

## Lab 6.9 - Hard Drive Maintenance in Windows 7 and Vista

### Introduction

In this lab, you will examine the results of using Disk Check and Disk Defragmenter on a hard drive.

### Recommended Equipment

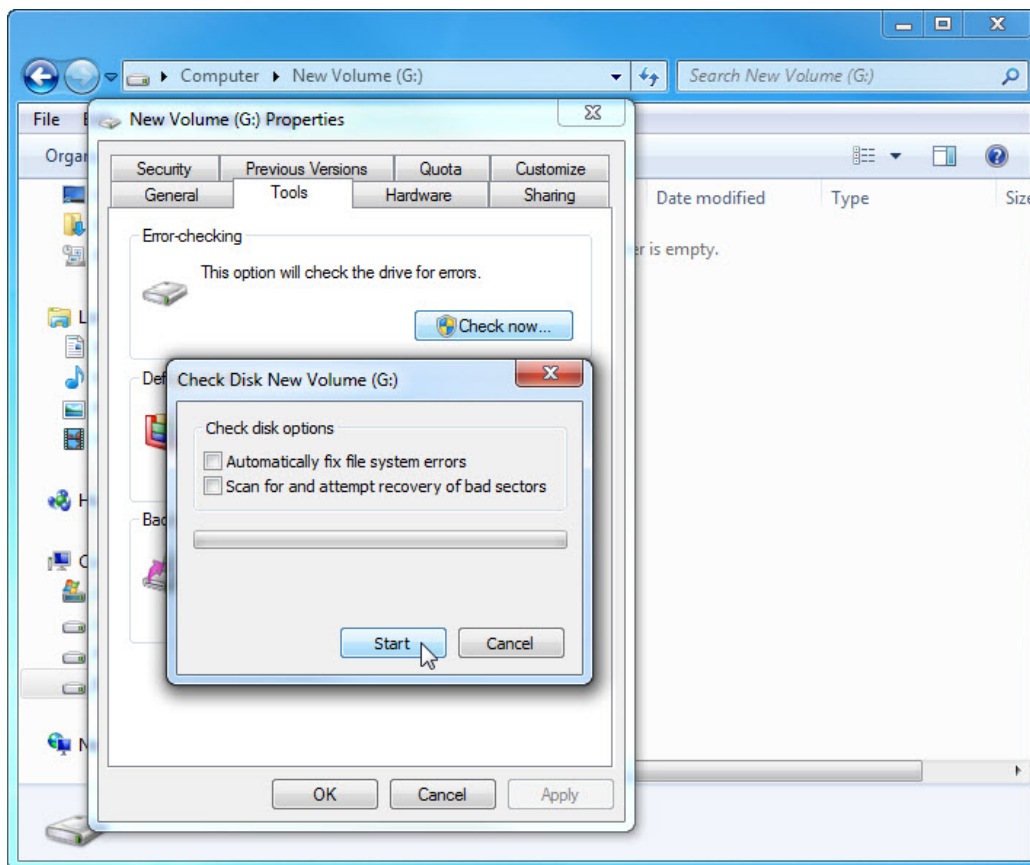
- A computer running Windows 7 or Vista
- Two or more partitions on the hard drive.

**Note:** You will need to create a second NTFS partition for this lab. Follow the instructions in Chapter 5 Lab 3 to create it. Be sure to format it as NTFS and set the drive letter to G.

### Step 1: Run the Error-checking Tool on a disk volume

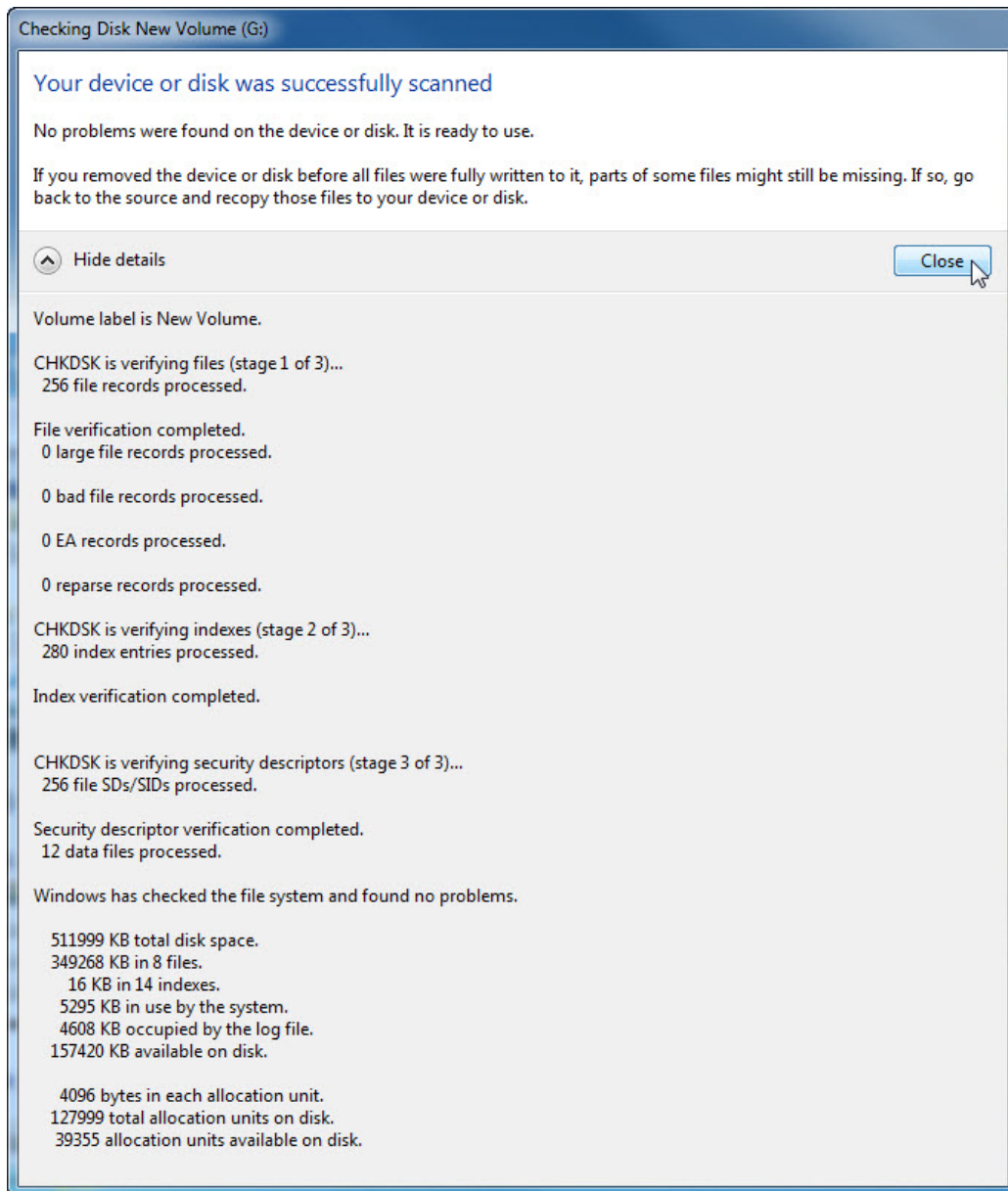
- Log on to Windows as an administrator.
- Click **Start > Computer**. Right-click **New Volume (G:) > Properties > Tools > Check Now**.

**Note:** Substitute the volume name and drive (G:) for those used in your computer.



- Make sure there are no check marks in either checkbox. Click **Start**.

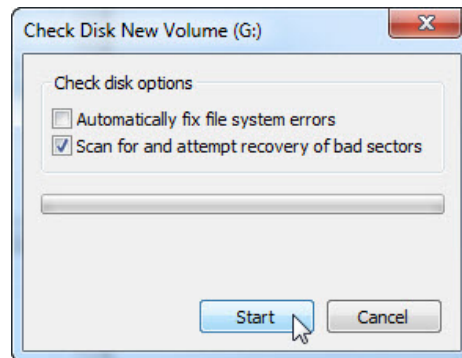
- d. The **Your device or disk was successfully scanned** window opens. Click the expand button next to **See details**.



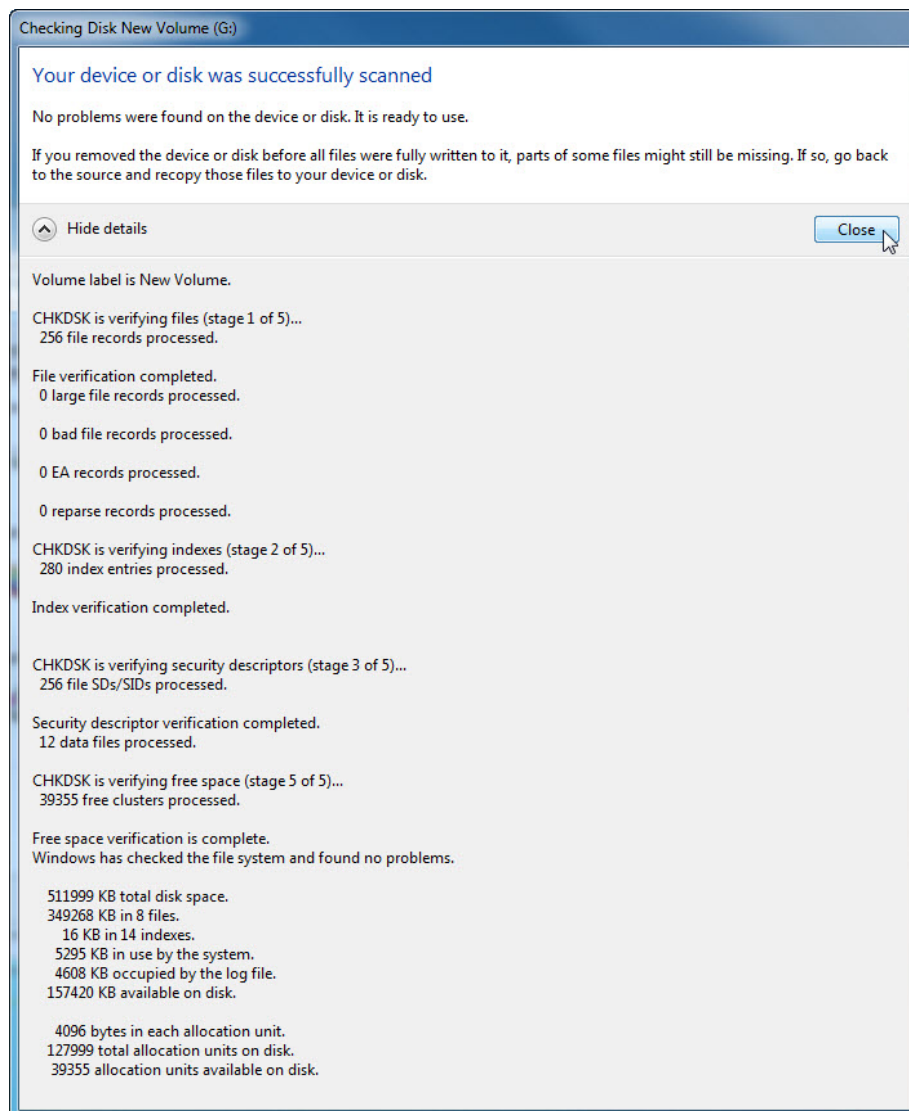
How many stages were processed? \_\_\_\_\_

- e. Click **Close**.
- f. Select the **Tools** tab, and then click **Check Now**.

- g. Remove the check mark next to **Automatically fix file system errors**. Place a check mark in the checkbox next to **Scan for and attempt recovery of bad sectors** and click **Start**.

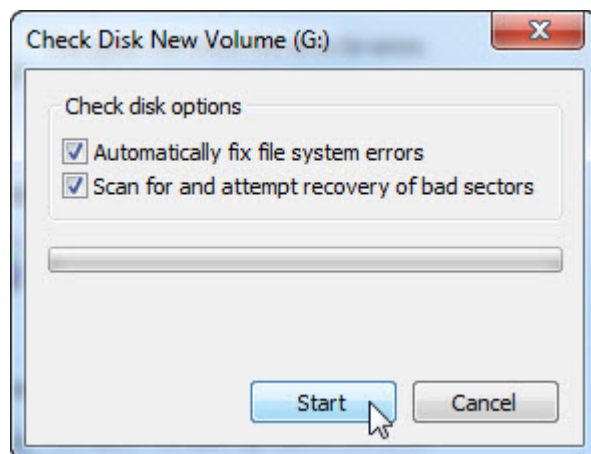


- h. The **Your device or disk was successfully scanned** window opens. Click the expand button next to **See details**.

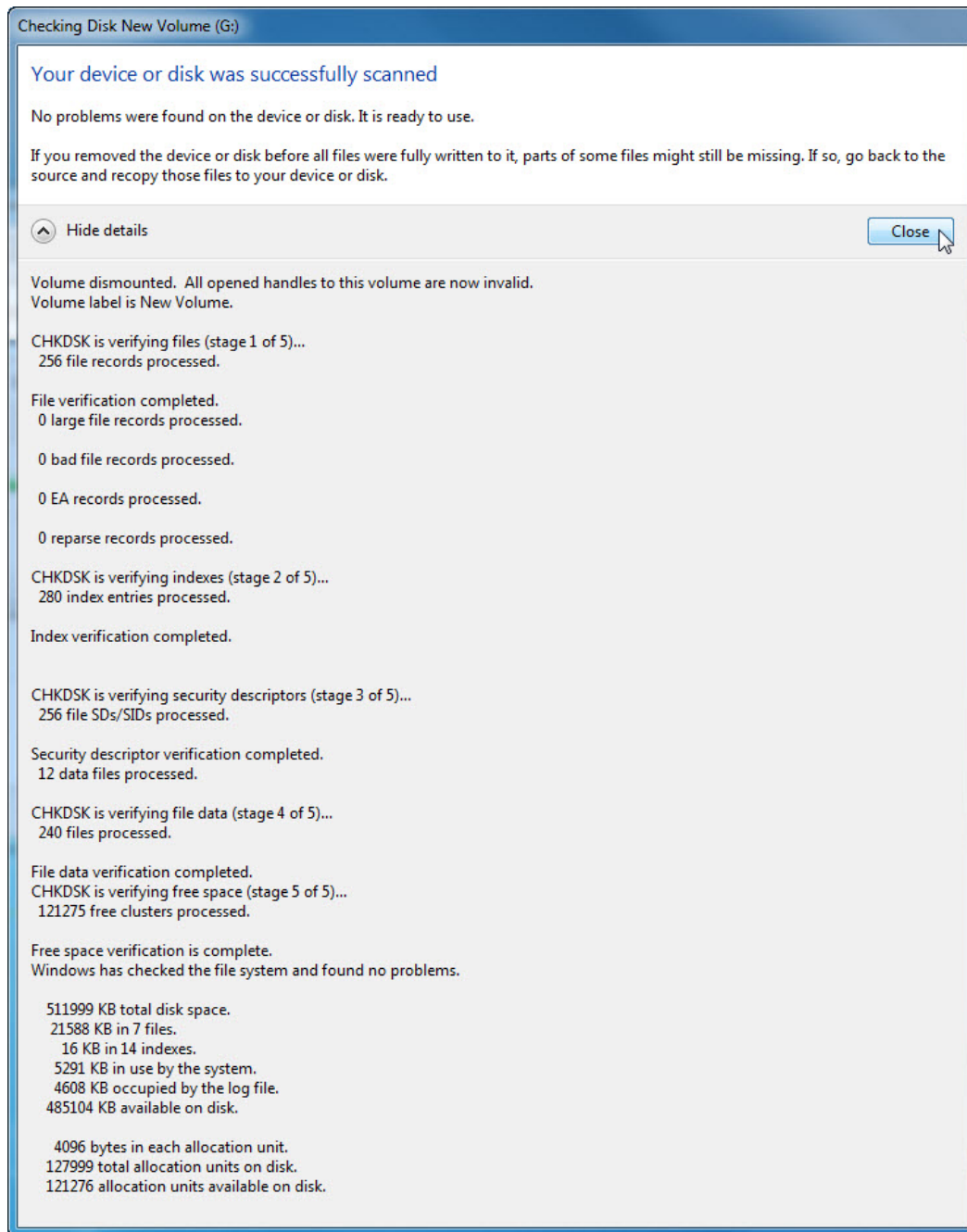


What stages were processed? \_\_\_\_\_

- i. Click **Close**.
- j. Select the **Tools** tab > **Check Now**.
- k. Place a check mark in both checkboxes. Click **Start**.



- I. The **Your device or disk was successfully scanned** window opens. Click the expand button next to **See details**.



What stages were processed? \_\_\_\_\_

What is being verified in each of the stages?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Were any problems found with the volume? \_\_\_\_\_

If so, what are they?

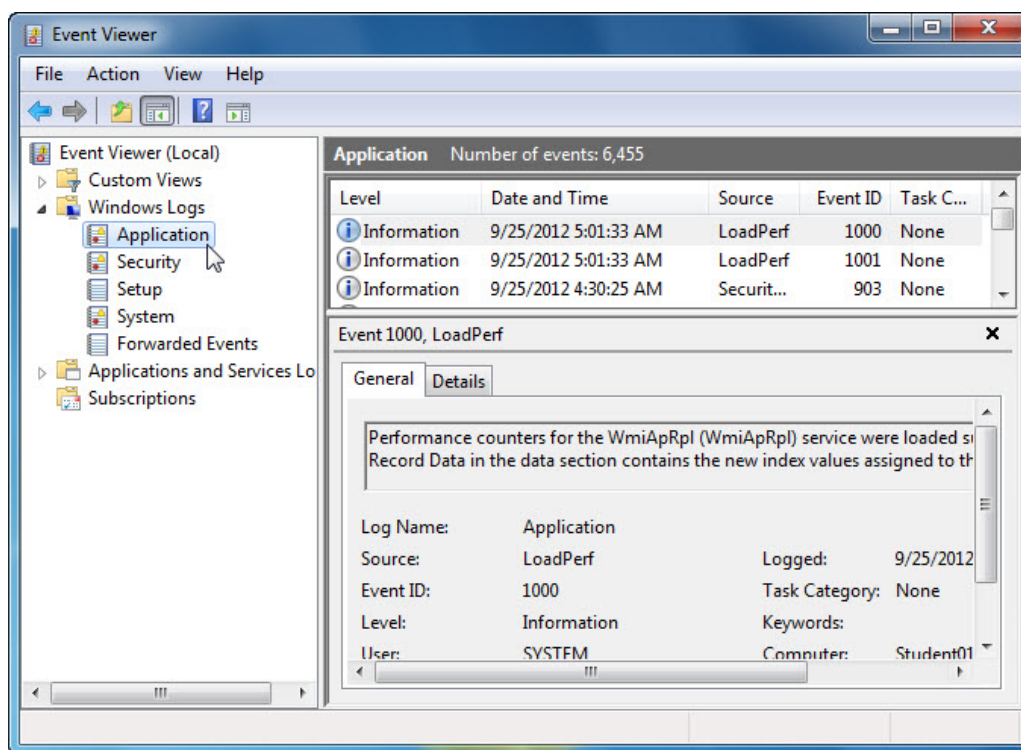
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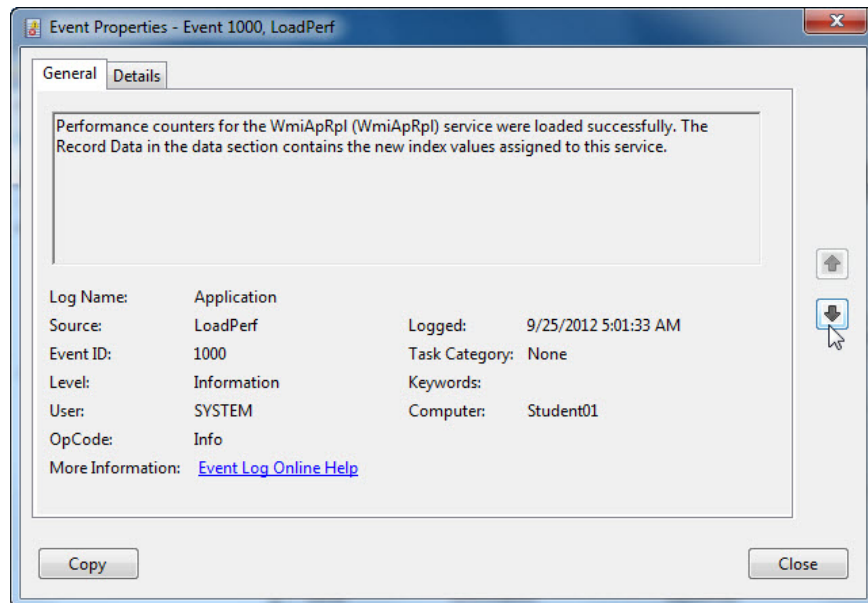
- m. Click **Close** and close all open windows.

### Step 2: Check the Event Viewer for the Chkdsk log

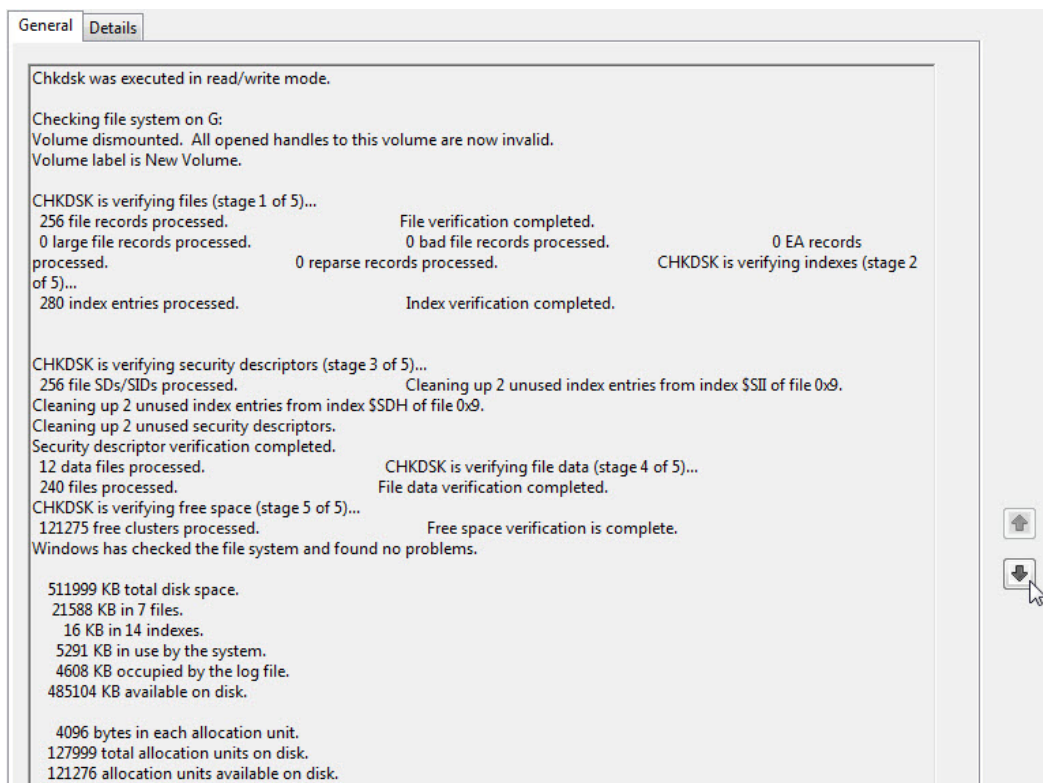
- a. Click **Start > Control Panel > Administrative Tools > Event Viewer**.



- b. In the left pane, expand **Windows Logs** and click **Application**. Double-click the top event in the middle pane.



- c. If the displayed event is not Chkdsk, click the **black down arrow** until the Chkdsk event appears.



Which stages are shown as completed?

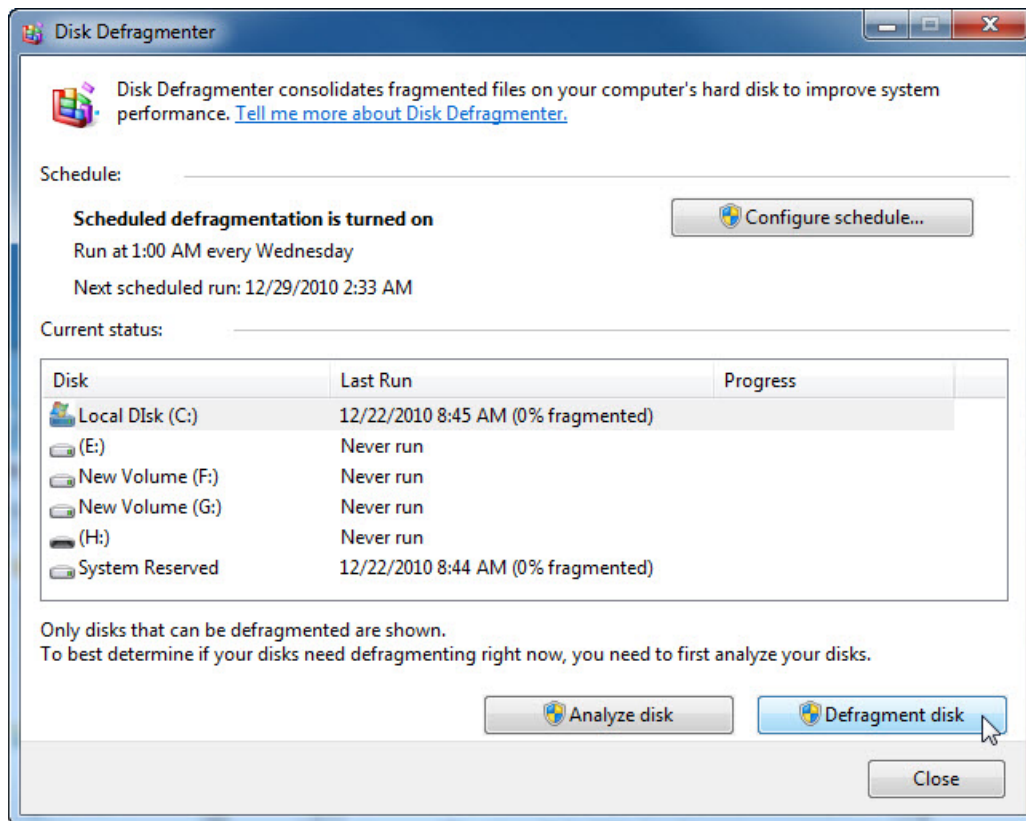


- d. Close all open windows.

### Step 3: Disk defragmenter

**Note:** Do not perform this step if your computer has an SSD drive. It is unnecessary to defragment SSD drives.

- a. Click **Start > Computer**, then right-click **drive (C:)** and select **Properties**. Click **Tools > Defragment Now**.
- b. The **Disk Defragmenter** window opens, click **Defragment disk**.

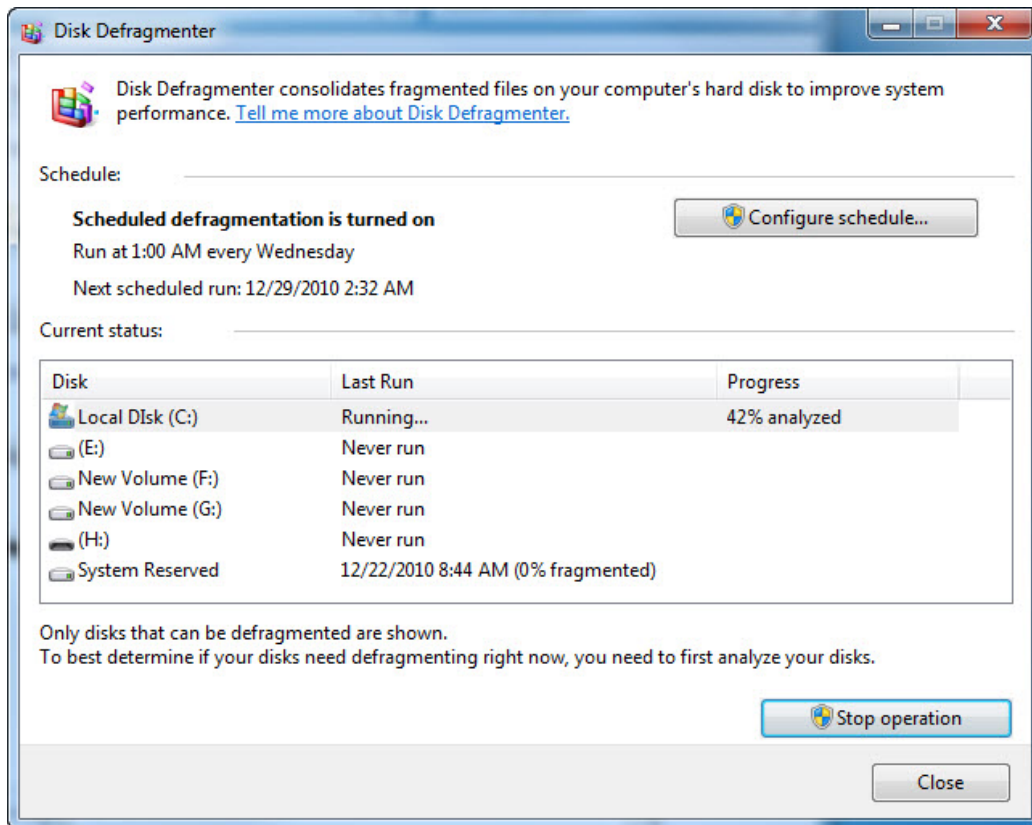


**Note:** In Windows Vista, an option window opens, click **Defragment now....** In the **Disks to defragment:** window, check only **(C:)** > **OK**.

- c. Click **Local Disk (C:) > Analyze disk**.
- What percentage of the disk is fragmented?
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- d. You should be able to watch the progress of the defragmentation process in the **Disk Defragmenter** window.



**Note:** Windows Vista Disk Defragmenter does not show the progress of the defragmentation process. What is the first process during defragmenting (see Progress column)?

What are the three tasks performed for each pass (see Progress column)?

How many passes did it take to defragment drive C:?

- e. When defragmenting is completed, click **Close**.  
f. Close all windows.

**Note:** It is not possible to view the detail of the defragmented hard drive through the GUI version of defragmenter.