# Answers: 6.1.2.12. Lab - Manage Virtual Memory in Windows 8

## Introduction

In this lab, you will customize virtual memory settings.

## **Recommended Equipment**

- A computer with Windows 8 installed
- The hard drive must have two or more partitions.

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

### Step 1: Open System Properties

a. Right-click **Start** and select **System**.

Programs and Features	
Power Options	
Event Viewer	
System N	
Device Manager	
Network Connections	
Disk Management	
Computer Management	
Command Prompt	
Command Prompt (Admin)	
Task Manager	
Control Panel	
File Explorer	
Search	
Run	
Shut down or sign out	
Desktop	
Image:	

**Note**: In Windows 8.0, bring up the charms menu, click **Search**, type **computer** and press **Enter**. Right-Click on **Computer** in the left pane of the **Computer** window and select **Properties**.

b. In the System window, click Advanced system settings.



c. The **System Properties** window opens. Select the **Advanced** tab and click **Settings** in the Performance area.

System Properties				×
Computer Name Hardware	Advanced	System Protection	Remote	
You must be logged on as a Performance	an Administrat	tor to make most of th	nese changes.	
Visual effects, processor so	cheduling, m		tual memory Settings. <sub>15</sub>	
User Profiles Desktop settings related to	) your sign-in		3	]
			Settings	
Startup and Recovery System startup, system faile	ure, and deb	ugging information		
			Settings	
		Environme	nt Variables	]
	ОК	Cancel	Apply	

d. The Performance Options window opens. Click the Advanced tab.

Performance Options	×
Visual Effects Advanced Data Execution Prevention	
Processor scheduling	- []
Choose how to allocate processor resources.	
Adjust for best performance of:	
Programs     O Background services	
Virtual memory	
A paging file is an area on the hard disk that Windows uses as if it were RAM.	
Total paging file size for all drives: 640 MB	
Change	
OK Cancel Apply	

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

## Step 2: Make virtual memory changes.

a. Click **Change** in the Virtual memory area to open the **Virtual Memory** window.

	Perfo	rmance (	Options		×
Visual Effects	Advanced	Data Execu	ution Prevention		
Processor s	cheduling —				
Choose ho	w to allocate	processor re	esources.		
Adjust for	best perform	ance of:			
Program	ns	⊖ Backgr	ound services		
Virtual mem	ory				
A paging fil if it were R		on the hard	disk that Windov	vs uses as	
Total pagin	g file size for	r all drives:	640 MB		
			Ch	ange	
		ОК	Cancel	Apply	

b. Remove the check mark from Automatically manage paging file size for all drives.

Virtual Memory			
Automatically mana Paging file size for eac Drive [Volume Label]	h drive	e for all drives	
C: [Local Disk]		System managed	
I: [ITE]		None	
Selected drive: Space available:	C: [Local Disk] 22188 MB		
O Custom size:			
Initial size (MB):			
Maximum size (MB):			
• System managed s	size		
O No paging file		Set	
Total paging file size f	or all drives		
Minimum allowed:			
Recommended: Currently allocated:			
		OK Cance	

What Drive [Volume Label] contains the paging file?

c. Choose the I: drive. Select the **Custom size:** radio button.

٧	/irtual Memory	×
Automatically mana Paging file size for eac Drive [Volume Label] C: [Local Disk] I: [TTE]		
Selected drive: Space available: Custom size: Invial size (MB): Maximum size (MB): System managed s No paging file	2024 MB	
Total paging file size f Minimum allowed: Recommended: Currently allocated:	16 MB 2047 MB	
	OK Cano	el

**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.

What is the recommended paging file size for all drives?

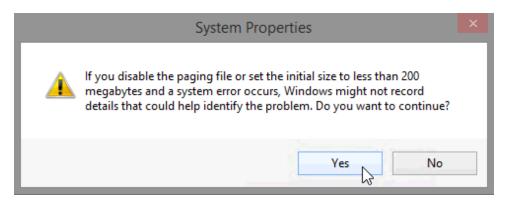
d. Enter a number smaller than the recommended file size in the **Initial size (MB)**: field. Enter a number that is larger than the Initial size but smaller than the recommended file size in the **Maximum size (MB)**: field. Click **Set**.

١	/irtual Memory	×		
Automatically manage paging file size for all drives Paging file size for each drive Drive [Volume Label] Paging File Size (MB) C: [Local Disk] System managed				
I: [ITE]	None			
Selected drive: Space available:	I: [ITE] 2024 MB			
• Custom size:				
Initial size (MB):	1000			
Maximum size (MB):	1500			
O System managed	size			
O No paging file	Set	<u>,</u>		
Total paging file size f	or all drives			
Minimum allowed:	16 MB			
	2047 MB			
Currently allocated:	640 MB			
	OK Cancel			

e. Select the C: drive. Select the No paging file radio button, and click Set.

١	/irtual Memo	ory	x
Automatically mana Paging file size for eac	2.22	e for all drives	
Drive [Volume Label]	Paging	g File Size (MB)	
C: [Local Disk]		System managed	
I: [ITE]		1000 - 1500	
Selected drive: Space available:	C: [Local Disk] 22188 MB		
O Custom size:			
Initial size (MB):			
Maximum size (MB):			
O System managed	size		_
No paging file		Set	3
Total paging file size f	for all drives		
Minimum allowed:	16 MB		
Recommended:	2047 MB		
Currently allocated:	640 MB		
		OK Cancel	
		UK Cancel	

f. The System Properties warning message displays. Click Yes.



- g. Click OK on the Virtual Memory window to accept the new virtual memory settings.
- h. Click **OK** on the **Performance Options** window to close it.
- i. Click **OK** on the **System Properties** window to close it.

#### Step 3: Navigate back to the Virtual Memory window to verify changes.

a. The **System Properties** window opens. Select the **Advanced** tab and click **Settings** in the Performance area.

- b. The Performance Options window opens. Select the Advanced tab and click Change.
- c. The **Virtual Memory** window opens displaying the new paging file information. Verify that your changes have been made.

Vi	rtual Memory	×
Automatically manag Paging file size for each Drive [Volume Label] C: [Local Disk] I: [ITE]	e paging file size for all drives n drive Paging File Size (MB) <u>None</u> 1000 - 1500	
	C: [Local Disk] 22188 MB  ze Set	
	16 MB 2047 MB	21

What Drive [Volume Label] contains the paging file?

Step 4: Reset the virtual memory back to the original settings.

a. Select drive C: [Local Disk] > System managed size > Set.

V	irtual Memo	ory	×
Automatically managed Paging file size for each Drive [Volume Label] C: [Local Disk] I: [ITE]	h drive Paging	e for all drives g File Size (MB) None 1000 - 1500	
	C: [Local Disk] 22188 MB	Set	
	16 MB 2047 MB 1640 MB	OK Cancel	5

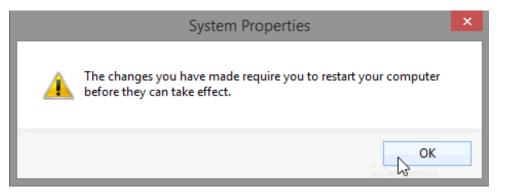
b. Select I: > No paging file > Set.

Virtual Memory				
Automatically manage paging file size for all drives Paging file size for each drive Drive [Volume Label] Paging File Size (MB) C: [Local Disk] None I: [ITE] 1000 - 1500				
Selected drive: Space available:	I: [ITE] 2024 MB			
O Custom size: Initial size (MB); Maximum size (MB);	1000			
<ul> <li>○ System managed s</li> <li>● No paging file</li> </ul>	size	Set	3	
Total paging file size f Minimum allowed: Recommended: Currently allocated:	16 MB 2047 MB			
		OK Cance	1	

c. Check Automatically manage paging file size for all drives, and then click OK.

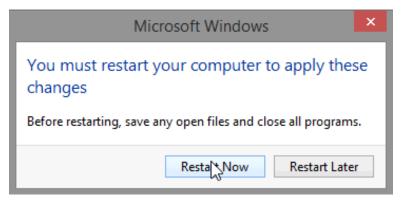
Virtual Memory						
Paging file size for eac	Automatically manage paging file size for all drives Paging file size for each drive Drive [Volume Label] Paging File Size (MB)					
C: [Local Disk] I: [ITE]	None None					
Selected drive: Space available: Custom size: Initial size (MB): Maximum size (MB): System managed s No paging file	22188 MB					
Total paging file size for Minimum allowed: Recommended: Currently allocated:	16 MB 2047 MB					

d. The **System Properties** window opens informing you that a restart is required before changes will take effect. Click **OK**.



e. Click **OK** to close the **Performance Options** window. Click **OK** to close the System Properties window.

f. The warning message displays: You must restart your computer to apply these changes. Click **Restart Now**.



## Reflection

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