

## Aero Feature for the CompTIA A+ Exam.

Microsoft Aero feature is a topic included on the CompTIA A+ 220-701 and 220-702 certification exam. You need to be quite familiar with all aspects of Aero before taking the newest CompTIA A+ certification exam.

Microsoft Windows Aero feature was first introduced in the release of all Windows Vista operating systems except the Home Basic Vista edition. Aero is designed as a sophisticated graphic interface that incorporates such things as transparent frames on the windows boxes, Windows flip and Windows 3D flip, adjustable translucent glass affect of various colors allowing viewers to see what is behind an object, live taskbar thumbnails, and more. Because Aero features are graphic in nature, the Aero feature requires an excellent video card which will support at least 128 MB of RAM built into the card, a 1 GHz CPU and at least 1 GB of RAM installed on the motherboard. In short, Aero places a great deal of demand on system resources. Below is one of the Windows Vista Aero features known as 3D flip.



3D Flip

Windows 3D flip is activated when you have more than one software application running and then press the combination key s (Windows Logo –Tab) or (Start-Tab). While it is a seemingly cool feature, it really servers no practical purpose.

Below is another Aero feature known as Flip.

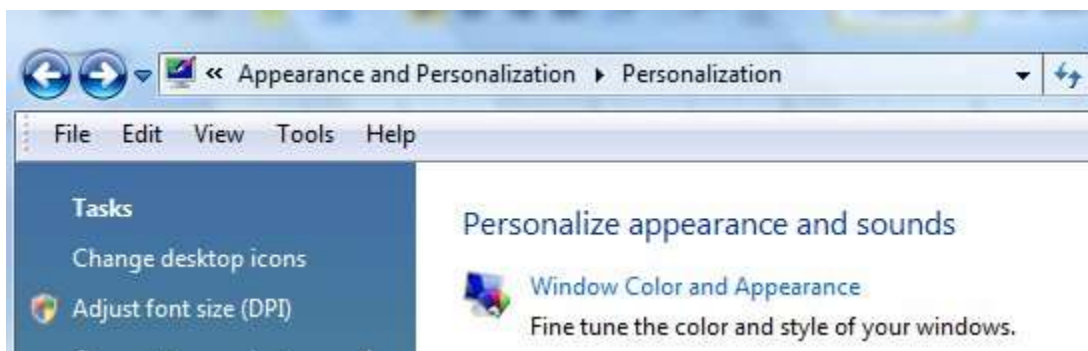


Flip

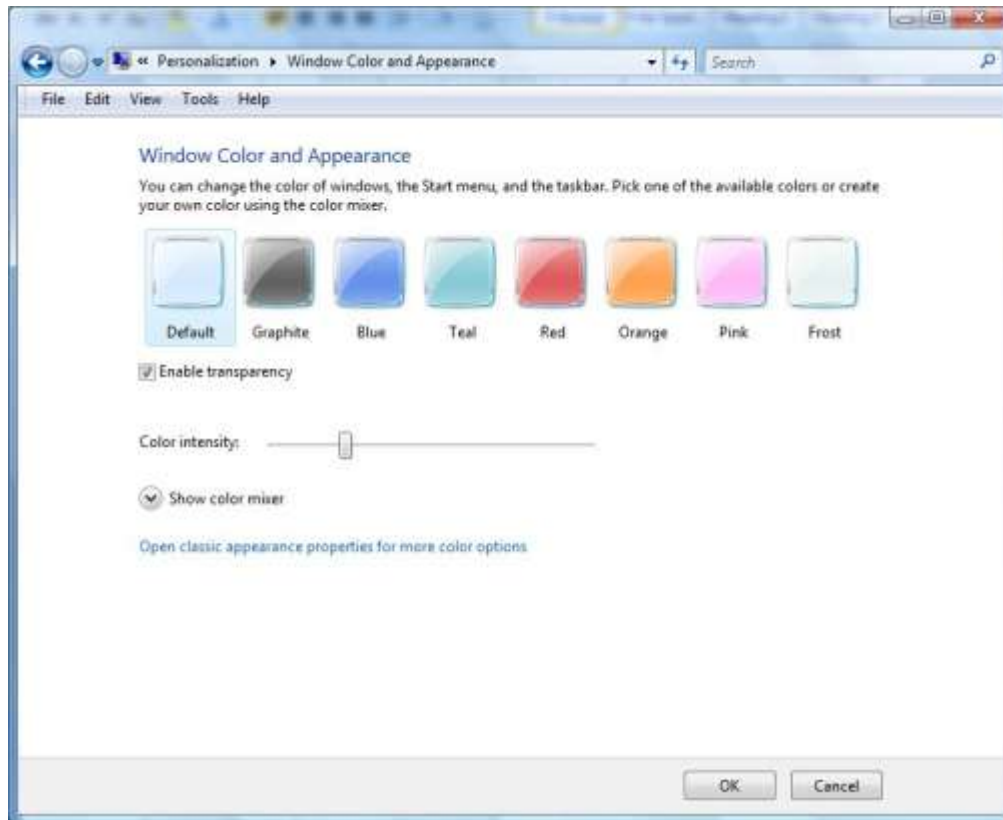
Windows Flip is a slightly different presentation as you can see. A series of large icons of currently running programs is presented as a horizontal bar across the screen.

You can use the control panel to make superficial changes to the Aero feature such as the color and transparency. Open the control panel and select Windows Color and Appearance.

Look at the screen capture below for an example.



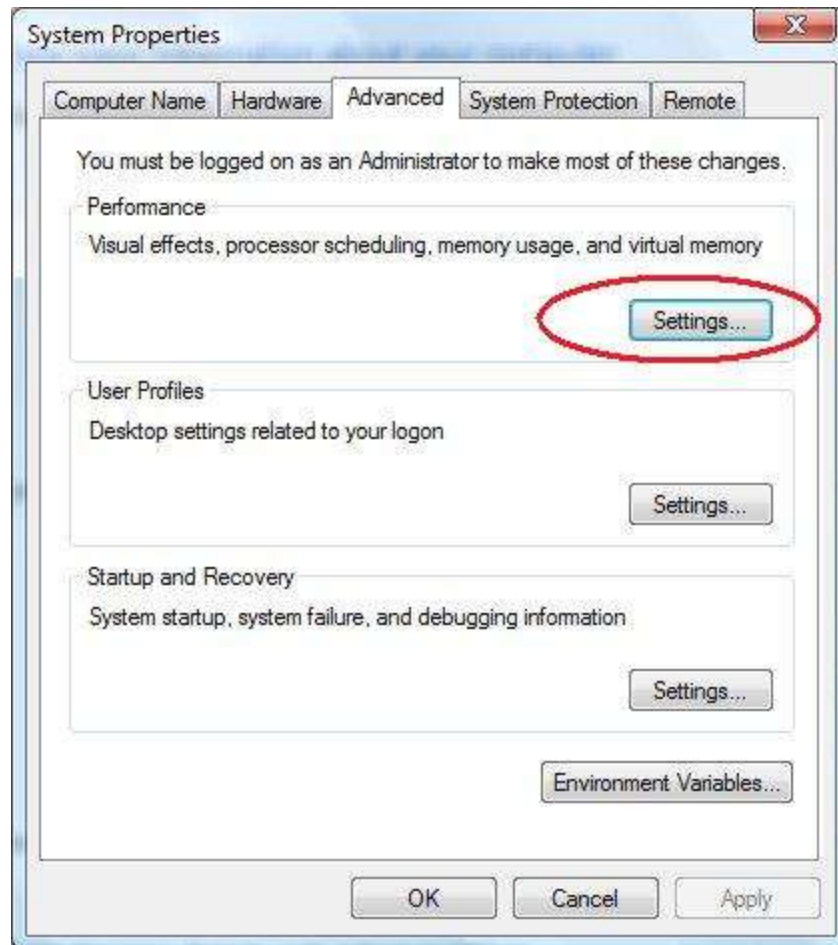
After selecting Color and Appearance, a dialog box similar to the one below will appear.



You can modify the color and the intensity of the transparency here.

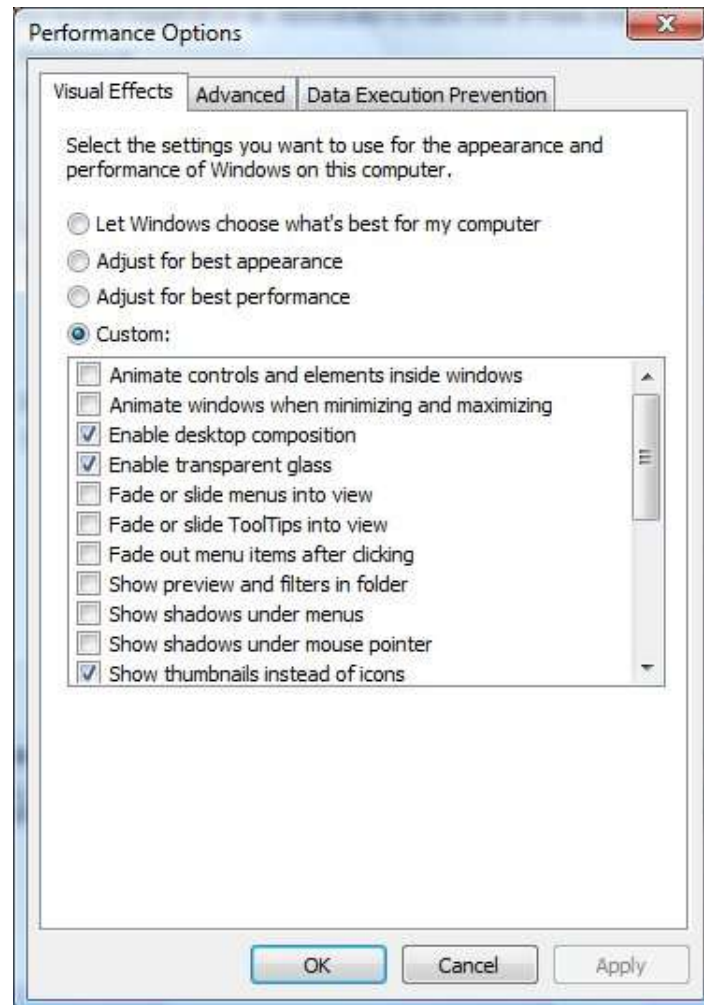
To access a much more detailed listing of all Aero graphic features, you need to access the Performance

Options dialog box. Look at the System Properties dialog box in the screen capture below.



To access a list of visual features that effect system performance select the “Performance” category “Settings...” button. To access the Advanced Systems Properties dialog box, select **Start | right-click Computer | Properties | Advanced System Settings | Advanced tab | and then select the “Settings...” button | Visual Effects**. Another method is through the Control Panel **Start | Control Panel | System Maintenance | Performance and Information Tools | Adjust Visual Effects | Visual Effects tab**.

The next dialog box after selecting the Visual Effects tab will be similar to the one below.



You have four radio buttons at the top of the dialog box that will allow you to configure the Aero features to your liking. You may completely disable Aero by selecting the "Adjust for best performance" option or "Adjust for best appearance" which will allow all the Aero features to run which will use the most system resources. You can select the "Custom:" option which will allow you to choose and pick only specific visual features so that you can have some of the cool looking visual effects and still have adequate performance. The CompTIA 220-701 Or 702 will most likely ask a question about how computer performance is effected by Windows Aero. You may also encounter questions as to how to access the option for best performance or what is the name of the dialog box is. CompTIA is famous for questions relating to the correct path to a dialog box.

*Some key points to study for the test are as follows.*

Aero is not available in Vista Home Basic but it is supported by all other Vista editions such as Home Premium, Ultimate, Business, and Enterprise.

Hardware requirements are as follows

- 1 GHz processor
- 1 GB of RAM
- 128 MB Graphics Card (will actually run on 64 MB but 128 is recommended)

Some Vista Aero features will still run on a computer with less than the specified hardware requirements but they will either run very slowly or disable certain features such as 3D flip and transparency features.

Note: Windows Vista 32-bit editions can only support 4 GB installed on the motherboard. If you install a video card with a large amount of RAM, the total amount of RAM reported on the motherboard may only show 3 GB RAM total. This is because the video card RAM has been subtracted from total system RAM.

Aero also requires a DirectX 9 class graphics processor that supports a Windows Display Driver Model Driver, Pixel Shader 2.0 in hardware, and 32 bits per pixel.

For best results, you might also want to follow these graphics processor recommendations:

- 64 MB of graphics memory to support a single monitor with a resolution that is less than 1,310,720 pixels (for example, a 17-inch flat panel LCD monitor that has a 1280 × 1024 resolution)
- 128 MB of graphics memory to support a single monitor with a resolution from 1,310,720 to 2,304,000 pixels (for example, a 21.1-inch flat panel LCD monitor that has up to a 1600 × 1200 resolution)
- 256 MB of graphics memory to support a single monitor with a resolution greater than 2,304,000 pixels (for example, a 30-inch wide-screen flat panel LCD monitor that has up to a 2560 × 1600 resolution)

A major problem concerning the relationship of Aero feature and laptop computers is the power setting options located in the control panel. The power save plan will

sometimes turn off the transparency feature. You can select the “Balanced” plan to correct the error.

To see detailed information about the hardware requirements and the difference between Vista Capable Ready and Vista Premium Ready, check the following TechNet site

<http://technet.microsoft.com/en-us/library/cc507845.aspx>

or conduct a Google search using the following key words; “Windows Vista Enterprise Hardware Planning Guidance”

To learn more about Windows Vista problem conduct a Google search using the following key words;

“Microsoft troubleshooting problems with Vista Aero”.

You should see a hit for a link to the Microsoft “Help and How” to web page containing a series of troubleshooting questions as related to Aero.

## Short Quiz

1. A Microsoft Windows Vista Home Basic user cannot get the 3D flip feature of Aero to work. What is most likely the cause of the problem?

- A. They have insufficient hard disk space for the feature.
- B. The motherboard BIOS does not support this feature.
- C. Vista Home Basic does not support 3D flip feature.
- D. The computer requires DD3 memory to support 3D flip.

2. Which key combination will allow the user to switch between various programs using the flip feature?

- A. Alt – Tab
- B. Alt – Del
- C. Tab – Ins
- D. Tab – Caps Lock

3. What is the minimum recommended amount of RAM required for Aero feature?

- A. 500 MB
- B. 1 GB
- C. 1.5 GB
- D. 2 GB

4. What is the minimum recommended processor speed required for Aero feature?

- A. 500 MHz
- B. 1 GHz
- C. 1.2 GHz
- D. 1.4 GHz

5. What is the minimum recommended amount of graphics card memory required for support of Aero feature?

- A. 64 MB
- B. 128 MB
- C. 256 MB
- D. 512 MB

6. What keyboard combination is used to activate 3D Flip in Windows Vista?

- A. Ctrl-Alt-Del
- B. Del-Tab
- C. Windows Logo – Tab
- D. Shift – Tab

7. How would you determine which version of Windows Vista you are running?

- A. Start | Right-click Computer | Select Properties.
- B. Enter Vista Properties in the Start Search dialog box.
- C. Enter Version at the command prompt.
- D. Open Windows Explorer and then select Version under the Tools menu.

8. Which is the correct path to adjust Windows Vista for best performance?

- A. Start | right-click My Computer | Manage | Device Manager | Best Performance
- B. Start | right-click My Computer | Properties | Advanced system Settings | Advanced tab | Visual Effects tab | Best Performance.
- C. Start | Control Panel | Maintenance | Performance | Disable Aero
- D. Start | Control Panel | Performance | Basic Default

9. A customer complains that the new laptop they bought from your shop does not have the new Aero features such as 3D flip and transparency? They are not very happy because they were assured that the laptop met the hardware requirements before they purchased it. The laptop does in fact meet the hardware requirements for Windows Vista Aero. What is most likely causing the problem?

- A. The BIOS Aero support feature is disabled.
- B. The person selling the laptop was wrong.
- C. The power setting options are incorrect for the Aero feature.
- D. The video card in the laptop will not support Aero.

Answers:

- 1 C
- 2 A
- 3 B
- 4 B
- 5 B
- 6 C
- 7 A
- 8 B
- 9 C