Windows 10 USB DVD or ISO Creation

After completing the laboratory exercise the student will be able to:

Download the Microsoft MediaCreationTool.exe.

Create installation media for Windows 10 using a DVD or Flash memory drive

Explain the purpose of an ISO file.

Explain the term "Boot order".

In this lab activity you will access the Microsoft website and read the instructions for creating Windows 10 installation media as well as download and install the Windows 10 MediaCreationTool. The information at the website will provide you with detailed information to perform a clean install of Windows 10 which will be accomplished in the next laboratory activity. The two main choices for Windows 10 installation media are USB flash drive or a DVD. Consult your instructor before you create the Windows 10 installation media.

Some of the most important information needed to create the installation media will be covered now in addition to the Microsoft website.

The media creation tool file name is "MediaCreationTool.exe". When you down load the media creation tool you may need to locate the tool on your computer.

What are .EXE and .ISO files?

Two file types are associated with the use of the MediaCreationTool: Executable (.EXE) and image (.ISO) files. The definitions of executable and ISO file will relate to the context of creation of the Windows MediaCreationTool and Windows 10 installation process. The exact definition of an executable file and ISO file will vary a bit according to the exact content being described.

The media creation tool is an executable file which means that the file ends with the .exe file extension and will execute automatically when clicked on or entered at a command prompt. Executable files can run as a single independent file or as part of a collection of files.

An ISO (International Standards Organization) is an image file. An ISO file is a compressed collection of individual files into one large file. ISO files are commonly used for distribution of file collections in a compact format. An ISO is also known as an image file. A single operating system such as Windows 10 consists of thousands of separate files and various file types. When Microsoft distributes the operating system for installation the entire collection of the thousands of files are merged into one large compact file known as an ISO. The ISO file is expanded during

the installation process into the entire set of over one thousand different individual files and different files types which are then installed on the computer hard disk drive. The process of creating the many individual files contained in a single ISO file is known as **extraction**. Executive ".EXE" files do not require being extracted before running.

Boot Order

The machine boot order is critical for successful installation of Windows 10 on a bare bones machine. The boot order refers to the order in which a machine looks for boot media. A machine can boot from the hard disk drive or the CD/DVD drive or from a USB port. Typically by default a machine is configured to look at the hard disk drive for the location of the operating system first. If it does not find an operating system then the system may stop and produce an error message on the display stating that an operating system cannot be found. For installation of Windows 10 on a machine that has no operating system you will want to check the boot order. The boot order can be configured through the BIOS setup and configuration program. You must access the BIOS setup program and then verify or change the boot order of the USB port, CD/DVD and hard disk drive. You want the USB port or DVD drive first in the boot order, not the hard disk drive.

You will select the type of installation process, Upgrade or create installation media for another PC.

Materials and Information

Workstation with Internet access.

Indicate and collect installation media DVD or flash drive.   ____ DVD ___ Flash Drive

Location on PC for the ISO file.

1. Report to your assigned workstation after selection of media is determined for this assignment.

2. Read thoroughly all the information located at the Microsoft website concerning the installation of the Windows 10 operating system before the next step is performed.

You can go to the Microsoft web page listed below to create the installation material needed as well as view important information related to the installation procedures.

https://www.microsoft.com/en-in/software-download/windows10
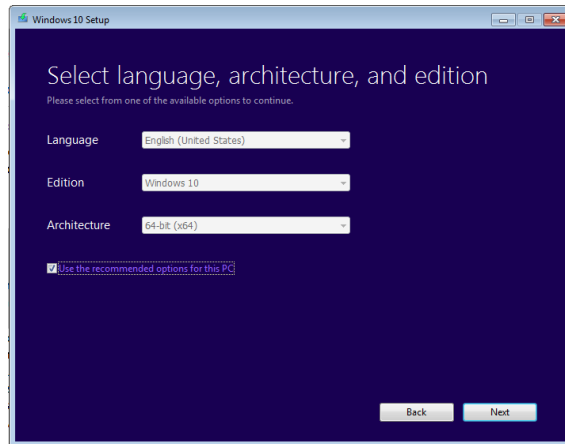
.

Figure 1 The Microsoft webpage will provide you with important installation information as well as a link to create installation media.

3. Proceed to create the Windows 10 ISO file for DVD or USB as indicated by you instructor.
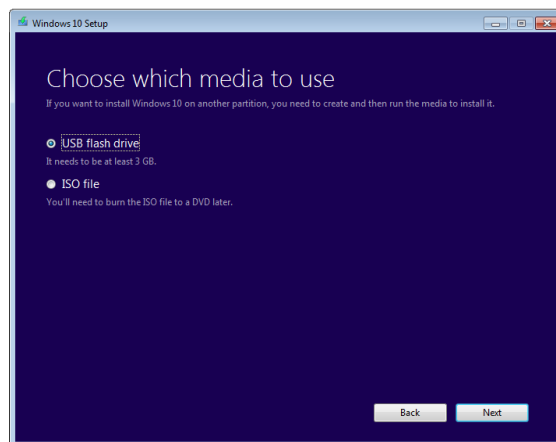
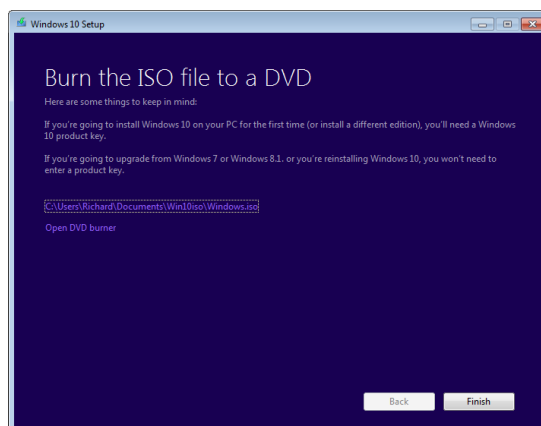You should see a series of windows similar to the ones below.
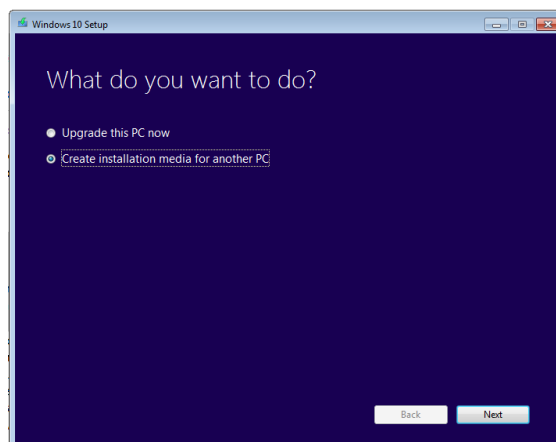
Select "Create installation media for another PC".

Select language, edition and architecture. The installation will automatically select default values. You may change them if needed.

Choose media type as indicated by your instructor.

Burn ISO to DVD

5. Call your instructor to inspect your work and then go on to answer the review questions.

Note: For Enterprise edition you must view the information located at the Volume License Center. You cannot simply download and install on to machines using a Volume license Windows operating system.

Review Questions

1. What two types of media are used to create Windows 10 installation media?

2. What is an ISO file?

3. What term is used to represent removing the individual collection of file from an ISO file?

4. What is "Boot order"?

5. Where or how is boot order modified?

Review Question Answers

1. What two types of media are used to create Windows 10 installation media? DVD or USB flash drive.

2. What is an ISO file? An ISO file is a compressed collection of individual files into one large file.

3. What term is used to represent removing the individual collection of file from an ISO file? Extraction.

4. What is "Boot order"? The boot order refers to the order in which a machine looks for boot media.

5. Where or how is boot order modified? The boot order can be configured through the BIOS setup and configuration program.