

## SONOS ZONEPLAYER INTEGRATION INTO HOUSEBOT: PART I

HouseBot does not like making calls to the UPnP.dll. As a result, these scripts need to be shelled out to wscript.exe found in the System32 folder. Find below instructions on how to create the devices needed to control a Sonos ZonePlayer via an Execute Program Device. The included scripts are ZonePlayer\_Discovery and various ZonePlayer\_<ZoneName> scripts. ZonePlayer\_EditableZone script is provided to allow you to easily modify the control script to the zone naming convention you are using with your Sonos system. The HouseBot subroutines (found at the end of the script) can be edited to substitute the zone name of the ZonePlayer you are using if one of the preconfigured scripts does not meet your needs. Once you are done editing the script, simply save it as ZonePlayer\_<ZoneName>.vbs. The prepackaged scripts included will cover zones named Living Room, Family Room, Kitchen, Patio, and Playroom. Please run your Sonos Desktop Controller to determine the names of your zones. Spelling, spaces, and case of the name are important.

At a minimum, three devices need to be created for control of the Sonos system. The creation of ZonePlayer related devices are detailed below. **An External Control Device also needs to be created, and details of its creation have not been included in these instructions. The default port in the scripts is set to 2525, the IP address of the HouseBot server to communicate with is 127.0.0.1 and assumes the scripts will run on the same machine the server software is installed, and no password is set.**

All devices listed below need to be created prior to running any of the scripts. Once all the devices have been created, set the ZonePlayer\_Discovery device property Execute Program property to yes and it will populate all of your ZonePlayer\_<ZoneName> devices with their corresponding UniqueDeviceNames (UDN) and ZoneName. Additionally, if any of the ZonePlayer\_<ZoneName> device property values are empty, the device property values will be populated with the current state of the ZonePlayer it is communicating (i.e., when the device is first run). To control the ZonePlayer, simply change a property value in its corresponding device and change the Execute Program property value to Yes.

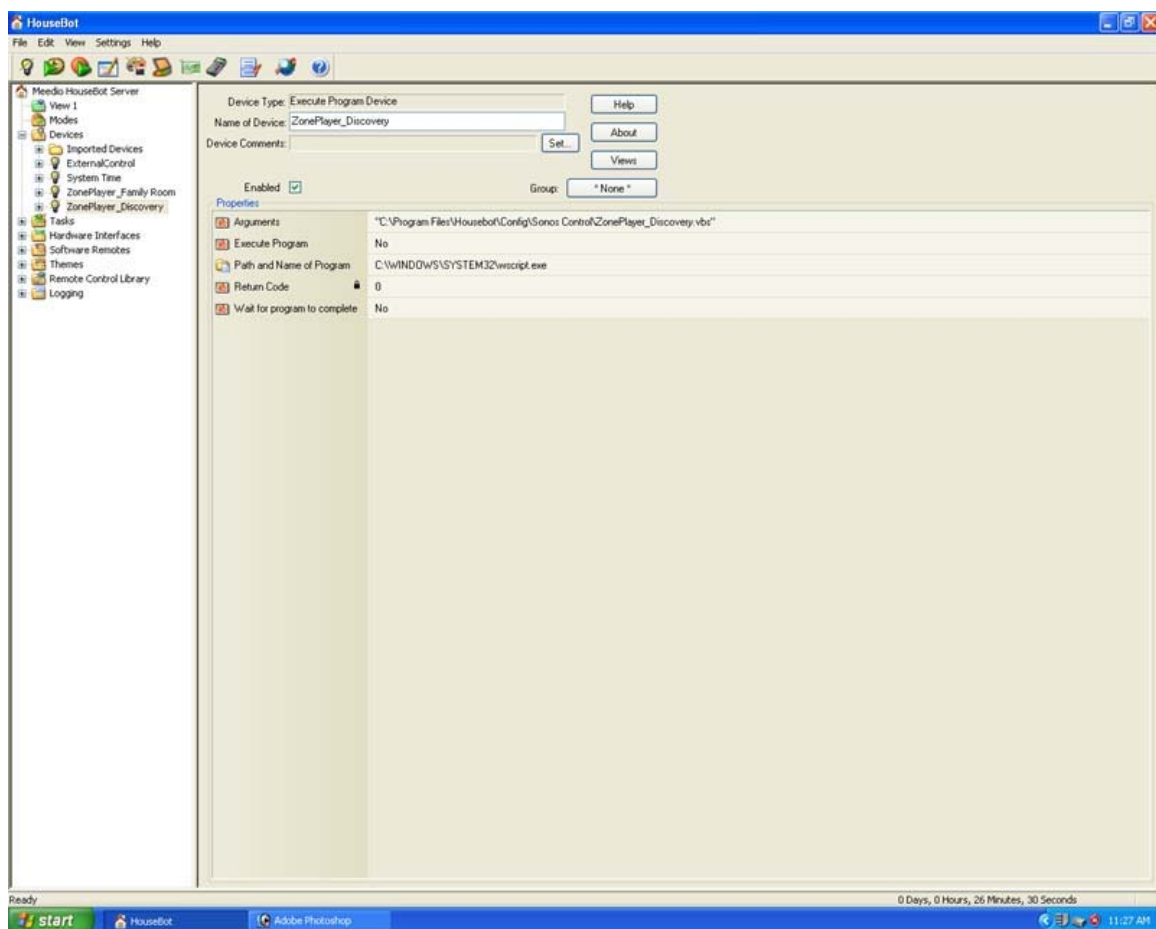
**PLEASE MAKE SURE THAT THE ZONE NAME YOU HAVE USED IN NAMING THE ZONEPLAYER\_<ZONENAME> DEVICE IS CORRECT IN TERMS OF SPELLING, CASE, AND SPACES. IF THIS IS NOT CORRECT, THE SCRIPT WILL NOT RECOGNIZE THE DEVICE.**

## I: Device Creation

### **A: ZonePlayer\_Discovery Device**

1. Select **File** → **New** → **Device...**
2. Select **"No Hardware Interface Required (Software Device)"** and click **"Next"**
3. Select **"Execute Program Device"** and click **"Next"**
4. Enter **ZonePlayer\_Discovery** for the **"Device Name"** and click **"Next"**
5. Click **"Next"** at the **"Device View"** screen
6. Enter **"C:\WINDOWS\SYSTEM32\wscript.exe"** for the **"Property Value"** of the **"Path and Name of Program"** property and click **"Next"**
7. Leave the **"Wait for program to complete"** property set to **"No"** and click **"Next"**
8. Click **"Finish"** at the **"Device Created"** screen
9. Ensure that the **Sonos Control** folder has been placed in the **HouseBot\Config** folder and then in the **"Arguments"** property of the newly created device place the following text, **INCLUDING QUOTATION MARKS**:

**"C:\ProgramFiles\HouseBot\Config\Sonos Control\ZonePlayer\_Discovery.vbs"**



## B: ZonePlayer\_<ZoneName> Device

### i. PROPERTY ADDITIONS

**Property Addition – ZPTransportState** (alphanumeric):

1. Select **Settings** → **Property Manager...**
2. Click **"Add"** under **"Properties"**
3. Enter **ZPTransportState** for **"Name"** and **"Description"**
4. Click **"Add"** under **"Values"** (Discrete)
5. Enter **Play** for the value **"Name"**
6. Repeat steps 4 and 5, adding **Pause**, **Stop**, **Next**, **Previous**, **Next Section**, **Previous Section** to the **"Values"** list for the property **TransportState**

The screenshot shows the 'Property Management' dialog box. On the left, a list of properties includes 'ZPTransportState'. On the right, the configuration for 'ZPTransportState' is shown. The 'Name' and 'Description' fields are both set to 'ZPTransportState'. The 'Type' is set to 'Alpha-Numeric'. Under the 'Values' section, the 'Discrete' radio button is selected. The 'Discrete' list contains the following values: 'Next', 'Next Section', 'Pause', 'Play', 'Previous', 'Previous Section', and 'Stop'. There are 'Add' and 'Delete' buttons for both the 'Properties' and 'Values' lists, and a 'Close' button at the bottom.

Property	Name	Description	Type	Values
ZPTransportState	ZPTransportState	ZPTransportState	Alpha-Numeric	Next, Next Section, Pause, Play, Previous, Previous Section, Stop

### Property Addition – UDN (alphanumeric):

1. Select **Settings** → **Property Manager...**
2. Click **Add** under **Properties**
3. Enter **UDN** for **Name** and **Description**

The screenshot shows the 'Property Management' dialog box. The title bar is blue with the text 'Property Management' and a close button. Below the title bar is a subtitle 'Property Management' and a description 'Select Property in list to view Property attributes. Properties and Values can also be added and deleted.' The main area is divided into two sections. The left section, titled 'Properties', contains a list of properties: 'Property Description', 'Time', 'Time of last Call', 'Time Without Seconds', 'TimeAndDate', 'Track Name', 'Track Number', 'TransportState', 'Trieble', 'Trieble Level', 'UDN' (highlighted), 'User Definable Alpha Property 1', 'User Definable Alpha Property 10', 'User Definable Alpha Property 2', 'User Definable Alpha Property 3', 'User Definable Alpha Property 4', 'User Definable Alpha Property 5', 'User Definable Alpha Property 6', 'User Definable Alpha Property 7', 'User Definable Alpha Property 8', 'User Definable Alpha Property 9', 'User Definable AlphaList Property 1', 'User Definable AlphaList Property 2', and 'User Definable AlphaList Property 3'. Below this list are 'Add' and 'Delete' buttons. The right section, titled 'Values', contains fields for 'Name' (UDN), 'Description' (UDN), and 'Type' (Alpha-Numeric). Below these fields are radio buttons for 'Range' and 'Discrete' (selected). The 'Range' section has 'From' and 'To' fields, both containing '0'. The 'Discrete' section has a large empty text area. Below the 'Discrete' section are 'Add' and 'Delete' buttons. At the bottom of the dialog is a 'Close' button.

Property Management

Select Property in list to view Property attributes. Properties and Values can also be added and deleted.

Properties

Property Description  
Time  
Time of last Call  
Time Without Seconds  
TimeAndDate  
Track Name  
Track Number  
TransportState  
Trieble  
Trieble Level  
**UDN**  
User Definable Alpha Property 1  
User Definable Alpha Property 10  
User Definable Alpha Property 2  
User Definable Alpha Property 3  
User Definable Alpha Property 4  
User Definable Alpha Property 5  
User Definable Alpha Property 6  
User Definable Alpha Property 7  
User Definable Alpha Property 8  
User Definable Alpha Property 9  
User Definable AlphaList Property 1  
User Definable AlphaList Property 2  
User Definable AlphaList Property 3

Add Delete

Values

Name: UDN  
Description: UDN  
Type: Alpha-Numeric

☐ Range  
From: 0 To: 0

☒ Discrete

Add Delete

Close

### Property Addition – ZPVolume (alphanumeric):

1. Select **Settings** → **Property Manager...**
2. Click **Add** under **Properties**
3. Enter **ZPVolume** for **Name** and **Description**
4. Click **Range** under **Values**
5. Enter **0** to **100**

The screenshot shows the 'Property Management' dialog box. On the left, a list of properties includes 'ZPVolume'. Below the list are 'Add' and 'Delete' buttons. On the right, the 'Name' and 'Description' fields are both set to 'ZPVolume'. The 'Type' is set to 'Alpha-Numeric'. Under the 'Values' section, the 'Range' radio button is selected, with 'From' set to 0 and 'To' set to 100. The 'Discrete' radio button is unselected. Below the 'Values' section are 'Add' and 'Delete' buttons. At the bottom center is a 'Close' button.

**Property Management**

Select Property in list to view Property attributes. Properties and Values can also be added and deleted.

**Properties**

Property Description

- User Definable TimeSpan Property 4
- User Definable TimeSpan Property 5
- Visualization Name
- Volume Level
- Wait
- Week Number
- Weekday
- Win DVD Commands
- WinAmp Volume
- Window Class Name
- Window State
- Window Title Name
- X10 Dim Level
- X10 House Code
- X10 Preset Dim Level
- X10 Security Command
- X10 Security Sensor Command
- X10 Security Unit Code
- X10 Unit Code
- Yes or No
- ZPTransportState
- ZPVolume**
- ZWave Dim Level

Add Delete

**Name:** ZPVolume

**Description:** ZPVolume

**Type:** Alpha-Numeric

**Values**

☒ Range

From: 0 To: 100

☐ Discrete

Add Delete

Close

### Property Addition – ZPTreble (alphanumeric):

1. Select **Settings** → **Property Manager...**
2. Click **Add** under **Properties**
3. Enter **ZPTreble** for **Name** and **Description**
4. Click **Range** under **Values**
5. Enter **0** to **10**

The screenshot shows the 'Property Management' dialog box. On the left, a list of properties includes 'ZPTreble'. On the right, the 'Name' and 'Description' fields are both set to 'ZPTreble', and the 'Type' is set to 'Alpha-Numeric'. Under the 'Values' section, the 'Range' radio button is selected, with 'From' set to 0 and 'To' set to 10. The 'Discrete' radio button is unselected. At the bottom, there are 'Add', 'Delete', and 'Close' buttons.

**Property Management**

Select Property in list to view Property attributes. Properties and Values can also be added and deleted.

**Properties**

Property Description

- User Definable TimeSpan Property 4
- User Definable TimeSpan Property 5
- Visualization Name
- Volume Level
- Wait
- Week Number
- Weekday
- Win DVD Commands
- WinAmp Volume
- Window Class Name
- Window State
- Window Title Name
- X10 Dim Level
- X10 House Code
- X10 Preset Dim Level
- X10 Security Command
- X10 Security Sensor Command
- X10 Security Unit Code
- X10 Unit Code
- Yes or No
- ZPTransportState
- ZPTreble**
- ZPVolume

**Add** **Delete**

**Name:** ZPTreble

**Description:** ZPTreble

**Type:** Alpha-Numeric

**Values**

☒ **Range**

From: 0 To: 10

☐ **Discrete**

**Add** **Delete**

**Close**

### Property Addition – ZPBass (alphanumeric):

1. Select **Settings** → **Property Manager...**
2. Click **Add** under **Properties**
3. Enter **ZPBass** for **Name** and **Description**
4. Click **Range** under **Values**
5. Enter **0** to **10**

The screenshot shows the 'Property Management' dialog box. On the left, a list of properties includes 'ZPBass' at the bottom. Below the list are 'Add' and 'Delete' buttons. On the right, the 'Name' and 'Description' fields are both set to 'ZPBass'. The 'Type' is set to 'Alpha-Numeric'. Under the 'Values' section, the 'Range' radio button is selected, with 'From' set to '0' and 'To' set to '10'. The 'Discrete' radio button is unselected. Below the 'Values' section are 'Add' and 'Delete' buttons. At the bottom center is a 'Close' button.

**Property Management**

Select Property in list to view Property attributes. Properties and Values can also be added and deleted.

**Properties**

Property Description

- User Definable TimeSpan Property 3
- User Definable TimeSpan Property 4
- User Definable TimeSpan Property 5
- Visualization Name
- Volume Level
- Wait
- Week Number
- Weekday
- Win DVD Commands
- WinAmp Volume
- Window Class Name
- Window State
- Window Title Name
- X10 Dim Level
- X10 House Code
- X10 Preset Dim Level
- X10 Security Command
- X10 Security Sensor Command
- X10 Security Unit Code
- X10 Unit Code
- Yes or No
- ZPBass
- ZPTransportState

**Add** **Delete**

**Name:** ZPBass

**Description:** ZPBass

**Type:** Alpha-Numeric

**Values**

☒ **Range**

From: 0 To: 10

☐ **Discrete**

**Add** **Delete**

**Close**



### Property Addition – ZPMuteStatus (alphanumeric):

1. Select **Settings** → **Property Manager...**
2. Click **Add** under **Properties**
3. Enter **ZPMuteStatus** for **Name** and **Description**
4. Click **Add** under **Values** (Discrete)
5. Enter **True** for the value **Name**
6. Repeat steps 4 and 5, adding **False** to the **Values** list for the property **MuteStatus**

The screenshot shows the 'Property Management' dialog box. On the left, a list of properties includes 'ZPMuteStatus'. On the right, the configuration for 'ZPMuteStatus' is shown: Name is 'ZPMuteStatus', Description is 'ZPMuteStatus', and Type is 'Alpha-Numeric'. Under the 'Values' section, the 'Discrete' radio button is selected, and a list contains 'False' and 'True'. Buttons for 'Add', 'Delete', and 'Close' are visible.

**Property Management**

Select Property in list to view Property attributes. Properties and Values can also be added and deleted.

**Properties**

Property Description
User Definable TimeSpan Property 4
User Definable TimeSpan Property 5
Visualization Name
Volume Level
Wait
Week Number
Weekday
Win DVD Commands
WinAmp Volume
Window Class Name
Window State
Window Title Name
X10 Dim Level
X10 House Code
X10 Preset Dim Level
X10 Security Command
X10 Security Sensor Command
X10 Security Unit Code
X10 Unit Code
Yes or No
ZPBass
<b>ZPMuteStatus</b>
ZPTransportState

**Add** **Delete**

**Name:** ZPMuteStatus  
**Description:** ZPMuteStatus  
**Type:** Alpha-Numeric

**Values**

☐ Range  
From: 0 To: 0

☒ Discrete

False  
True

**Add** **Delete**

**Close**



**Property Addition – ZPLoudnessStatus (alphanumeric):**

1. Select **Settings** → **Property Manager...**
2. Click **Add** under **Properties**
3. Enter **ZPLoudnessStatus** for **Name** and **Description**
4. Click **Add** under **Values** (Discrete)
5. Enter **True** for the value **Name**
6. Repeat steps 4 and 5, adding **False** to the **Values** list for the property **LoudnessStatus**

The screenshot shows the 'Property Management' dialog box. On the left, a list of properties includes 'ZPLoudnessStatus'. On the right, the configuration for 'ZPLoudnessStatus' is shown. The 'Name' and 'Description' fields are both set to 'ZPLoudnessStatus'. The 'Type' is set to 'Alpha-Numeric'. Under the 'Values' section, the 'Discrete' radio button is selected. The 'Discrete' list contains two entries: 'False' and 'True'. At the bottom, there are 'Add', 'Delete', and 'Close' buttons.

Property Description
User Definable TimeSpan Property 4
User Definable TimeSpan Property 5
Visualization Name
Volume Level
Wait
Week Number
Weekday
Win DVD Commands
WinAmp Volume
Window Class Name
Window State
Window Title Name
X10 Dim Level
X10 House Code
X10 Preset Dim Level
X10 Security Command
X10 Security Sensor Command
X10 Security Unit Code
X10 Unit Code
Yes or No
ZPBass
ZPLoudnessStatus
ZPMuteStatus

**Property Management**  
Select Property in list to view Property attributes. Properties and Values can also be added and deleted.

**Properties**

Name: ZPLoudnessStatus  
Description: ZPLoudnessStatus  
Type: Alpha-Numeric

**Values**

☐ Range  
From: 0 To: 0

☒ Discrete

False  
True

Add Delete

Close

**Property Addition – ZPCurrentTrack, ZPTrackLength,  
ZPTrackPosition (alphanumeric):**

1. Select **Settings** → **Property Manager...**
2. Click **"Add"** under **"Properties"**
3. Enter **ZPCurrentTrack** for **"Name"** and **"Description"**
4. Repeat steps 2-3, adding the properties **ZPTrackLength** and **ZPTrackPosition**

The screenshot shows the 'Property Management' dialog box. On the left, a list of properties is displayed, with 'ZPCurrentTrack', 'ZPTrackLength', and 'ZPTrackPosition' highlighted by red boxes. Below the list are 'Add' and 'Delete' buttons. On the right, the 'Name' and 'Description' fields are both set to 'ZPCurrentTrack', and the 'Type' is set to 'Alpha-Numeric'. Below these fields, the 'Values' section has 'Discrete' selected. At the bottom of the dialog is a 'Close' button.

**Property Management**

Select Property in list to view Property attributes. Properties and Values can also be added and deleted.

**Properties**

Property Description
WinAmp Volume
Window Class Name
Window State
Window Title Name
X10 Dim Level
X10 House Code
X10 Preset Dim Level
X10 Security Command
X10 Security Sensor Command
X10 Security Unit Code
X10 Unit Code
Yes or No
ZPBase
<b>ZPCurrentTrack</b>
ZPLoudnessStatus
ZPMuteStatus
<b>ZPTrackLength</b>
<b>ZPTrackPosition</b>
ZPTransportState
ZPTriple
ZPVolume
ZWave Dim Level

**Name:** ZPCurrentTrack

**Description:** ZPCurrentTrack

**Type:** Alpha-Numeric

**Values**

☐ Range  
From: 0 To: 0

☒ Discrete

**Add** **Delete**

**Close**

### Property Addition – ZoneName (alphanumeric):

1. Select **Settings** → **Property Manager...**
2. Click **Add** under **Properties**
3. Enter **ZoneName** for **Name** and **Description**

The screenshot shows the 'Property Management' dialog box. The title bar is blue with the text 'Property Management' and a close button. Below the title bar is a subtitle 'Property Management' and a description 'Select Property in list to view Property attributes. Properties and Values can also be added and deleted.' The main area is divided into two sections. The left section, titled 'Properties', contains a list of properties: 'Property Description', 'User Definable TimeSpan Property 3', 'User Definable TimeSpan Property 4', 'User Definable TimeSpan Property 5', 'Visualization Name', 'Volume Level', 'Wait', 'Week Number', 'Weekday', 'Win DVD Commands', 'WinAmp Volume', 'Window Class Name', 'Window State', 'Window Title Name', 'X10 Dim Level', 'X10 House Code', 'X10 Preset Dim Level', 'X10 Security Command', 'X10 Security Sensor Command', 'X10 Security Unit Code', 'X10 Unit Code', 'Yes or No', 'ZoneName', and 'ZFBass'. Below the list are 'Add' and 'Delete' buttons. The right section, titled 'Values', contains a 'Name' field with 'ZoneName', a 'Description' field with 'ZoneName', and a 'Type' dropdown menu set to 'Alpha-Numeric'. Below these fields are two radio buttons: 'Range' (unselected) and 'Discrete' (selected). The 'Range' section has 'From' and 'To' fields, both containing '0'. The 'Discrete' section has a large empty text area. Below the text area are 'Add' and 'Delete' buttons. At the bottom center of the dialog is a 'Close' button.

**Property Management**

Select Property in list to view Property attributes. Properties and Values can also be added and deleted.

**Properties**

- Property Description
- User Definable TimeSpan Property 3
- User Definable TimeSpan Property 4
- User Definable TimeSpan Property 5
- Visualization Name
- Volume Level
- Wait
- Week Number
- Weekday
- Win DVD Commands
- WinAmp Volume
- Window Class Name
- Window State
- Window Title Name
- X10 Dim Level
- X10 House Code
- X10 Preset Dim Level
- X10 Security Command
- X10 Security Sensor Command
- X10 Security Unit Code
- X10 Unit Code
- Yes or No
- ZoneName
- ZFBass

**Add** **Delete**

**Values**

Name: ZoneName

Description: ZoneName

Type: Alpha-Numeric

☐ Range

From: 0 To: 0

☒ Discrete

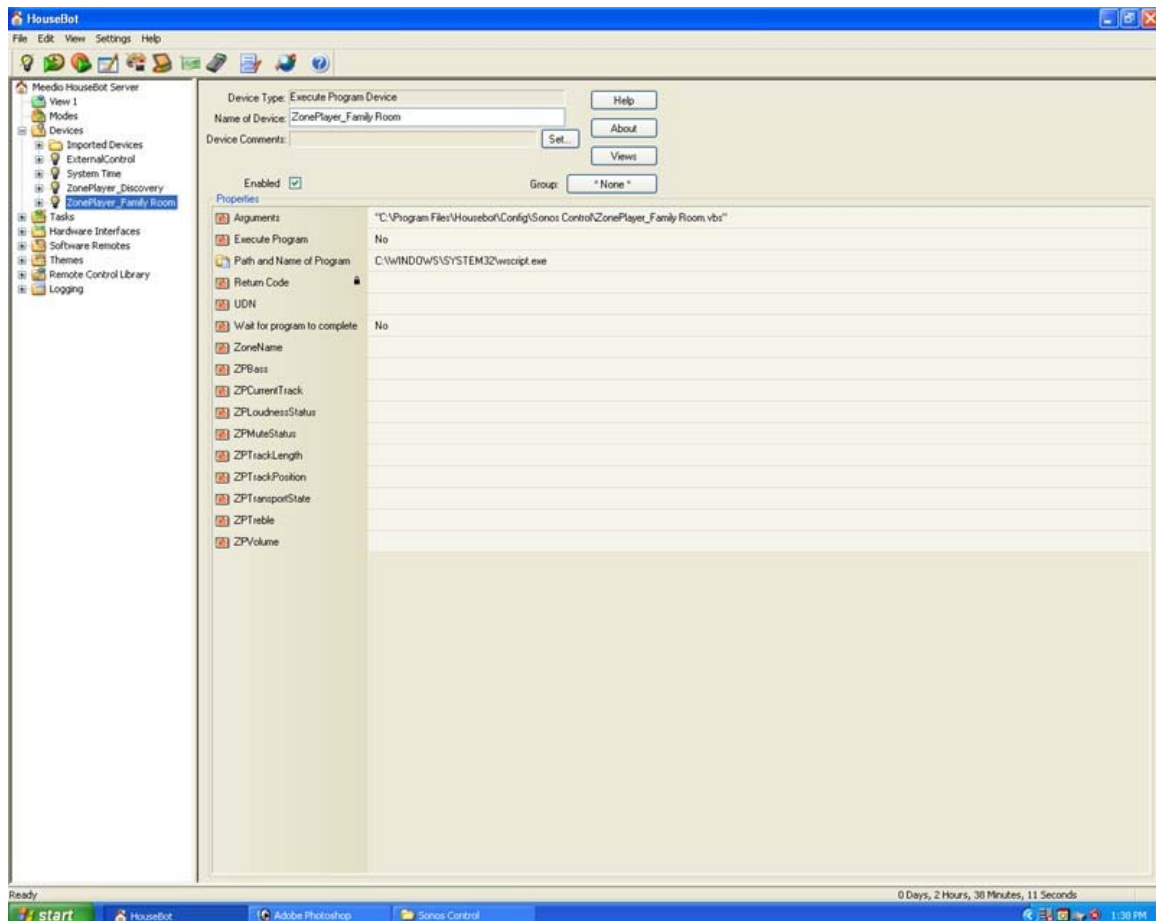
**Add** **Delete**

**Close**

## ii. DEVICE CREATION

1. Select **File** → **New** → **Device...**
2. Select **"No Hardware Interface Required (Software Device)"** and click **"Next"**
3. Select **"Execute Program Device"** and click **"Next"**
4. Enter **ZonePlayer\_<Zone Name Here>** for the **"Device Name"** and click **"Next"**
5. Click **"Next"** at the **"Device View"** screen
6. Enter **"C:\WINDOWS\SYSTEM32\wscript.exe"** for the **"Property Value"** of the **"Path and Name of Program"** property and click **"Next"**
7. Leave the **"Wait for program to complete"** property set to **"No"** and click **"Next"**
8. Click **"Finish"** at the **"Device Created"** screen
9. Add the properties created in the previous section to this device:
  - a. right-click on the device in the device tree
  - b. select **"Add Property"**
10. Ensure that the **Sonos Control** folder has been placed in the **HouseBot\Config** folder and then in the **"Arguments"** property of the newly created device place the following text, **INCLUDING QUOTATION MARKS**:

"C:\ProgramFiles\HouseBot\Config\Sonos Control\ZonePlayer\_<ZoneName>.vbs"



Each ZonePlayer\_<ZoneName> device should correspond to a zone in your system. For example, I have two zones in my system: Family Room and Playroom. As a result, the devices I use for control are ZonePlayer\_Family Room and ZonePlayer\_Playroom. The zone names are set when using the initial set-up CD with the Sonos system. You can look at the Sonos Desktop Controller to determine what your zone names are for device creation. This is important because the scripts will query each ZonePlayer for their zone name. If the zone names don't match, the scripts won't work.