

Russound Audio Plugin for HomeSeer

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Introduction

Thank you for the purchase of the HomeSeer Russound Audio Plugin! The HomeSeer Russound Audio plugin gives you total automation control of your Russound Audio System.

Requirements

There are several requirements to using the HomeSeer Russound Audio plugin:

- HomeSeer Version 2.1.0.0 or higher must be installed.
- A Russound Audio controller must be installed in your Home. HomeSeer supports the following Controllers:
 - CAV6.6
 - CAM6.6
 - CAA66*
 - CAS44*
 - ST2-XM
 - ST2
 - SMS-3**

* = Limited Functionality

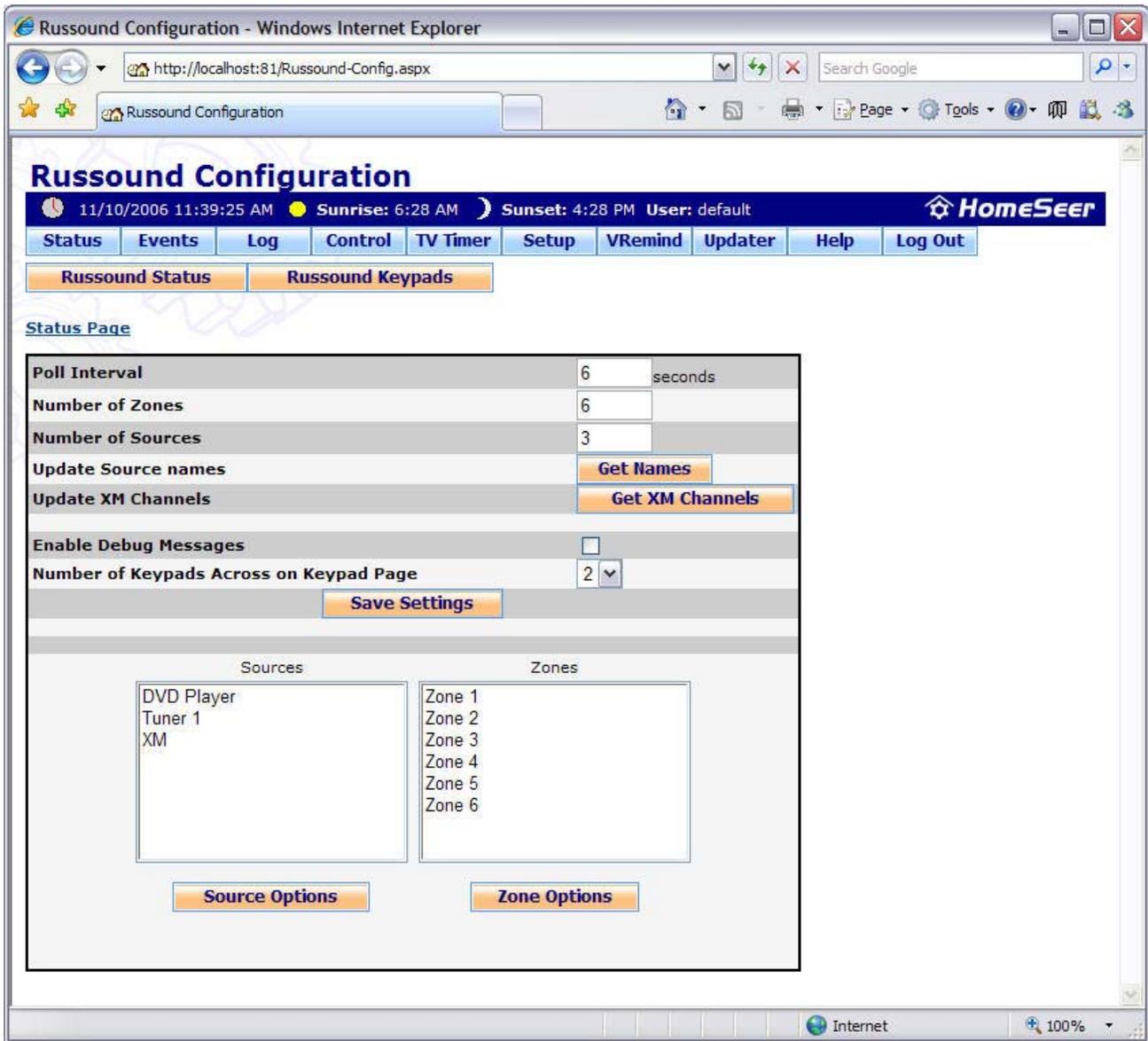
** = Support Coming Soon

- The Controller or Tuner must be connected to a free COM port on your computer.

Installation

1. To install the Russound Audio plugin plug-in for HomeSeer version 2.x, select the "Updater" button on the web interface, or select "Updates" from the "Help" menu. Follow the on-screen instructions for the Updater.
2. Select the Russound Audio plugin plug-in on the package selection screen, then follow the on-screen instructions to finish the update process, and restart HomeSeer.
3. After restarting HomeSeer, click the "Setup" tab and then the "Interfaces" tab on the web site. Click "Enable" to enable the plugin, and then click "Save" at the bottom of the screen
4. To use the Russound Audio plugin, you must first **register** the plug-in. There are two methods of registration, depending upon the information that you have been provided from the time of purchase.
 - a. Click "Unregister/ed" or "Trial" button on the line containing the Russound Audio plugin Plug-in to register. This will display the Registration Screen.
 - b. Enter your License ID and Password included on your order receipt. Click the "Register" button. If you have any technical difficulties, see the Support section of this manual and open a ticket at or help desk.

Setup Screen



Information

This screen is used to control the settings for communicating with the controller, getting information from the controller, and configuring zones and sources. It can be accessed by clicking the "Config" button on the "Interfaces" screen.

Page Items

Poll Interval

Enter the number of seconds at which you would like to poll the controller. Note that Russound may or may not update HomeSeer with all changes, so some polling is recommended for event triggers.

Number of Zones

Set the number of Zones in your Russound Configuration

Number of Sources

Set the number of Sources in your Russound Configuration

Update Source Names

This polls the Russound controller to get the names of Sources. This might take a few seconds, and will disable Zone 1 temporarily. These will be the names

that are configured in your Russound Controller, like "DVD Player", "Tuner 1", or "XM." At this time, zone names must be set manually in the plugin. Source names can be configured manually as well (see below).

Update XM Names

This polls the Russound controller to get the names of XM channels if you are using an ST2-XM. This might take a few minutes, and will disable Zone 1 temporarily. These will be the names that display on your Russound Controller. You can also set these names manually by editing "Russound-XM.ini" in your HomeSeer config folder.

Enable Debug Messages

Enables debug log messages, these can give descriptive information about the plugin if you are having trouble. Please note that Debug is limited to areas of the plugin where it has been implemented, and is not documented.

Number of Keypads Across

Set the number of keypads to appear in each horizontal row on the "Russound Keypads" page

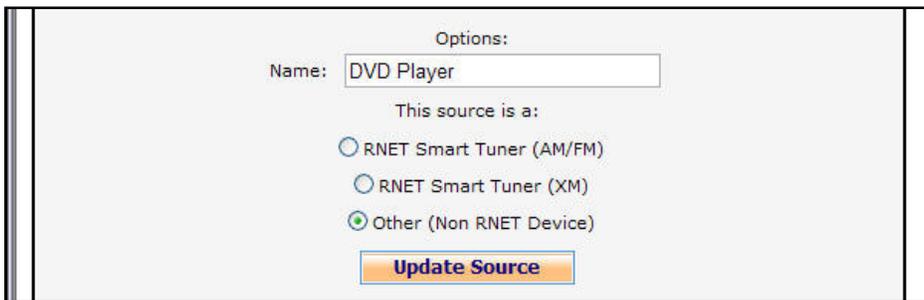
Save Settings

This saves your settings to the Russound.ini file, which is also done every time you shut down the plugin.

Sources List

This lists all your sources configured for the Russound Plugin. Select a source, then click "Source Options" to edit detailed information about the source

Source Options



Name

Set the name of the source to be used by the plugin

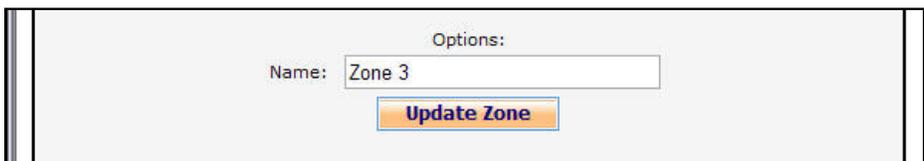
This source is a

Set the type of device that this source is. This will modify the triggers and actions available to you when using the source.

Zones List

This lists all your zones configured for the Russound Plugin. Select a zone, then click "Zone Options" to edit detailed information about the zone

Zone Options



Name

Set the name of the zone to be used by the plugin

Russound Audio Status Page

HomeSeer Web Control - Windows Internet Explorer

http://localhost:81/stat?sortBy=code&sortorder=asc

11/10/2006 10:20:23 AM Sunrise: 6:28 AM Sunset: 4:28 PM User: default

HomeSeer

Status Events Log Control TV Timer Setup VRemind Updater Help Log Out

Russound Status Russound Keypads

Add Device Show All Refresh Poll Devices Bottom

Location: Russound

Device List: Sorted by Code, Ascending Turn Off Sorting

<input type="checkbox"/>	Status	Location	Name	Code	Type	Last Change	Control
<input type="checkbox"/>	Tuner 1 96.5 MHz FM Volume: 6	Russound	Zone 1	[1]	Russound	Today 10:20:15 AM	Tuner 1
<input type="checkbox"/>	DVD Player DVD Player Volume: 30	Russound	Zone 2	[2]	Russound	Today 10:18:17 AM	DVD Pl
<input type="checkbox"/>	Power Off	Russound	Zone 3	[3]	Russound	11/4/2006 5:30:40 PM	Off
<input type="checkbox"/>	Power Off	Russound	Zone 4	[4]	Russound	11/4/2006 5:30:40 PM	Off
<input type="checkbox"/>	Power Off	Russound	Zone 5	[5]	Russound	11/4/2006 5:30:40 PM	Off
<input type="checkbox"/>	Power Off	Russound	Zone 6	[6]	Russound	11/4/2006 5:30:40 PM	Off

Top

Home | Events | Status

powered by HomeSeer

Information

The HomeSeer Status page will display information about your Russound Zones. You can use this page to check the status of your zones, or set your Zones to a source.

Basic Control Instructions

To Change Source

1. Select a source from the drop-down list. The zone will be set to the selected source.

To Turn off a Zone

1. Select "Off" from the drop-down list. The zone will turn off.

Page Items

Status Column

Under the "Status" column, the plugin will display three items. The first line is the current source that the zone is set to. The second line is the current display string. In the case of advanced Russound sources, this can sometimes be a string like "96.5 MHz FM", or your current track name. The third line is the current zone volume.

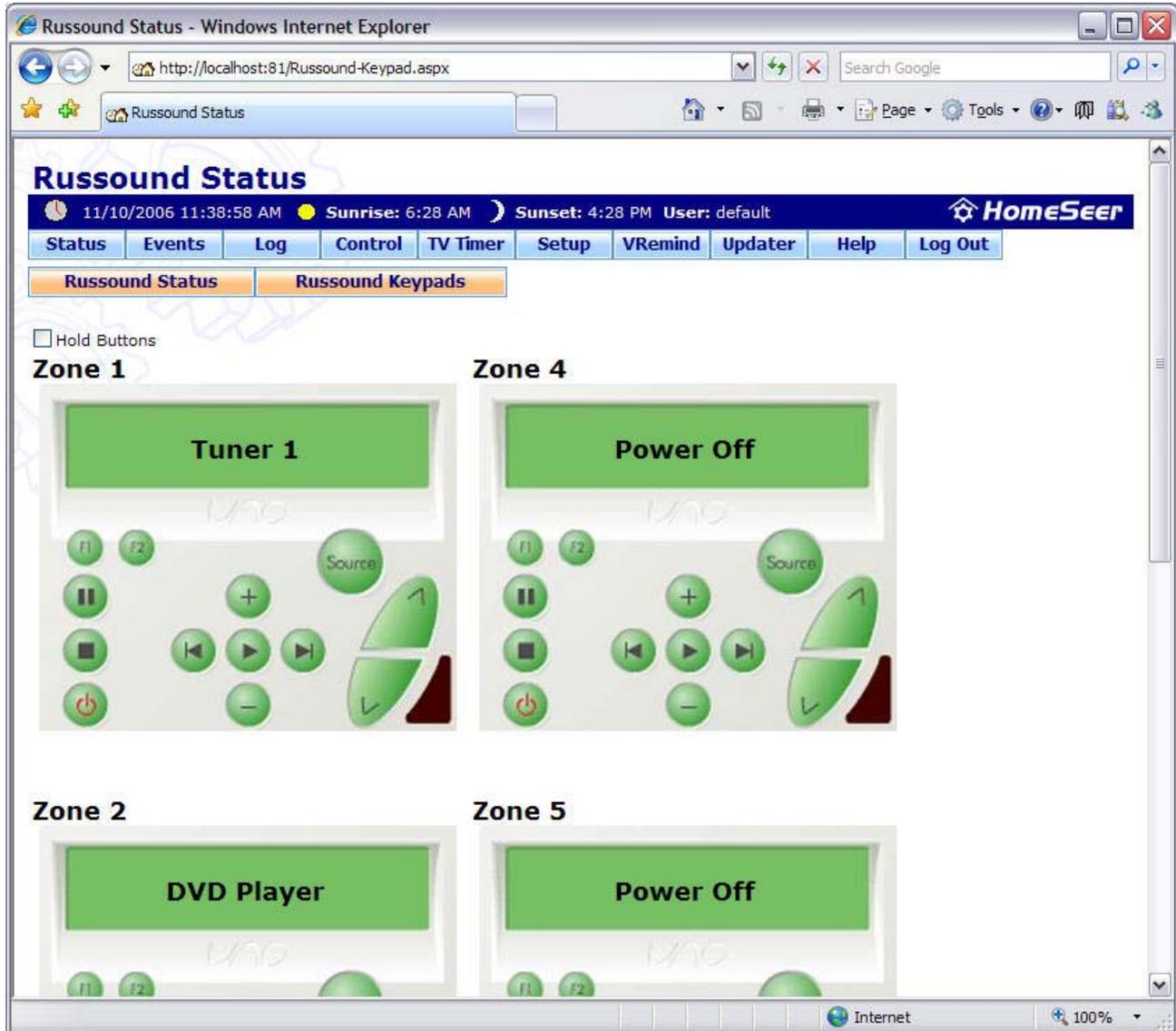
Name Column

The "Name" column shows the names of Zones. These can be renamed to whatever you like, so "Zone 1" can be renamed to "Front Door". To rename a zone or partition, click on the blue link in the "Name" column, or use the Russound Configuration below.

Control Column

This column contains a drop-down list which allows you to set the Zone to a specific source, or turn the zone off.

Russound Keypads Screen



Information

This screen is used to manually control the Russound system. Each keypad on the screen emulates the actual keypad for that Russound Zone.

Page Items

Hold Buttons

Check this box to send a "Hold" command before any button press. Occasionally, holding a button will have a different effect than pressing it, and this allows you to emulate that functionality

Keypad

Press any button on the Keypad image to send the corresponding button press to the Russound Controller.

Russound Source Control Page

The screenshot shows a web browser window titled "Russound Status - Windows Internet Explorer" with the address bar displaying "http://localhost:81/Russound-Status.aspx". The page content includes a navigation menu with options like "Status", "Events", "Log", "Control", "TV Timer", "Setup", "VRemind", "Updater", "Help", and "Log Out". Below the menu, there are tabs for "Russound Status" and "Russound Keypads". The main content area is titled "Configure Russound" and is divided into three sections: "DVD Player", "Tuner 1", and "XM". Each section contains various control buttons and a "Zone List" on the right side. The "DVD Player" section has buttons for "Pause", "Stop", "Previous", "Play", "Next", "Plus", "Minus", "Volume Up", and "Volume Down". The "Tuner 1" section has buttons for "Tune Up", "Tune Down", "M1-M6", "Mem Down", "Mem Up", "Band", "Scan", "Seek", "Volume Up", "Volume Down", "Mute", and "Tune". The "XM" section has buttons for "Channel Up", "Channel Down", "Category Up", "Category Down", "M1-M6", "Channel Up (Category)", "Channel Down (Category)", "Volume Up", "Volume Down", "Channel", and "Category". Each section also has an "Enable" button and a "Zone List" with checkboxes for Zone 1 through Zone 6. The "Zone List" for "DVD Player" has Zone 2 checked, while for "Tuner 1" and "XM", Zone 1 is checked.

Information

The Russound can be controlled directly from this page. This page, unlike the keypads page, controls sources, as opposed to zones.

All Sources

Zone List

Check the zones that you want to send this source to.

Enable

This sets the selected zones to the source they are adjacent to. In the picture above, Zone 1 is set to the Tuner, and Zone 2 is set to the DVD player

Default Controls

This will appear for any source set as a non-RNET device

XM Controls

This will appear for any source set as an XM RNET device

Tuner Controls

This will appear for any source set as an AM/FM RNET device

Event Triggers

The screenshot shows a web browser window titled "Event Trigger - Default:Russound - Windows Internet Explorer". The address bar shows "http://localhost:81/even0&edit=1". The page content includes a navigation menu with buttons for Status, Events, Log, Control, TV Timer, Setup, VRemind, Updater, Help, and Log Out. Below the menu are two tabs: "Russound Status" and "Russound Keypads". The "Trigger" tab is active, showing a form with the following fields:

- Name:** Select Trigger
- Trigger:** Current Trigger Type: Russound Trigger (dropdown)
- Action:** Select Days (checkboxes for Mon, Tue, Wed, Thu, Fri, Sat, Sun, all checked)
- Apply Conditions
- Edit Plug-In Specific Trigger:**
 - Select Russound Trigger: Zone Event (dropdown)
 - Zone: Zone 6 (dropdown)
 - Trigger: Changes Source (dropdown)
 - Source: XM (dropdown)
- Buttons:** Save, Cancel

At the bottom of the page, there are links for Home, Events, and Status. The browser's status bar shows "Done" and "Internet" with a 100% zoom level.

Information

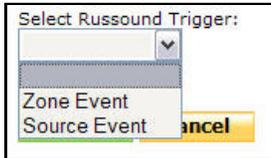
The Russound plugin can trigger events based on changes in the Russound system. The instructions to create events based on these triggers are explained below. Please note that the later options will change depending on your earlier selections.

Creating an event based on a Russound Trigger

1. Click the "Add Event" button on the Event screen
2. Select the "Trigger" tab
3. Select "Russound Trigger" from the Trigger type dropdown list
4. Select one of the trigger types, described below.
5. Click the "Save" button, and customize the event with the actions you would like.

Russound Audio Triggers

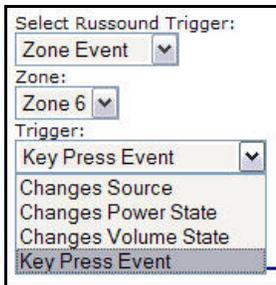
Select Russound Trigger



This dropdown contains the two types of Russound Triggers, explained below. A "Zone Event" refers to a key press, a change in source, or anything that can be done to the zone. A "Source Event" refers to a change in a smart source, such as a tuner station change.

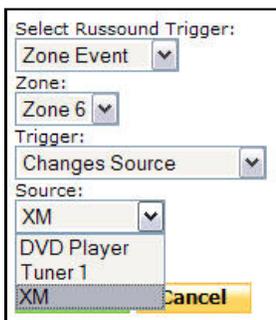
Zone Events

Zone Event: Trigger



This dropdown contains the four triggers that can occur on a zone. Use the "Zone" dropdown to select the zone to trigger on, then select the trigger type below. These are described in detail below.

Changes Source



This event will trigger when the zone changes to the selected source.

Changes Power State

Select Russound Trigger:
 Zone Event ▼
 Zone:
 Zone 6 ▼
 Trigger:
 Changes Power State ▼
 Power:
 Changed to Off ▼
 Changed to Off
 Changed to On
 Save Cancel

This event will trigger when the zone is either turned on or turned off

Changes Volume State

Select Russound Trigger:
 Zone Event ▼
 Zone:
 Zone 6 ▼
 Trigger:
 Changes Power State ▼
 Power:
 Changed to Off ▼
 Changed to Off
 Changed to On
 Save Cancel

This event will trigger when the volume on the zone is either increased or decreased

Keypad Press

Select Russound Trigger:
 Zone Event ▼
 Zone:
 Zone 6 ▼
 Trigger:
 Key Press Event ▼
 Key:
 Volume Up ▼
 Volume Up
 Volume Down
 Prev
 Next
 Plus
 Minus
 Play
 Stop
 Pause
 F1
 F2
 Cancel
 Status

This event will trigger when the specified button is pressed on the keypad

Source Events

Generic Source Triggers

Select Russound Trigger:

Source Event

Source: DVD Player

Key: Volume Up

On Zone: Zone 6

For any source defined as "Generic" you can trigger an event on a key press. There is also an option to trigger on a specific zone, set this to "Any Zone" to trigger when the key is pressed on any zone set to the source.

Tuner Triggers

Select Russound Trigger:

Source Event

Source: Tuner 1

Tuner Trigger:

Tuned Up

Tuned Down

Tuned Direct

These will trigger based on changes in an AM/FM or XM tuner

Tuned Up

This event will trigger when the source is tuned up

Tuned Down

This event will trigger when the source is tuned down

Tuned Direct

This trigger varies between AM/FM and XM tuners, as described below.

AM/FM Tuner Triggers

Select Russound Trigger:

Source Event

Source: Tuner 1

Tuner Trigger: Tuned Direct

Frequency: kHz AM

Enter the text that would display on your Russound keypad. This might be "103.7" in the "Frequency" field, and "MHz FM" for the dropdown selection.

XM Tuner Triggers

Select Russound Trigger:

Source Event

Source: XM

Tuner Trigger: Tuned Direct

Channel: XM Cafe

Select the XM Channel from the dropdown list. The event will be triggered when the tuner is set to that channel

Event Actions

Event Actions - Default:Russound - Windows Internet Explorer

http://localhost:81/even0&edit=1

11/10/2006 11:41:32 AM Sunrise: 6:28 AM Sunset: 4:28 PM User: default HomeSeer

Status Events Log Control TV Timer Setup VRemind Updater Help Log Out

Russound Status Russound Keypads

Name Trigger Action

Your changes are not saved until you click "Update"

Action List

Switch to Advanced View

Delete Update Configure the Action Below

Russound-Russound Actions

Action Type: Zone Action

Select Zone: Zone 3

Zone specific actions: Switch to Source

Source: DVD Player

Check Changes

Add Action:

Cancel

Done Internet 100%

Information

HomeSeer can perform various Russound actions. Read the descriptions below to learn more.

Creating an event with a Russound Audio Trigger

1. Click the "Add Event" button on the Event screen
2. Select the "Actions" tab
3. Select "Russound Actions" from the Action type dropdown list
4. Configure the specific properties for the action, described below, then click "Update".
5. Click the "Save" button, and customize the event with the trigger you would like.

Russound Audio Action Types

The HomeSeer plugin supports sending actions to Zones, Tuners, or XM Tuners. These are described in more detail below.

Zone Actions

Turn All Zones On

Turns on all Zones in the Russound system.

Turn All Zones Off

Turns off all Zones in the Russound system.

Zone Specific Actions

The Zone specific actions are listed below:

- Turn Power Off
- Turn Power On
- Switch to Source
- Change Party Mode
- Change Do Not Disturb
- Change Background Color
- Change Audio Properties
 - Bass
 - Treble
 - Loudness
 - Turn On Volume
 - Balance
- Keypad Action
 - Any Russound Zone Keypad Button
- Send Text to Keypad

AM/FM Tuner Actions

Tune Up

Tune up, the equivalent of pressing "+" on the keypad

Tune Down

Tune down, the equivalent of pressing "-" on the keypad

Tune Direct

Tune directly to a specific frequency. Enter the frequency, then select either MHz FM or kHz AM

Change Band

Change from AM to FM, or vice versa

Scan

Initiate a scan through the channels

Seek

Initiate a seek through the channels

XM Tuner Actions

Tune to Channel

Tune directly to a specific channel

Channel Up

Tune up one channel, the equivalent of pressing "+" on a keypad

Channel Down

Tune down one channel, the equivalent of pressing "-" on a keypad

Tune to Category

Enable category tuning mode. This will mean that "+" and "-" actions will "loop" within the selected category

Category Up

Select the next category

Category Down

Select the previous category

Channel Up (Category)

Channel up, staying within the current category

Channel Down (Category)

Channel down, staying within the current category

Scripting Interface

All Scripting functions are part of the MusicAPI object. To access these functions, include this in your script:

```
Dim mAPI as object
Set mAPI = hs.Plugin("Russound").MusicAPI
mAPI.SendKey("Zone 1", "Play")
```

The mAPI object now has all of the properties below available.

Scripting Functions

' For plugins that support multiple audio output zones, return true

' If True is returned here, 3rd party can do the following Calls:

Public ReadOnly Property SupportsMultiZone()

' For plugins that support multiple audio input sources, return true

Public ReadOnly Property SupportsMultiSource()

' Return a count of the number of Zones (audio out) in the system

Public Property GetZoneCount() As Integer

' Return a count of the number of Sources (audio in) in the system

Public Property GetSourceCount() As Integer

' Returns an array of Zone Name Strings

Public Function GetZoneNames() As String()

' Returns an array of Source name Strings

Public Function GetSourceNames() As String()

' Set an output Zone to a specific Source

' Return: Boolean, true indicates success, false indicates failure

Public Function SetZoneToSource(ByVal ZName As String, ByVal SName As String) As Boolean

' Set an output Zone to a specific On/Off State

' Parameter Power: TRUE = On, FALSE = Off

' Return: Boolean, true indicates success, false indicates failure

Public Function SetZonePower(ByVal ZName As String, ByVal Power As Boolean) As Boolean

' Russound Specific events (Party, DND)

' Parameters: ZName-Zone Name

' Return: Boolean, true indicates success, false indicates failure
**Public Function RussoundEvent(ByVal ZName As String, ByVal EventType As HSPI.RussoundEvents, _
ByVal Value As Integer) As Boolean**

' Russound Specific Display
' Parameters: ZName-Zone Name Display-The string to display on the Zone
' Return: Boolean, true indicates success, false indicates failure
Public Function RussoundDisplay(ByVal Zname As String, ByVal Display As String) As Boolean

' Send a Keypress event to a specific Zone
' Parameters: ZName-Zone Name Command-Play,Pause,Volume Up, etc
' Return: Boolean, true indicates success, false indicates failure
**Public Function SendKey(ByVal ZName As String, ByVal Command As String, _
Optional ByVal Wait As Boolean = False) As Boolean**

' Boolean: Return True if Tune() is supported
Public ReadOnly Property SupportsTuner() As Boolean

' Boolean: Return True if XMTune() is supported
Public ReadOnly Property SupportsXMTuner() As Boolean

' Control a Tuner
' Arguments: Tuner name as string, Control as integer of TunerControlValues enum
' Optional UpDown as boolean if relative tune (up=true)
' Optional Frequency value as double if direct
' Return: Boolean, true indicates success, false indicates failure
**Public Function Tune(ByVal SName As String, ByVal Control As TunerControlValues, _
Optional ByVal UpDown As Boolean = False, Optional ByVal Value As Double = -1) As Boolean**

' Control an XM Tuner
' Arguments: Tuner name as string, Direct tune or not as boolean, Category tune or not as boolean
' Optional UpDown if indirect tune (up=true), optional value if Direct (Channel Number)
' Stay in Category (yes = true)
' Return: Boolean, true indicates success, false indicates failure
**Public Function XMTune(ByVal SName As String, ByVal Direct As Boolean, _
ByVal IsCategory As Boolean, Optional ByVal UpDown As Boolean = False, _
Optional ByVal Value As Integer = -1, Optional ByVal StayInCategory As Boolean = False) As Boolean**

' Control an XM Tuner by name
' Arguments: Source Name as string, Is this a Category tune as boolean, Channel or Category name as a string
' Return: Boolean, true indicates success, false indicates failure
Public Function XMTuneByName(ByVal SName As String, ByVal IsCategory As Boolean, ByVal ChannelName As String) As Boolean

' Return a collection of XM Channel Names
' Arguments: None
' Return: Collection, a collection of all XM Names in the format IDNumber:Name
Public Function XMNames() As Collection

' Return a collection of XM Categories
' Arguments: None
' Return: Collection, a collection of all XM Names in the format IDNumber:Name
Public Function XMCategories() As Collection

' Tune to a specific Memory preset
' Arguments: Source name as string, Control as Integer enum TunerControlValues, optional Data (varies) as integer
' Return: Boolean, true indicates success, false indicates failure
**Public Function TunerMemory(ByVal SName As String, ByVal Control As TunerControlValues, _
Optional ByVal Data As Integer = -1) As Boolean**

' Turn All Zones ON
' Arguments: None
' Return: Boolean, true indicates success, false indicates failure
Public Function AllZonesON() As Boolean

' Turn All Zones OFF
' Arguments: None
' Return: Boolean, true indicates success, false indicates failure
Public Function AllZonesOFF() As Boolean

' This will return a string to indicate the key pressed from the keypad.
' Arguments: Zone Name as string
' Return: String, name of the last key pressed
Public Function LastKeyPressed(ByVal Zone As String) As String

' Sends text to all zones tuned to a specific source
' Arguments: Source Name as string, Text to display as string
' Return: Boolean, true indicates success, false indicates failure
Public Function SendTextToSource(ByVal Source As String, ByVal Text As String) As Boolean

Support

For Support:

Help Desk: <http://www.homeseer.com/> (select *HelpDesk* from the *Support* menu)

Support is also available on our message board at:

<http://board.homeseer.com/>

Look for the forum dedicated to the Russound Audio plugin.