

iTunes Plugin for HomeSeer

Introduction

Thank you for the purchase of the HomeSeer iTunes Plugin! The HomeSeer iTunes plugin gives you total voice and automation control of your digital music using the popular iTunes® application and your iPod®

Features

- Control your music using any web browser from any computer on your home network or the Internet.
- Control your music by voice. Play artists, albums, and playlists using simple voice commands. Voice commands may be given using a microphone attached to your computer, or using any telephone in your home (HomeSeer Phone and a supported modem is required for telephone access. See homeseer.com for details)
- Playlists may be created that combine music from your music library on your computer and music on your iPod.
- Trigger events in HomeSeer based on player actions such as track changes, player stop, start, etc.
- Use HomeSeer TTS (text-to-speech) to speak the current track name, artist, and album.
- Use HomeSeer event actions to start different playlists, tracks, control the player (start, stop, pause, etc.), or enable full screen visualizations.

Important

In order to support the ability to create playlists that combine tracks between your media library on your computer and the media library on your iPod, the plug-in maintains its own internal playlist. Therefore, if you switch between the plug-in control interface and the Windows iTunes interface, the displayed selections may not match. Also, the plug-in has no knowledge of the iTunes playlist. If you start a playlist in iTunes, the plug-in will not display this playlist in its interface. It will probably display a blank list. It will display the track that is currently being played.

Requirements

There are several requirements to using the HomeSeer iTunes plug-in:

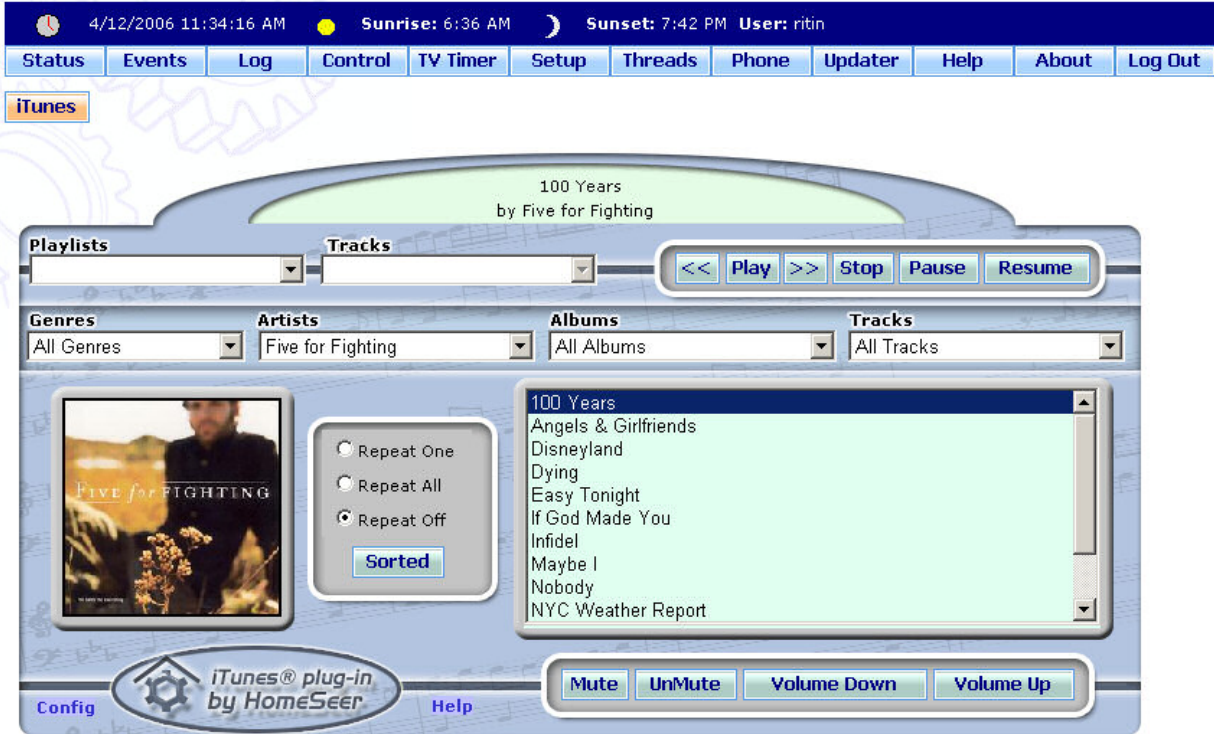
- HomeSeer Version 2.1.0 or higher must be installed.
- iTunes 6 or higher must be installed.
- The digital music to be controlled with the HomeSeer iTunes plugin must be stored on the HomeSeer computer or on one or more computers or storage devices connected to the HomeSeer computer via a network. If music is to be played from your iPod device, your iPod must be connected to the computer running HomeSeer.

Installation

1. To install the iTunes 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 iTunes 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 plug-in, and then click "Save" at the bottom of the screen
4. To use the iTunes plug-in, you must first register the plug-in. The plug-in will run as a 30 day trial when first installed. There are two methods of registration, depending upon the information that you have been provided from the time of purchase.
 - a. Click "Unregistered" or "Trial" button on the line containing the iTunes 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.

iTunes Control Page

iTunes



Information

You can access the iTunes control page by clicking the "iTunes" button on any HomeSeer web page. This page allows you to control all aspects of the iTunes plugin from one location. For custom menus, the URL to the iTunes control page is [http://\(homeseer server\)/itunes_control](http://(homeseer server)/itunes_control)

Basic Play instructions

To play a Playlist

1. Select a playlist from the dropdown menu, and the playlist track dropdown menu will refresh.
2. Click the "Play" Button
3. You may optionally choose a single track within the playlist by choosing the track from the Tracks dropdown menu next to the playlist menu.

To play a Genre/Artist/Album/Track

1. Select the Genre that you would like to play, and the next three dropdowns will refresh.
2. Optionally, select the Artist that you would like to play, and the next two dropdowns will refresh.
3. Optionally, select the Album that you would like to play, and the last dropdown will refresh.
4. Optionally, select the Track that you would like to play.
5. At any point above, when you have selected the criteria for what you would like to play, press the "Play" button. This will automatically play only the songs that match the criteria you have selected.

Player Control Items

Album/Song (top of the player)

Displays Information about the current album that is being played. This will only be displayed if there is a song playing.

Genres

Use this dropdown list to select a genre to play. Once an item has been selected, the page will refresh and the Album, Artist, and Track lists will update to contain only items of that genre. Select a genre and press the "Play" button to play all items of the selected Genre.

Artists

Use this dropdown list to select an Artist to play. Once an artist has been selected, the Album and track dropdown lists will refresh to contain only information related to that artist. Select an artist and press the "Play" button to play all tracks by the selected artist.

Albums

Use this dropdown list to select an Album to play. Once an artist has been selected, the track dropdown list will refresh to contain only tracks in the selected album. Select an album and press the "Play" button to play all tracks in the selected album.

Tracks

This dropdown list will ONLY appear if one of the three previous dropdowns (Genre, Artist, and Album) has been selected. Select a track from this dropdown and press the "Play" button to play ONLY the single selected track.

Playlists

Use this dropdown list to select an Playlist to play. Select a playlist and press the "Play" button to play all tracks in the selected Playlist.

Playlists - Tracks

This dropdown list will ONLY appear if a playlist has been selected. Select a track from this dropdown and press the "Play" button to play ONLY the single selected track.

Play

This button plays all songs matching the qualities specified in the Genre, Artists, Album, and Track fields, or the Playlist in the Playlist field (described above). If none of these items are selected, HomeSeer will attempt to add the entire library to the playlist. NOTE: Playing a playlist with a large number of tracks may take a long time to load.

Stop

Stops playing the current track.

>> - Next

Advances to the next track on HomeSeer's playlist.

<< - Previous

Jumps to the previous track on HomeSeer's playlist.

Pause

Pauses the currently playing track. Play can continue by pressing the "Resume" button.

Resume

Continues to play the currently selected track. Can only be used if the "Pause" button was pushed, not in place of the "Play" button

Mute

Mutes iTunes, while continuing to play any selected track.

UnMute

Unmutes iTunes

Volume Down

Decreases the player volume by 10%

Volume Up

Increases the player volume by 10%

Repeat One

Sets the player to repeat the currently selected track indefinitely. This button will be green when selected.

Repeat All

Sets the player to repeat all of the tracks in the "current playlist" area. This button will be green when selected.

Repeat Off

Sets the player to not repeat any songs, and it will stop at the end of the last track in the playlist. This button will be green when selected.

Shuffled/Ordered/Sorted Toggle

This button toggles the player Shuffle mode. The three modes are as follows:

Shuffled - The tracks in the player have their order randomized. Each time the toggle is changed to shuffled, the order is again randomized.

Ordered - The tracks in the player are set in the order they were gathered from the library when matching the play criteria.

Sorted - The tracks in the player are sorted alphabetically. (Useful for finding duplicate tracks or playing audio books where the title starts with the chapter number.)

Setup Screen

iTunes Configuration

12/23/2005 4:19:06 PM Sunrise: 8:23 AM Sunset: 5:53 PM User: default HomeSeer

Status Events Log Control TV Timer Setup Threads Phone Updater Help Log Out

iTunes Weather Weather Admin Warnings Warnings Setup

iTunes Configuration

Voice Command pre-pend for Play Artist voice command:
Play Artist

Voice Command pre-pend for Play Album voice command:
Play Album

Voice Command pre-pend for Play Genre voice command:
Play Genre

Voice Command pre-pend for Play Playlist voice command:
Play Playlist

Voice Command pre-pend for Player controls:
Player

Save

[Home](#) | [Events](#) | [Status](#)

powered by HomeSeer

Local intranet

Information

This screen is used to control the "Pre-pends" for voice recognition. This is the word that is to be spoken before the action such as "Play Album". It can be accessed either by clicking the "Config" button on the "Interfaces" screen, or by clicking the "Config" link on the iTunes player screen. See the voice command section for more information on voice controls. These settings normally do not need to be changed unless you prefer a different word, or you are using the Windows Media Player plug-in also. The Media Player plug-in uses the same voice commands as the iTunes plug-in. You will need to change the pre-pend words in order for HomeSeer to understand which plug-in you wish to control. In this case, change the pre-pend to something like "play itunes album".

Configuration Page Items

Pre-pend for Artists

Sets the text to speak before playing an artist. You can play an artist by saying "[pre-pend] [artist name]"

Pre-pend for Albums

Sets the text to speak before playing an album. You can play an artist by saying "[pre-pend] [album name]"

Pre-pend for Genres

Sets the text to speak before playing a genre. You can play an artist by saying "[pre-pend] [genre name]"

Pre-pend for Playlists

Sets the text to speak before playing a playlist. You can play an artist by saying "[pre-pend] [playlist name]"

Pre-pend for Player controls

Sets the text to speak before activating player controls. You can play an artist by saying "[pre-pend] [player control]"

Event Triggers

The screenshot shows a web browser window titled "Event Trigger - Default:UnNamed5 - Microsoft Internet Explorer". The address bar shows "http://localhost:81/even0&edit=1". The page content includes a navigation menu with items like Status, Events, Log, Control, TV Timer, Setup, Threads, Phone, Updater, Help, and Log Out. Below the menu, there are buttons for iTunes, Weather, Weather Admin, Warnings, and Warnings Setup. The main configuration area has tabs for Name, Trigger, and Action. Under the Trigger tab, there is a "Select Trigger" section with a dropdown menu for "Current Trigger Type" set to "iTunes Trigger". Below that is a "Select Days" section with checkboxes for Mon, Tue, Wed, Thu, Fri, Sat, and Sun, all of which are checked. There is an unchecked checkbox for "Apply Conditions". The "Edit Plug-In Specific Trigger" section has a dropdown menu for "Select iTunes Trigger" with options: Player Start Playing, Track Change, Player Stop, Playlist Change, Player Paused, and Player Start Playing (highlighted). At the bottom, there are links for Home, Events, and Status. The browser's status bar at the bottom shows "Done" and "Local intranet".

Information

The iTunes plugin can trigger events based on changes in the iTunes player. The instructions to create events based on these triggers are explained below.

Creating an event based on an iTunes Trigger

1. Click the "Add Event" button on the Event screen
2. Select the "Trigger" tab
3. Select "iTunes 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.

iTunes Trigger Types

Track Change

This event is triggered whenever HomeSeer detects a change in the currently playing track, which can occur upon advancing to the next track automatically, or pressing the previous or next buttons on the control screen

Player Stop

This event is triggered whenever the current play stops. This can happen at the end of a playlist or when the stop button is pushed.

Playlist Change

This event will be triggered when HomeSeer's playlist is changed. If a new set of genre, artist, or album are selected, this event will trigger.

Player Paused

This event is triggered whenever the player is paused.

Player Start playing

This event is triggered when the player starts playing after being paused.

Event Actions

Event Actions - iTunes:iTunes Actions

iTunes

Name Trigger Action

Your changes are not saved until you click "Update"

Action List
[Switch to Advanced View](#)
[Delete](#) [Update](#) Configure the Action Below

iTunes-iTunes Actions

Player Actions:
No Action

Set Volume (0-100):

Select Artist, Album, Genre, or Playlist, then click Check Changes to update the list of tracks.

Play Genre:
No Action

Play Artist:
No Action

Play Album:
No Action

Play Playlist:

[Check Changes](#)

Add Action:

[Cancel](#)

Information

The iTunes plugin features the ability to control any player action via an event. All player functions for voice control and device actions can also be controlled using event actions.

Basic Event Action Setup

1. Click the "Add Event" button on the event screen
2. Click the "Action" tab
3. Select "iTunes action" from the dropdown list and click "Add Action"
4. Configure the Action (described below)
5. Click "Update" then "Save"
6. Configure the rest of the event

Page Items

Player Actions

Select an item from this dropdown list to enable certain player controls. The possible selections are:

Enable Visualizations - Enables the full screen iTunes visualization window
Disable Visualizations - Disables all visualizations in the iTunes window
Pause if Playing - Pauses playback if currently playing
Resume if Paused - Resumes playback if currently paused
Stop Playing - Stops all playback
Next Track - Advances player to the next track in the playlist
Previous Track - Reverts player to the previous track in the playlist
Play All Tracks - Plays all tracks in the library

Set Volume

Enter a volume value from 0 to 100 inclusive to be set as the volume level of the player.

Play Artist

Use this dropdown to select a specific artist to play. After selecting an artist, click "Check Changes" to choose an album or track.

Play Album

Use this dropdown to select a specific album to play. After selecting an album, click "Check Changes" to choose a track.

Play Genre

Use this dropdown to select a specific genre to play. After selecting a genre, click "Check Changes" to choose an artist, album or track.

Play Playlist

Use this dropdown to select a specific playlist to play. After selecting an playlist, click "Check Changes" to choose a track.

Play Track

Use this dropdown to select a specific track to play. This list will only have items to select if an album, artist, genre, or playlist is already selected.

Check Changes

This button will refresh the action selection based on items that are already selected. After selecting an album, artist, genre, or playlist, this button will refresh the selection.

Voice Commands

The iTunes plugin features a number of voice commands to execute certain actions. The voice command "pre-pends" can be changed from within the configuration page. These commands are described below.

To play music of a specific type

Play genre [genre]

Play artist [artist]

Play album [album]

Play playlist [playlist]

Player Controls

Player Restart

Player Stop

Player Pause

Player Resume

Player Next

Player Previous

Player Mute

Player UnMute

Player Volume Up

Player Volume Down

Player Repeat One

Player Repeat All

Player Repeat Off

Player Shuffle

Player Order

Player Sort

Scripting

The iTunes plug-in uses a new Music API scripting interface for script commands. To issue commands or get information via the MusicAPI, you must first access the iTunes plug-in via HomeSeer:

```
Dim iTunes As Object
iTunes = hs.Plugin("iTunes")
```

Now you may reference MusicAPI commands through this reference....

```
iTunes.MusicAPI.Play
```

MusicAPI Procedure Name	Parameters	Return Values	Description
PlayerPosition (Property Get)		Integer	The position of the player in the current track expressed as seconds.
PlayerPosition (Property Set)	Integer		Sets the position of the player in the current track - parameter is expressed as seconds.
PlayerState		player_state_values (Enum)	Returns the current state of the player using the following Enum values: Public Enum player_state_values playing = 1 stopped = 2 paused = 3 forwarding = 4 rewinding = 5 End Enum
CurrentStreamTitle		String	The title of the currently playing music stream (e.g. from an Internet music source)
CurrentTrackInfo		IITTrack	This returns the information on the currently playing track in iTunes API format.
CurrentArtworkCollection		IITArtworkCollection	This returns an iTunes collection of the artwork found in the currently playing music track file.
CurrentArtworkFile	String	String	Extracts the first album artwork image found in the currently playing track to a file named "Cover" with an extension matching the format of the album artwork. (e.g. JPG, GIF, PNG, BMP) If an optional PATH is provided as an input to the procedure, then a fully qualified path and filename will be returned indicating where the extracted image file was placed. Existing files will be overwritten. An empty string is returned if there is no artwork in the music file. Example: sFile = hs.Plugin("iTunes").MusicAPI.CurrentArtworkFile(hs.AppPath & "\HTML\MyArtwork")
CurrentTrack		String	Returns the name of the currently playing track.
CurrentAlbum		String	Returns the album name of the currently playing track.
CurrentArtist		String	Returns the artist's name of the currently playing track.
PlayerMute (Property Get)		Boolean	Returns True if the player is muted, False if it is not.
PlayerMute (Property Set)	Boolean		If True is passed as a parameter, the player will be muted. If False is passed, the player will be UnMuted.
Mute			Mutes the player. Has no affect if the player is already muted.
UnMute			UnMutes the player. Has no affect if the player is not muted.
ShuffleToggle			Toggles through the 3 states for playlist shuffling: Shuffle, Order, Sort
Shuffle (Property Get)		Short Integer	Returns the current shuffle status: 1 = Shuffled, 2 = Ordered, 3 = Sorted
Shuffle (Property Set)	Short Integer		Sets the shuffle status to the indicated value: 1 = Shuffled, 2 = Ordered, 3 = Sorted
ShuffleStatus		String	Returns the current shuffle mode as a string value: Shuffled, Ordered, Sorted, or Unknown
Repeat (Property Get)		repeat_modes (Enum)	Returns the current repeat setting using the following Enum values: Public Enum repeat_modes repeat_off = 0 repeat_one = 1 repeat_all = 2 End Enum
Repeat (Property Set)	Integer		Sets the repeat function to the mode indicated by the integer parameter. See Repeat (Property Get) for the list of parameter values.
Play			Starts the player playing the currently loaded HomeSeer playlist.
Pause			Toggles the state of the pause function of the player.
PlayIfPaused			If the current state of the player is paused, the player will be resumed.
PauseIfPlaying			If the current state of the player is playing, the player will be paused.
StopPlay			Stops the player.
TrackNext			Causes the player to jump to the next track in the playlist and begin playing it.
TrackPrev			Causes the player to start playing from the previous track in the playlist.
Volume (Property Get)		Integer	Returns the current volume setting of the player from 0 to 100.
Volume (Property Set)	Integer		Sets the volume of the player to the level indicated by the parameter, in the range 0-100.
VolumeUp			Increases the volume of the player by 10%
VolumeDown			Decreases the volume of the player by 10%
PlayMusic	Artist As String Optional Album As String Optional PlayList As String Optional Genre As String Optional Track As String		This causes the player to create a HomeSeer playlist matching the criteria provided and begin playing it. At least one parameter must be provided, although it may be delivered as a null string ("") if it is not desired to specify the artist. Examples: hs.Plugin("iTunes").MusicAPI.PlayMusic("Phil Collins") Plays music by Phil Collins hs.Plugin("iTunes").MusicAPI.PlayMusic("", "", "", "Rock") Plays music in the Rock genre hs.Plugin("iTunes").MusicAPI.PlayMusic("", "", "My Top Rated") Plays music from the 'My Top Rated' playlist.
			Returns the last HomeSeer playlist created when the player began playing whether by event action, control web page, or script command. The return is an array of type track_desc, which is a class defined as follows: Public Class track_desc

GetCurrentPlaylist		Array of track_desc	Public name As String Public artist As String Public album As String Public length As String End Class
LibGetTracks	Artist As String Album As String Genre As String	Array of String	Returns a list of tracks matching the parameters provided by Artist, Album, and Genre. If empty strings are provided as parameters, then all tracks from the library are returned. Note, only the track names are returned, duplicates included.
LibGetAlbums	Artist As String Genre As String	Array of String	Returns a list of albums matching the parameters provided by Artist and Genre. If empty strings are provided as parameters, then all tracks from the library are returned. Note, only the album names are returned, duplicates removed, in sorted order.
LibGetArtists	Album As String Genre As String	Array of String	Returns a list of artists matching the parameters provided by Album and Genre. If empty strings are provided as parameters, then all tracks from the library are returned. Note, only the artist names are returned, duplicates removed, in sorted order.
LibGetPlaylistTracks	Playlist As String	Array of String	Returns a list of all tracks in the given playlist name. If an empty string is provided as the parameter, then an empty array is returned, otherwise all tracks in the given playlist are returned with duplicates.
SkipToTrack (Overloaded)	Integer		Jumps the player to the track number in the current HomeSeer playlist given in the Integer parameter. Track numbers less than 0 or greater than the number of entries in the playlist are ignored.
SkipToTrack (Overloaded)	String		Jumps the player to track matching the track name provided as the parameter. If the track name does not match any entries in the current playlist, nothing happens.
StartPlay			Like Play, this command starts the player playing the currently loaded HomeSeer playlist, but StartPlay always starts at playlist entry 0 (the beginning).
LoadLib			HomeSeer automatically detects changes to the iTunes library (tracks added/removed) and regenerates its internal list of library tracks. This procedure may be used if desired to regenerate the list of tracks in the library manually.
LoadPlayLists			HomeSeer automatically detects changes to the iTunes playlists (tracks added/removed) and regenerates its internal list of playlist tracks. This procedure may be used if desired to regenerate the list of playlist tracks manually. Note: Special playlists such as "Recently Played" are updated automatically as well, but nothing will be logged in HomeSeer to indicate this since these playlists are updated frequently by iTunes.
LibLoading (Property Get)		Boolean	When True is returned, the internal track library is in the process of being updated (loading).
"Current Track" (CT) Properties			
CTTime (Property Get)		String	Returns the length of the current track as a string in HH:MM:SS format.
CTPlayedDate (Property Get)		Date	Returns the date the track was last played.
CTPlayedCount (Property Get)		Integer	Returns the number of times the track has been played.
CTKind (Property Get)		String	Returns the kind of track that the current song is - e.g. MP3
CTYear (Property Get)		Integer	Returns the year the track was recorded, or 0/-1 if one is not available in the track file.
CTSize (Property Get)		Integer	Returns the size of the source track file (in bytes), or 0/-1 if the size is not available (e.g. audio stream)
CTSampleRate (Property Get)		Integer	Returns the sample rate, in Hz, for the source track.
CTBitRate (Property Get)		Integer	Returns the bit rate in Kbps for the source track.
CTBPM (Property Get)		Integer	Returns the tempo of the source track in beats per minute, or 0/-1 if the tempo information is not available.
CTRating (Property Get)		Integer	Returns the user rating on the current track using a 0-100 scale. (1-20=1 Star, 21-30=2 Stars, etc.)
CTEQ (Property Get)		String	Returns the current equalizer preset name for the currently playing track, or an empty string if an equalizer setting is not used.
CTComment (Property Get)		String	Returns the comment string embedded within the source track file for the currently playing track, or an empty string if there are no comments in the track file.
CTDuration (Property Get)		Integer	Returns the length of the currently playing track in seconds.
CTLyrics (Property Get)		String	Returns the lyrics string embedded within the source track file for the currently playing track, or an empty string if there are no lyrics found in the track file.

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 iTunes plugin within the Music section of the HomeSeer Plug-Ins forum.

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