CSCE 436 VIVADO INSTALLATION

OVERVIEW

This document shows you how to install and license a copy of Xilinx Vivado, along with installing the required board support files.

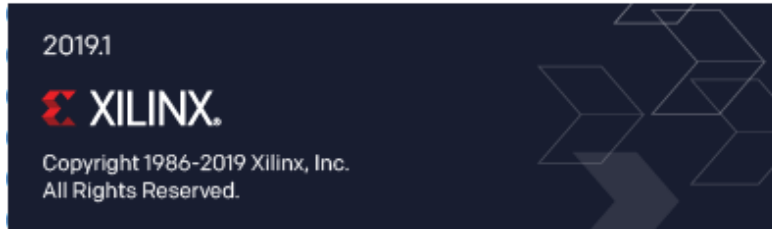## WHAT YOU NEED BEFORE STARTING

1. **Hard disk space** – Plan on the installation requiring approximately 32 GB.
2. **Installation files** (approximately 28GB) – Download installation files from https://www.xilinx.com/support/download/index.html/content/xilinx/en/downloadNav/vivado-design-tools/archive.html. You can download the installation files or the internet installer under the Vivado Archive.
   a. **Not required if only adding SDK to a previous installation**
3. **Admin access** – make sure your cadet admin account is available
4. **Time** – Plan on *at least* 30 minutes

VIVADO INSTALLATION

If you are simply adding SDK or other features to a previous Vivado installation, click on Add Devices or Design Tools 2019.1 in your Windows Start Menu.

Otherwise, download roughly 24GB of installation files and navigate to the Vivado installation files on your hard drive or on an external hard drive and **run xsetup.exe** in the Vivado_2019.1 folder (admin privileges required). Optionally, you can instead download the internet installer.
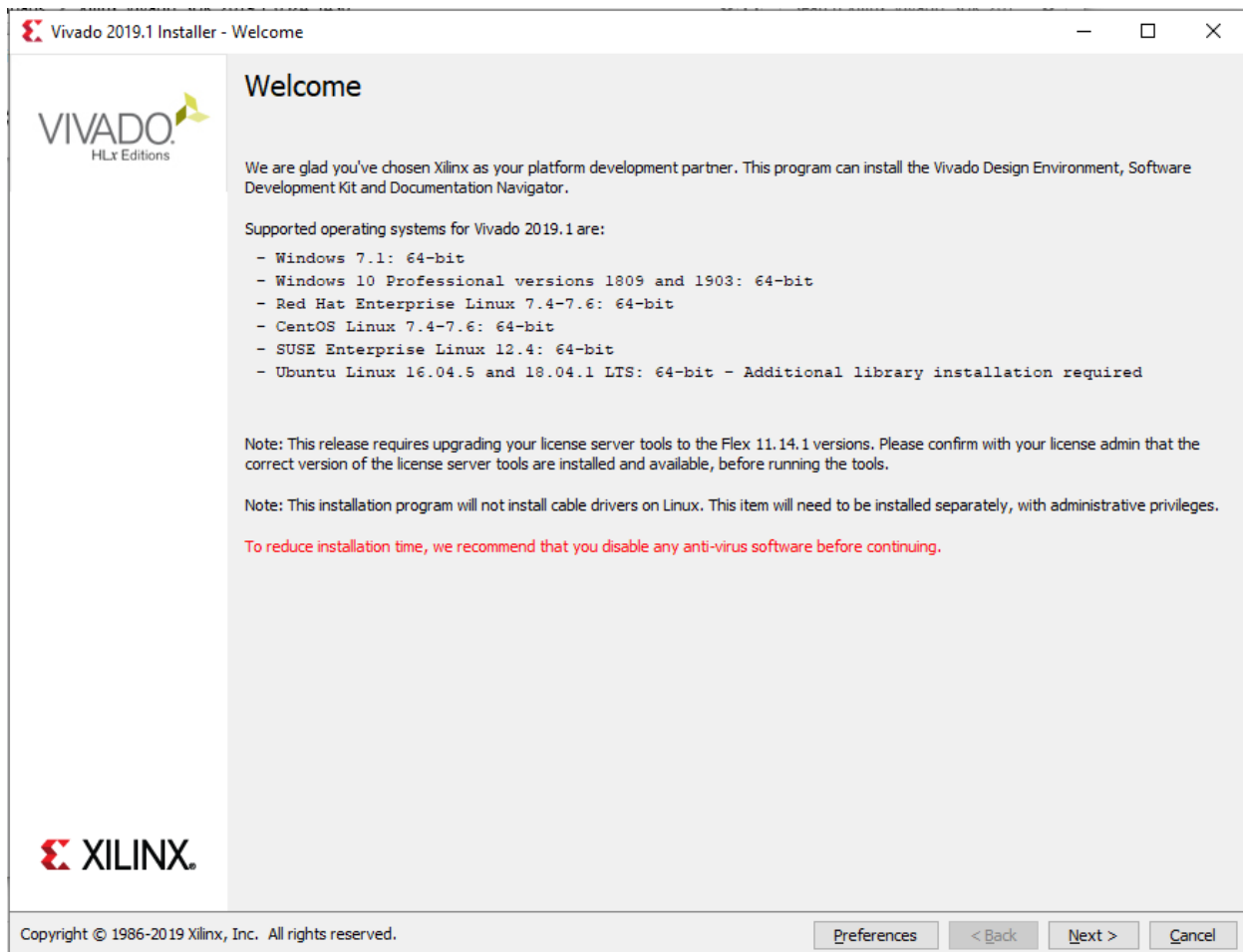
In both cases, you should see a lovely splash screen like the below image. Take a one minute nap while the installer loads. Cancel the request to poke a hole in your firewall, if any should pop up.

VIVADO.
HLx Editions

2019.1

XILINX.

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Users upgrading Vivado can now skip to the Edition Selection on page 3.

For new installs, **Click Continue** to install 2019.

Click Next at the following screen.

Vivado 2019.1 Installer - Welcome

Welcome

We are glad you've chosen Xilinx as your platform development partner. This program can install the Vivado Design Environment, Software Development Kit and Documentation Navigator.

Supported operating systems for Vivado 2019.1 are:

- Windows 7.1: 64-bit
- Windows 10 Professional versions 1809 and 1903: 64-bit
- Red Hat Enterprise Linux 7.4-7.6: 64-bit
- CentOS Linux 7.4-7.6: 64-bit
- SUSE Enterprise Linux 12.4: 64-bit
- Ubuntu Linux 16.04.5 and 18.04.1 LTS: 64-bit - Additional library installation required

Note: This release requires upgrading your license server tools to the Flex 11.14.1 versions. Please confirm with your license admin that the correct version of the license server tools are installed and available, before running the tools.

Note: This installation program will not install cable drivers on Linux. This item will need to be installed separately, with administrative privileges.

To reduce installation time, we recommend that you disable any anti-virus software before continuing.

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Preferences   < Back   Next >   Cancel

Check "I Agree" for all of the terms so you can be owned by lawyers if anything happens. Then **Click Next**.

Vivado 2019.1 Installer - Accept License Agreements

Accept License Agreements

XILINX.

Please read the following terms and conditions and indicate that you agree by checking the I Agree checkboxes.
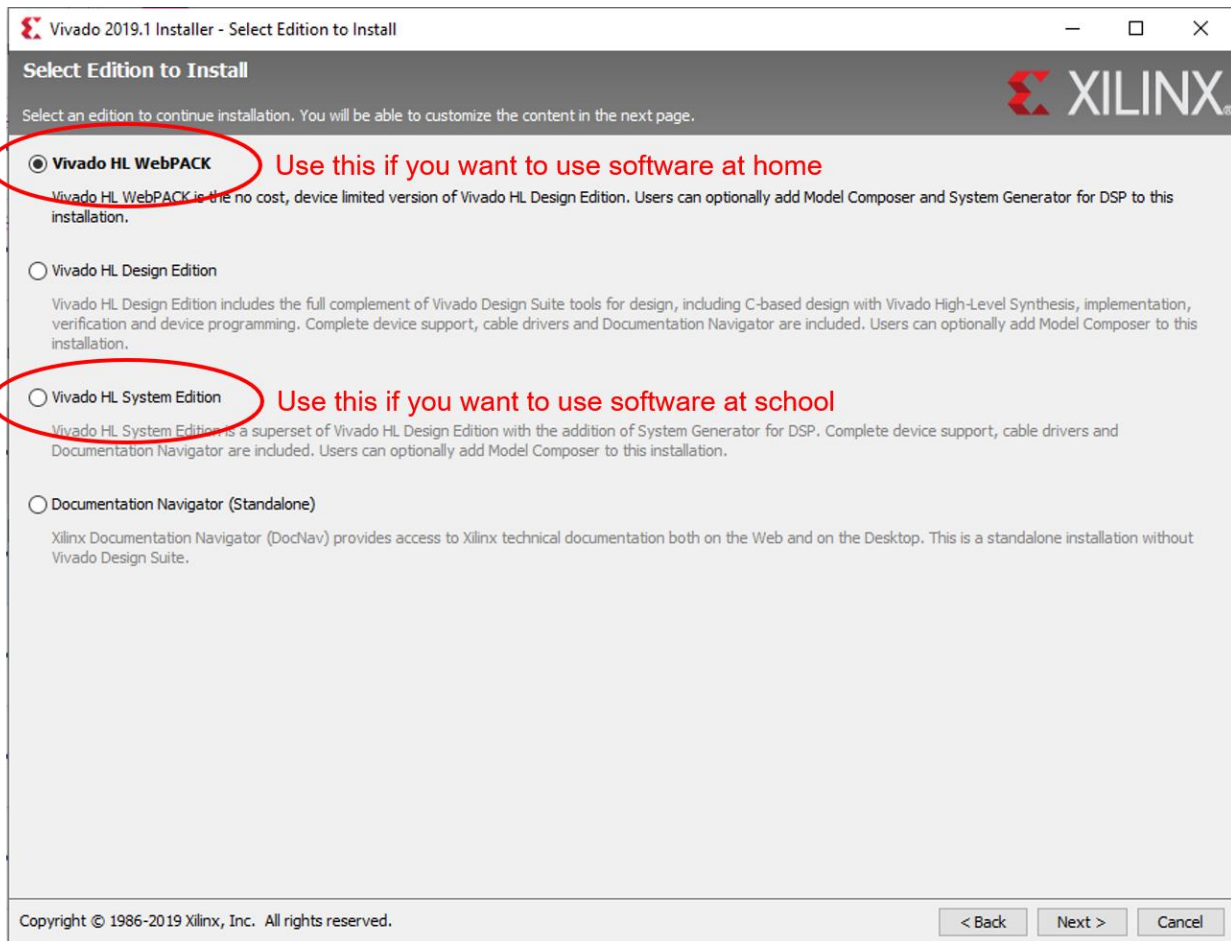
Xilinx Inc. End User License Agreement

By checking "I Agree" below, or OTHERWISE ACCESSING, DOWNLOADING, INSTALLING or USING THE SOFTWARE, I AGREE on behalf of licensee to be bound by the agreement, which can be viewed by clicking here.

☑ **I Agree**

WebTalk Terms And Conditions

By checking "I Agree" below, I also confirm that I have read Section 13 of the terms and conditions above concerning WebTalk and have been afforded the opportunity to read the WebTalk FAQ posted at https://www.xilinx.com/products/design-tools/webtalk.html. I understand that I am able to disable WebTalk later if certain criteria described in Section 13(c) apply. If they don't apply, I can disable WebTalk by uninstalling the Software or using the Software on a machine not connected to the internet. If I fail to satisfy the applicable criteria or if I fail to take the applicable steps to prevent such transmission of information, I agree to allow Xilinx to collect the information described in Section 13(a) for the purposes described in Section 13(b).

☑ **I Agree**

Third Party Software End User License Agreement

By checking "I Agree" below, or OTHERWISE ACCESSING, DOWNLOADING, INSTALLING or USING THE SOFTWARE, I AGREE on behalf of licensee to be bound by the agreement, which can be viewed by clicking here.

☑ **I Agree**

Copyright © 1986-2019 Xilinx, Inc. All rights reserved.
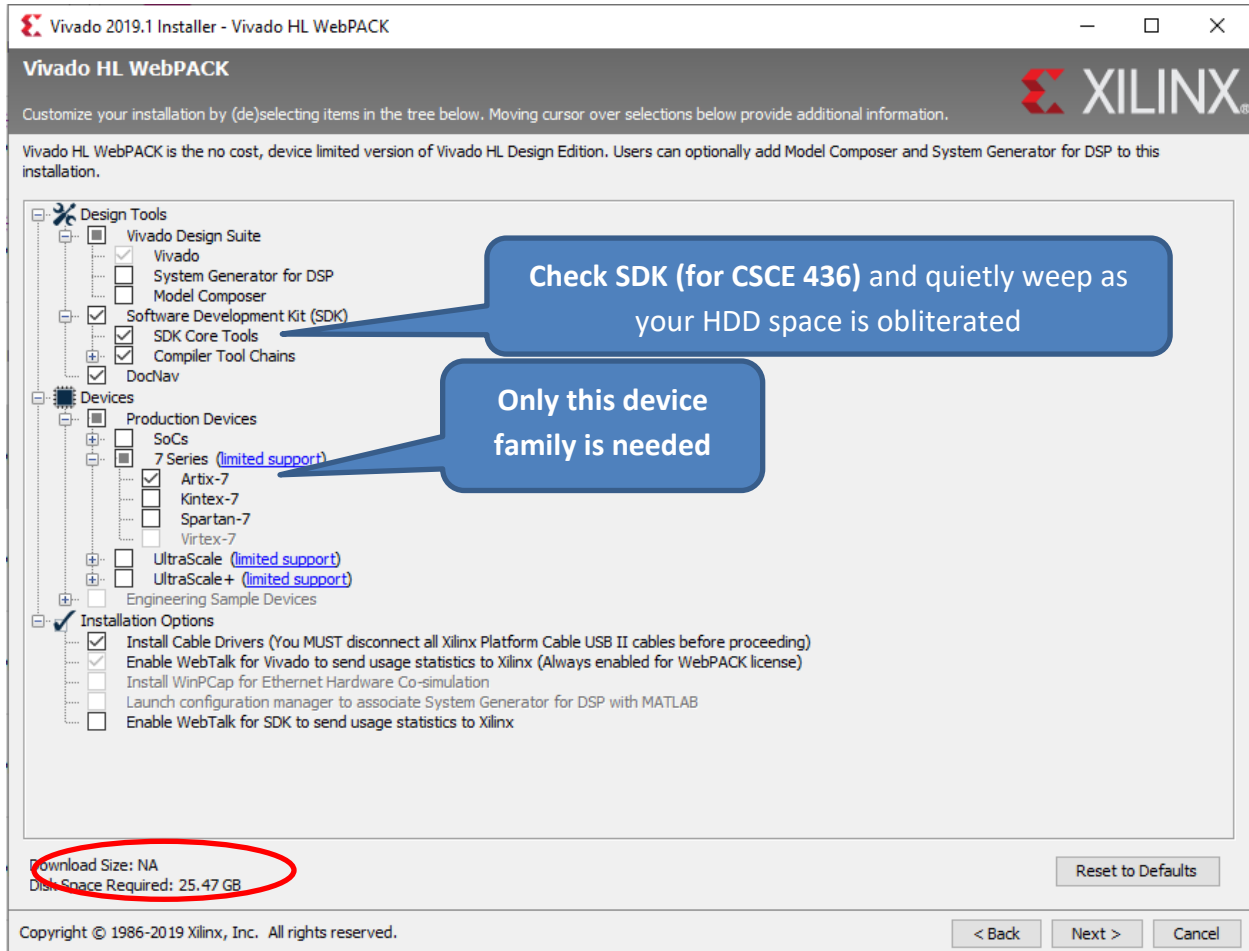
< Back   Next >   Cancel

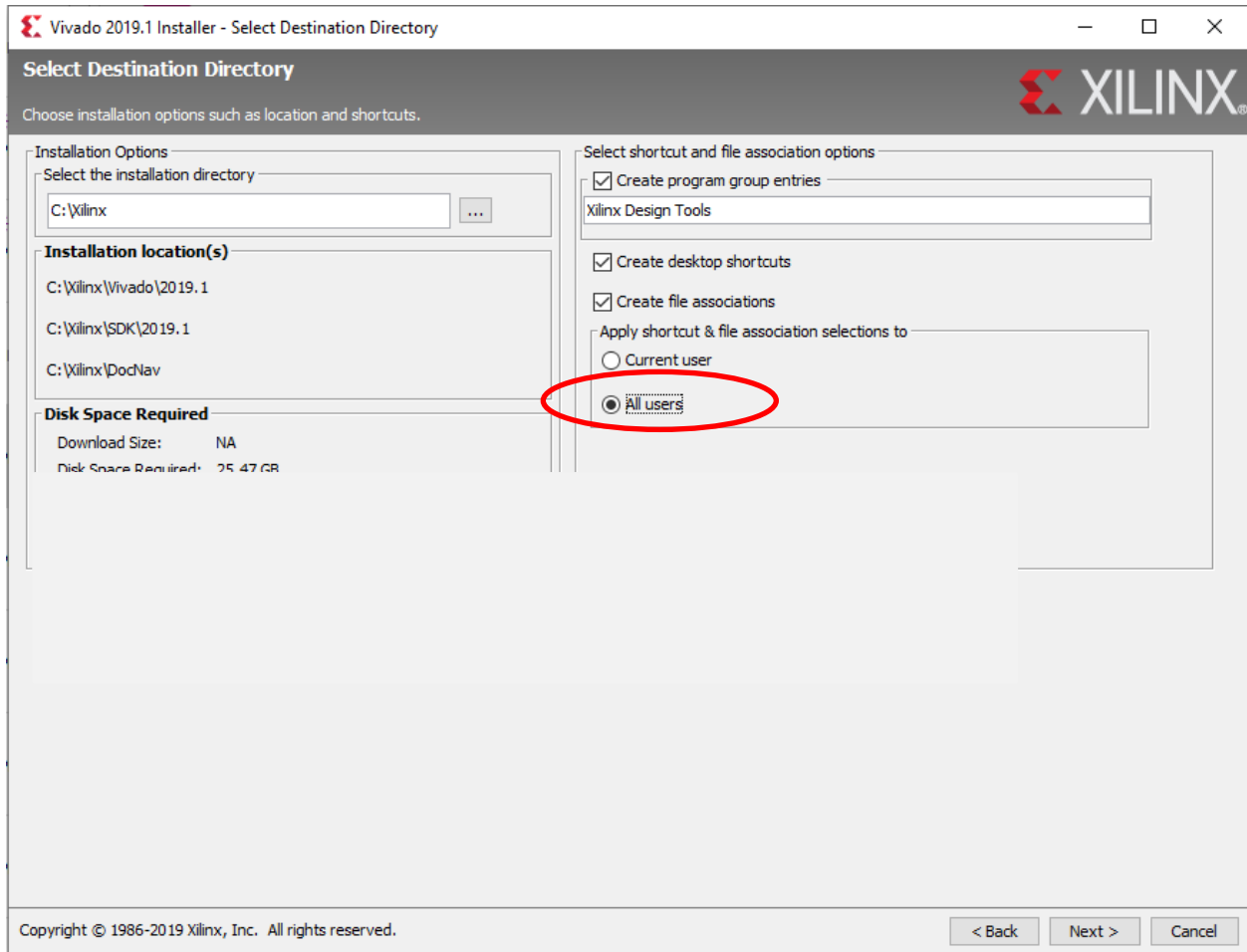Select the Vivado HL WebPACK Edition and click **Next**.

Notice that over 23 GB are required for the install! Following the directions below should reduce this significantly. Unfortunately, the required SDK adds another 8 GB…

- Check Software Development Kit (SDK) (For CSCE 436 will take an additional 8 GB)
- Uncheck all of the devices except the Artix-7.
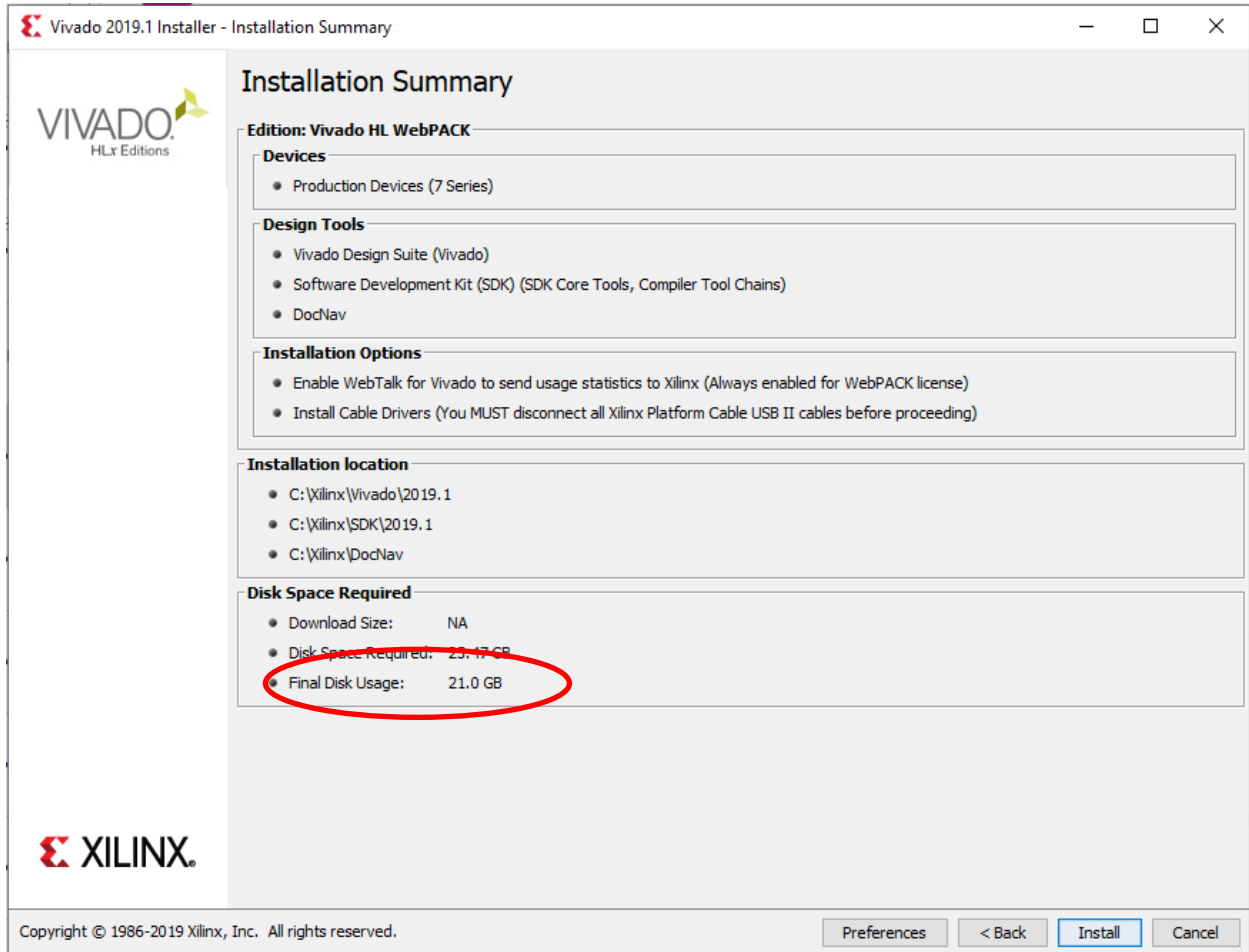- Verify the settings match the below picture
- Click Next

Select **"All users"** for the file associations and click **Next** (does not apply to Vivado upgrade)**.**

Verify that you are happy with the Installation Summary. It should be similar to the below picture.
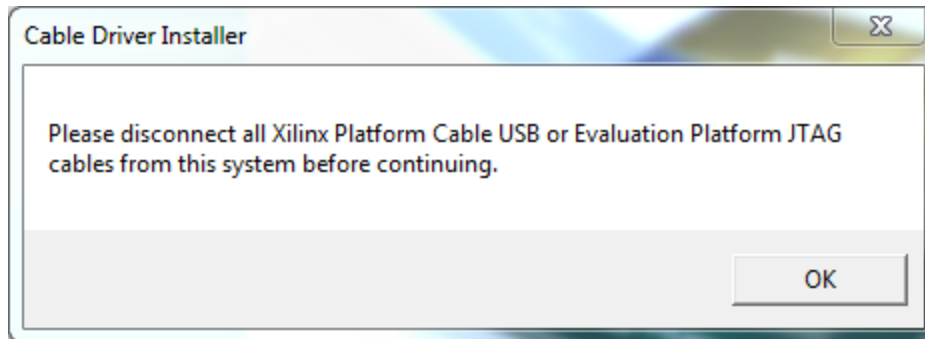
Double check that you actually have *at least* the amount of disk space required as indicated in the circled portion of the image below. Maintaining at least 15% free space on your hard drive is ideal.
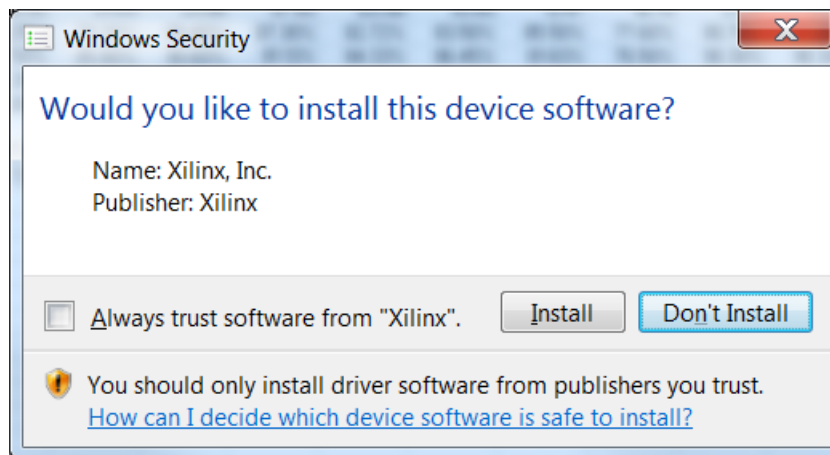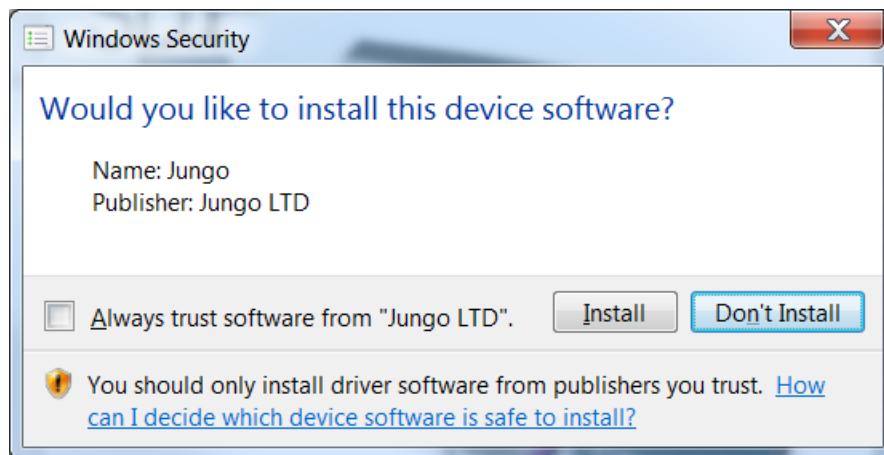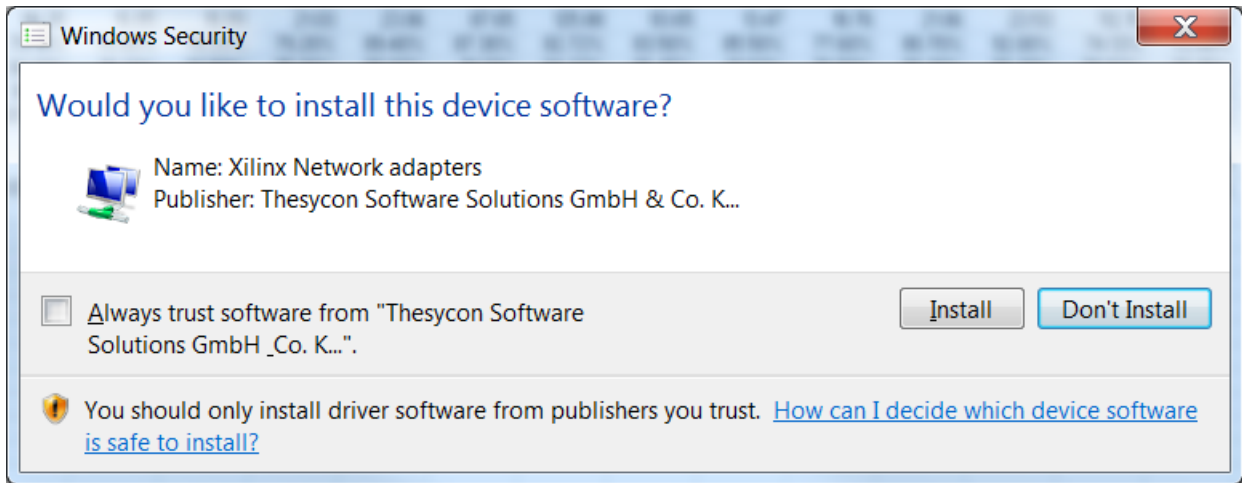
Click **Install**.

The install will take approximately 20 minutes on a good machine. If you are bored you can watch the adverts during the installation.

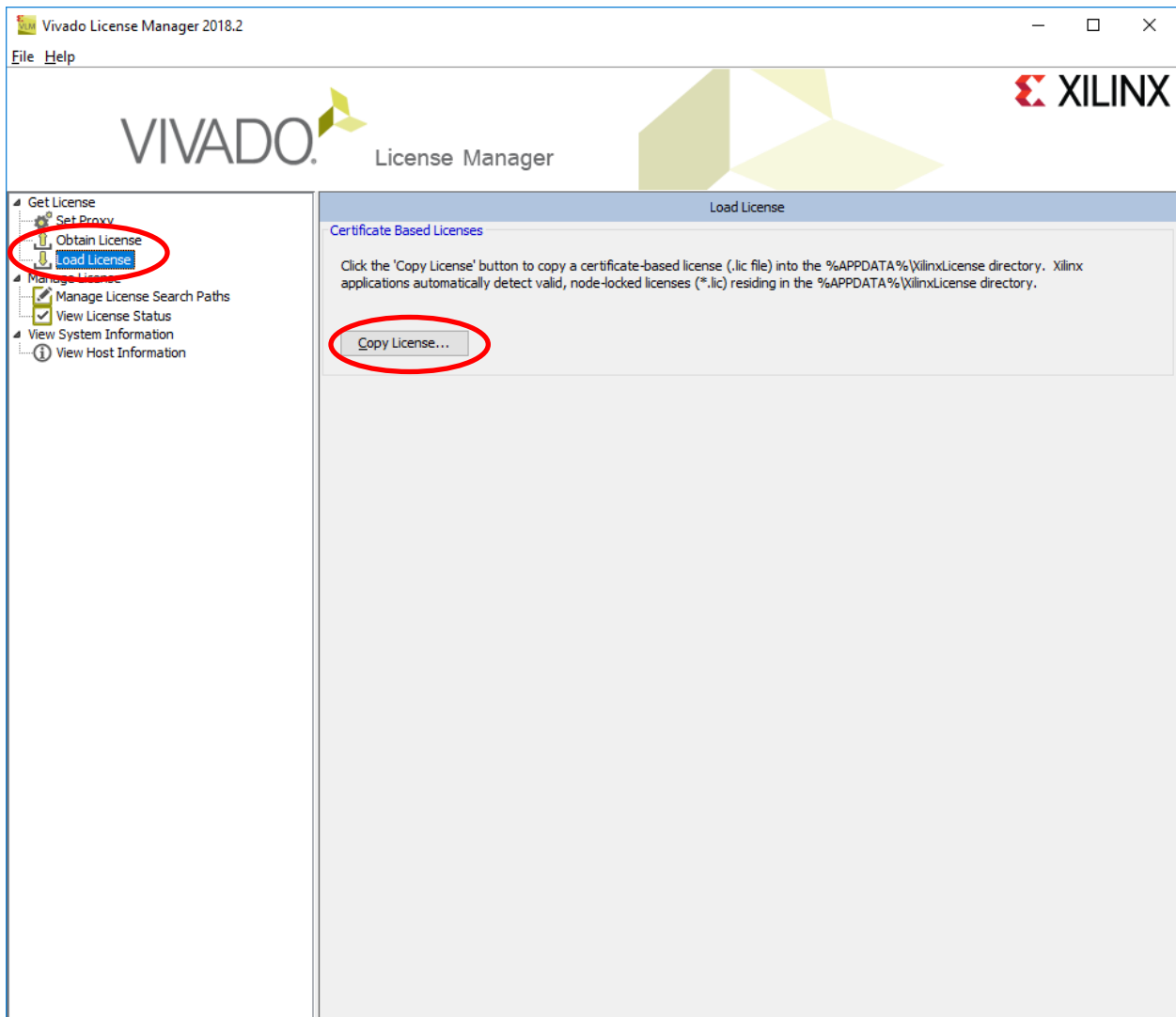**Click OK** that you do not have any cables connected to a FPGA

Cable Driver Installer

Please disconnect all Xilinx Platform Cable USB or Evaluation Platform JTAG cables from this system before continuing.

OK

You may see a series of device software popups. **Click Install** for each.

Windows Security

Would you like to install this device software?

    Name: Jungo
    Publisher: Jungo LTD

☐ Always trust software from "Jungo LTD".   Install   Don't Install

🛡 You should only install driver software from publishers you trust. How can I decide which device software is safe to install?

Windows Security

Would you like to install this device software?

    Name: Xilinx, Inc.
    Publisher: Xilinx

☐ Always trust software from "Xilinx".   Install   Don't Install

🛡 You should only install driver software from publishers you trust. How can I decide which device software is safe to install?

Hopefully you will get a success message that you can click away, and the Vivado license manager should pop up.

Navigate to and select the **Xilinx.lic** file on the provided on Canvas unless you are using your own webpack license. You can then close the License Manager.

CONGRATULATIONS! You have just installed a licensed version of Xilinx Vivado.

You can run it by clicking on the icon that looks like

BOARD SUPPORT FILES INSTALLATION

Unzip a copy of vivado-boards-master.zip from a provided external hard drive (or download a new copy from GitHub.

Navigate within the unzipped folder to vivado-boards-master\new\board_files\ and copy the required (or all) of the folders into your Vivado board_files folder at a path similar to:
C:\Xilinx\Vivado\2019.1\data\boards\board_files\

Restart Vivado if it was open.

For a more in depth tutorial, see https://reference.digilentinc.com/reference/software/vivado/board-files.