

**Copyright 2009 BOSMA Enterprises**

## **Chapter 7**

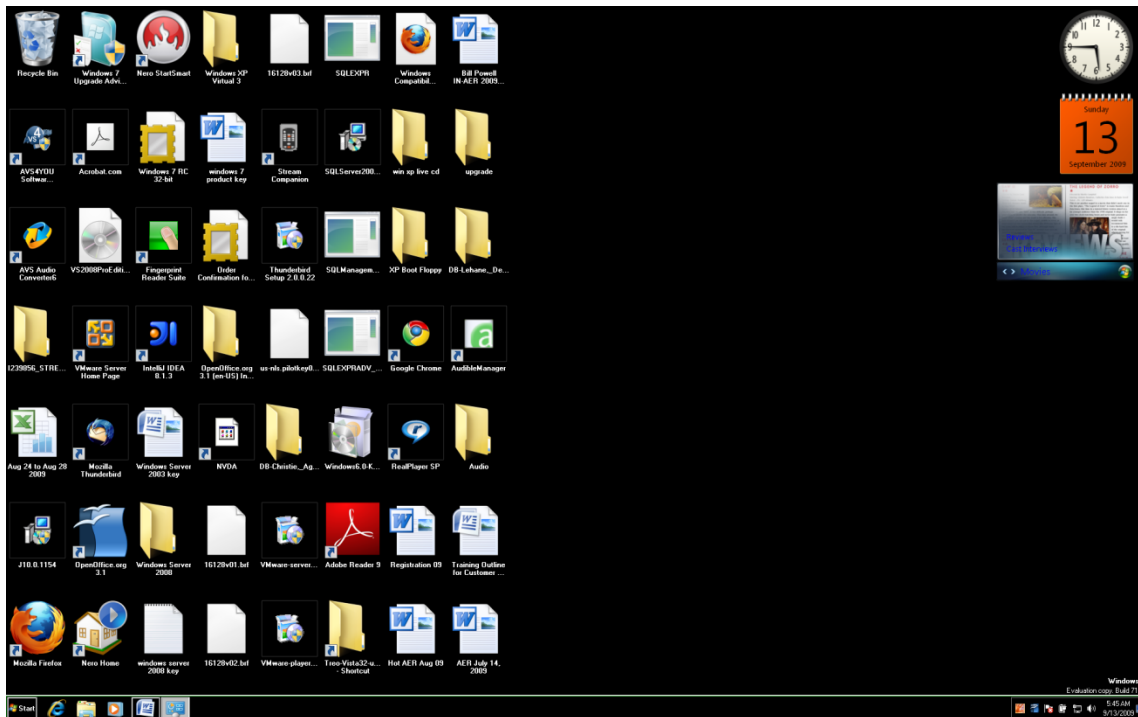
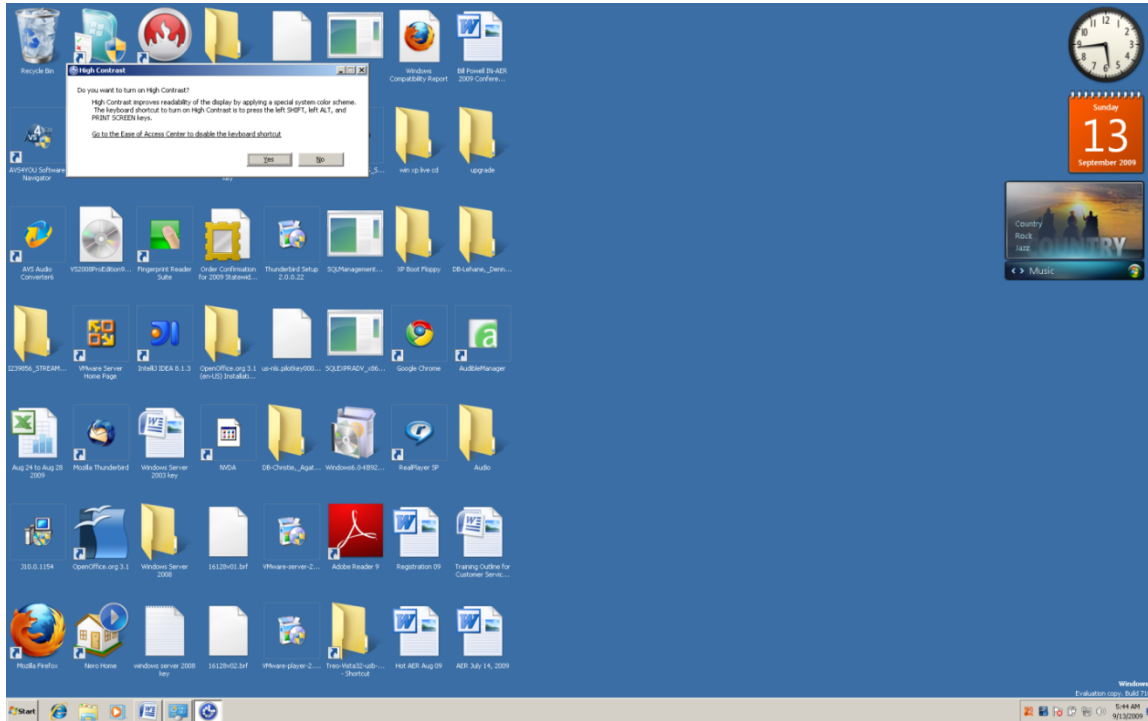
### **Free Windows 7 Accessibility Programs**

If you do not have a program for making Windows accessible you can use a number of free programs built into the Windows operating system. These programs are very basic and not nearly as advanced as some freeware (free programs), shareware (programs that you try then decide if you want to buy), demos (demonstration programs of commercial products such as JAWS or ZoomText) that run for a specific amount of time, or number of days, or commercial level products such as JAWS, ZoomText, Magic or WinEyes. Windows gives you a free screenreader called Narrator. This program will read menus and text that is copied to Windows Notepad. Magnifier enlarges the computer screen. There is a method called “Sticky Keys” which changes the way the keyboard is used. You can train the computer to your voice in order to speak to command it, or talk to type.

**Note: Chapter 8 covers “Free Windows XP Accessibility Programs.”**

## Inverting the Windows Screen

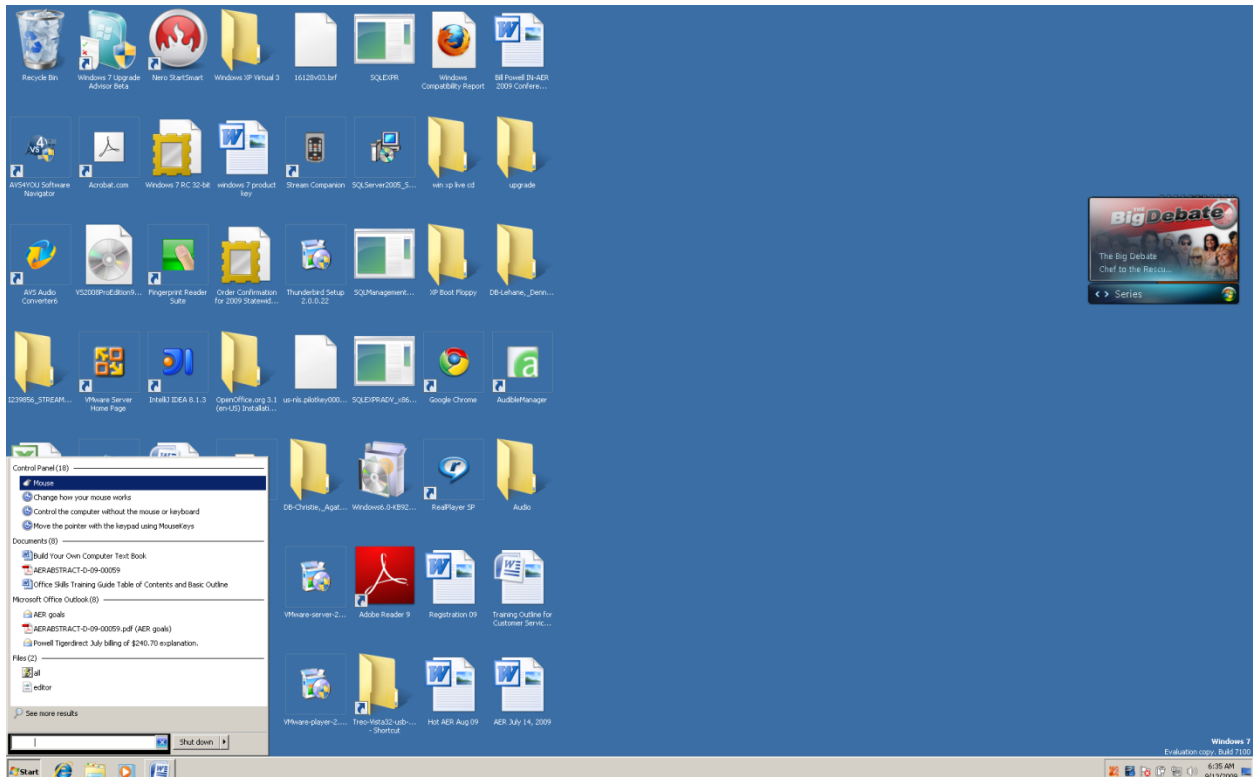
If you simply want to invert your computer screen, with no enlargement or speech, press the alt shift print screen key combination one time. Tap the enter key one time and your computer screen will be inverted with a black background and white text.

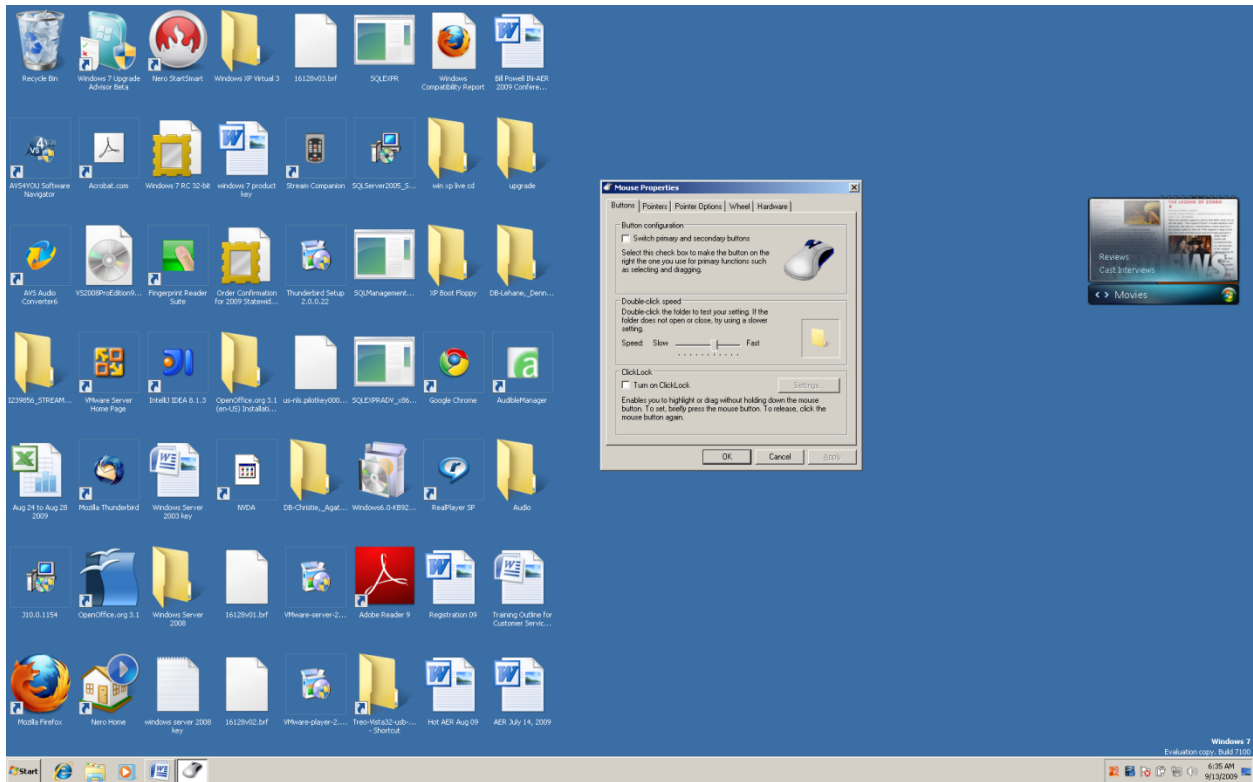


Press alt shift print screen a second time to return your screen to the original color settings.

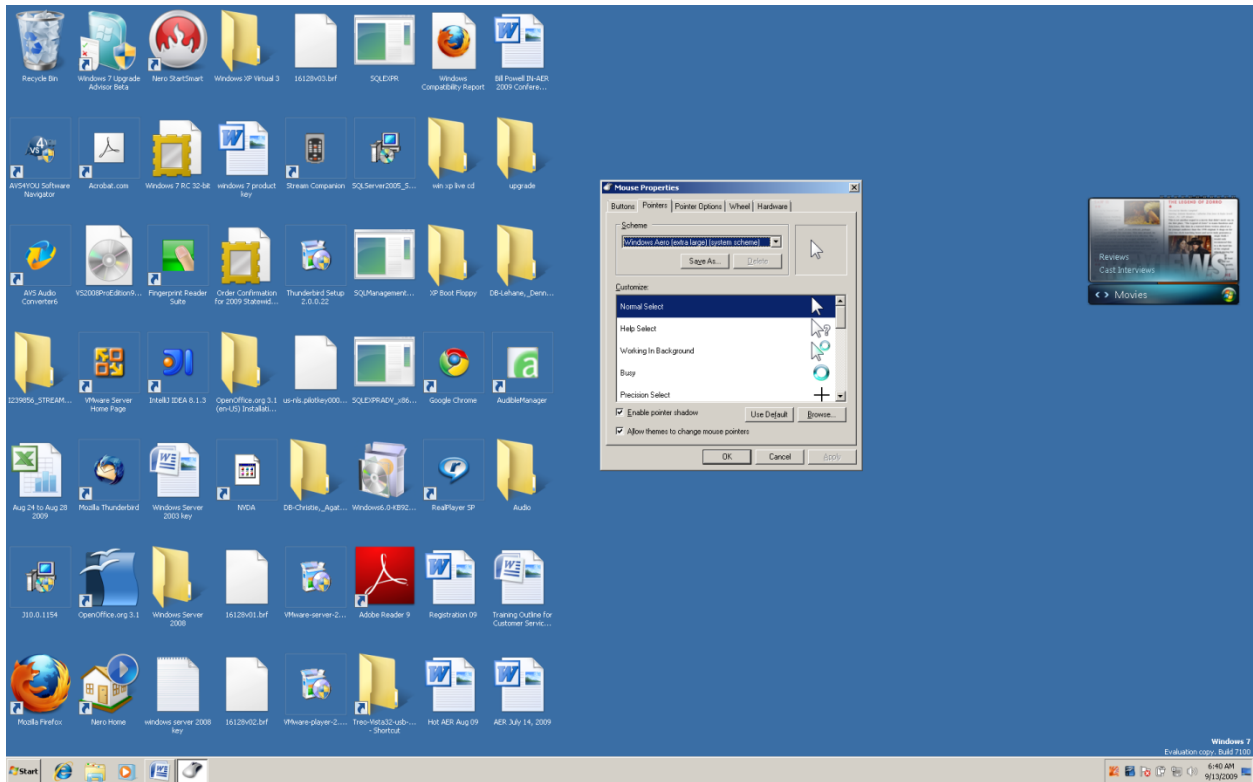
## Mouse Pointer

You can change the way your mouse looks and acts in Windows Vista and Window 7 by tapping the Windows (Start) key one time, typing the word mouse, and tapping the Enter Key one time. See the following pictorial sequence of what you will see when you do this. You will notice that after you type mouse and then tap enter a dialogue box will appear which covers mouse settings. **If you are using Windows XP you can go to the Pointers in the Control Panel to bring up the Mouse dialogue box.**

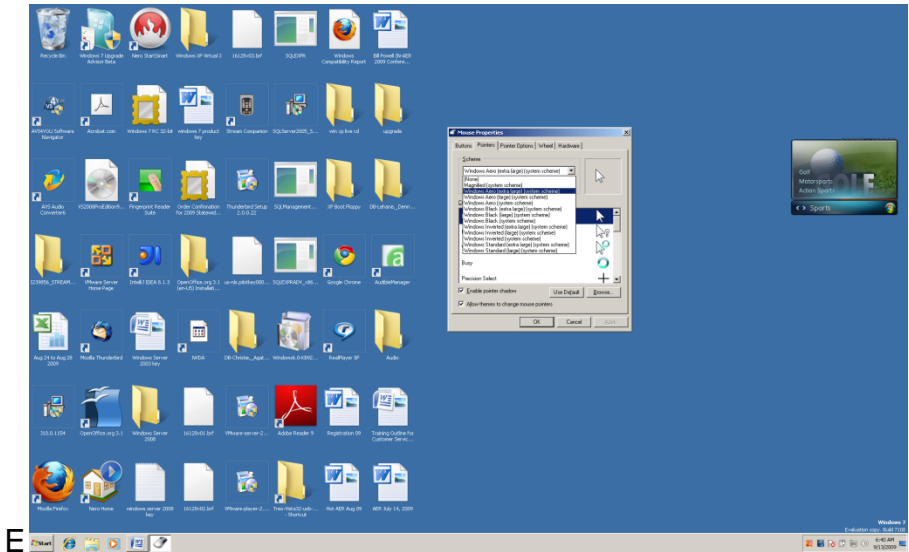




Notice on the dialogue box for the mouse pointer five tabs going left to right across the top of the box. The first tab is open and lets you switch the left and right click buttons. Next is a slider that you can use to change the “double click speed.” Click lock is the bottom item on this tab. Move to the “Pointers” tab (the next tab to the right) and left click one time.



At the top of the Pointers tab is a “Scheme” combo box. You can either scroll down through the items in this list, or press and hold the alt key and tap the down arrow key to show the entire list. Arrow to the type of pointer you want and tap the Enter Key one time.



Tab two times, down arrow through the list that has pictures of how the mouse pointer will look to the right of each item, tab one time to the “Enable Mouse Pointer Shadow,” and tap the spacebar one time to uncheck it, or leave it checked by not pressing the

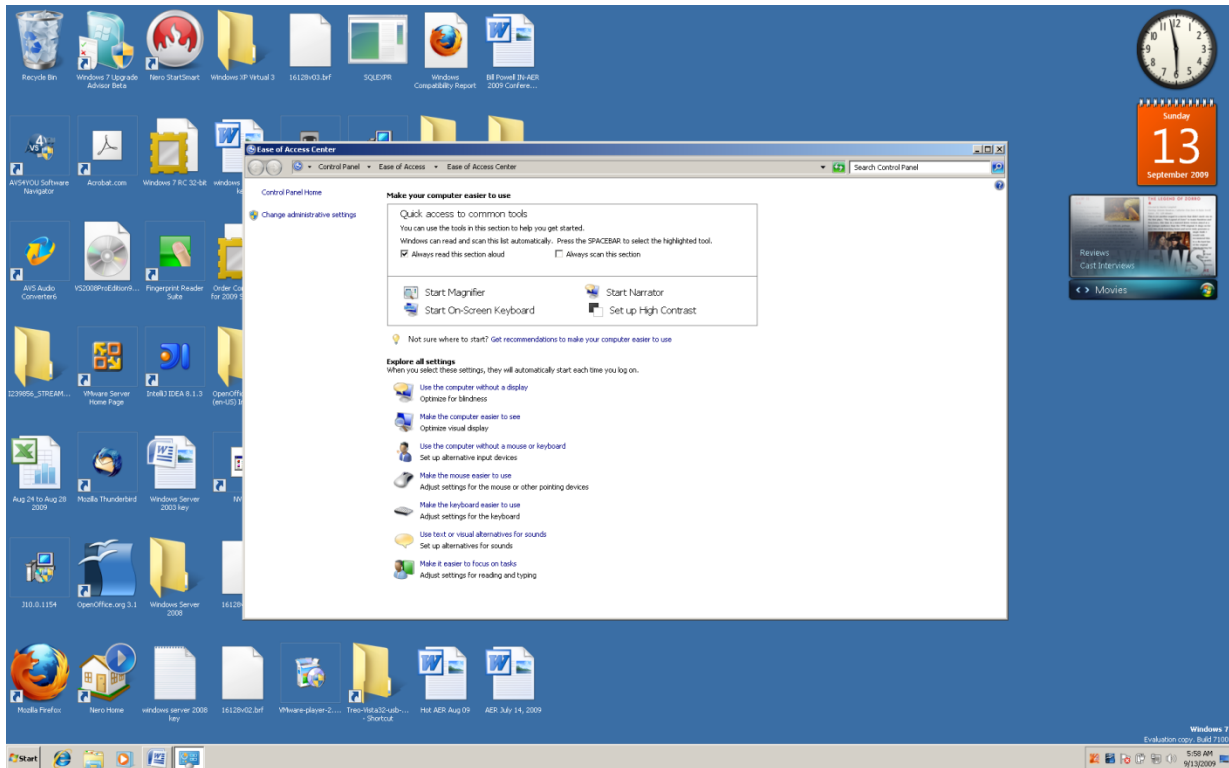
spacebar. Tap tab until you get to the “Apply” button. Tap the spacebar on the Apply button. Tab or hold down the shift key and tab until you see the “OK” button. Tap either the spacebar or enter on the OK button and the dialogue box will close and your mouse pointer will be changed.

Tap the Windows Key one time. Type mouse and then tap enter. The Mouse dialogue box will re-appear. Go to the third tab that says “Pointer Options,” and click to open it. Tab one time and you will be on the slider titled, “Select a pointer speed.” You can use your left arrow (or click with the mouse) to make the speed of your mouse slower, or use the right arrow (or click with the mouse) to make the speed of your mouse faster. You can tab three times to the checkbox to “Display pointer tails,” and tap the spacebar (or mouse click) to check this box, if you want a trail to appear behind where your mouse pointer is moving.

**Note: If you are using adaptive programs such as JAWS or ZoomText, you will probably not be concerned with the mouse settings described above. You might want to use this area to slow down the speed of the mouse pointer, especially if you have a touch pad on a laptop.**

## Ease of Access Center

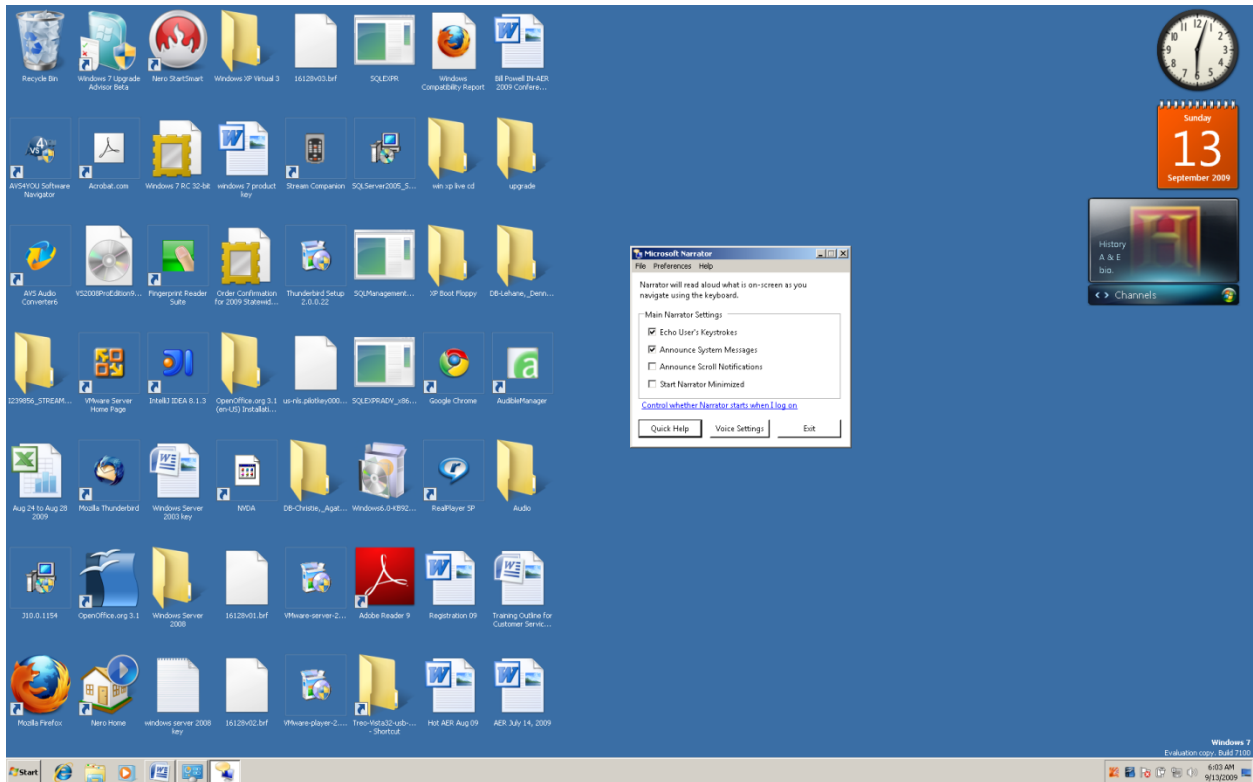
Press and hold down the Windows Key and tap the letter u to bring up the Ease of Access Center. Wait about one minute, and then begin tabbing and you will hear (and see) “Start Magnifier,” “Start Narrator,” “Start On-Screen Keyboard,” and “Set up High Contrast.” Tap the enter key on any of these items you wish to start. **If you are using Windows XP, pressing the Windows Key u key combination will start Narrator and give a menu to start Magnifier. Windows 7 and Windows Vista uses the Ease of Access Center in place of the XP menu.** There is a “Get Recommendations link just after the four main items in the Ease of Access Center. This does not speak. Just below this link are more refined links under the “Explore all settings” area.





## Windows Narrator

Tab to and tap the Enter Key on Narrator in the Ease of Access Center. Narrator will start and a menu for Narrator will appear. You can tab through the four checkbox items and tab the spacebar to check or uncheck any of these items. You can also tab to the “Quick Help,” and the “Voice Settings” buttons and tap the Enter Key to refine these settings. If you want to exit Narrator, tab to the “Exit” button and tap the Enter Key. A box will come up asking if you want to exit. Tap enter on time and Narrator will close. It will take Narrator about one minute to completely close.

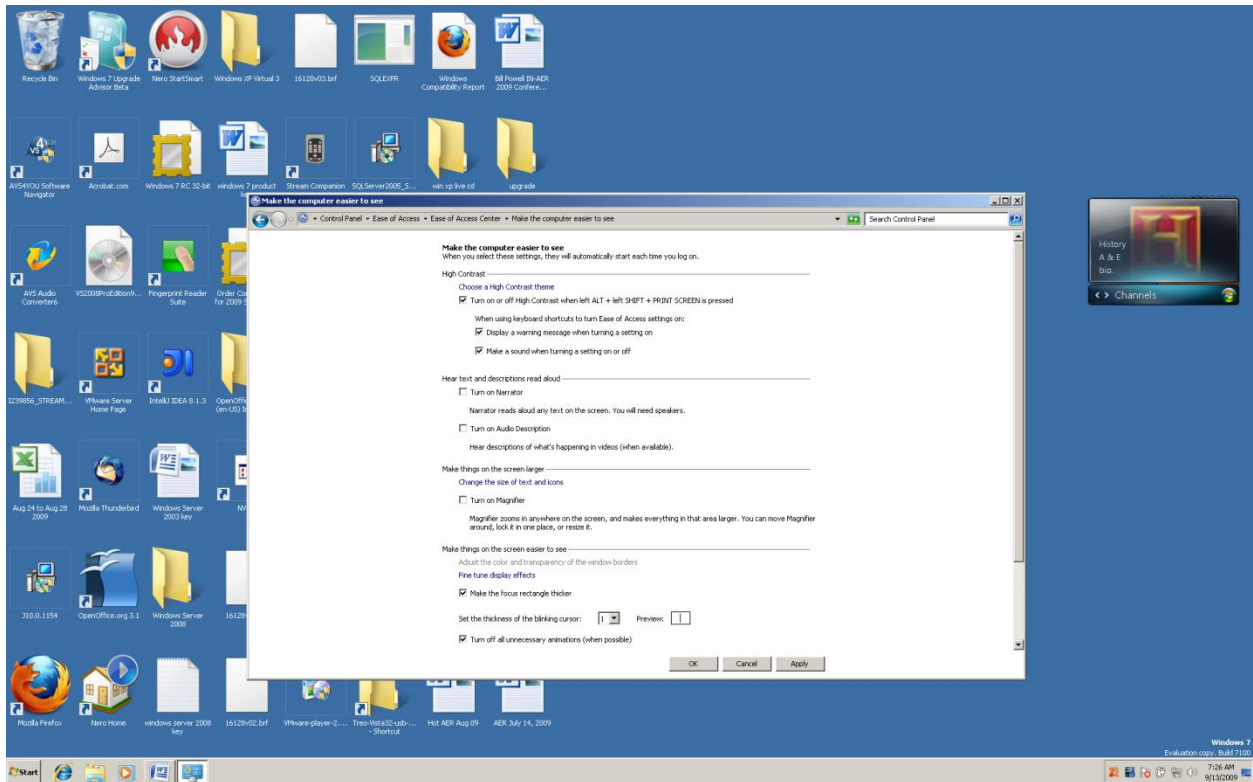


## **Windows Magnifier**

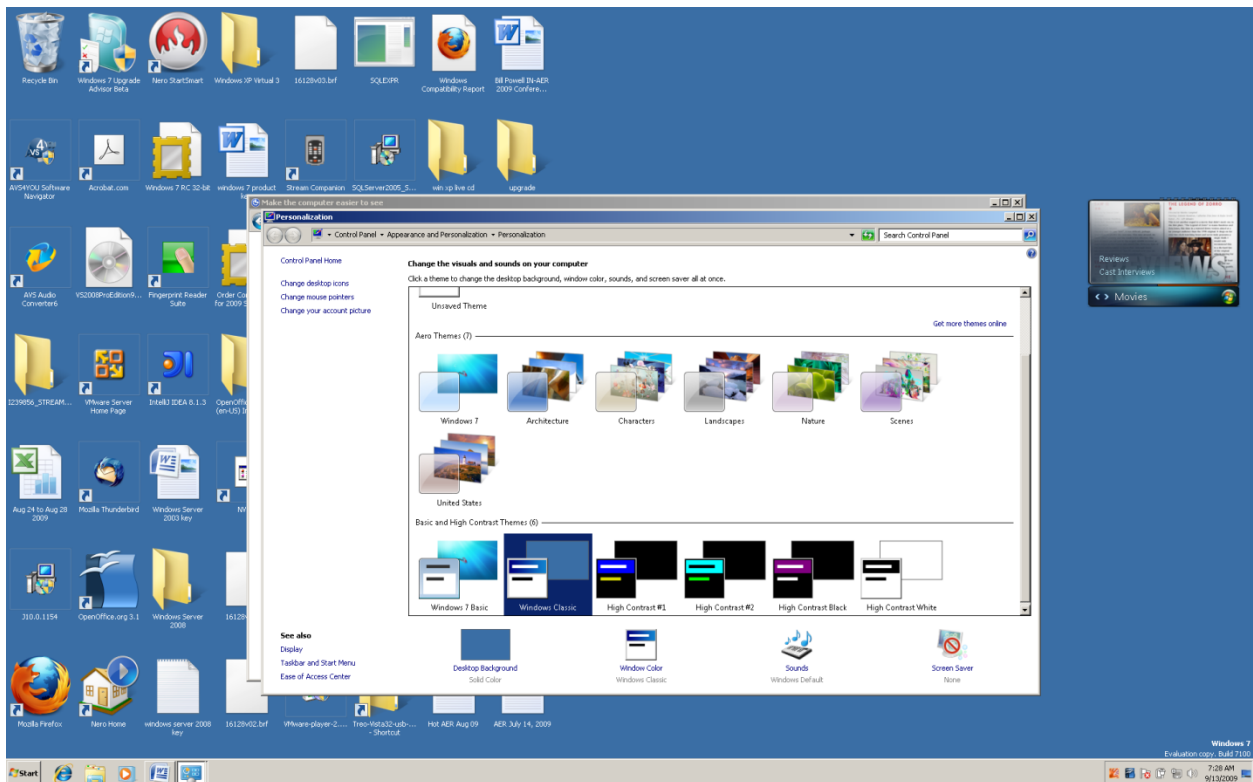
Press the Windows Key u key combination to bring up the Ease of Access Center and tab (usually one time) to the “Start Magnifier” link. Tap the Enter Key one time and you will see an enlarged line at the top of your computer screen. If you move your mouse you will notice that this magnified line follows your mouse pointer and magnifies the area where the mouse is. You can set the Magnifier to magnify with a round magnifying glass, more of the screen, or in a different area of the computer screen.

## Set Up High Contrast

Press the Windows Key + U key combination to bring up the Ease of Access Center to the Set up High Contrast link. Tap the Enter Key one time on this link. The following screen will appear.



Near the top of the above screen will be a link that says, "Choose a High Contrast Theme." Click or tap enter on this link and the following screen will appear.

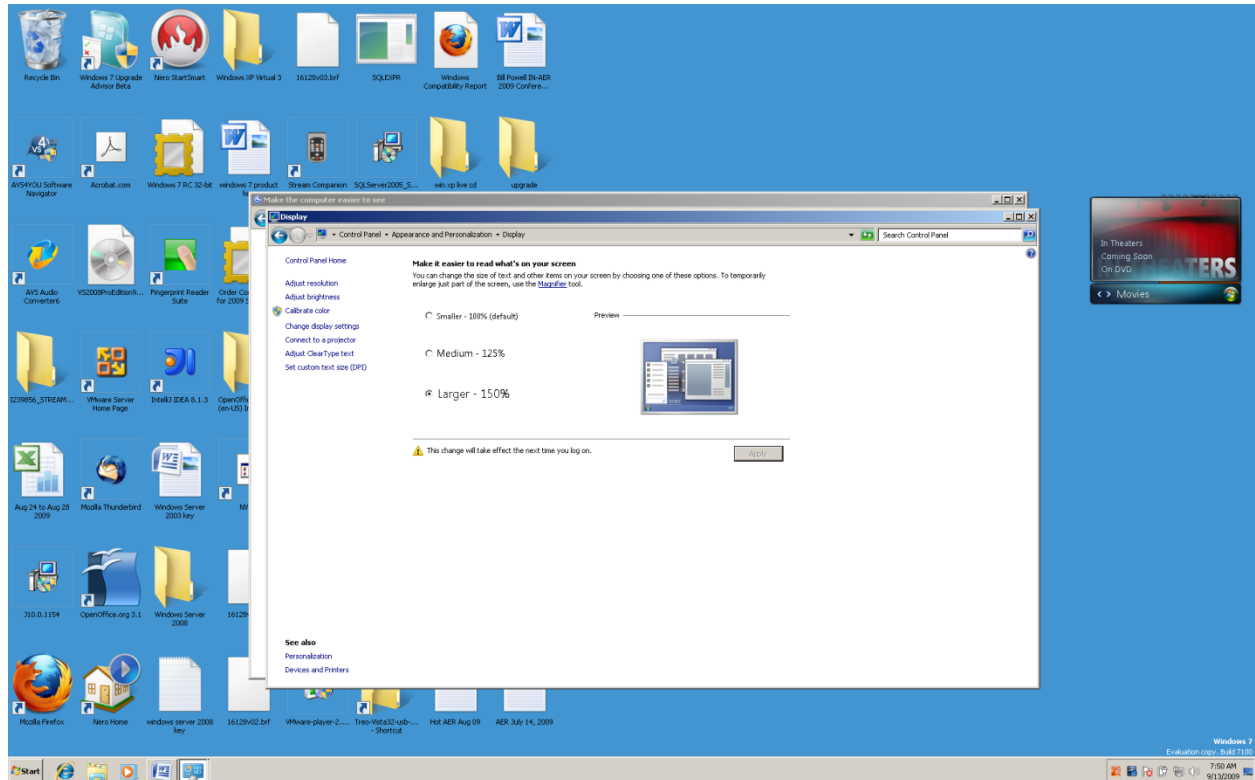


You can move the mouse pointer over the area of the different screen options and roll the mouse wheel toward your wrist to view the rest of the choices. You can roll the mouse wheel away from your wrist to move back up the choices. When you see a choice you like left click on it one time. A small box will appear that says, "Please Wait," then you will hear a sound, and then your Windows Desktop background will be changed to the selection you clicked. See the following example of a screen change.

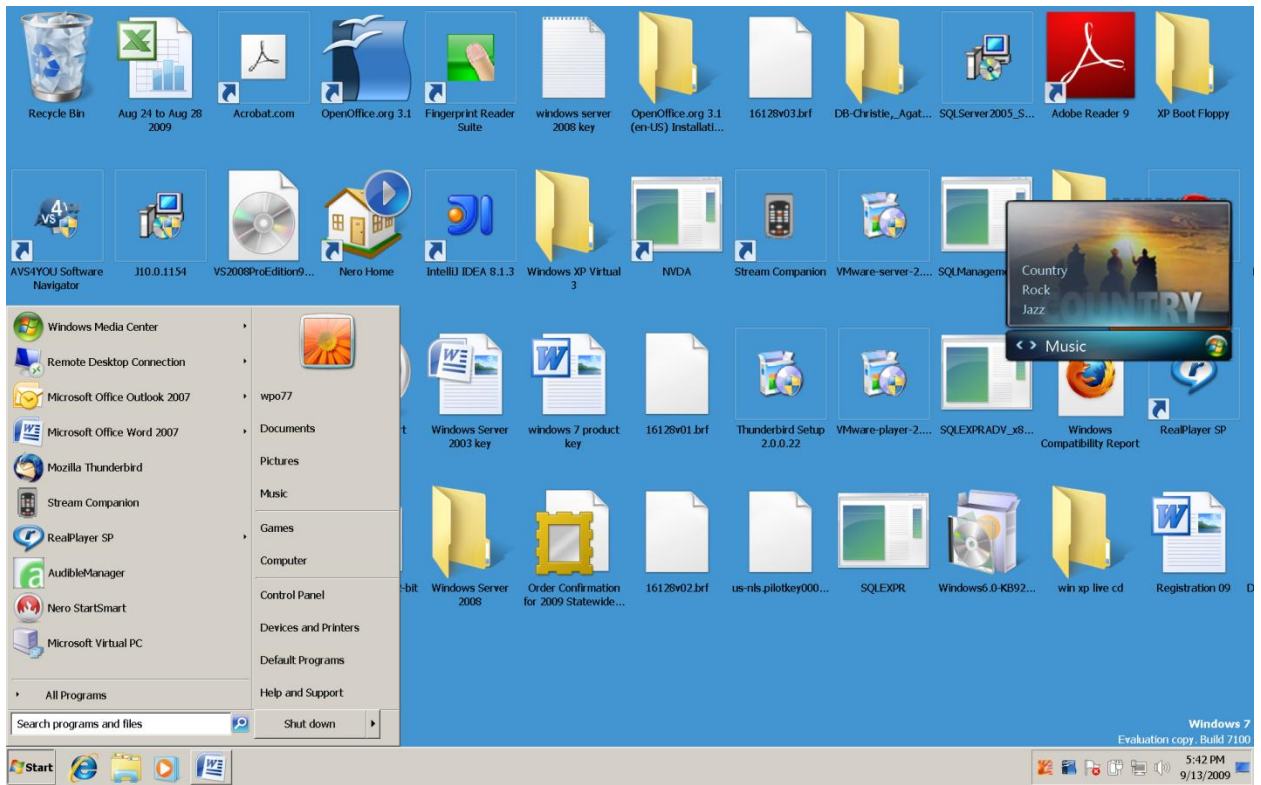
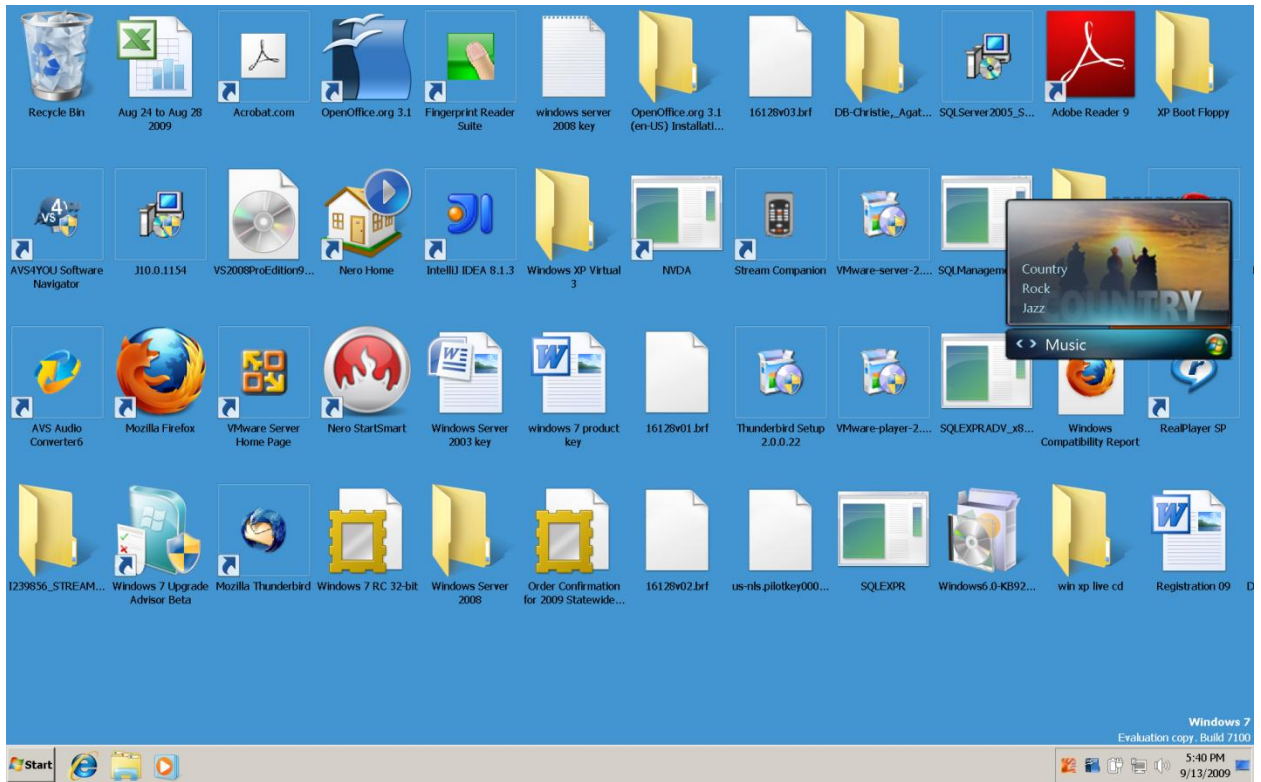


## Making the Display Bigger

Press the Windows Key + U key combination to bring up the Ease of Access Center. Near the bottom of this dialogue box is a link that says, “Change the size of text and icons.” Click or tap the Enter Key on this link and the following dialogue box will appear.

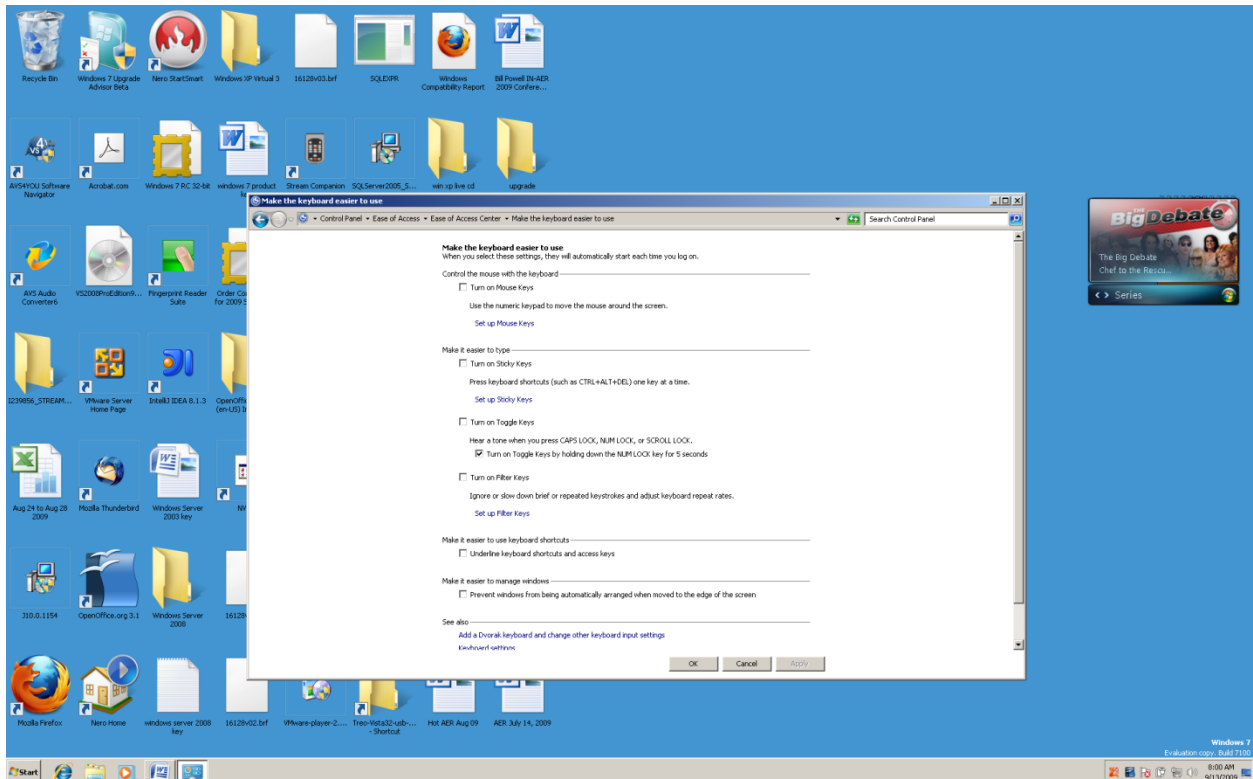


There are three radio buttons (round hollow circles) near the top center of this dialogue box. You can choose to click the “Smaller (the default size Windows starts in after being installed), Medium (125%), or Larger (150%). After you make your choice, click or tap the spacebar on the Apply button. Windows will tell you that the change you selected will happen the next time you log into your computer. Restart your computer and you will see larger icons and menus.



## Make the Keyboard Easier to Use

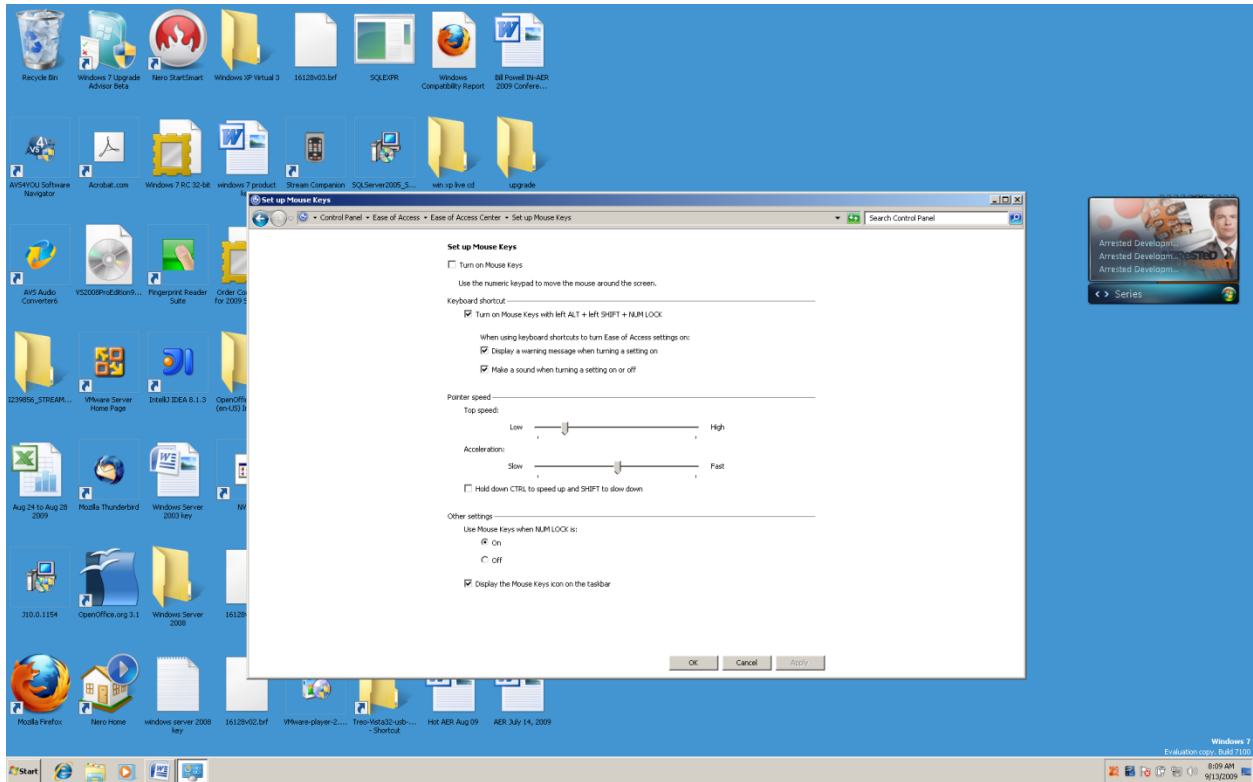
Press the Windows Key and tap the letter u to bring up the Ease of Access Center. Click or tap the Enter Key on the “Make the keyboard easier to use,” link near the bottom of the dialog box. The following dialog box will appear that lets you set the mouse to key commands, and allows you to turn on the “Sticky Keys.”





## Mouse Keys

In the “Make the keyboard easier to use,” dialogue box there is a link called “Set up Mouse Keys.” Click or tap enter on this link and the following dialogue box will appear.



You can tab through this dialogue box and tap the spacebar on any item you want to check or uncheck. On the “Pointer speed” sliders you can use your left and right arrow keys to change the speed. On “Other settings” you will need to down arrow if you want to select the “Off” radio button for “Use the mouse keys when NUMLOCK is:” It is good to leave the checkbox checked for “Turn on Mouse Keys with left ALT + left SHIFT + NUMLOCK.” If this setting is checked all you have to do to **turn on the “Mouse Keys”** is **press the left ALT + left SHIFT + NUMLOCK key combination** and you will be able to use your numeric key pad as a mouse.

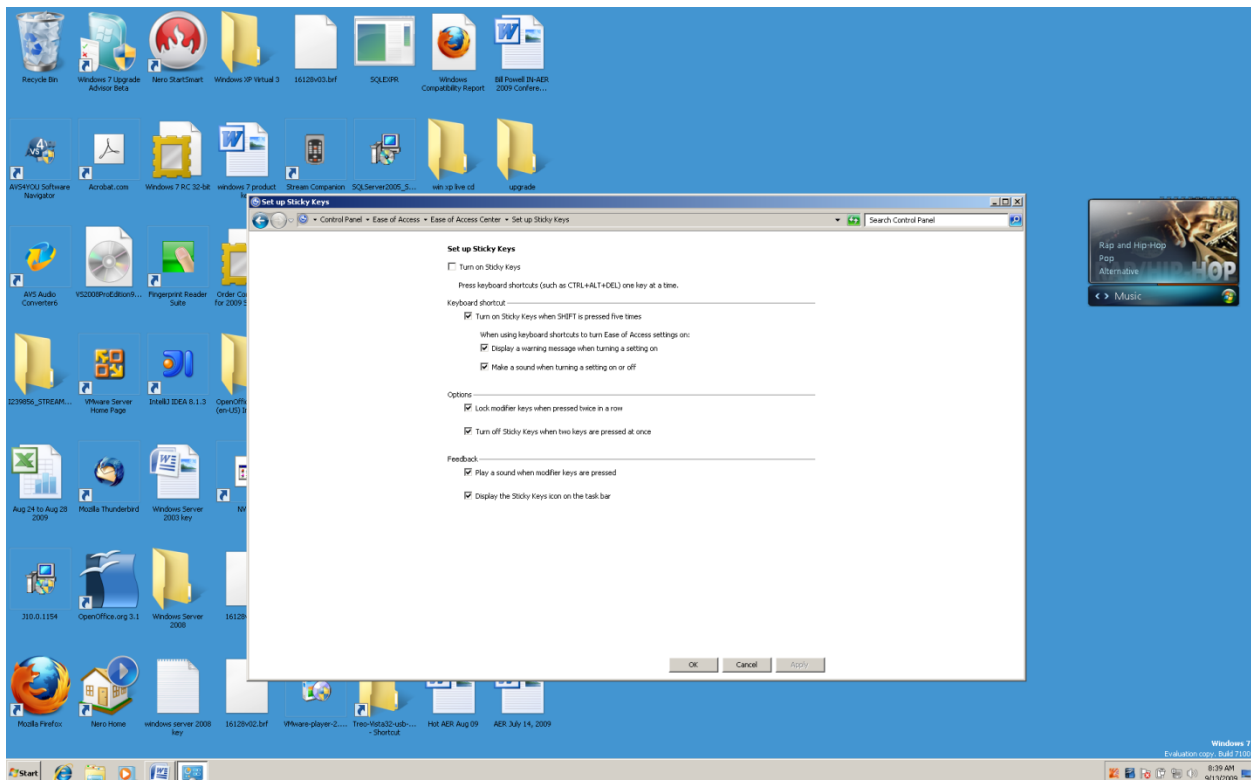


## Sticky Keys

Sticky Keys lets you tap a key combination one key at a time. For example, if you want to press Windows key and the letter d to go to the Windows Desktop, tap the Windows Key one time, then tap the letter d one time. To turn on “Sticky Keys” tap the Shift key five times.

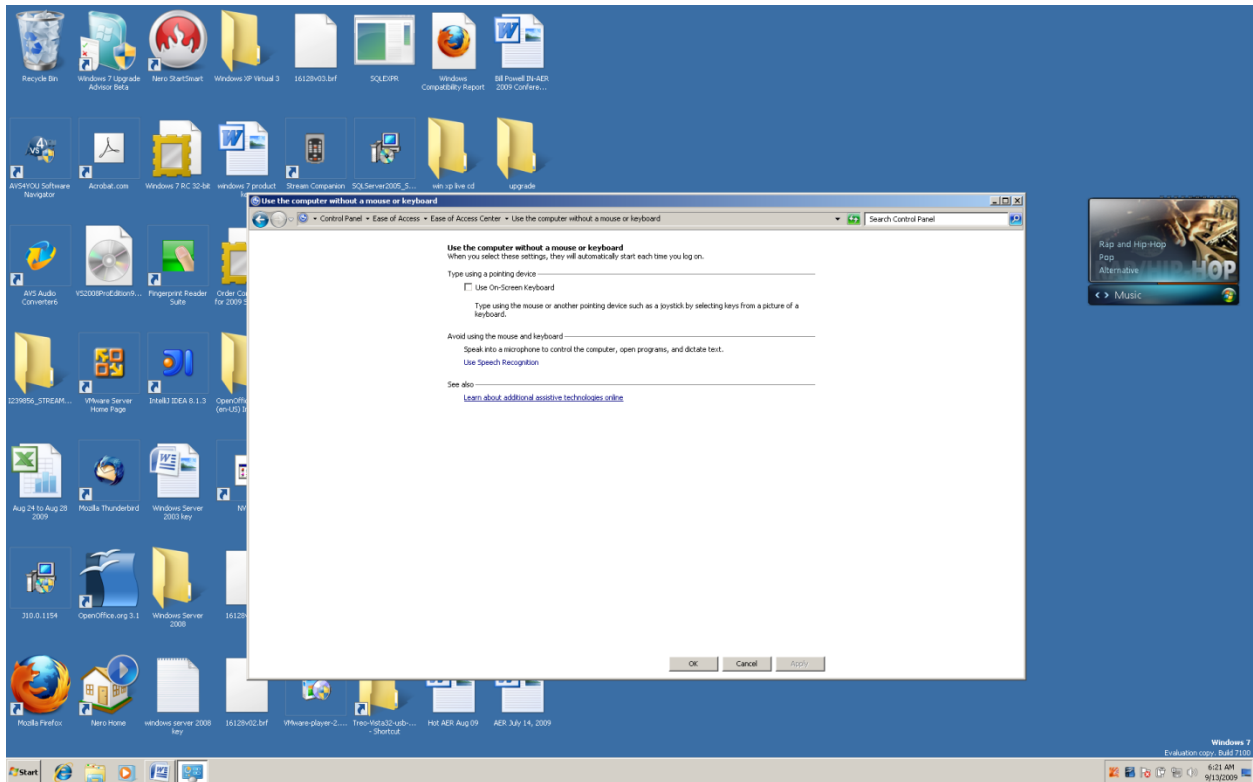
Press and hold down the Windows Key and tap the letter u to go to Ease of Access Center. Click or tap enter on the “Make the keyboard easier to use,” link. Click or tap enter on the “Set up Sticky Keys,” link. The following dialogue box will appear. This dialogue box allows you to select the settings you want for sticky keys—tap the spacebar on a checkbox you want to either check or uncheck.

**A quick way to turn on Sticky Keys is to tap the Shift Key five times. To turn off Sticky Keys press the Control and Shift keys together.**



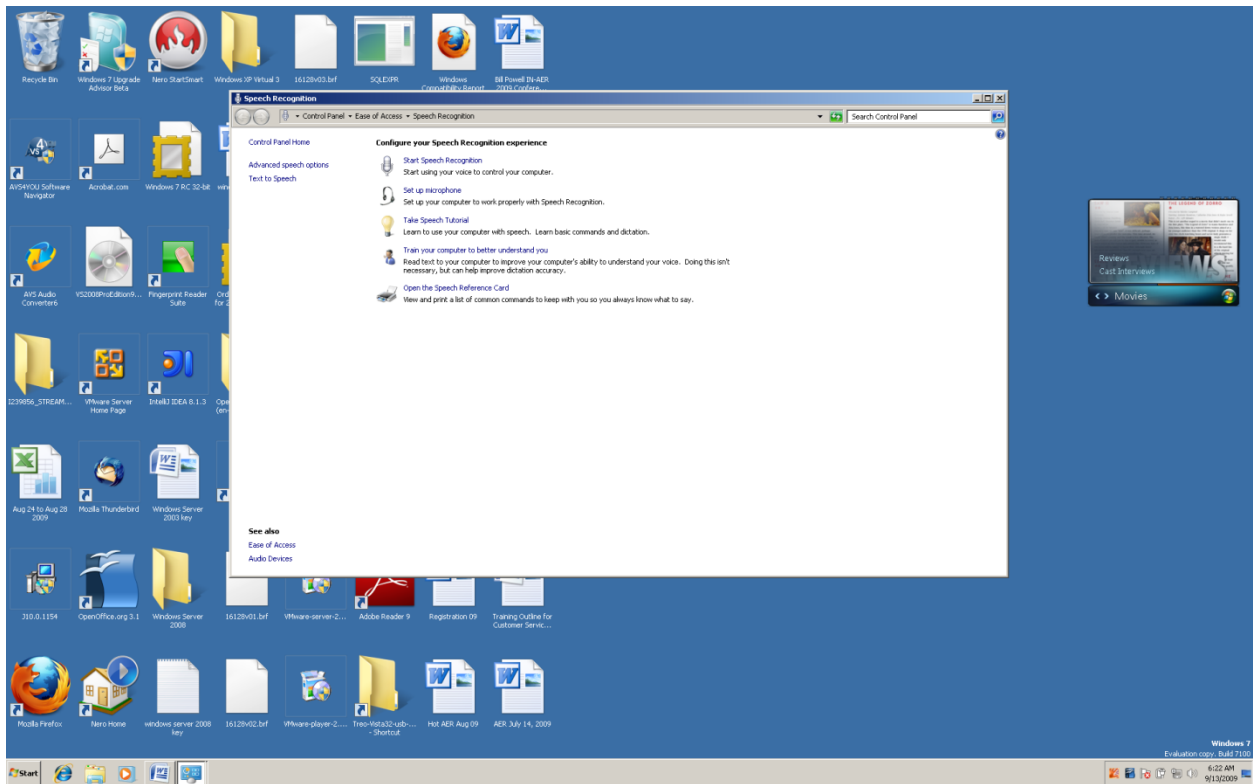
## Speech Recognition

Open the Ease of Access Center with the Windows Key u key combination. Tab to the link titled “Use the computer without a mouse or keyboard,” and a dialogue box will be shown. There will be a “Use On-Screen Keyboard” near the top of this box. Tab one time to the link that says, “Use Speech Recognition.”



Tap the Enter Key one time on the “Use Speech Recognition” link and a dialogue box will appear. In this box are the following links: “Start Speech Recognition, Set up microphone, Take Speech Tutorial, Train your computer to better understand you, Open the Speech Reference Card, Control Panel Home, Advanced Speech Options, and Text to Speech.” To access and use this feature of Windows you will need a microphone that connects to the computer. Although you can use a stand-alone microphone, it is recommended that you use a headset mic.

# Configure Speech Recognition Dialogue Box



## Summary

In this chapter we covered on a part of the features of the Windows Ease of Access Center. Our focus was on the Windows Vista and Windows 7 operating systems. Many of the features in this chapter can be reached through the **Control Panel** in Windows XP. Some of the key commands are the same between the three versions of Windows. You are encouraged to explore the Windows Ease of Access Center to further develop your knowledge of how to make changes in the Windows environment. “Free Windows XP Accessibility Programs” are covered in the next chapter (Chapter 8).

## Chapter 7 Review

### Test Your Knowledge

1. Name the key combination that quickly lets you invert your computer screen.
2. Name the “Center” you can go to start the Windows accessibility programs.
3. Name the key combination that opens the Ease of Access Center.
4. Name three different ways you can make your computer accessible.
5. Name the Windows screenreader.
6. Name the Windows magnifier.
7. Name the link in the Ease of Access Center that lets you set high contrast on your computer screen.
8. Name the Windows feature that allows you to tap one key at a time to give a key combination command.
9. Name the area of the keyboard that acts as the mouse when you have “Mouse Keys” turned on.
10. Name the device you must attach to your computer to use the speech recognition feature of Windows.