

Sage Media Center Controller Plugin - User's Guide

Description

The Sage MC Controller plug-in is a .NET plug-in for HomeSeer that allows you to control one or more windows media center systems or extenders.

- Control multiple media centers on different PCs and any media center extenders attached to them
- Track the status of the media centers and extenders including play state, mode, media information, and current position
- Simulate button presses such as transport controls, navigation, channel, volume, etc.
- Display dialogs on the media center. These dialogs can display text as well as an image. Buttons can be put on the dialog to capture response.
- Configure media center events using both standard and custom triggers and actions.

Here are some examples of what you could do with this plugin. You may think of others...

- Turn off the lights when you start playing a movie. To do this you would check the current play state to see if it changed to play. You would also likely want to check that it is in video mode so that it doesn't happen when you play a TV show.
- Turn the lights to dim when you press pause on a movie – Time to get a snack.
- Synchronize the mute of your A/V receiver and your media center. You may want to press mute because you get a call from your mother, but would still like to keep up with show. Pressing mute on your receiver will mute the sound, but pressing mute on the media center can put it into closed caption mode so you can still read what is going on.
- Display a dialog with a snapshot of the front door camera when someone presses the doorbell. You may further want to add a button to this dialog to allow you to press a button on your media center remote to unlock the door.

System Requirements

- HS2 or HSPRO
- VMC Controller (Open source media center plug-in)

Installation and Activation

VMC Controller

This plugin is designed to interface your HomeSeer system to your media center via a Media Center service called VMC Controller. This has currently been tested on Windows 7 Media Center 64-bit.

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Please, install and test to ensure that the the functions that you are looking for are compatible with your version of Media Center. Following in the general link for VMC Controller...

<http://vmccontroller.codeplex.com/>

The specific install for Windows 7 is located here...

<http://vmccontroller.codeplex.com/releases/view/45909>

Plugin

The plugin is available through the HomeSeer Updater. It can also be installed by running the installer (.msi). If running the installer manually, shutdown HomeSeer, run the install, and then start HomeSeer.

NOTE: *If you notice that the installer is taking an usual amount of time (more than 20 seconds), it is likely that the dialog asking for activation is hidden behind the main dialog. Drag the main dialog to the side and you will see the other.*

If you did not select the option to activate the plugin during the installation process, you will need to do so before it can be configured and used. To do so...

1. Open the HomeSeer web interface.
2. Navigate to the setup section by clicking on the **Setup** button
3. Navigate the interface setup by clicking on the **Interfaces** tab
4. Scroll down, under the **Plug-in Interfaces** section until you see **Sage MC Controller**. If it has not been activated, there will be a button next to it labeled **Disabled**. Click on this and that will activate the plugin.

One you have the plugin installed and activated, proceed on the section titled *Configuration*

Configuration

The plugins configuration page can be found under the interface setup. If you don't know how to get there, follow the steps in the *Installation and Activation* section of this document. Click on the **Config** button next to the Sage MC Control plugin. You will see the following page appear...

There are two main sections to the configuration; General and Media Centers.

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General

The screenshot shows the 'General' tab of the configuration interface. It features three tabs: 'General' (selected), 'Media Centers', and 'Info'. Under the 'General' tab, there are two input fields: 'Default Room' with a text box containing 'Media Center', and 'Debug Level' with a dropdown menu set to 'Debug Logging'. A blue 'Save' button is located at the bottom left of the configuration area.

Default Room When Sage Media Center Control creates it's devices it will create them in this room. If this field is left blank it will create them in a room call Sage MC Control by default.

Debug Level This controls the level of logging that the plugin will produce. The available settings are...

- | | |
|----------------|--|
| No Logging | Absolutely no logging will be output by the plugin directly. |
| Minimal | Typically only errors and warning will be logged at this level. This is the recommended level for normal operation. |
| Debug | This provides some information that will be useful if there are problems with the interface. It is less voluminous that the last option. |
| Detailed Debug | This is a more voluminous debug logging for issues. It is not recommended to have this option turned on for an extended period of time. |

Change to the logging level take place after the Save button is pressed. There is no need to restart HomeSeer.

Media Centers

The screenshot shows the 'Media Centers' tab of the configuration interface. It features three tabs: 'General', 'Media Centers' (selected), and 'Info'. Below the tabs is a table with columns: Name, Host, Extender, Log Status, and Actions. The table contains three rows of existing media centers and one row for adding a new one.

Name	Host	Extender	Log Status	Actions
Family Room	192.168.15.4	Media Center	<input type="checkbox"/>	Save Delete
Master Bedroom	192.168.15.6	Media Center	<input type="checkbox"/>	Save Delete
Study	192.168.15.4	Extender 1	<input type="checkbox"/>	Save Delete
	localhost	Media Center		Add

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Here is where you will tell the plugin what media centers you have in your system. There will be a blank row with an **Add** button. This is where you will enter the information for the media center that you wish to add.

1. Enter the name for the media center under the Name column. This can be any name that you like such as "Family Room".
2. Enter the host for the media center under the Host column. This can be either the IP address or host name for the PC that is hosting the media center. Note that if you have extenders there may be more than one media center with the same host name or IP address.
3. Select which extender to use from the drop-down list under the Extender column. Media center extenders can be connected to an instance of Windows Media Center. As mentioned you will need to add each of these to the configuration as well. Leave the selection showing Media Center if this represents the main media center. An extender id of 1 or more is used for actual extenders. When these are added to your media center they are given IDs starting at 1 and going upward. If you don't know the number for your extender, one way to determine it is to go into your **User Accounts** configuration in the windows control panel and select the **Configure advanced user profile properties**. When Media Center adds extenders, it will also create a user for each. The name of this user should give you an idea of the extender ID used. An example would be **familyroom\Mcx1-FAMILYROOM**.
4. Check the Log Status option to have the plugin write status information to a file. NOTE: This option is not implemented at this time. This option, if checked, will create a log file of the status information that is sent back from the media center. The log file will be put in the HomeSeer log directory and will be called {name}-MC Status.txt.
5. Press the **Add** button.

The new media center will be registered with the plugin. You will see this new media center now show up with a Save and Delete button next to it.

To update values for the media center, make your changes and press the corresponding **Save** button on that row.

To delete a media center select the corresponding **Delete** button.

Be aware that if you have events setup for this media center, they will not be automatically updated to reflect the deletion of a media. You will have to make these adjustments manually.

Virtual Devices

The plugin will create several virtual devices. By default, these devices are named by combining the name of the media center and the function. (I.e. Family Room – Volume) Also, by default, they are assigned to a room based on the default location configured in the settings. The name, location, and location 2 can be changed without affecting their operation. So you can feel free to change these as you

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wish after they are created. One word of caution, if you delete these and then decide to recreate them, the new devices will be brand new with a new reference ID. This can be painful if there are things referencing the device by its reference. For instance, this will require HSTouch device status and command to be tweaked.

Device List: Sorted by Code, Ascending <small>Turn Off Sorting</small>							
Status	Floor	Room	Name	Code	Type	Last Change	Control
			Media Center Family Room MC Status	+1	Media Center Status	Today 1:25:45 AM	Stop Play Pause Play
		Media Center	Family Room MC Mode	+2	Media Center Mode	Today 1:25:43 AM	
		Media Center	Family Room MC Media Name	+3	Media Name	Today 1:01:24 PM	
		Media Center	Family Room MC Artist Name	+4	Artist Name	Today 1:25:21 AM	
		Media Center	Family Room MC Album Name	+5	Album Name	Today 1:01:24 PM	
		Media Center	Family Room MC Track Number	+6	Track Number	Today 1:01:24 PM	
		Media Center	Family Room MC Media Duration	+7	Media Duration	Today 1:11:00 PM	
		Media Center	Family Room MC Media Position	+8	Media Position	Today 1:11:00 PM	
		Media Center	Family Room MC Volume	+9	Volume	Today 12:24:17 PM	Mute UnMute ToggleMute <input type="text" value="49"/>
		Media Center	Master Bedroom MC Status	+10	Media Center Status	Yesterday 10:32:36 PM	Stop Play Pause Stop

The following devices are created...

- State** This the play state of the media center. The values that can be set to include; Stop, Play, Pause, FF1, FF2, FF3, Rewind1, Rewind2, Rewind3, SlowMotion1, SlowMotion2, SlowMotion3. There is also a special state of "Unreachable". This is used when the plugin cannot connect to the given host. There device can also be used to control the play state of the media center
- Mode** This indicates what type of media is being accessed. It will be set to one of the following; StreamingContentAudio, StreamingContentVideo, PVR, TVTuner, CD, or DVD.
- Media Name** This is the name of the currently playing video, music track, or picture.
- Album Name** This will be set to the artist name for a song or the show title for a TV program
- Artist Name** Set to the artist name for a song
- Track Number** This will be set to the track number for the album for a song or a channel number for a TV station
- Duration** This is the to the total number of seconds in contained in the media. NOTE: For live TV this number will increment as the show moves along.
- Position** This is the current position within the media
- Volume** This will either be set to the volume or will be set to "Mute" if muting is turned on.

In the following table, if the Control Buttons is check there are buttons in the web interface to control the device and can be used in HSTouch actions. If the Control Value is checked, the device will respond to value changes. This allows them to be set/used in various ways including event trigger and actions, HSTouch control, and scripting.

Type	Display	Control Buttons	Control Value
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State	X	X	X
Mode	X		
Media Name	X		
Album Name	X		
Artist Name	X		
Track Number	X		
Position	X		
Duration	X		
Volume	X	X	X

Custom Actions

There are several custom actions that can be used to control the media center. These provide an easier and cleaner mechanism as opposed to calling the API for actions.

There is a new action available in the drop-down called ***Sage Media Center Control Actions***. Selecting this will bring up a form where the action type and any required options can be entered.

The types of action that can be performed are contained in the following list. Note that all of these required additional options to be set. After selecting the Action, press the Check Changes button and those additional options will be displayed. It is also a good idea to press this button one all of the options are entered as it will validate that the values are appropriate and sufficient. Options that are required are also noted in the table below.

Change Play State This will change the play state, (play, pause, stop, etc.), for either all media centers or a specific one. Selecting an option from the drop-down list is required.

Display Message This will display a message and optional image on the media center(s). It is required to select both the media center option from the drop-down. There will be four sub-options available. The only required option is the Text field. The title will default to "HomeSeer". The time to display will default to 20 seconds if left blank. If an image is supplied, the path on the local machine must be used. In most cases, you will want to setup a share on the machine where this image is stored and enter the UNC pathname to the share on the machine along with the file name. For instance, you may want to share the netcam images so they can be displayed. (see more information about this in the section for the RichMsg() API.

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Scripting API

Any of the following calls must be prefaced with the plugin object. For example...

```
hs.Plugin("Sage MC Control").Mute("Family Room")
```

CloseDVDDrawer(mcName)

Description: This is used close the drawer on the DVD drive.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.

FullScreen(mcName)

Description: This is used mute to bring the currently playing media to full screen

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.

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GotoScreen(mcName)

Description: This will change the media center screen to the screen given by the screen argument.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.
Screen	String	One of the following; ExtensibilityUrl, FMRadio, InternetRadio, LiveTV, ManageDisks, MovieLibrary, MorePrograms, MusicAlbums, MusicArtists, MusicSongs, MyMusic, MyPictures, MyTV, MyVideos, PhotoDetails, RecordedTV, RecorderStorageSettings, ScheduledTVRecordings, Slideshow, SlideshowSettings, Start, TVGuide, Visualizations, WebAddIn

Mute(mcName)

Description: This is used mute the volume on the given media center

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.

OpenDVDDrawer(mcName)

Description: This is used to open the drawer on the DVD drive.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.

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RichMsg(mcName, title, text, msgTime, buttons, modality, imgPath)

Description: This is used mute to display a pop-up screen on the media center. If not image path is given, a simple dialog will be presented with just an OK button. If all arguments are given, there is much more flexibility. The

Return: The name of the button that was pressed. If the time was reached without any button being pressed, the string "Timeout" (without quotes) will be returned.

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.
title	String	This is the text that will be shown in the title bar of the message box
text	String	This is the body of text that will be displayed within the dialog
msgTime	Integer	This is how many seconds to display the form before automatically closing it.
modality	String	This determines is the user is allowed to press other media center elements. If set to modal, the user will be captive to the dialog.
imagePath	String	This is the full path for the image to be displayed. This should be a path that is accessible <u>from the media center</u> . If this file is on another machine, (I.e the server), map a drive or use a UNC file path containing the machine name.

Example

```
Public Sub mcShowDoorbell(ByVal host As String)
    Dim mcc As Object
    Try
        mcc = hs.Plugin("Sage MC Control")
    Catch Ex As Exception
        mcc = Nothing
    End Try

    If mcc Is Nothing Then
        hs.WriteLog("Error", "ERROR - could not get a reference to the " & _
            "Media Center Controll Plug-In.")
        Exit Sub
    End If

    Dim respStr As String = mcc.richMsg(host, "HomeSeer", _
        "There is someone at the door", 30, "Done;Unlock", "modal", _
        "\\basement\netcam\Front Door_latest.jpg")
    If respStr = "Unlock" Then
        ' Code to unlock the door
    End If
End Sub
```

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SendCmd(mcName, command)

Description: This is used to send any supported command. This can be used when there is no specific API function that is provided.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.
Command	String	The command string to send.

SendText(mcName, text)

Description: This is used send text to the media center as if it had been typed on a keyboard.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.
Text	String	The text to send.

SetPlayState(mcName, playState)

Description: This is used to change the play state of the media center. See arguments below for the options.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.
playState	String	This can be one of the following; Play, Pause, Stop, Rewind1, Rewind2, Rewind3, FF1, FF2, FF3, SlowMotion1, SlowMotion2, SlowMotion3

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SetMediaPosition(mcName, position)

Description: This is used to set the position of the currently playing media.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.
Position	Integer	This is the position in seconds.

SetVolume(mcName, volume)

Description: This is used to set the volume of the media center to a specific volume.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.
Volume	Integer	A value between 0 and 50.

ToggleMute(mcName)

Description: This is to toggle between Mute and UnMute settings depending on its current state.

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.

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UnMute(mcName)

Description: This is used un-mute the volume on the given media center

Return: None

Arguments:

Name	Data Type	Notes
mcName	String	This is the media center that is to be controlled.

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Command List

Input Commands

- button-rec - sends key to application
- button-left - sends key to application
- button-up - sends key to application
- button-right - sends key to application
- button-down - sends key to application
- button-ok - sends key to application
- button-back - sends key to application
- button-info - sends key to application
- button-ch-plus - sends key to application
- button-ch-minus - sends key to application
- button-dvdmnu - sends key to application
- button-dvdaudio - sends key to application
- button-dvdsuubtitle - sends key to application
- button-cc - sends key to application
- button-pause - sends key to application
- button-play - sends key to application
- button-stop - sends key to application
- button-skipback - sends key to application
- button-skipfwd - sends key to application
- button-rew - sends key to application
- button-fwd - sends key to application
- button-zoom - sends key to application
- button-num-0 - sends key to application
- button-num-1 - sends key to application
- button-num-2 - sends key to application
- button-num-3 - sends key to application
- button-num-4 - sends key to application
- button-num-5 - sends key to application
- button-num-6 - sends key to application
- button-num-7 - sends key to application
- button-num-8 - sends key to application
- button-num-9 - sends key to application
- button-num-star - sends key to application
- button-num-number - sends key to application
- button-clear - sends key to application

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- type [text] - sends "[text]" to application

Misc Commands

- dvdrom [open|close] - Opens and closes the default dvd drive door
- msgbox "caption" "message" [timeout seconds]
- msgboxrich "caption" "message" [timeout seconds] "button codes" "modal|nonmodal" "imagepath"
- goto [ExtensibilityUrl | FMRadio | InternetRadio | LiveTV | ManageDisks | MovieLibrary | MorePrograms | MusicAlbums | MusicArtists | MusicSongs | MyMusic | MyPictures | MyTV | MyVideos | PhotoDetails | RecordedTV | RecorderStorageSettings | ScheduledTVRecordings | Slideshow | SlideshowSettings | Start|TVGuide | Visualizations | WebAddIn] [optional page parameters]

Media Experience Commands

- fullscreen - moves the current media playback experience into full-screen mode
- mediametadata - returns a key value pair list of current media experience
- playrate [Stop | Pause | Play | FF1 | FF2 | FF3 | Rewind1 | Rewind2 | Rewind3 | SlowMotion1 | SlowMotion2 | SlowMotion3 | SkipForward | SkipBack] - sets the play rate
- playrate-get - returns the play rate (one of Stop | Pause | Play | FF1 | FF2 | FF3 | Rewind1 | Rewind2 | Rewind3 | SlowMotion1 | SlowMotion2 | SlowMotion3 | SkipForward | SkipBack)
- playstate-get - returns the current play state
- position [seconds] - sets the current position
- position-get - returns the current position in seconds

Environment Commands

- changer-load [Slot Address]

Audio Mixer (Volume) Commands

- volume [0-50|Up|Down|Mute|UnMute] - changes the volume
- play-audio-artist [-help] [-custom#] [artist_name_filter | [index#]] - list / play from audio collection
- play-audio-album [-help] [-custom#] [artist_name_filter | [index#]] - list / play from audio collection
- play-audio-song [-help] [-custom#] [artist_name_filter | [index#]] - list / play from audio collection

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- `queueaudio-artist [-help] [-custom#] [artist_name_filter | [index#]]` - list / play from audio collection
- `queueaudio-album [-help] [-custom#] [artist_name_filter | [index#]]` - list / play from audio collection
- `queueaudio-song [-help] [-custom#] [artist_name_filter | [index#]]` - list / play from audio collection

Photo Library Commands

- `photo-play` Command Unavailable: NYI - Not yet implemented
- `photo-queue` Command Unavailable: NYI - Not yet implemented
- `photo-serv [size-x:width] [size-y:height] [ids:index]` - Serves the photo to a web browser (all filters apply, but only first matching image is returned)

Play Commands

- `play-audio` [Audio parameters]
- `queueaudio` [Audio parameters]
- `play-video` [Video parameters]
- `play-dvd` [Dvd parameters]
- `play-radio` [Radio parameters]
- `play-tv` [TV parameters]
- `play-dvr` [Dvr parameters]

Window State Commands

- `window-close` - sends command to Media Center Window
- `window-minimize` - sends command to Media Center Window
- `window-maximize` - sends command to Media Center Window
- `window-restore` - sends command to Media Center Window

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Support/Contact Information

Support is available through multiple mechanisms. Feel free to post questions or issue on the HomeSeer forum or raise a help desk ticket. Also, there will be additional information on the Sage Software web site.

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