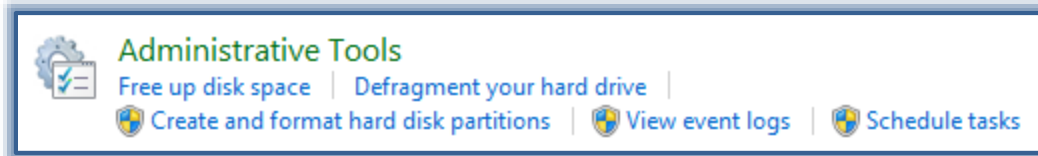## Defragment Disk

When a file is stored on a disk, it is broken into chunks. Each piece is stored in the first available sector. When a disk starts getting full and files are deleted, file parts are no longer saved in adjacent sectors. Therefore, a file may be scattered (fragmented) over the disk. When this happens, the retrieval of files is slowed down. Defragmenting a disk reorganizes the parts of each file so the parts of the file are adjacent to each other on the disk, which eliminates search time.

You can use Disk Defragmenter to analyze local volumes, and to locate and consolidate fragmented files and folders. The table below describes what the colors that appear in the defragmenter dialog box represent.

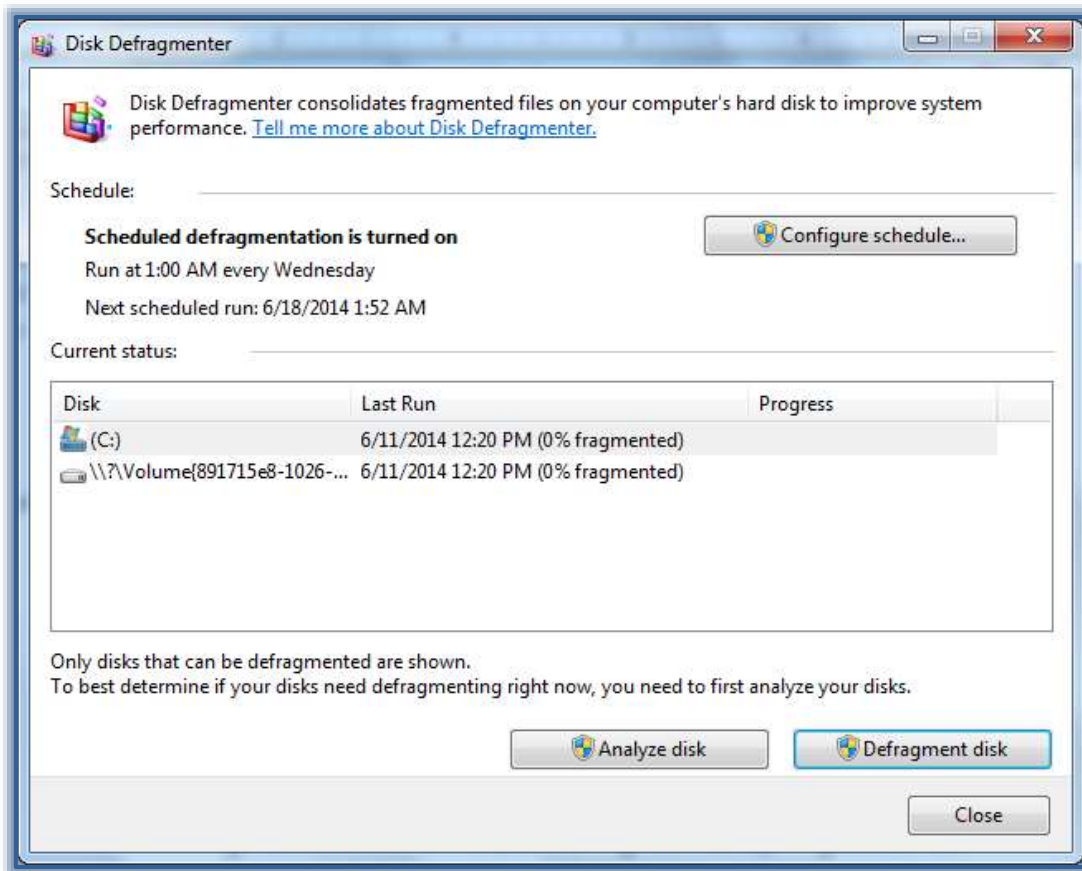| Color	Description
Red	Most of the clusters are part of a fragmented file.
Blue	Most of the clusters are contiguous files with clusters in the group that contain only free space and contiguous clusters.
Green	Most of the clusters are part of a file that cannot be moved from its current location.
White	Most of the clusters are free space and contiguous clusters.

To defragment a disk, you need to complete the following steps:
- Click **Start** on the **Taskbar**.
- Click **Control Panel**.
- In **Category View**, click the **System and Security** link.
- Under **Administrative Tools**, click **Defragment your hard drive** to open the **Disk Defragmenter** dialog box.

- Click **Analyze disk** (see illustration on next page) to allow **Disk Defragmenter** to check the files to see whether the disk needs to be defragmented.
- If the disk doesn't need to be defragmented, a dialog box will appear stating that the disk doesn't need to be done.
- To **Defragment** the disk drive, click the **Defragment Disk** button.
    - The **Defragment Disk** process will start.
    - It is recommended that you not use the computer during defragmentation.
    - Using the computer during this process may result in less than optimal results.
    - To stop the process temporarily, click **Pause**.
    - To stop the process completely, click **Stop**.
- When the process is complete, a box will appear asking if you want to quit **Disk Defragmenter**.
- Click **OK**.

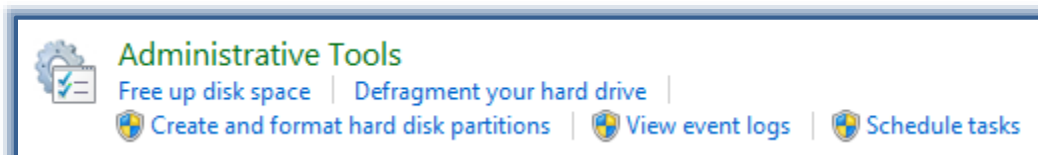**NOTE:** For additional information about using **Disk Defragmenter**, click the **Tell me more about Disk Defragmenter** link.
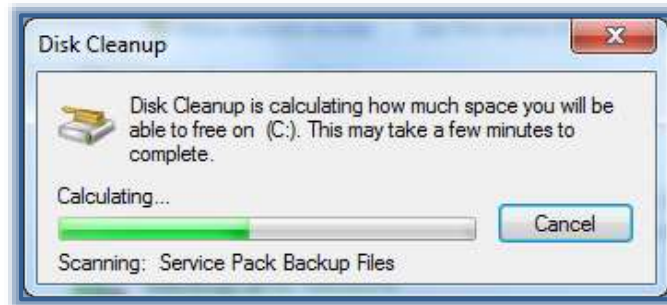
Disk Cleanup

You can use Disk Cleanup to free up space on your hard disk by removing temporary Internet files, removing installed components and programs that you no longer use, and emptying the Recycle Bin. Disk Cleanup searches your drive, and then shows you temporary files, Internet cache files, and unnecessary program files that you can safely delete. You can direct Disk Cleanup to do any of the operations listed below.
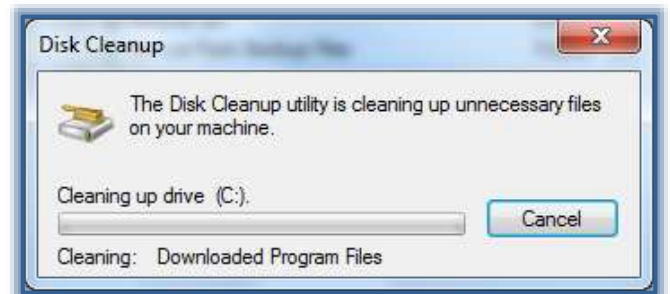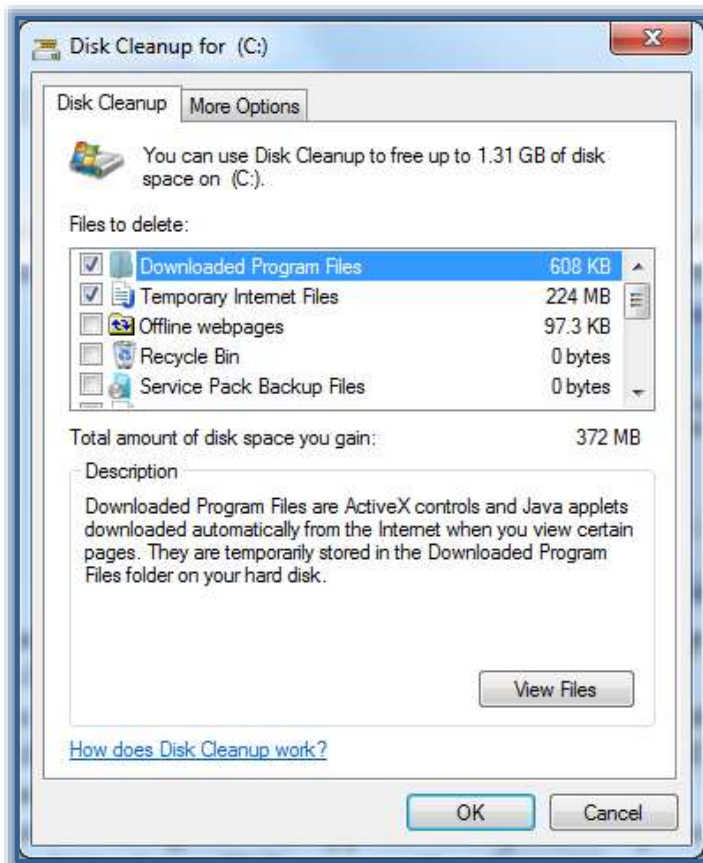
- Remove temporary Internet files.
- Remove any downloaded program files (ActiveX controls and Java applets downloaded from the Internet).
- Empty the Recycle Bin.
- Remove Windows temporary files.
- Remove Windows components that you are not using.
- Remove installed programs that you no longer use.
- To open **Disk Cleanup**:
  - Click **Start** on the **Taskbar**.
  - Click **Control Panel**.
  - In **Category View**, click the **System and Security** link.
  - Under **Administrative Tools**, click **Free up disk space**.

✟ The **Disk Cleanup** dialog box will appear saying that the **Disk Cleanup** is calculating how much space will be freed on drive C. This will take a few minutes.

✟ When this operation is completed, the **Disk Cleanup for (C)** dialog box will appear with files that can be deleted checked (see illustration below).

✟ You may choose additional files to delete at this point or just accept the defaults.
✟ Click the **View Files** link to see a list of files that will be deleted.
✟ When all the choices have been made, click **OK**.
✟ A **Delete Files** confirmation window will display.
✟ Click **Yes** to complete the process.
✟ Another dialog box will appear, stating that the process is being completed (see illustration above right).
✟ This dialog box will disappear when the process is complete.
✟ To see additional information about Disk Cleanup, click the **How does Disk Cleanup work?** link at the bottom of the **Disk Cleanup** window.