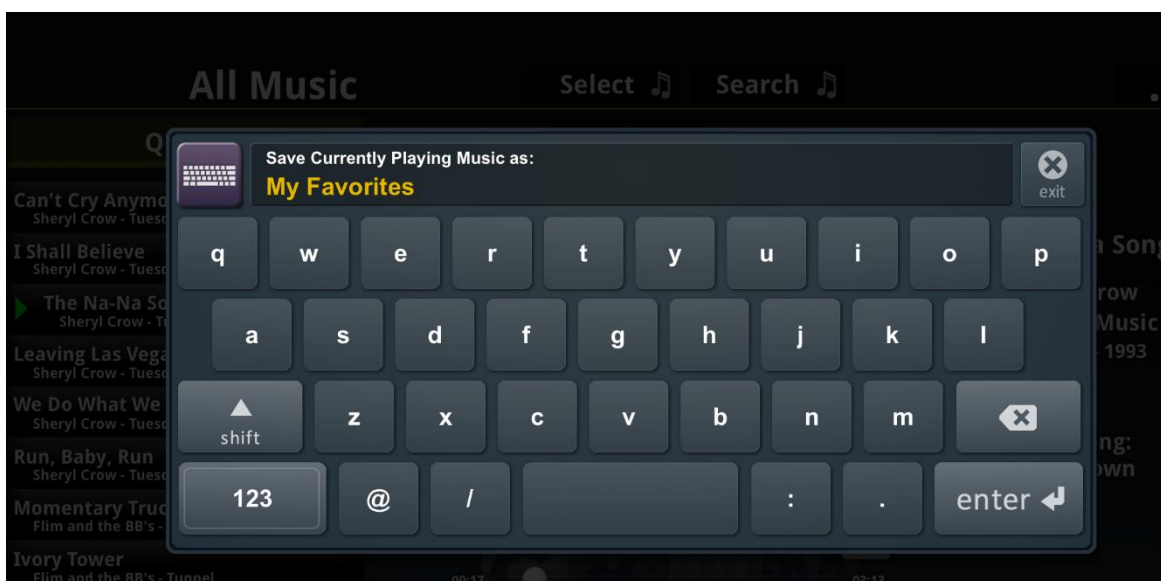
## Editing Playing Queue

If you click on the “Other Commands” button, which is the three horizontal dots (...), you can edit the queue or completely clear it (not usually necessary, since using “Play Now” in the Select Music and Search Music pages replaces the queue). Don’t worry, removing items from the Queue does not remove them from storage. Here is an image where the “Edit Queue” button in the Other Commands list was pressed. Two songs in the queue were checked. As soon as the “Remove Q Items” button is checked, the two songs are removed from the queue and it goes back to the normal mode:



## Creating a CasaTunes Playlist

If you click on Save Queue, shown in the previous image, you can save the current queue as a CasaTunes Playlist, making it easier to play a selection of your favorite songs, or a favorite station or other Music Service selection.



Use the touch keyboard to name the CasaTunes Playlist and then the next time you want to listen to the same selections, use the Select Music button to browse CasaTunes Playlists to make your choice.

## Appendix G: Tips for On Controls Dealers

### HOW ON CONTROLS WORKS



**1** Use the On Controls Builder to customize and build your clients project in the cloud



**2** Sync the project you built in the Cloud to your clients iOS or Android devices



**3** Control IP, IR, RS232 or Contact Closure devices easily over the local WiFi network



CasaTunes CT-4+

### Seamless transition between the On Controls and CasaTunes Apps

The seamless integration between On Controls and CasaTunes is accomplished by leveraging the [CasaTunes URL scheme](http://www.CasaTunes.com/guides) as described in the “Tech Notes” section in [www.CasaTunes.com/guides](http://www.CasaTunes.com/guides), for iOS and Android, and can be programmed in minutes by dealers.

Simply add a CasaTunes music button to your project and configure it to automatically launch the CasaTunes App when pressed. When launched, the CasaTunes App will display a back button with an optional custom label you supply, which when pressed will return control back to your On Controls App.

This allows a seamless transition between the Apps and provides your customers the best of both worlds, since they get the complete functionality of both Apps, without the customer having to manually switch between the Apps.

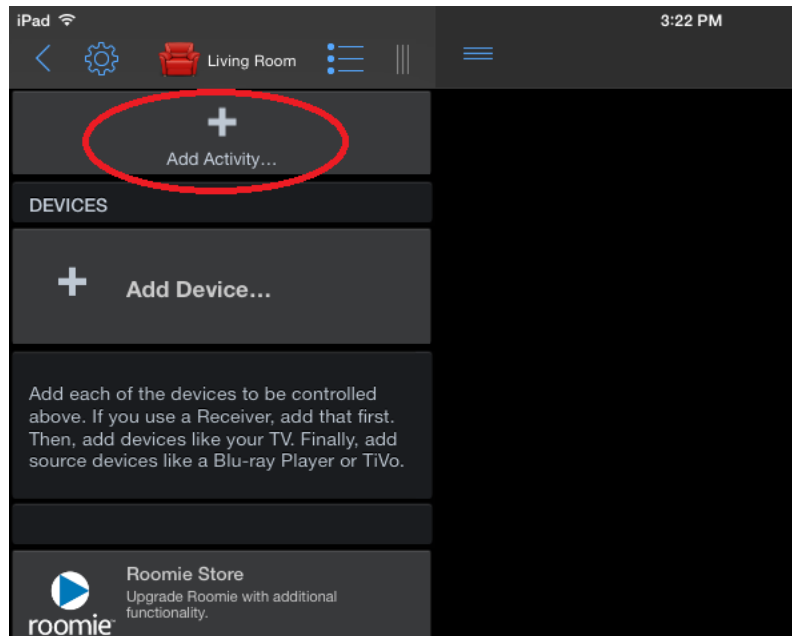
The CasaTunes URL scheme also allows you to configure which CasaTunes room to display when launched, whether the room should be powered on or off, the volume setting for the room, and which

source to select for the room. For more details on how you can integrate CasaTunes and On Controls, check out the following [How to integrate On Controls with CasaTunes](http://www.YouTube.com/CasaTunes) at [www.YouTube.com/CasaTunes](http://www.YouTube.com/CasaTunes).

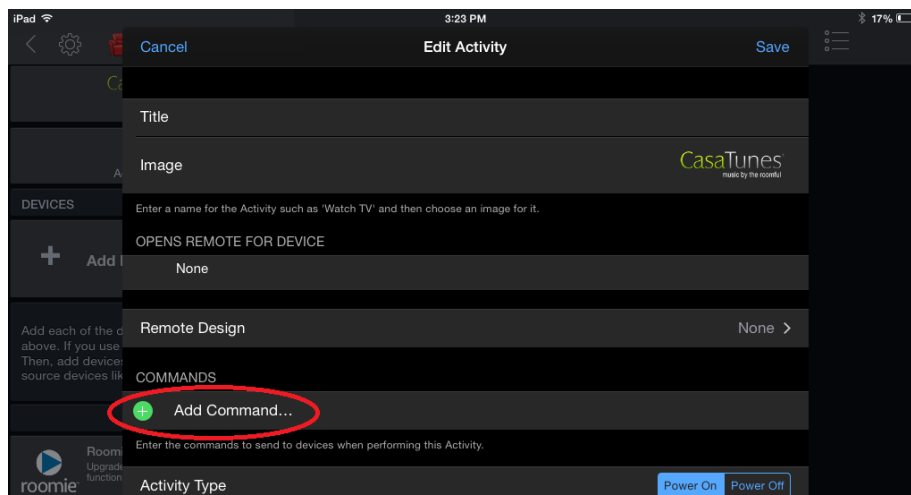
## Appendix H: Tips for Roomie Dealers

### *Add a custom button to Roomie for controlling CasaTunes*

1. Go into the room where you want to add the CasaTunes button, and click "+ Add Activity".



2. Type "CasaTunes" for the Title and choose an image, or leave the Title blank and create a custom CasaTunes image for Roomie. You can download the one used in this example from [here](#).
3. Click on "Add Command..."



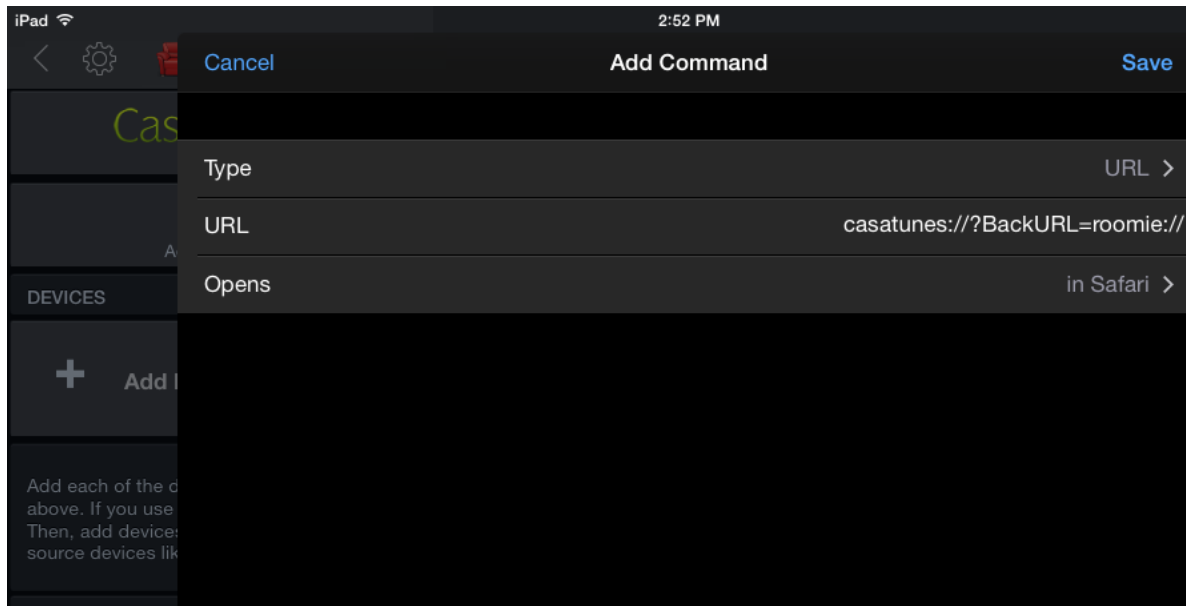


4. For the URL, enter the following scheme:

URL	casatunes:///?BackURL=roomie://
-----	---------------------------------

Note: Additional parameters can be added if desired. For more information about the custom URL scheme for iPads and iPhones, please see this document: [iOS URL Scheme](#)

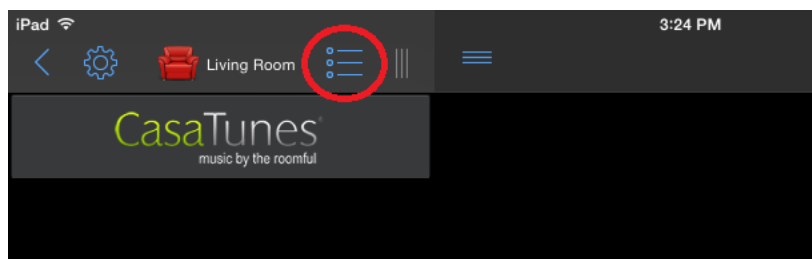
5. For "Opens", select "in Safari".



6. Click Save twice to return to the room page.

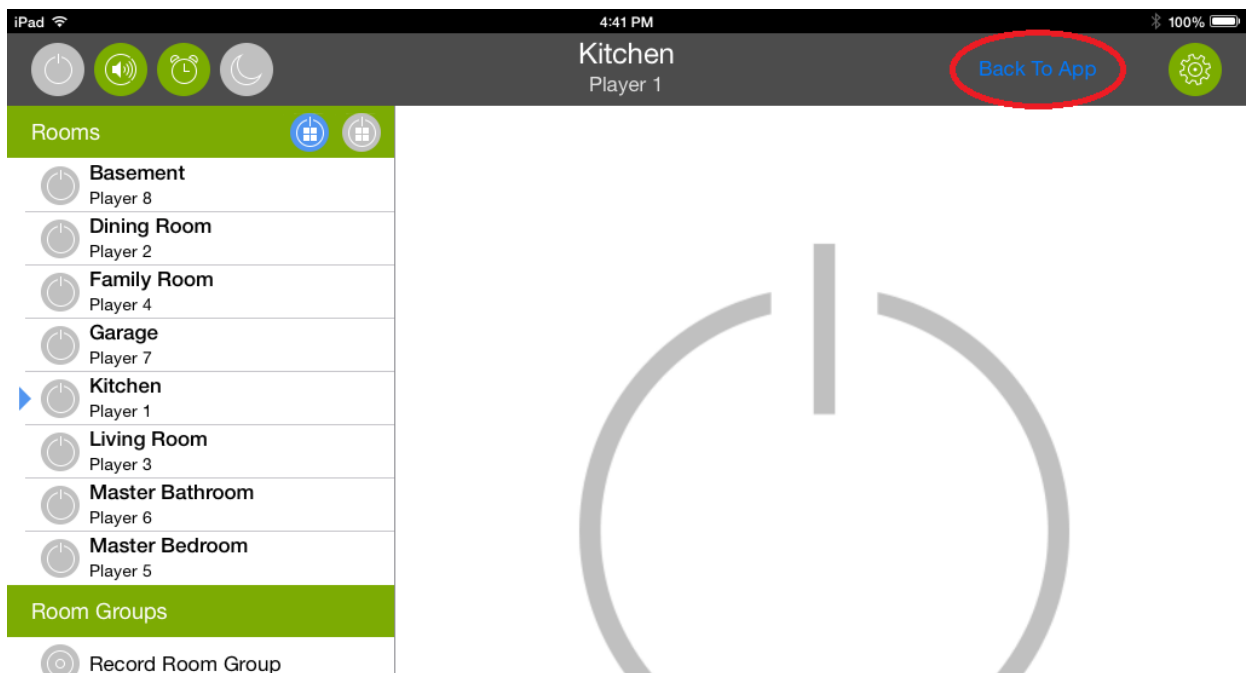
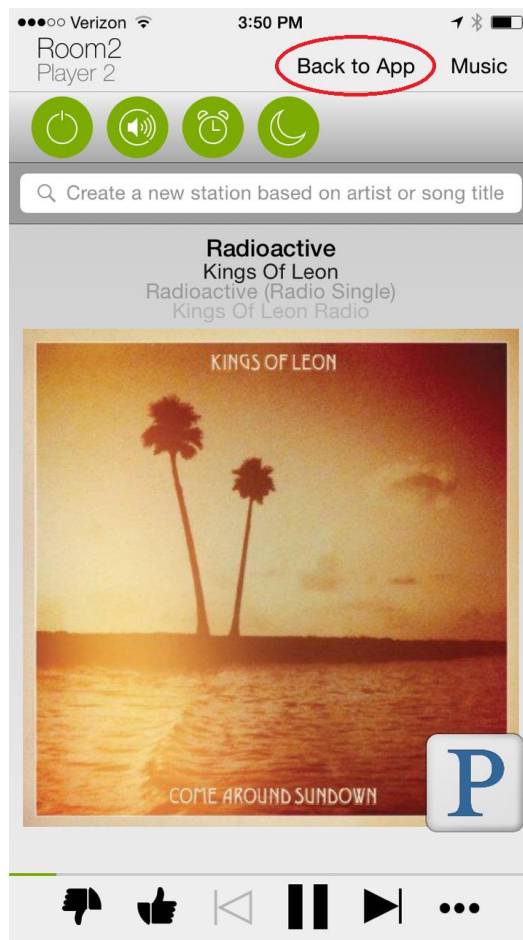
## Testing

1. Click the edit icon to exit the editor.



2. Click the new CasaTunes button to open the CasaTunes App.

3. When you are ready to return to Roomie, click on the “Back to App” button at the top right of the app.





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