

Lab – Creating an Unattended Install of Windows 10 Pro

Overview

In this lab, you will learn how to generate an autoattend.xml file that is used to create an unattended install of Windows 10 Pro. Throughout the course, we have been manually creating virtual installs of Windows operating systems. This works when you only have a couple of installs, but what if you needed to roll 50 or more desktop machines all running windows 10 Pro? You would need physical touch each machine and perform a manual install.

Creating an unattended install allows you to place an answer file at the root of the install image that will respond automatically to each prompt during the setup. You can start the install, get a cup of coffee, and when you return, your 50 machines will have Windows 10 Pro running on them.

Lab Requirements

The following programs must be installed or available on your host machine.

- Install of VirtualBox
- Install of 7-zip
- Install of Imgburn
- Microsoft Windows and Office ISO Download Tool
- Internet access

Begin the lab

This lab assumes you have VirtualBox installed.

To begin the lab, we need to ensure we have the software and ISO image downloaded and install on our host machine.

Go to the following site to get you a free copy of 7-zip. [Download 7-Zip for Windows:](#)

Link	Type	Windows	Description
Download	.exe	32-bit x86	7-Zip for 32-bit Windows
Download	.exe	64-bit x64	7-Zip for 64-bit Windows x64 (Intel 64 or AMD64)

[Alternatives to 7-Zip for Mac](#)

Download and the ImgBurn ISO Creating Software: [Download ImgBurn](#)

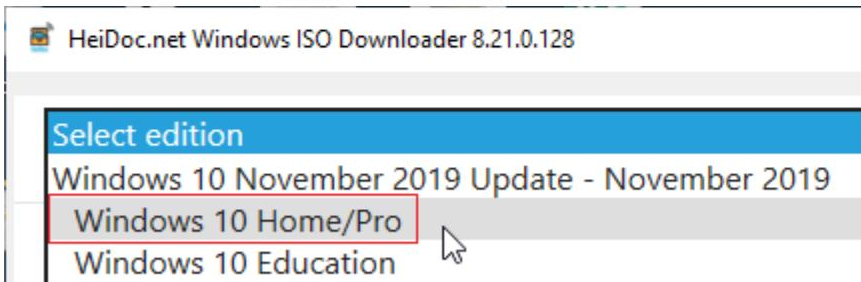
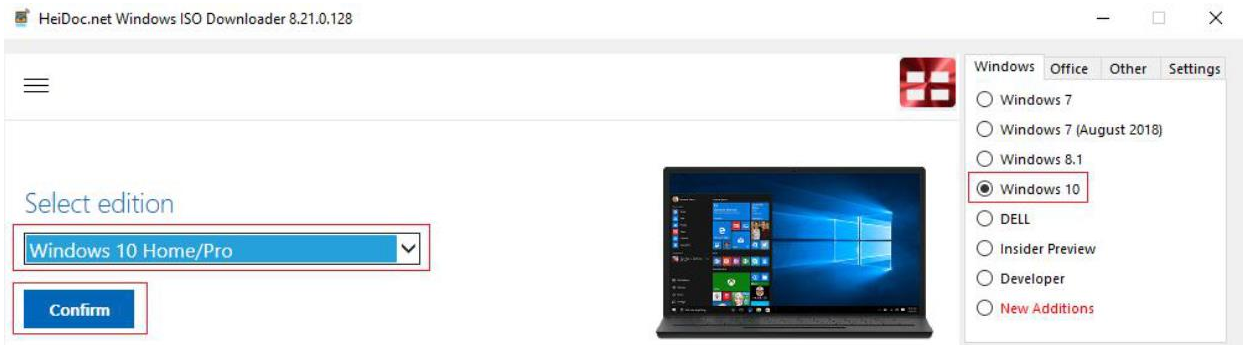
For those that need a download of a Window 10 Pro ISO image:

Download to your desktop, the [Microsoft Windows and Office ISO Download Tool](#)
This is a self-running executable and requires no install.
2x click to launch.

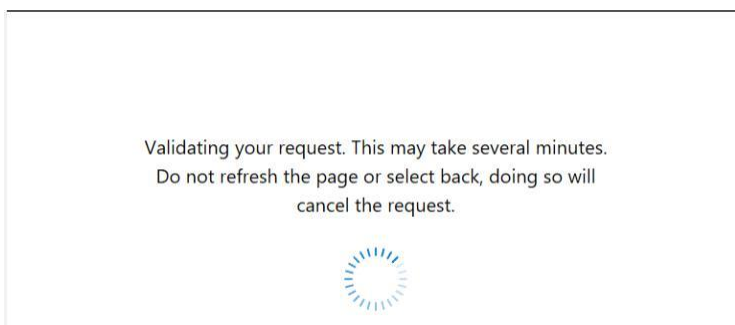


Once you have the ISO download tool launched, wait for the annoying 120-second advertisement to complete.

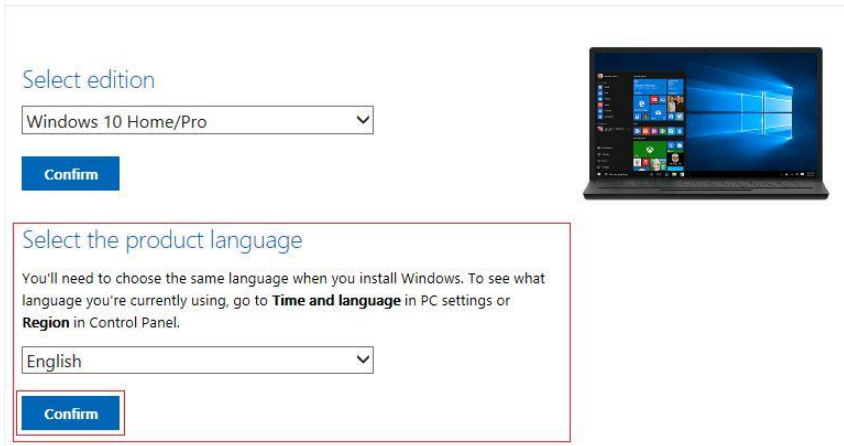
From the right windowpane, check the radio button for Windows 10. From the left windows pane, pull down the select edition windows and from the menu, choose, the first or top choice for Windows 10 Home/Pro.



Wait for the validation to complete.

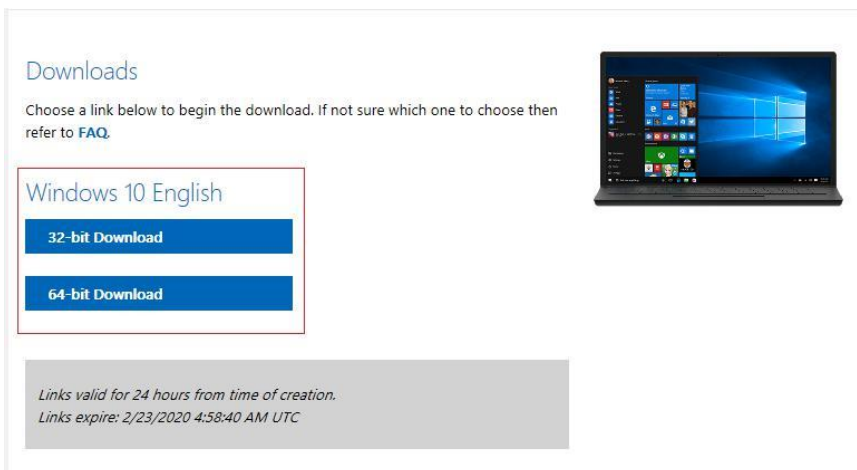


Select and confirm your choice of language.



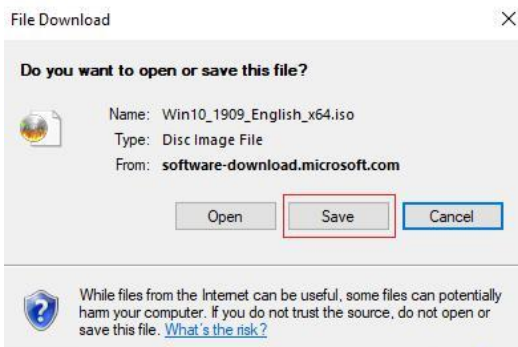
The screenshot shows the Windows 10 installation language selection screen. It has two main sections. The top section, titled "Select edition", contains a dropdown menu with "Windows 10 Home/Pro" selected and a blue "Confirm" button below it. The bottom section, titled "Select the product language", contains a text box with "English" and a blue "Confirm" button below it. To the right of these sections is a small image of a laptop displaying the Windows 10 desktop. A red rectangular box highlights the "English" dropdown and its corresponding "Confirm" button.

Choose your download link.



The screenshot shows the Windows 10 download link selection screen. It has a section titled "Downloads" with a text box containing "Windows 10 English". Below this are two blue buttons: "32-bit Download" and "64-bit Download". To the right of these buttons is a small image of a laptop displaying the Windows 10 desktop. A red rectangular box highlights the "32-bit Download" button. Below the buttons is a grey box with the text: "Links valid for 24 hours from time of creation. Links expire: 2/23/2020 4:58:40 AM UTC".

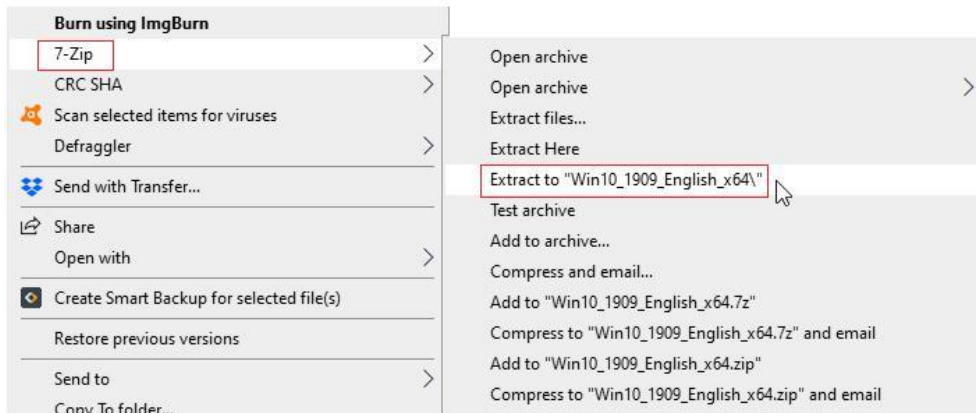
Save the download to your favorite download location.



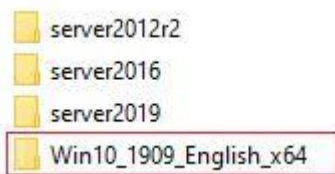
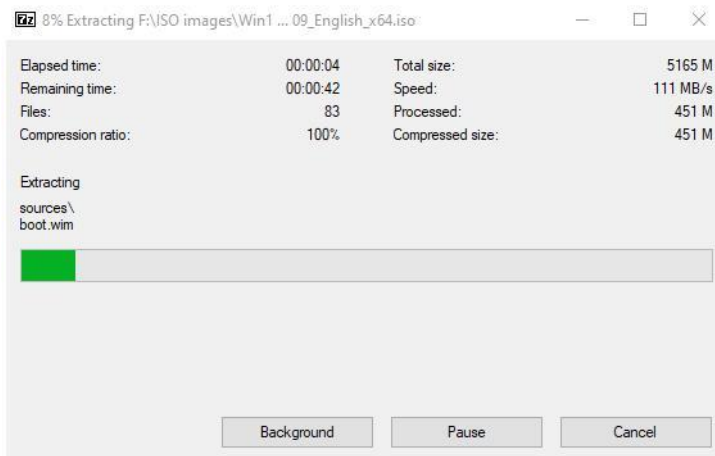
The screenshot shows a Windows File Download dialog box. It has a title bar that says "File Download" and a close button (X). The main area contains the text "Do you want to open or save this file?". Below this is a file icon, the name "Win10_1909_English_x64.iso", the type "Disc Image File", and the source "From: software-download.microsoft.com". At the bottom are three buttons: "Open", "Save", and "Cancel". A red rectangular box highlights the "Save" button. At the very bottom is a warning icon and text: "While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. [What's the risk?](#)"

Extract the Contents of The Windows 10 ISO File

Once we have the ISO for Windows 10 safely downloaded, we will need to extract the contents to a folder. For this, we will need the 7-zip archiver program. Find your ISO image for Windows 10, right-click, and from the context menu for your 7-zip program, choose to extract to a folder using the ISO image name.



The contents of the ISO file are extracted and saved to a folder in the same location using the same name as the original ISO image.




Creating the Autounattend.xml File

Open your browser and in the address bar, and go to https://www.windowsafg.com/win10x86_x64.html

This is Windows 10 answer File generator. Fill the generator in with the following information. This is my information, not yours. Your answers may vary.

Installation Notes

Location:	<input type="text" value="U.S."/>
Notes:	<div><div>Enter your comments here...</div><div></div></div>

General Settings

Product Key:	<input type="text" value="W269N"/> - <input type="text" value="WFGWX"/> - <input type="text" value="YVC9B"/> - <input type="text" value="4J6C9"/> - <input type="text" value="T83GX"/>
Accept EULA:	<input type="text" value="Yes"/> ▾
Skip automatic activation:	<input type="text" value="Yes"/> ▾
Skip License Rearm	<input type="text" value="Yes"/> ▾
Setup Language:	<input type="text" value="English"/> ▾
Computer Name:	<input type="text" value="Win10"/>
Organization Name:	<input type="text" value="syberoffense"/>

Caveat

The product key is a generic key issued by Microsoft just for this purpose. Microsoft issues generic keys for 180-day evals and unattended installs. Visit the following site for the complete list of Windows 10 generic keys.

[List of Generic Product Keys to Install Windows 10 Editions](#)

[How to activate Windows Server without product key](#)

Regional Settings

Keyboard or input method:	English - United States ▾
Currency and Date format:	Hawaiian - United States ▾
Time Zone:	(UTC+08:00) Beijing, Chongqing, Hong Kong, Urumqi ▾
UI Language:	English - United States ▾

Out Of Box Experience

Network Location:	Home ▾
Protect Your Computer:	Turns on Express settings. ▾
Hide EULA page:	Yes ▾
Disable auto daylight timeset:	No ▾
Hide wireless setup in OOBE:	Yes ▾
Skip machine OOBE:	Yes ▾
Skip user OOBE:	Yes ▾
Control Panel View:	Classic View ▾
Control Panel Icon Size:	Large ▾

Partition Settings

Wipe Disk:	Yes ▾
Install to disk:	0 ▾
Main Partition Active:	Yes ▾
Main Partition Format:	NTFS ▾
Main Partition Label:	OS
Main Partition Letter:	C ▾
Partition Order:	2 ▾

User Account

User Name:	Expat
Group:	Administrators ▾
Description:	admin account
Password: (Optional)	●●●●●●●●
Password Expires:	False ▾
Auto Logon:	Yes ▾
UAC:	Disabled ▾
CEIP:	Disabled ▾

Once you have filled in all the information, the generator creates your **Autounattend.xml** file ready for you to download.



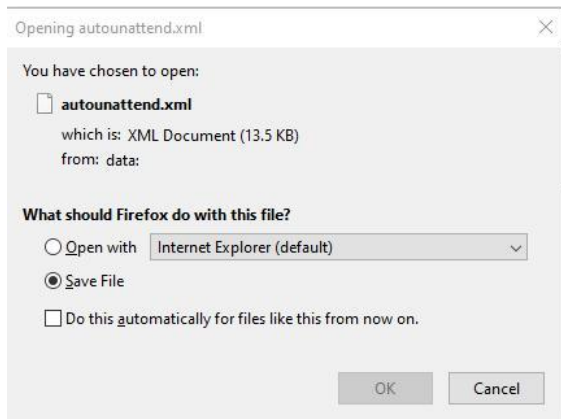
The screenshot shows a text editor window with the content of an Autounattend.xml file. At the top, there is a 'Highlight All' button. The file content includes a header for 'Windows 10 Answer File Generator', installation notes, and XML configuration for Windows PE. The XML configuration specifies the component name as 'Microsoft-Windows-International-Core-WinPE', the processor architecture as 'x86', and the language as 'neutral'. It also includes the version scope and the XML namespace for WMIConfig. At the bottom, there is a 'Download File' button.

```
<!--*****
Windows 10 Answer File Generator
Created using Windows AFG found at:
;http://www.windowsafg.com

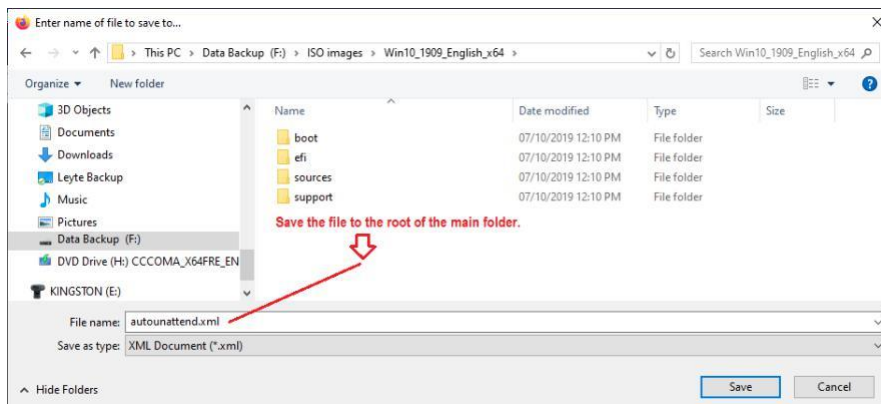
Installation Notes
Location: U.S.
Notes: Enter your comments here...
*****-->

<?xml version="1.0" encoding="utf-8"?>
<unattend xmlns="urn:schemas-microsoft-com:unattend">
<settings pass="windowsPE">
<component name="Microsoft-Windows-International-Core-WinPE"
processorArchitecture="x86" publicKeyToken="31bf3856ad364e35" language="neutral"
versionScope="nonSxS" xmlns:wcm="http://schemas.microsoft.com/WMIConfig
/2002/State" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

Save the file to the root of the extracted folder of your Windows 10 files.



Just open the main folder for the extracted file and save.



When you open the extracted folder, this is what you should see.

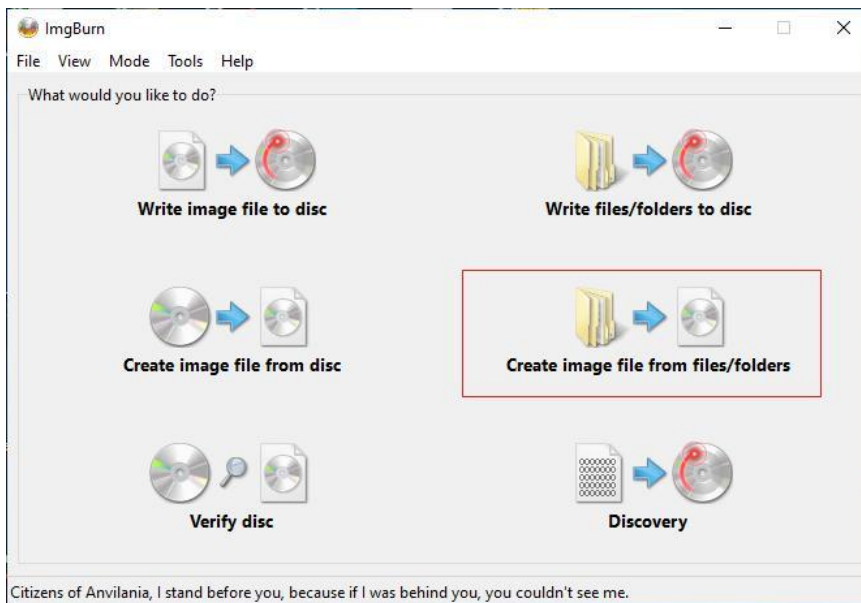
Name	Date modified	Type	Size
boot	07/10/2019 12:10 PM	File folder	
efi	07/10/2019 12:10 PM	File folder	
sources	07/10/2019 12:10 PM	File folder	
support	07/10/2019 12:10 PM	File folder	
autorun.inf	07/10/2019 12:04 PM	Setup Information	1 KB
autounattend.xml	22/02/2020 1:47 PM	XML Document	14 KB
bootmgr	07/10/2019 12:04 PM	File	401 KB
bootmgr.efi	07/10/2019 12:04 PM	EFI File	1,475 KB
setup.exe	07/10/2019 12:04 PM	Application	73 KB

Create the Unattended ISO Image

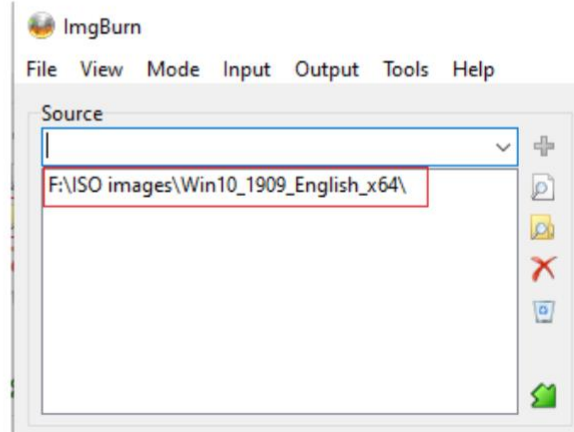
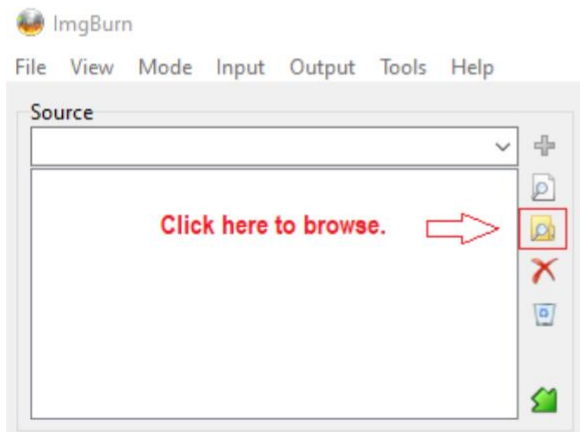
Launch the ImgBurn program. There should be an icon on your desktop.



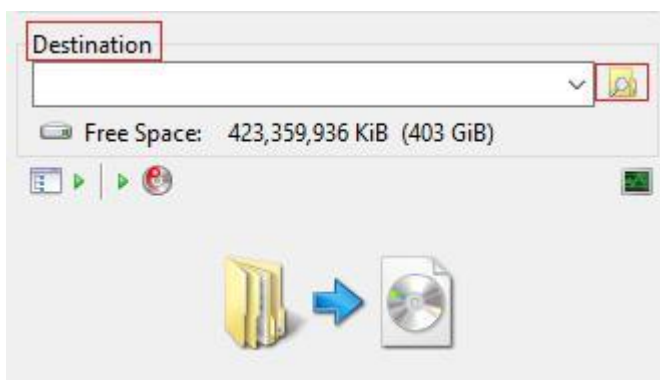
From the first screen, select Create image file from files/folders.



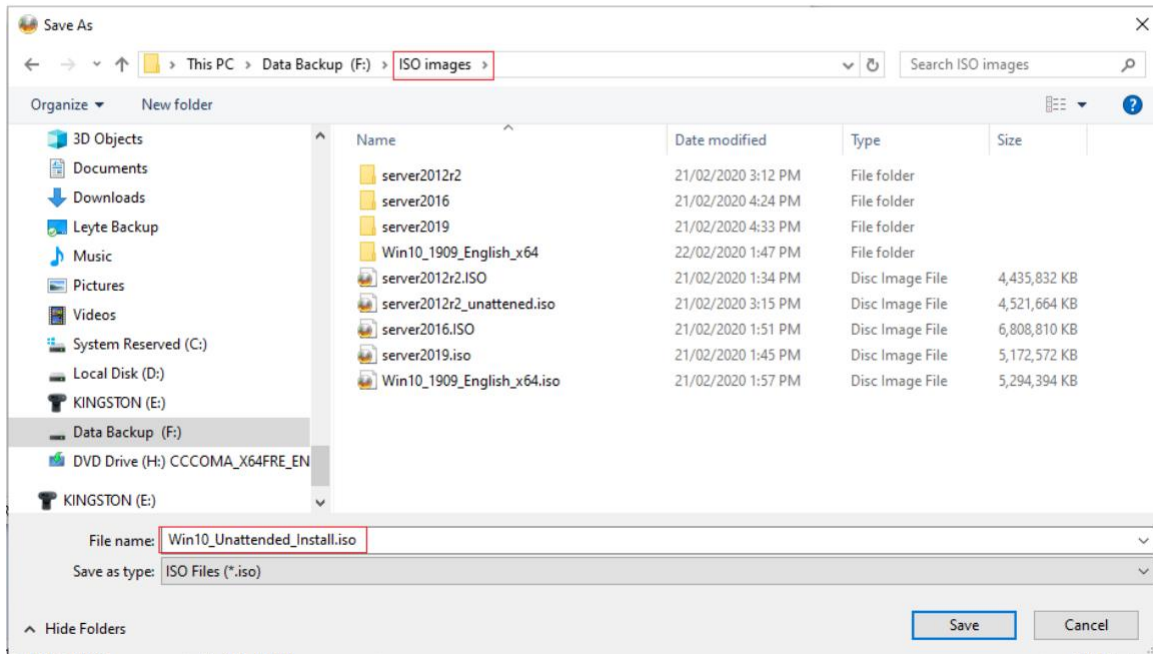
From the left windowpane, click to folder icon to browse to the location of your extracted Windows 10 folder. Do not open the folder; click the main folder to add to the source.



Where it's marked Destination, browse the location where you want to save the new unattended ISO image.

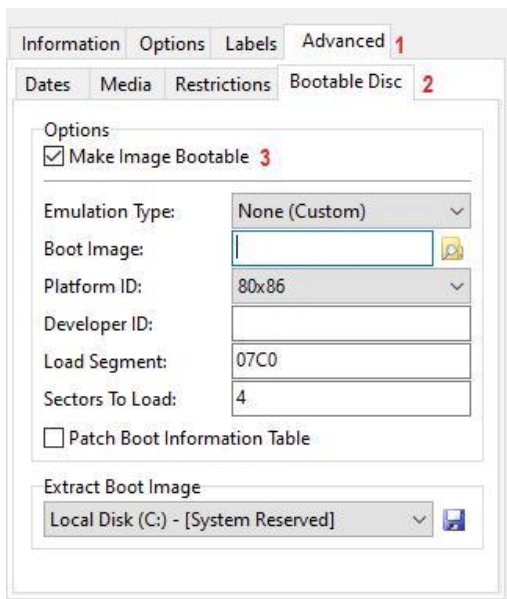


In this example, I have renamed my new ISO image to Win10_Unattended_Install.iso, and I have saved in the same location as the original ISO and the extracted folder.

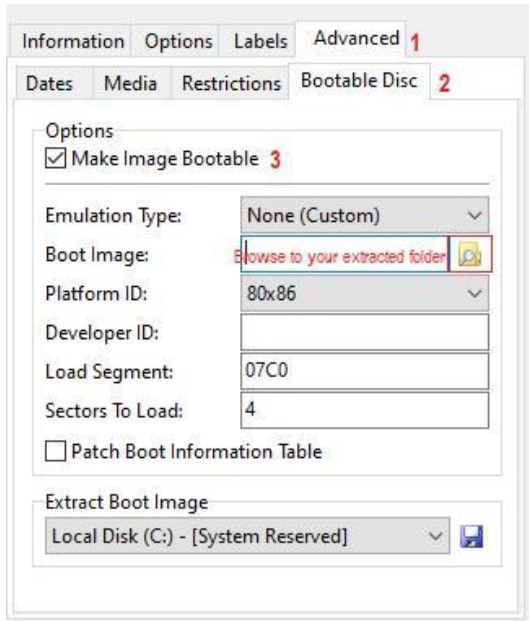


Making the ISO image Bootable

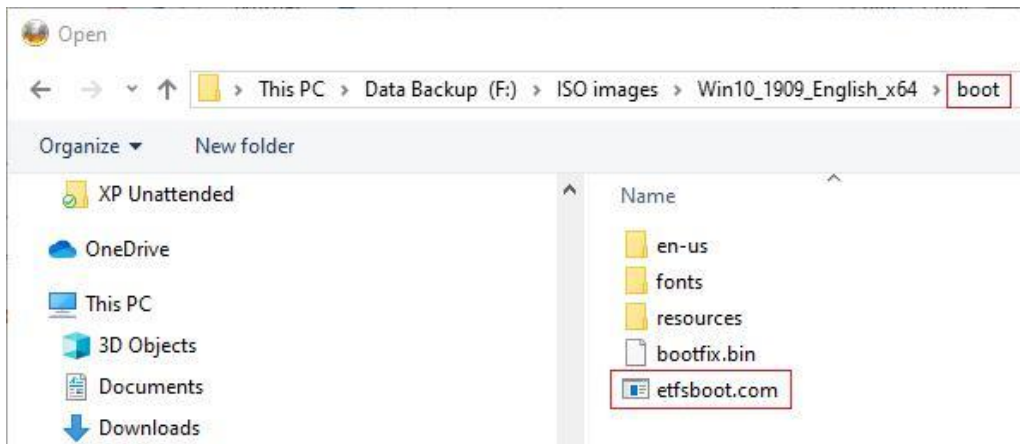
We now need to make our new image bootable. From the right windowpane, click on the Advanced tab and then on the tab marked Bootable Disc. Check the box marked, Make Image Bootable.



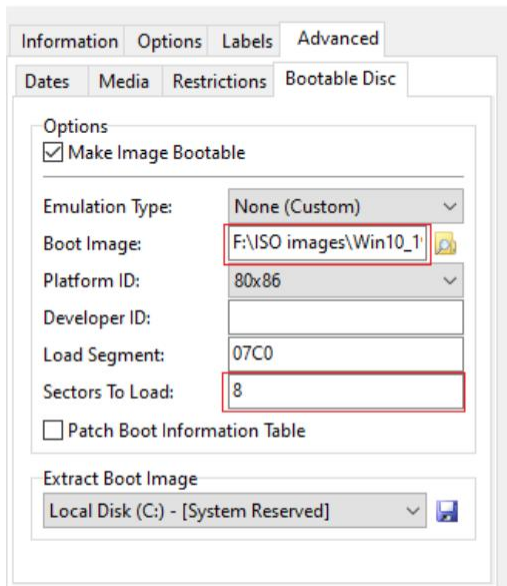
In the window marked, Boot Image, click on the browse button to the right and browse to your extracted Windows 10 ISO image folder.



Open the folder labeled Boot. From the bottom, double click the file marked **etfsboot.com**.



Change the sector leads from 4 to 8. Leave the rest as the default.

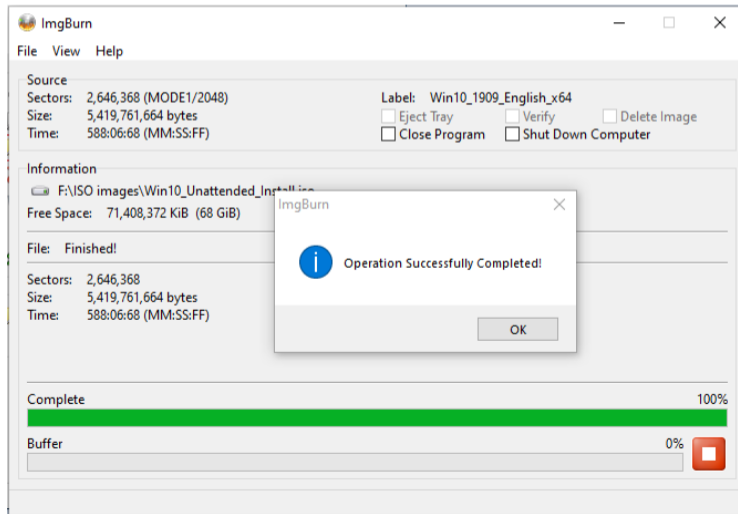


Over at the bottom of the left windowpane, click the folder to ISO icon to generate your unattended ISO image.



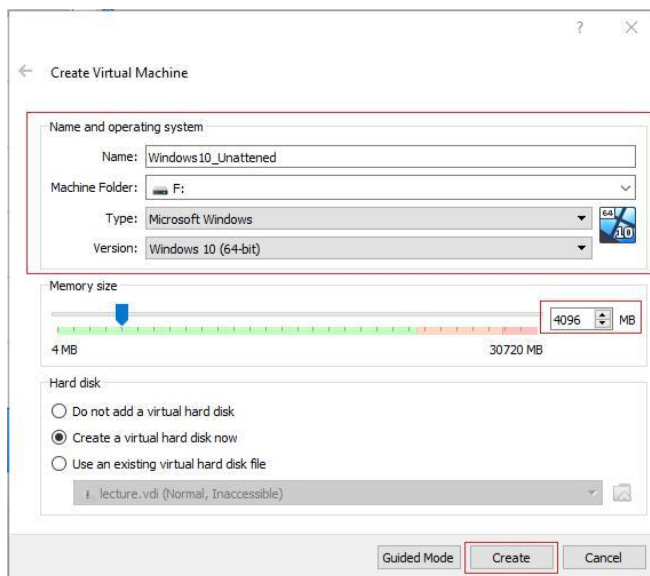
On the next screen, click yes to allow the program to generate a volume name for the image.

It takes but a few moments to build your new unattended ISO image.



Click OK and close out the ImgBurn program.

Open your VirtualBox and build yourself an unattended virtual install of Windows 10 Pro. Once you load the image into the VirtualBox, the install should start and finish without any input from you. During the install, most of the prompt screens will not be shown. It may look as if the install has frozen up or stalled but be patient. The install is happening in the background.

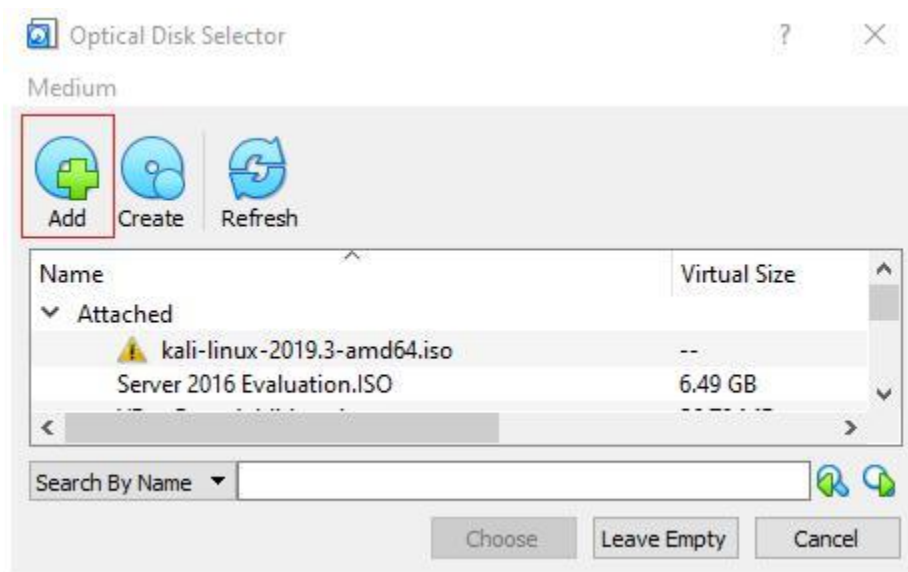


If you have the RAM, boost the allocated memory for this install to 4GB. This will allow the install to complete much faster.

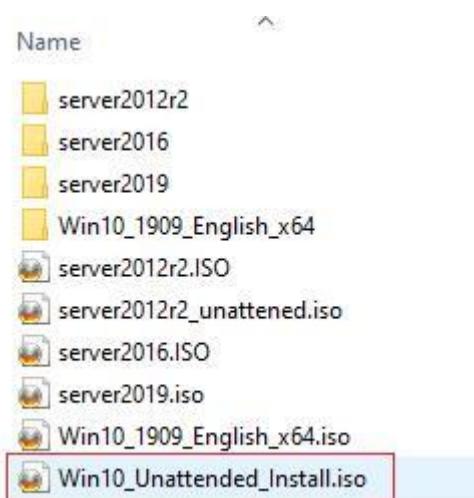
Accept the remaining default setting and click create.

Launch the new virtual disk, and when prompted, browse over to your Windows 10 unattended install ISO image.

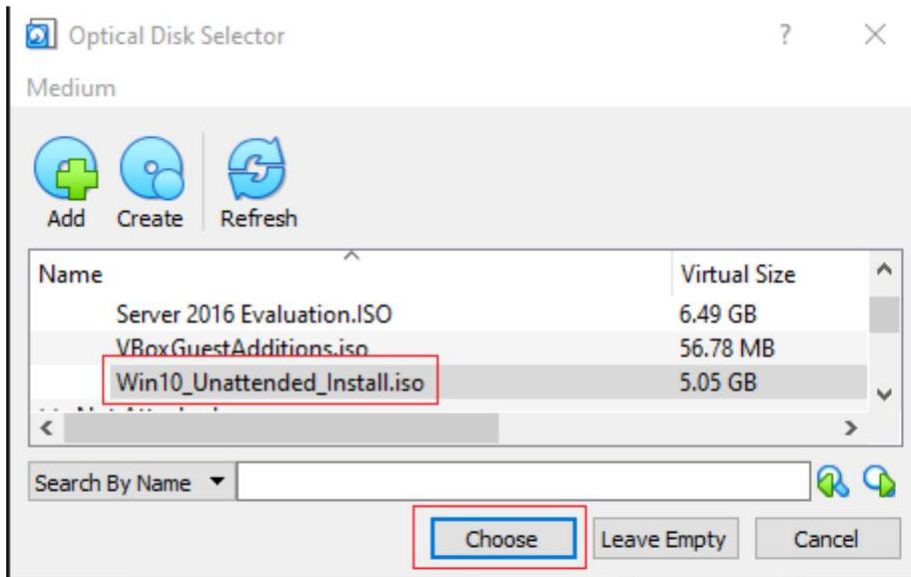
Click the add button.



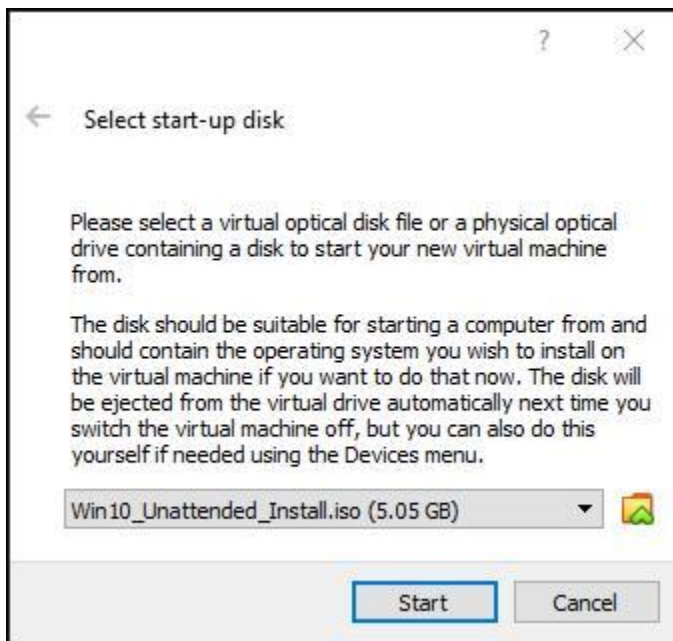
Select the unattended install ISO image.



Click choose.



Click Start and watch the install begin.



Look ma! No prompts to answer. The Setup is Starting screen is hiding the install.

The next screen you see will be the Installing Windows screen.



You can now go and watch TV, play a video game, or stare at the monitor while Windows 10 installs.

Summary

Unattended installs are great for having to rebuild a machine or create a fresh install. They can be built for any operating system though creating an unattended install for Server 2012, 2016, or 2019, is more involved and problematic, but it can be done.

End of the Lab!