Lab - Manage Virtual Memory (Instructor Version)

**Instructor Note**: Red font color or gray highlights indicate text that appears in the instructor copy only.

# Introduction

In this lab, you will customize virtual memory settings.

# Recommended Equipment

* A computer with Windows installed with two or more partitions

**Note**: At least 2GB of free space is recommended on the second partition.

**Instructor Note**: Set virtual memory for the two partitions used in the lab to be managed by the system. Navigate to the **Control Panel**. In the Small icons view, click **System**. In the System window, click **Advanced system settings** > click **Settings** under the **Performance** heading > click **Advanced** tab > click **Change**. Place a check mark in the **Automatically manage paging file size for all drives** check box. Click **OK** on the open windows to continue. If necessary, restart the computer as instructed.

# Instructions

## Open System Properties

* + - 1. Navigate to the **Control Panel**. In the Small icons view, click **System**.
      2. In the System window, click **Advanced system settings**.
      3. In the **System Properties** window, select the **Advanced** tab and click **Settings** under the Performance heading.
      4. In the **Performance Options** window, click the **Advanced** tab.

#### Question:

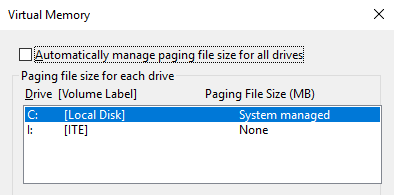
What is the current size of the virtual memory (paging file)?

Type your answers here.

Answers will vary depending on the paging file for your computer.

## Make virtual memory changes.

* + - 1. Click **Change** in the Virtual memory area to open the **Virtual Memory** window.
      2. Remove the check mark from Automatically manage paging file size for all drives.



#### Question:

What Drive [Volume Label] contains the paging file?

Type your answers here.

Answers may vary. In the example, the answer is C [Local Disk]:

* + - 1. Choose the **I:** drive. Select the **Custom size:** radio button.

**Note**: Your drive letter and volume may be different than the example. Replace **I:** with the drive letter for your second partition on your PC.

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

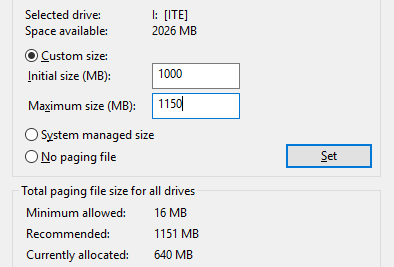
#### Question:

What is the recommended paging file size for all drives?

Type your answers here.

Answers will vary depending on the drive size.

* + - 1. Enter a number smaller than the recommended file size in the **Initial size (MB):** field. Enter a number that is larger than the Initial size but smaller than the recommended file size in the **Maximum size (MB):** field. Click **Set**.



* + - 1. Select the **C:** drive. Select the **No paging file** radio button and click **Set**.
      2. The System Properties warning message displays. Click **Yes** to continue.
      3. Click **OK** in the **Virtual Memory** window to accept the new virtual memory settings.
      4. Click **OK** in the Performance Options and System Properties windows.
      5. Click **Restart Now** when prompted to restart to apply the changes.

## Navigate back to the Virtual Memory window to verify changes.

* + - 1. Navigate to the **System Properties** window. (**Control Panel** **> System >Advanced system settings**). Select the **Advanced** tab and click **Settings** in the Performance area.
      2. In the **Performance Options** window, select the **Advanced** tab and click **Change**.
      3. The **Virtual Memory** window opens displaying the new paging file information. Verify your changes.

#### Question:

What Drive [Volume Label] contains the paging file?

Type your answers here.

Answers may vary. In this example, the answer is I [ITE]

## Reset the virtual memory back to the original settings.

* + - 1. Select drive **C: [Local Disk]** > click **System managed size** > click **Set**.
      2. Select **I:** > click **No paging file** > click **Set**.
      3. Check **Automatically manage paging file size for all drives**, and then click **OK**.
      4. The **System Properties** window opens informing you that a restart is required before changes will take effect. Click **OK**.
      5. Click **OK** to close the **Performance Options** window. Click **OK** to close the System Properties window.
      6. The warning message displays: You must restart your computer to apply these changes. Click **Restart Now**.

# Reflection Questions

Why would you ever change the default virtual memory page file settings in Windows?

Type your answers here.

Answers will vary. With a default installation, Windows creates the virtual memory page file in the root folder on the same drive, where the systems files are stored. Over time, this drive may run out of free space, which would cause system problems. You could free up space on that drive by moving the virtual memory page file to a different drive. Another reason you may want to move the virtual memory page file is that possibly you have added a faster drive, an SSD for example, and you want to move your virtual memory page file to that drive in an attempt to speed up Windows response times.

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