Answers: 11.3.3.8 Lab - Hard Drive Maintenance

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
- Two or more partitions on the hard drive

Instructions

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

a. Log on to Windows as an administrator.

b. In Windows 10 and 8.1, open the **File Explorer**. In Windows 7, open **Windows Explorer**.

c. In Windows 10 and 8.1, click **This PC**. In Windows 7, click **Computer**. Verify that there are at least two partitions on the hard drive.

   If there is only one partition on the hard drive, use **Disk Management** to create a second partition with at least 2GB.

d. Right-click the volume without an installed Windows OS. Click **Properties**.

e. In the Properties window, click the **Tools** tab. In Windows 10 and 8.1, click **Check** to start the error checking. In Windows 7, click **Check Now**.

f. In Windows 10 and 8.1, Windows monitors the drives and runs automatic scheduled scans. You may see a message saying that **You don't need to scan this drive**. Click **Scan drive** (Windows 10) or **Scan and repair drive** or **Scan drive** (Windows 8.1).

   In Windows 7, click **Start** to begin to check disk. You can use the default choices.

g. When you receive a message that your drive or disk was successfully scanned, click **Show details** (Windows 10 and 8.1) or **See details** (Windows 7).

h. In Windows 10 and 8.1, the **Event Viewer** opens to display the **Chkdsk** event. Double click the **Information** event in the middle pane.

   In Windows 7, the Checking Disk window expands to display the details. The details are similar to the information displayed in the Event Viewer in Windows 10 and 8.1.

   Questions:

   How many stages were processed?

   Type your answers here.

   Were any problems found with the volume? If problems were found, what were they?

   Type your answers here.

i. Click **Close**. Close the **Event Viewer** as necessary.

Step 2: Use the Disk defragmenter tool.

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

a. Navigate to the **Properties** window for the drive that does not have a Windows OS installation.

b. In the Properties window, click the **Tools** tab. In Windows 10 and 8.1, click **Optimize** to start disk optimization. In Windows 7, click **Defragment now** to start defragmentation.

c. In Windows 10 and 8.1, select the volume without an installed Windows OS. Click **Analyze** in the Optimize Disk window.

In Windows 7, click **Analyze disk** in the Disk Defragmenter window.

Question:

What percentage of the disk is fragmented?

Type your answers here.

d. Click **Optimize** to start defragmenting the disk in Windows 10 and 8.1. In Windows 7, click **Defragment disk**.

Question:

What is the first process during defragmenting (See **Current status** or **Progress** column)?

Type your answers here.

What are the three tasks performed for each pass (See **Current status** or **Progress** column)?

Type your answers here.

How many passes did it take to defragment drive?

Type your answers here.

e. When defragmenting is complete, 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.