Secondary Memory

Secondary Memory is used for storing data/information permanently. It is slow and the cheapest form of memory. CPU cannot process this memory directly, to do any processing on this memory, firstly it has to be copied into the primary memory. It stores data permanently; the most common forms of secondary storage devices:

- ❖ **Hard (Fixed) Disks.**
- ❖ **CDs/ DVDs.**
- ❖ **USB flash drives (Universal Serial Bus).**

Ports: A port is an interface on a computer to which the user can connect a device. There are several types of external ports that usually come with a computer:

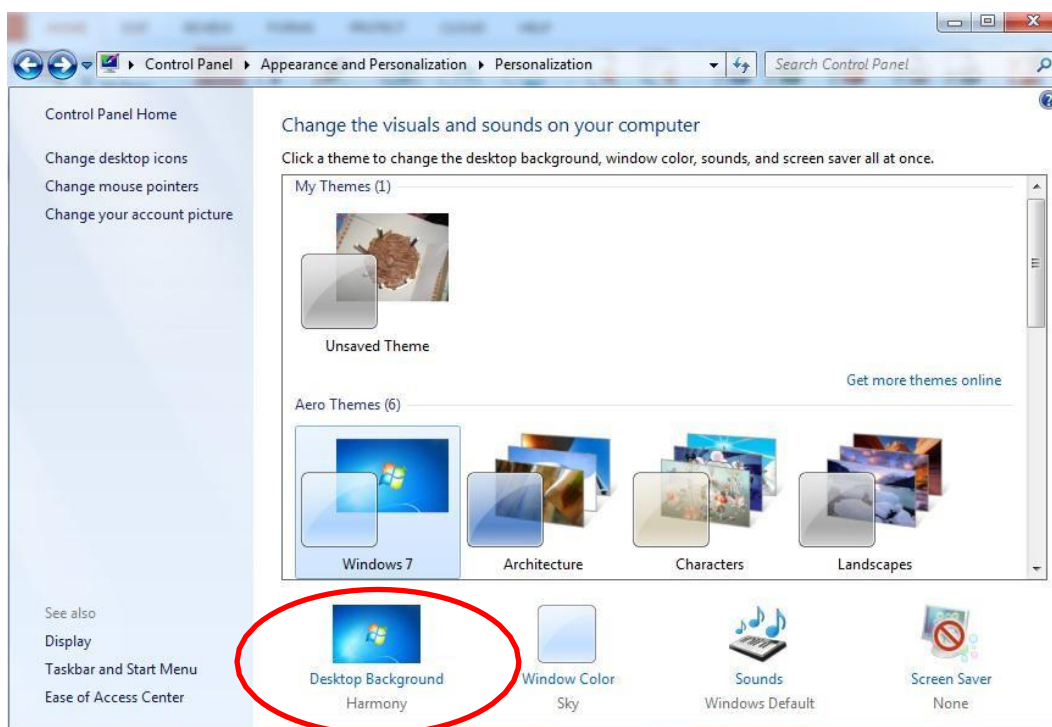|	
Parallel ports	
Serial ports	
PS/2 Port	
USB (Universal Serial Bus) ports	
VGA Port	

Customizing the Desktop

Right click in an empty spot on the desktop. A shortcut menu appears. It offers various options.
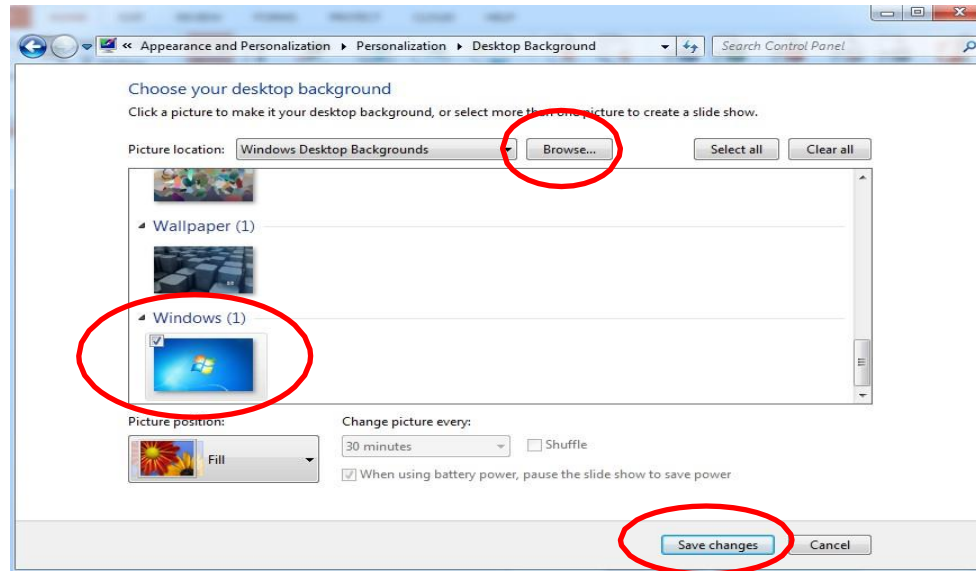
Click on **Personalize**.
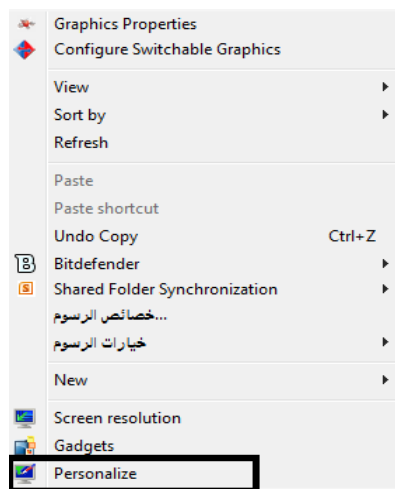
Click on Desktop Background.

Select a picture then save change. Or click on Browse. Select background from file browser windows. Click Open.

Change the Screen Saver

Click on Personalization then on Screen Saver. From the window given choose the screen saver by clicking on the arrow under the text Screen Saver and choose from the list given

- Preview to see how the screen saver looks like. Also change the minutes to wait before the screen saver show up.

Change Screen Pixel Resolution

- Right click in an empty spot on the desktop. A shortcut menu appears. It offers
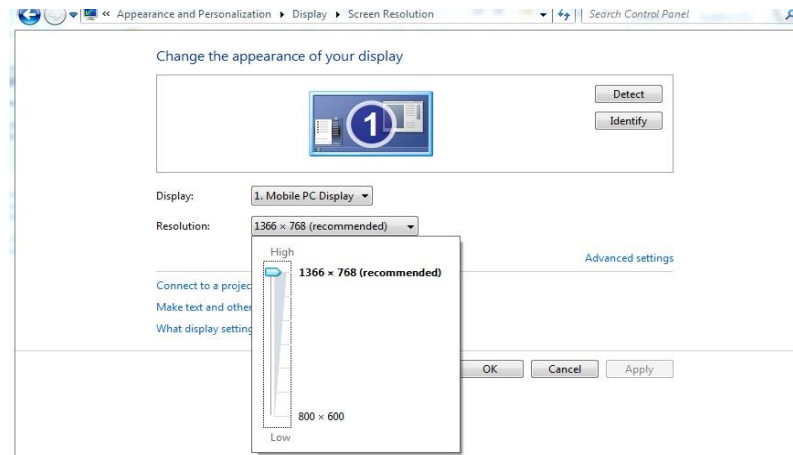

various options. Click on **Screen Resolution**.

From there one can change the Resolution.
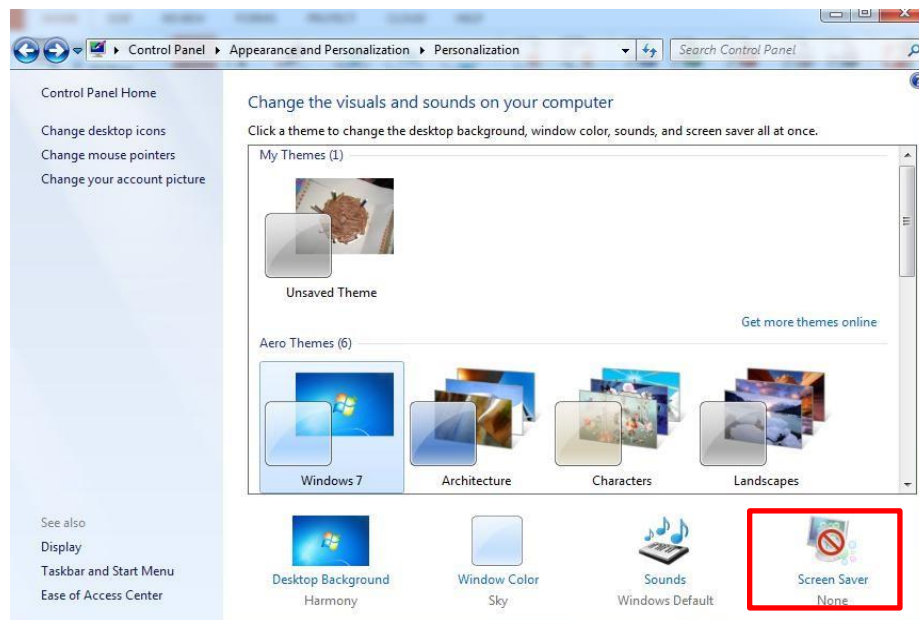
Print Screen

The user may be required to print screenshots of regions or full screen images from the computer to do this:

- Locate the print screen button on the keyboard and press it once. This will take a picture of the current screen.


- Open a document (e.g. Word processor or Paint), and click Edit, Paste.

Cleaning Up the Disk

The user can safely remove redundant or unnecessary files from the hard disk by using the Disk Cleanup program. These files consist of temporary files Windows creates or makes copies of when installing or uninstalling programs, paths to Web sites visited, temporary data files, or the status of an application program when it stopped responding.

Disk cleanup can be run using one of the following methods:

- Click Start, All Programs, Accessories, System Tools, Disk Cleanup, select the hard drive the user wants to clean up and click OK.
- Open My Computer. Right-click the local disk to cleanup, then click Properties. Click the General tab and then Disk cleanup.
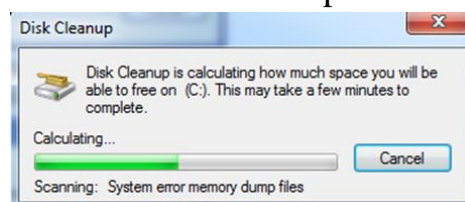
The length of time to calculate the space depends on when this command was last used. Once Disk Cleanup finishes calculating the amount of space the user may be able to free up, the user will see a dialog box similar to:
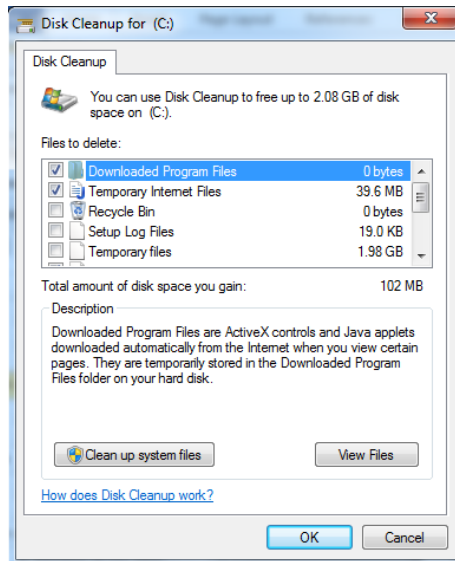
Defragmenting the Disk

Files are stored in blocks called allocation units or clusters. A file may be stored in a single contiguous space or in the first space available. Over time, a disk becomes fragmented based on the number of files, folders, or programs on the system. The Disk Defragmenter program reorganizes how information is stored on a hard disk so files reside in a contiguous section. This is also called the "Defrag" command, and a common method to reduce problems with accessing information or speed up the access time.

Disk Defragmenter can be run using one of the following methods:
- Click Start, All Programs, Accessories, System Tools, Disk Defragmenter.
- Open My Computer. Right-click the local disk to defragment, then click Properties. Click the Tools tab and then Defragment Now.