Using Windows Speech Recognition to click the mouse button

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This PDF and other downloads at: http://cameramouse.org/downloads.html
The ZIP file mentioned in this document is here:
http://cameramouse.org/downloads/clickspeechmacros.zip

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Also visit my new blog on speech recognition at http://speechwreck.blogspot.com/

Using Camera Mouse in conjunction with Windows Speech Recognition
Windows Speech Recognition is designed primarily to allow you to perform actions. For example, you can say "Close Window" and Windows will close the current window, if it can. It also has provisions for controlling the mouse but it's inefficient. If you're using Camera Mouse to control the position of the mouse, you can use Windows Speech Recognition to click, double-click, and right-click. Here's how: (Note: These instructions were tested with Windows 7 and likely work with Windows Vista. Not sure about Windows XP.)

Set up Windows Speech Recognition
1. Connect a microphone to your computer.
2. Turn on Speech Recognition (Control Panel > Speech Recognition, click Start Speech Recognition) and follow the wizard.
3. Follow the speech tutorial and try out some commands to get the hang of it. For example, you can say "Show Desktop" to minimize all windows, or "Start" to "click" the Start menu.

Install Windows Speech Recognition Macros
1. Download and install Windows Speech Recognition Macros.
   http://www.microsoft.com/downloads/details.aspx?FamilyID=fad62198-220c-4717-b044-829ae4f7c125&displaylang=en&Hash=6w1sh%2fw29AN7RbBD6oSYuwMPN6crcXLr%2blgZ%2fjDbMgtA3cwHI45RsaEl2zHY1KcMbHxRLCH%2bbSJ3Q4EuLYR8zQ%3d%3d
   (Or search Microsoft.com for "Windows Speech Recognition Macros".)
2. The Speech Macro icon may or may not be in the system tray.
   It looks like this:
   - If it doesn't appear on its own, run Speech Macros:
     Click Start, type in "speech", and then click Windows Speech Recognition Macros.
3. Right-click the Speech Macro icon in the System Tray
   and select **Explore Speech Macros**.
   This brings you to the folder where speech macros are saved.
4. Unzip the contents of "click0speechmacros.zip" into the "Speech Macros" folder.
   Note: Make sure the **mouseclicks.WSRMac** file and the **autohotkeymacros** folder are both in the root of the **Speech Macros** folder.

Note: Speech Macro recommends you sign your macros so other programs can't change them. These macros are unsigned so you can get started. You can edit them using a text editor. Once you get the hang of it you might want to create your own macros and sign them.

Try clicking, double-clicking, and right-clickin
- To click the left button once, say "i click".
- To double-click with the left button, say "i double".

- To right-click, say "i right".

<u>Changing the trigger words</u>
The trigger words "i click", "i double" and "i right" were chosen because they are fairly unique compared to all the other trigger words Speech Recognition tries to understand. If you use "Click" for example Speech Recognition tries to interpret many meanings and it's easy to be misunderstood. This is because Speech Recognition tries to understand things like off "Click Bold" or "Double-click *something*".
You can edit the macros (with extension WSRMac), which are actually just XML files. To view the contents of the macro, right-click on the macro and edit the file with any text editor, like Notepad. You can then change the words within the 'listenfor' tags.

```
<command>
    <listenFor>i hold</listenFor>
    <run command="C:\Users\billm\Documents\Speech Macros\autohotkeymacros\mousedown.ahk" params=""/>
</command>
```

Changes take effect immediately after you save, so if the macro contains an error in syntax, you will get an error from Speech Macros when it tries to perform the action.

Hold down and release the mouse button
There doesn't seem to be a way to tell Windows Speech Recognition Macros to perform a "hold down the button" or "let go of the button". If you want to do this, you need another macro program that can do it for you.
Essentially you're calling a speech macro that calls a second macro. To do this:
<u>Install AutoHotkey (free) (or any other macro program that supports mouse clicks)</u>
1. Download from: http://www.autohotkey.com/

<u>Point "i hold" and "i release" Speech Macros to the autohotkey macros that were in the zip</u>
1. Open **mouseclicks.WSMac** in a text editor.
2. Look for the "i hold" macro.
3. In the <run command> for this macro, change the path so it points to your **Speech Macros/autohotkeymacros** folder. (Usually you can just change the Windows account folder name.) In the following example, my user accont name is **billm**:

```
<command>
    <listenFor>i hold</listenFor>
    <run command="C:\Users\billm\Documents\Speech Macros\autohotkeymacros\mousedown.ahk" params=""/>
</command>
```

4. Do the same for "i release".

Save and then try out your macro.
I usually don't sign my macros until I have experimented with the different 'listen for' possibilities and find what suits me. It's easier to edit the macro XML file.

Command Summary

i click	Click the left mouse button once.
i double	Click the left mouse button twice quickly.
i right	Click the right mouse button.
i mousecam	Click "scrolllock", turning Camera Mouse on or off.
i hold	Hold down the left button.
i release	Release the left button.

Advanced option – turn off dictation

If you start using Speech Recognition a lot, you will notice that sometimes your speech is turned into text instead of a command. This is because Windows Speech Recognition tries too hard to be helpful - if it doesn't identify a command, it converts to text and inserts the text where the cursor is blinking.
In my case I'm not trying to use dictation. Dragon Naturally Speaking (which I've never used) has a feature to act only in command mode; I'm wishing Windows Speech Recognition had the same feature. Unfortunately the only way I could find to turn this off was with a registry key. I know there are other ways (such as through a local script) but I couldn't get them to work.

1. Click Run, type "regedit", press Enter.
2. Go to:
   HKEY_CURRENT_USER\Software\Microsoft\Speech\Preferences\en-us
   Note: en-us corresponds with the language Speech Recognition is set to.
3. Create a dword:
   DictationEnabled
4. Set it to 0.

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Also visit my new blog on speech recognition at http://speechwreck.blogspot.com/