

Controlling a WebCam within Meedio HouseBot

Set-Up:

1. WebCam

- (a) Attach camera to pc
- (b) Install device software
- (c) Ensure camera is working

2. Windows Media Encoder SDK

- (a) Download "Windows Media Encoder 9 Series SDK" (WMEncoderSDK.exe) from Microsoft
 - i. <http://www.microsoft.com/downloads/details.aspx?FamilyID=000a16f5-d62b-4303-bb22-f0c0861be25b&DisplayLang=en>
- (b) Install SDK
- (c) Test SDK installation via software/samples installed to make sure it can find the camera
- (d) Get device list
 - i. Open Command Prompt window
 - ii. Change to this directory: C:\WMSDK\WMEncSDK9\samples\vb\wmcmd
 - iii. Run this command: cscript.exe wmcmd.vbs -devices

A. Your results should be something like: (Note the number next to your webcam)

```
Microsoft (R) Windows Script Host Version 5.6
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audio device:
  0 : Default_Audio_Device
  1 : NVIDIA(R) nForce(TM) Audio

video device:
  0 : Default_Video_Device
  1 : ZSMC USB PC Camera
  2 : ZSMC USB PC Camera (1)
  3 : USB PC cam
```

- iv. Run this command: cscript.exe wmcmd.vbs -vdevice ZZ -duration 10 -output c:\camcap.wmv
 - A. Change ZZ in above command to be the device number you noted in step above.
 - B. Check root directory for video.

3. Meedio HouseBot

- (a) Null Device name and all Properties names listed here can be changed, **but** the provided script will need to be changed to match the new names. The name of the camera script device can be changed with no issues.
- (b) To speed up this step, you can use the provided WebCamInitial and WebCamAdd configuration files. WebCamInitial will add the CamActivate and Cam1 devices. WebCamAdd adds a Cam2 device. WebCamAdd can be imported multiple times to match the number of cameras you have. Just rename the device as needed.
- (c) Add Null Device named 'CamActivate'
 - i. Add "User Definable Alpha Property 1" named 'CameraToActivate'
- (d) Add Script Device named 'Cam1'
 - i. Add "User Definable Numeric Property 1" named 'Duration(Seconds)'
 - ii. Add "User Definable Alpha Property 1" named 'FileExtension'
 - iii. Add "User Definable Path Property 1" named 'OutputPath'
 - iv. Add "User Definable Alpha Property 2" named 'LogMsgs'
 - v. Add "User Definable Numeric Property 2" named 'Video Device Nbr'
- (e) Repeat step (c) above for additional cameras (change Script Device name)

4. VBScript

- (a) Put the provided VBScript file (WmcmdForHB.vbs) in the Script directory for Meedio HouseBot.
Ex: C:\Program Files\Meedio\Meedio HouseBot\Config\Scripts

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Use:

CameraToActivate: Since this script was designed to handle multiple cameras in HB, the script needs to know which camera Script Device it is running from. This property gives that ability. In my set-up, I have multiple motion detector tasks that set this property based on the camera's location.

Duration(Seconds): This is the amount of time you want to record on the camera. During my testing I noticed that the actual time recorded was usually a couple of seconds shorter than the value I provided here. So, if you need a specific amount of video you may have to play with this value and add a few seconds of 'padding'.

FileExtension: This property designates the type of video to create. I have used wmv and mpg. Check the Encoder SDK documentation for other supported types.

OutputPath: This is the path where you want the videos put.

LogMsgs: Set this to 'MsgBox' to show messages in Message Boxes. Set to 'Log' to have messages go to script log. Set to 'None' to not have the output messages from the script logged or shown.

Video Device Nbr: This is the device number you noted from the " cscript.exe wmcmd.vbs -devices" step during set-up. Each time you add web cameras, recheck the device numbers via the '-devices' command. I noticed that after installing extra web cameras that my initial device 1 became device 3.

Filenames will have the following format:

- Value from CameraToActivate property
- Current Date
- Current Time
- Value from FileExtension property

Example: Cam1-2004-10-21-20-00-54.wmv

Create Task(s) as needed to control the starting of cameras. They should have two actions. One to set the 'CamActivate.CameraToActivate' property to the name of camera Script Device to use. The other action should set '*ScriptName.State*' to Running.