How to Install Vivado on Linux

Innova Lee(이상훈) gcccompil3r@gmail.com



Applications

Products

Developer Zone

Support

About

Q

https://www.xilinx.com/support/download.html

위의 링크로 이동한다.

여기서 All OS Installer 를 선택하면 로그인 하라는 화면이 나타난다.

아이디가 있다면 로그인 하고 없다면 신규 가입한다.

Vivado Design Suite - HLx Editions - 2017.4 Full Product Installation

Important

We strongly recommend to use the web installers as it reduces download time and saves significant disk space.

for details.

Please see Installer Information

♣ Vivado HLx 2017.4: WebPACK and Editions - Windows Self Extracting Web Installer (EXE - 51.3 MB) MD5 SUM Value:

39677d35779915411487e5d89fe27ee8

♣ Vivado HLx 2017.4: WebPACK and Editions - Linux Self Extracting Web Installer (BIN - 100.7 MB)

MD5 SUM Value:

915928e0f33af22f1370acc6ac32c2b5

♣ Vivado HLx 2017.4: All OS installer Single-File Download (TAR/GZIP - 16.17 GB) MD5 SUM Value: 5a1bb63f893f0039e34c9f412dd063a9

Download Includes

Last Updated

Vivado Design Suite HLx Editions (All Editions)

Download Type

Full Product Installation Dec 20, 2017

Answers

2017.x - Vivado Known Issues 2017.4 - Release

Documentation

Notes

Enablement

License Solution Center



Applications

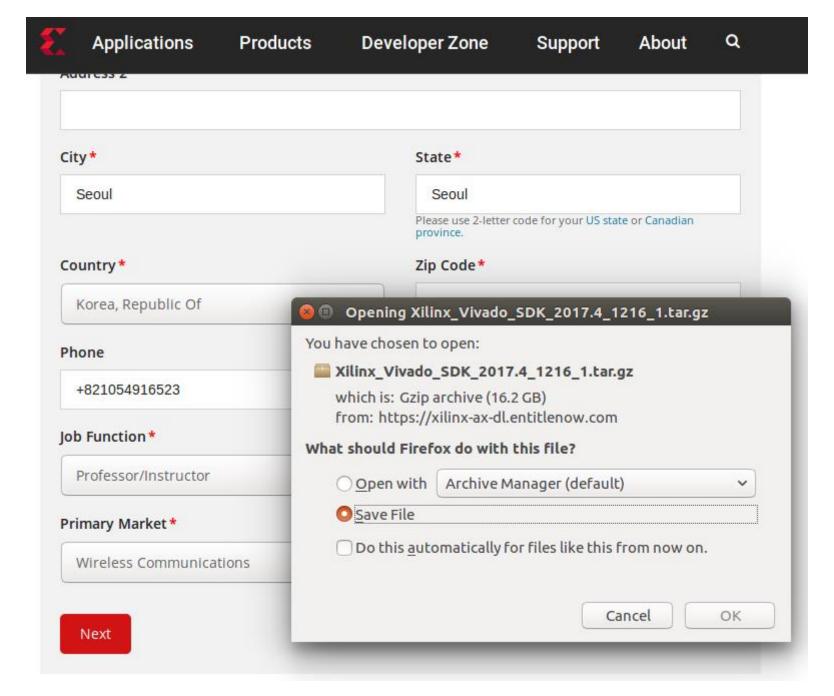
Download Center - Name and Address Verification

U.S. Government Export Approval

 U.S. export regulations require that your First Name, Last Name, Company Name and Shipping Address be verified before Xilinx can fulfill your download request. <u>Please</u> <u>provide accurate and complete information.</u>

· Addresses with Post Office Boxes and names/addresses with Non-Roman Characters with accents such as grave, tilde or colon are not supported by US export compliance systems. First Name* Last Name* Sanghoon Lee Corporate E-mail* gcccompil3r@gmail.com Company Name* Bit Camp Address 1* 175 Jagok-ro Gangnam-gu Seoul Korea Address 2 City* State* Secul

프로그램 다운로드를 위해 간단하게 신상 명세를 적게 된다.



프로그램 다운로드가 완료되면 아래와 같이 명령어를 입력하도록 한다.

```
sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado

sdr@sdr-Samsung-DeskTop-System: ~$ mkdir xilinx_vivado

sdr@sdr-Samsung-DeskTop-System: ~$ cd xilinx_vivado/

sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado$ mv ~/Downloads/Xilinx_Vivado_SDK

_2017.4_1216_1.tar.gz ./

sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado$ ls

Xilinx_Vivado_SDK_2017.4_1216_1.tar.gz

sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado$
```

그리고 압축 프로그램을 풀도록 한다.

```
sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado$ tar zxvf Xilinx_Vivado_SDK_2017. 4_1216_1.tar.gz
```

sdr@sdr-Samsung-Desk lop-System: ~/xilinx_vivado Xilinx Vivado SDK 2017.4 1216 1/tps/win64/ucrtbase.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/api-ms-win-crt-utility-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/xvcredist.exe Xilinx Vivado SDK 2017.4 1216 1/tps/win64/vcruntime140.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/api-ms-win-core-console-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/api-ms-win-core-processenvironment-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/api-ms-win-core-profile-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/vccorlib140.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/api-ms-win-crt-environment-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/api-ms-win-core-errorhandling-l1-1-0.d u Xilinx Vivado SDK 2017.4 1216 1/tps/win64/api-ms-win-core-memory-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/api-ms-win-crt-runtime-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/tps/win64/vcredist x64.exe Xilinx Vivado SDK 2017.4 1216 1/api-ms-win-core-processenvironment-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/api-ms-win-core-profile-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/vccorlib140.dll Xilinx Vivado SDK 2017.4 1216 1/xsetup.exe Xilinx Vivado SDK 2017.4 1216 1/api-ms-win-crt-environment-l1-1-0.dll

Xilinx Vivado SDK 2017.4 1216 1/api-ms-win-core-errorhandling-l1-1-0.dll

Xilinx_Vivado_SDK_2017.4_1216_1/api-ms-win-core-memory-l1-1-0.dll Xilinx Vivado SDK 2017.4 1216 1/api-ms-win-crt-runtime-l1-1-0.dll

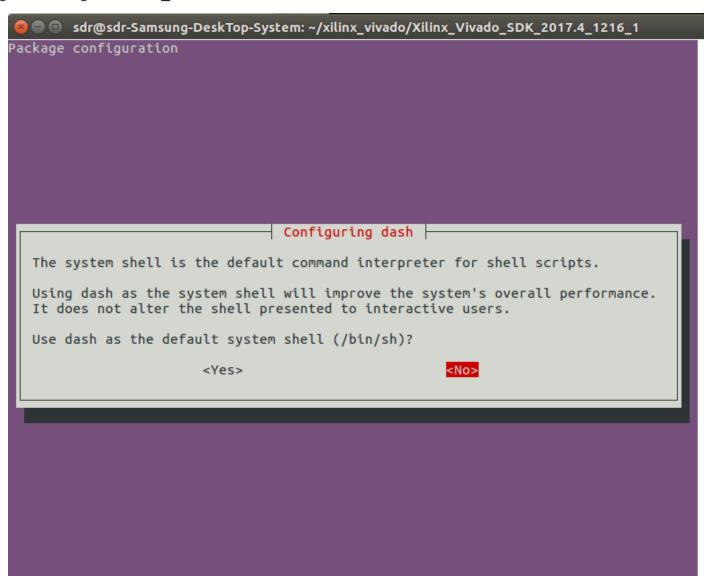
sdr@sdr-Samsung-DeskTop-System:~/xilinx vivado\$

압축 해제후 디렉토리에 들어가본다.

```
sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado/Xilinx_Vivado_SDK_2017.4_1216_1
sdr@sdr-Samsung-DeskTop-System:~/xilinx_vivado$ ls
Xilinx Vivado SDK 2017.4 1216 1 Xilinx Vivado SDK 2017.4 1216 1.tar.qz
sdr@sdr-Samsung-DeskTop-System:~/xilinx_vivado$ cd Xilinx Vivado SDK 2017.4 1216 1/
sdr@sdr-Samsung-DeskTop-System:~/xilinx_vivado/Xilinx_Vivado_SDK_2017.4_1216_1$ ls
api-ms-win-core-console-l1-1-0.dll
                                               api-ms-win-crt-environment-l1-1-0.dll
                                               api-ms-win-crt-filesystem-l1-1-0.dll
api-ms-win-core-datetime-l1-1-0.dll
api-ms-win-core-debug-l1-1-0.dll
                                               api-ms-win-crt-heap-l1-1-0.dll
api-ms-win-core-errorhandling-l1-1-0.dll
                                               api-ms-win-crt-locale-l1-1-0.dll
api-ms-win-core-file-l1-1-0.dll
                                               api-ms-win-crt-math-l1-1-0.dll
api-ms-win-core-file-l1-2-0.dll
                                               api-ms-win-crt-multibyte-l1-1-0.dll
api-ms-win-core-file-l2-1-0.dll
                                               api-ms-win-crt-private-l1-1-0.dll
api-ms-win-core-handle-l1-1-0.dll
                                               api-ms-win-crt-process-l1-1-0.dll
                                               api-ms-win-crt-runtime-l1-1-0.dll
api-ms-win-core-heap-l1-1-0.dll
api-ms-win-core-interlocked-l1-1-0.dll
                                               api-ms-win-crt-stdio-l1-1-0.dll
api-ms-win-core-libraryloader-l1-1-0.dll
                                               api-ms-win-crt-string-l1-1-0.dll
api-ms-win-core-localization-l1-2-0.dll
                                               api-ms-win-crt-time-l1-1-0.dll
api-ms-win-core-memory-l1-1-0.dll
                                               api-ms-win-crt-utility-l1-1-0.dll
api-ms-win-core-namedpipe-l1-1-0.dll
                                               bin
                                               concrt140.dll
api-ms-win-core-processenvironment-l1-1-0.dll
api-ms-win-core-processthreads-l1-1-0.dll
                                               data
api-ms-win-core-processthreads-l1-1-1.dll
                                               lib
api-ms-win-core-profile-l1-1-0.dll
                                               msvcp140.dll
api-ms-win-core-rtlsupport-l1-1-0.dll
                                               pavload
api-ms-win-core-string-l1-1-0.dll
                                               scripts
api-ms-win-core-synch-l1-1-0.dll
                                               tos
api-ms-win-core-synch-l1-2-0.dll
                                               ucrtbase.dll
api-ms-win-core-sysinfo-l1-1-0.dll
                                               vccorlib140.dll
api-ms-win-core-timezone-l1-1-0.dll
                                               vcruntime140.dll
api-ms-win-core-util-l1-1-0.dll
                                               xsetup
api-ms-win-crt-conio-l1-1-0.dll
                                               xsetup.exe
api-ms-win-crt-convert-l1-1-0.dll
sdr@sdr-Samsung-DeskTop-System:~/xilinx vivado/Xilinx Vivado SDK 2017.4 1216 1$
```

아래와 같이 명령어를 입력하고 No 를 선택한다..

sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado/Xilinx_Vivado_SDK_2017.4_1216_1
sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado/Xilinx_Vivado_SDK_2017.4_1216_1\$ sudo
dpkg-reconfigure dash



이제 설치를 하기 위해서 아래와 같은 명령어를 입력한다. 명령어 입력 이후 비밀번호를 입력하라고 하는데 비밀 번호를 입력한다. (비밀번호가 입력되는 티가 안나니까 그냥 입력 하면 된다 – 컴퓨터 멈춘거 아님)

sdr@sdr-Samsung-DeskTop-System: ~/xilinx_vivado/Xilinx_Vivado_SDK_2017.4_1216_1

sdr@sdr-Samsung-DeskTop-System:~/xilinx_vivado/Xilinx_Vivado_SDK_2017.4_1216_1\$ sudo ./xsetup

아래와 같은 로고가 나타날 것이다.











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 2017.4 are:

- Windows 7.1: 64-bit
- Windows 10.0 Creators Update: 64-bit
- Red Hat Enterprise Linux 6.6-6.9: 64-bit
- Red Hat Enterprise Linux 7.2-7.3: 64-bit
- CentOS Linux 6.6-6.9: 64-bit
- CentOS Linux 7.2-7.3: 64-bit
- SUSE Enterprise Linux 11.4: 64-bit
- SUSE Enterprise Linux 12.2: 64-bit
- Ubuntu Linux 16.04.2 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: 32-bit machine support is now only available through HW Server standalone product installers

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.





Accept License Agreements



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, YOU 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, YOU AGREE on behalf of licensee to be bound by the agreement, which can be viewed by <u>clicking here</u>.

✓ I Agree

Select Edition to Install



Select an edition to continue installation. You will be able to customize the content in the next page.

Vivado HL WebPACK

Vivado HL WebPACK is the no cost, device limited version of Vivado HL Design Edition. Users can optionally add Model Composer and System Generator for DSP to this installation.

> 고가 장비를 구해서 라이센스를 가지고 있지 않는 이상 Vivado HL WebPACK 을 선택하도록 한다.

Vivado HL Design Edition

Vivado HL Design Edition includes the full complement of Vivado Design Suite tools for design, including C-based design with Vivado High-Level Synthesis, implementation, verification and device programming. Complete device support, cable drivers and Documentation Navigator are included. Users can optionally add Model Composer to this installation.

Vivado HL System Edition

Vivado HL System Edition is a superset of Vivado HL Design Edition with the addition of System Generator for DSP. Complete device support, cable drivers and Documentation Navigator are included. Users can optionally add Model Composer to this installation.

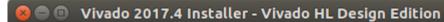
Documentation Navigator (Standalone)

Xilinx Documentation Navigator (DocNav) provides access to Xilinx technical documentation both on the Web and on the Desktop. This is a standalone installation without Vivado Design Suite.

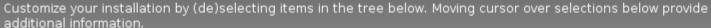
Copyright @ 1986-2018 Xilinx, Inc. All rights reserved.

Next >

Cancel



Vivado HL Design Edition





Vivado HL Design Edition includes the full complement of Vivado Design Suite tools for design, including C-based design with Vivado High-Level Synthesis, implementation, verification and device programming. Complete device support, cable drivers and Documentation Navigator are included. Users can optionally add Model Composer to this installation.

Vivado Design Suite Software Development Kit (SDK) DocNav Vices Production Devices Your Social Production Devices Production Devices Your Social Production Devices Your Social Production Devices Your Social Production Devices Your Production Devices Your Production Devices Your Production Devices Your Production Productin	cable drivers
d Size: NA	Reset to Defaults
ev s	DocNav evices Production Devices SoCs V SoCs V J Series V UltraScale V UltraScale+ Engineering Sample Devices Kintex UltraScale+ ES Virtex UltraScale+ ES Virtex UltraScale+ ES Virtex UltraScale+ ES Virtex UltraScale+ ES Nortex UltraScale ES Virtex UltraScale ES Nortex UltraScale ES Virtex U

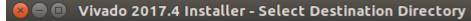
Copyright @ 1986-2018 Xilinx, Inc. All rights reserved.

Disk Space Required: 41.2 GB

< Back

Next >

<u>C</u>ancel



Select Destination Directory

Choose installation options such as location and shortcuts.



Installation Options	Select shortcut and file association options
Select the installation directory	r ✓ Create program group entries
/opt/Xilinx	Xilinx Design Tools
Installation location(s)	✓ Create desktop shortcuts
/opt/Xilinx/Vivado/2017.4	
/opt/Xilinx/Model_Composer/2017.4	
/opt/Xilinx/SDK/2017.4	
/opt/Xilinx/DocNav	
Disk Space Required	
Download Size: NA	
Disk Space Required: 41.2 GB	
Disk Space Available: 827.69 GB	







Installation Summary

Edition: Vivado HL Design Edition

Devices

- Production Devices (SoCs, 7 Series, UltraScale, UltraScale+)
- Engineering Sample Devices (Zynq UltraScale+ MPSoC ES, Zynq UltraScale+ RFSoC ES)

Design Tools

- Vivado Design Suite (Vivado, Model Composer)
- · Software Development Kit (SDK) (SDK Core Tools, Compiler Tool Chains)
- DocNav

Installation Options

- Enable WebTalk for SDK to send usage statistics to Xilinx
- Enable WebTalk for Vivado to send usage statistics to Xilinx (Always enabled for WebPACK license)
- Acquire or Manage a License Key

Installation location

- /opt/Xilinx/Vivado/2017.4
- /opt/Xilinx/Model_Composer/2017.4
- /opt/Xilinx/SDK/2017.4
- /opt/Xilinx/DocNav

Disk Space Required

- Download Size: NΑ
- Disk Space Required: 41.2 GB



Installation Progress



Installing files, 0% completed.

Final Processing...

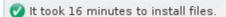
시간이 걸린다. 티 타임을 가지며 주변 사람들과 수다를 떨어보자 ~



SDx Family of Development Environments for Systems and Software Engineers

Installation Progress









SDx Family of Development Environments for Systems and Software Engineers





License Manager

- Get License
 - Set Proxy
 - ① Obtain License
 - 🎝 Load License
- Manage License
- 🌠 Manage License Search Paths
- ✓ View License Status
- View System Information
- ① View Host Information

Obtain License

Select one of the following options

- Start Now! 30 Day Trial (No Bitstream, No Support for SDx: SDAccel, SDSoc)
- Get Vivado or IP Evaluation Licenses
- Get Free ISE WebPACK, ISE/Vivado IP or PetaLinux Licenses
- Get My Full or Purchased Certificate-Based License

Connect Now

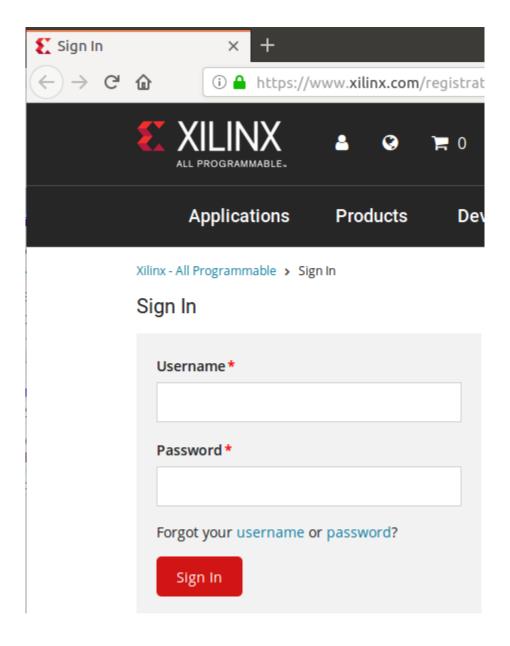
Save Link As...

Description of the above selected option

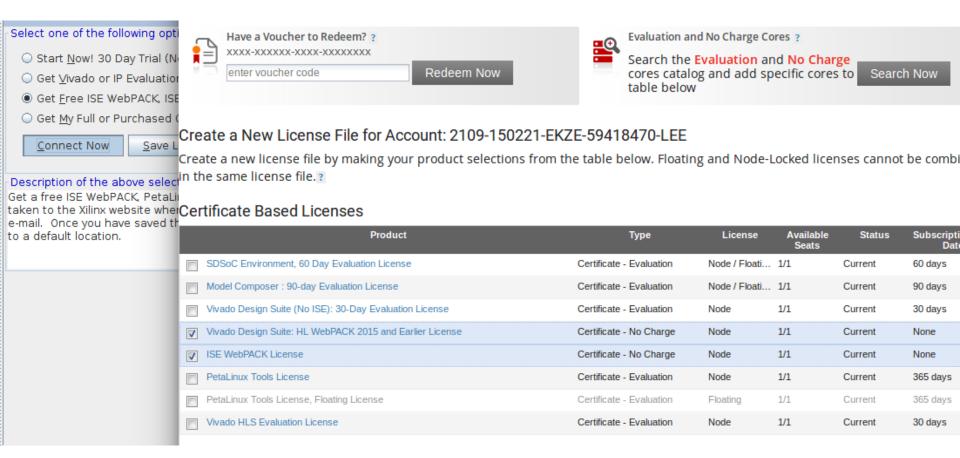
This selection will help you get your full or purchased Certificate-based licenses and start using the Xilinx tools. All purchased IP use Certificate-based licenses as do Xilinx tools, if purchased after April 2016. You will be taken to the Xilinx website where, if you have full or purchased licenses, you will see an account drop-down menu. In the appropriate license account, you can generate a license for all Xilinx software and IP you have purchased. After generation, the license file is sent to your e-mail. Once you have saved this file to your machine, click on the Load License selection to copy your .lic file to a default location.

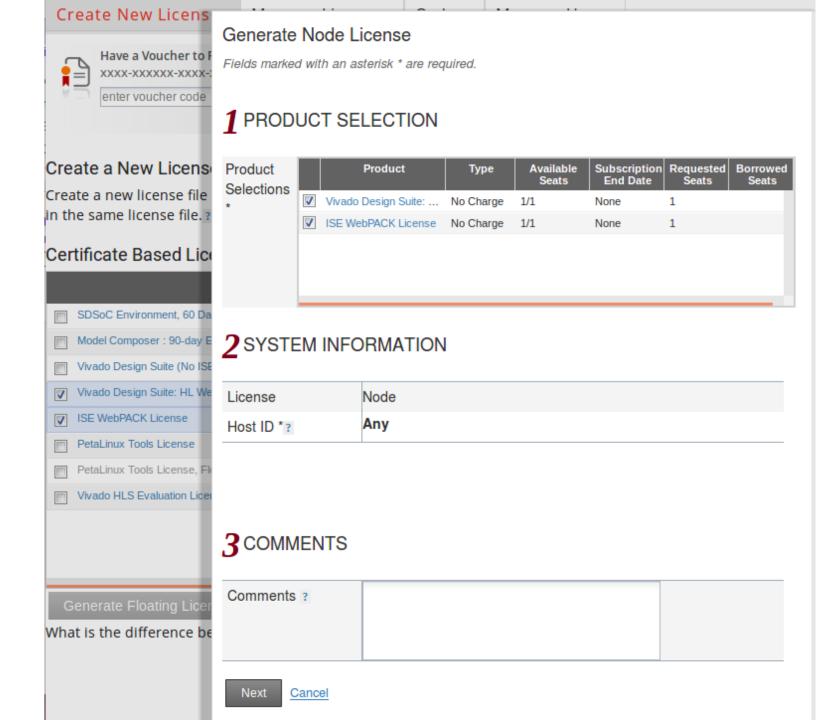
기존 라이센스를 가지고 있는 사람은 이 옵션을 선택한다. 무료 라이센스를 사용하고자 할 경우엔 Get Free ISE WebPACK, ISE/Vivado IP or PetaLinux Licenses 를 누른다.

이번에도 로그인이 필요하다.



무료 라이센스는 아래와 같이 선택하도록 한다. PetaLinux 부분은 다른 부분에서 다루겠다. 아래쪽의 Generate 를 누르면 된다.





Generate Node License

4 REVIEW LICENSE REQUEST

Product Selections

	Product	Subscription End Date	Available Seats	Requested Seats
Vivado Design Suite: F	IL WebPACK 2015 and Earlier Li		1/1	1
ISE WebPACK License	2		1/1	1
System Information				
System Information License	Node			

Note: WebTalk is always enabled for WebPACK users. WebTalk ignores user and install preference when a bitstream is generated using the WebPACK license. If a design is using a device contained in WebPACK and a WebPACK license is available, the WebPACK license will always be used. To get additional information on WebTalk, go to www.xilinx.com/webtalk.

Previous Next <u>Cancel</u>

×

Congratulations

Your new license file has been successfully generated and e-mailed to gcccompil3r@gmail.com. You can also view the license file under the Manage Licenses tab.

Please add this sender (xilinx.notification@entitlenow.com) to your address book.

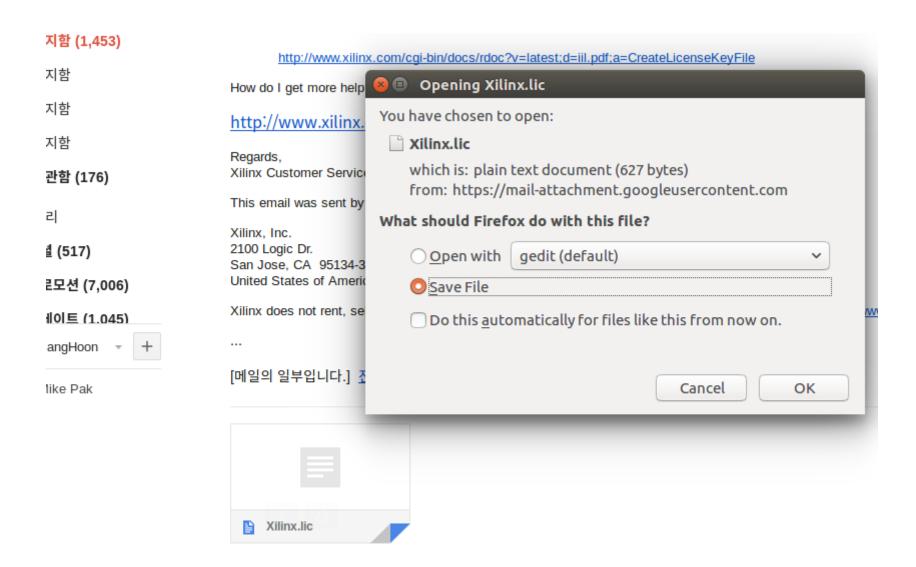
License File Details

Node License Host ID: ANY

Products

Vivado Design Suite: HL WebPACK 2015 and Earlier License (No Charge): 1 seats ISE WebPACK License (No Charge): 1 seats

메일로 날아온 라이센스를 저장한다.

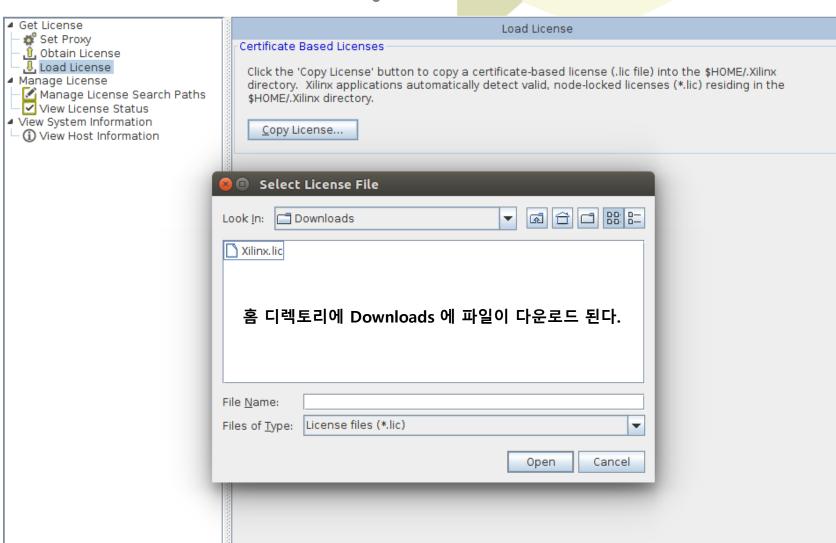


<u>F</u>ile <u>H</u>elp

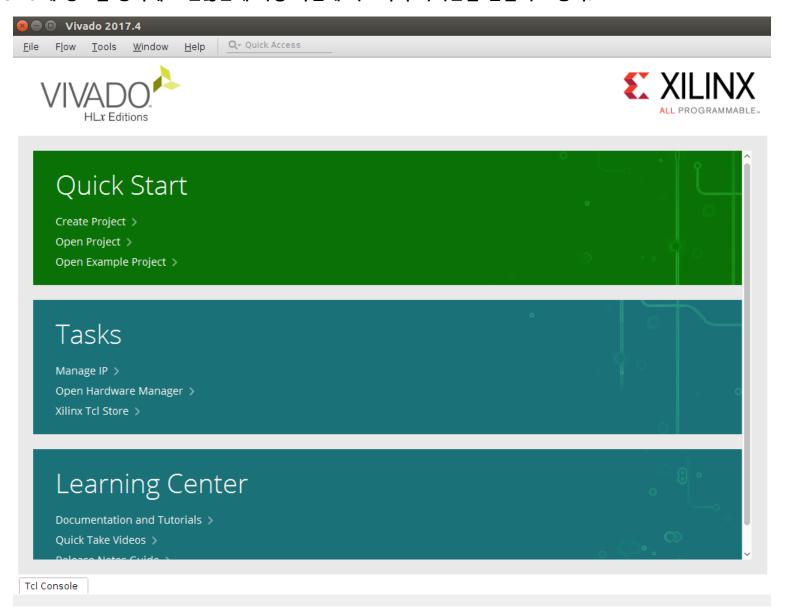




License Manager



터미널 창에서 /opt/Xilinx/Vivado/2017.4/bin/vivado 를 입력하면 아래와 같이 실행되는 것을 볼 수 있다. 문제는 너무 불편하다는 것이다(경로명도 길고 말이다) bashrc 에 경로를 등록해도 괜찮은데 바탕 화면에 바로가기 아이콘을 만들어도 좋다.

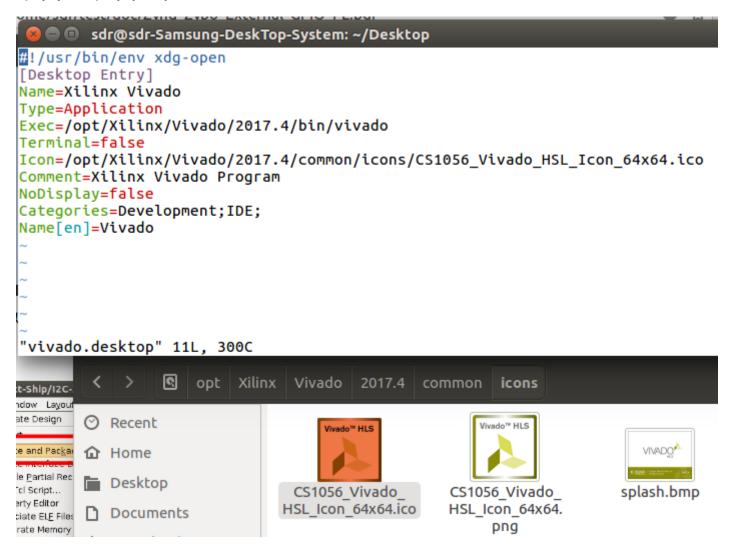


홈 디렉토리에 Desktop 디렉토리가 바탕화면에 해당한다.

```
sdr@sdr-Samsung-DeskTop-System: ~/Desktop

sdr@sdr-Samsung-DeskTop-System: ~/Desktop$ cd ~/Desktop/
sdr@sdr-Samsung-DeskTop-System: ~/Desktop$ vi vivado.desktop
```

그리고 아래와 같이 기록한다.

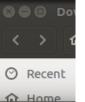


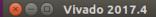
바탕화면에 생성된 아이콘을 우클릭하고 Property(속성)으로 가서 아래와 같이 Execute 부분의 체크 박스에 체크를 해주도록 한다.





이와 같이 바탕 화면의 아이콘을 더블클릭하여 실행할 수도 있게 된다. 이 녀석을 우측 탭으로 '끌당' 하면 탭을 눌러 자동화할 수도 있다.





File

F<u>l</u>ow <u>T</u>ools

<u>W</u>indow

<u>H</u>elp

Q → Quick Access





Quick Start

Create Project >

Open Project >

Open Example Project >

Tasks

Manage IP >

ow us Open Hardware Manager >

Xilinx Tcl Store >

Learning Center

Documentation and Tutorials >

Quick Take Videos >

Deleges Notes Culde