

Windows WSL 2 설치

2022. 7. 12

정 준 수 PhD

PC(Local) 환경구축: WSL

윈도우 환경에서 원하는 Linux를 실행

1. 관리자 권한으로 명령 프롬프트(CMD) 실행
2. <https://docs.microsoft.com/ko-kr/windows/wsl/tutorials/gui-apps>
3. C> Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-windows-Subsystem-Linux
4. 또는 <https://ivyit.tistory.com/264>
5. Microsoft Store 열기
6. Ubuntu 또는 **Debian** 선택

<https://docs.microsoft.com/ko-kr/windows/wsl/install>

<https://docs.microsoft.com/ko-kr/windows/wsl/install-manual#step-4---download-the-linux-kernel-update-package>

프로그램 및 기능



« 프로그램 > 프로그램 및 기능

제어판 홈

설치된 업데이트 보기



Windows 기능 켜기/끄기

프로그램 제거 또는 변경

프로그램을 제거하려면 목록에서 선택한 후 [제거], [변경] 또는 [복구]를 클릭하십시오.

구성 ▾

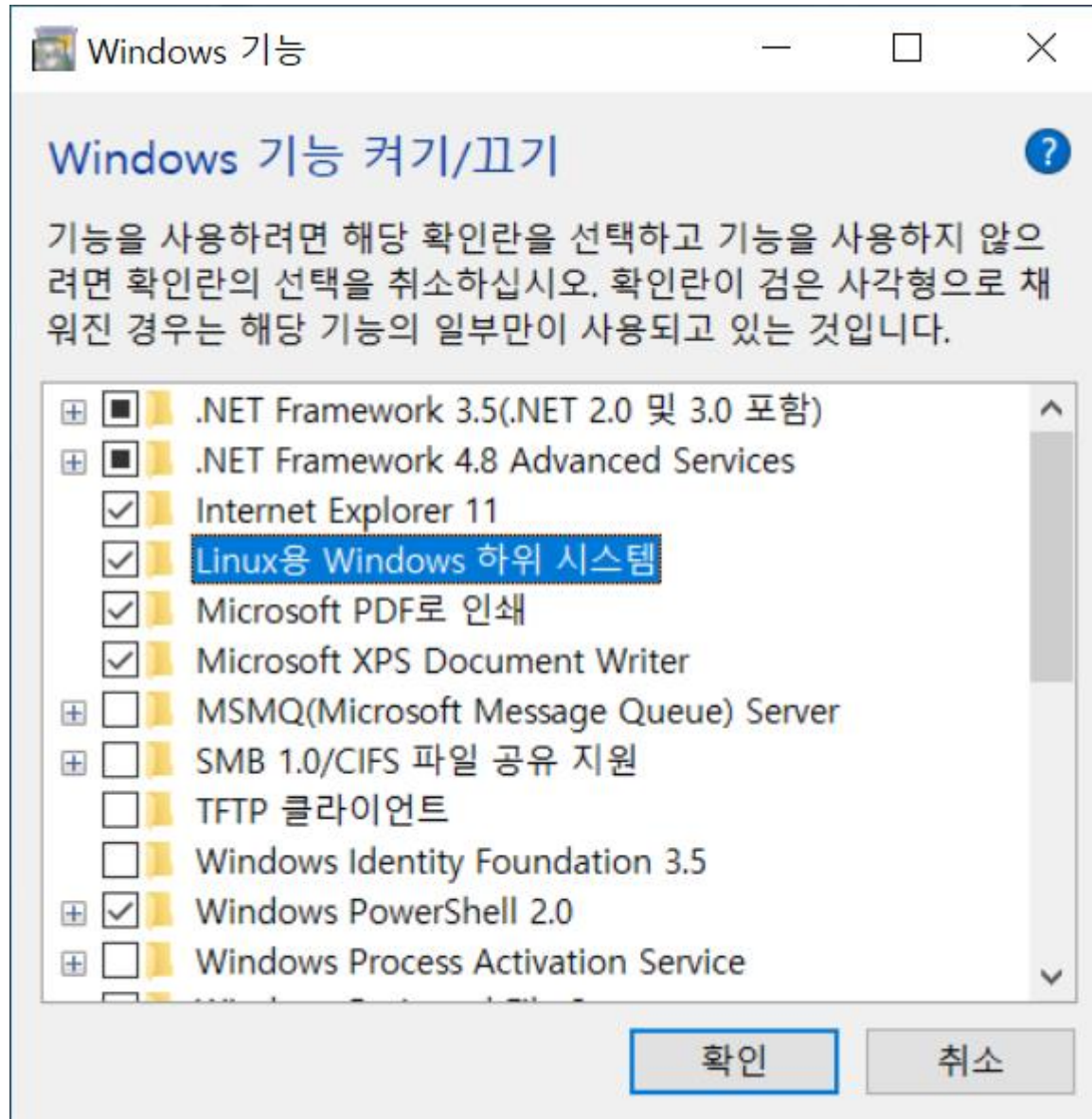
이름	게시자	설치 날짜	크기	버전
AhnLab Online Security	AhnLab, Inc	2022-02-24		
AhnLab Safe Transaction	AhnLab, Inc.	2022-02-23		1.5.1.1581
Anaconda3 2021.11 (Python 3.9.7 64-bit)	Anaconda, Inc.	2022-02-12		2021.11
Brave	Brave Software Inc	2022-07-06		103.1.40.113
Chrome	Google LLC	2022-07-05		103.0.5060.114
Cisco Webex Meetings	Cisco Webex LLC	2022-03-18	296MB	42.3.1
CREON		2022-02-24		
Delfino G3 (x86) 버전 3.6.8.4	Wizvera	2022-07-03	38.2MB	3.6.8.4
FileZilla Client 3.57.0	Tim Kosse	2022-02-01	40.9MB	3.57.0
iniLINE CrossEX Service	iniLINE Co., Ltd.	2022-07-03		1.0.2.9
INISAFE CrossWeb EX V3	Initech, Inc.	2022-03-08		3.3.2.26
IPinside Agent	interezen	2022-02-24		1.0.2.8
Java(TM) SE Development Kit 18 (64-bit)	Oracle Corporation	2022-03-27	292MB	18.0.0.0
Microsoft Edge	Microsoft Corporation	2022-07-08		103.0.1264.49
Microsoft Edge WebView2 런타임	Microsoft Corporation	2022-07-09		103.0.1264.49
Microsoft Teams	Microsoft Corporation	2022-02-28	118MB	1.5.00.4689



현재 설치된 프로그램

전체 크기: 7.04GB

41개의 프로그램이 설치되었습니다.



Google

docker - Google Sheets

Install Docker Desktop on Wind

+

docs.docker.com/desktop/windows/install/

🔖 ☆ ⚙️ 🗑️ 👤 ⋮

docker docs

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Docker Desktop

Overview

Mac

Windows

Install Docker Desktop for Windows

User manual

Logs and troubleshooting

Docker Desktop WSL 2 backend

Linux

Dashboard

Explore networking features

Dev Environments (Beta)

Extensions (Beta)

Extensions SDK (Beta)

Multi-arch support

Deploy on Kubernetes

Back up and restore data

FAQs

Get support

Give feedback

Release notes

Previous versions

Docker Engine

Docker Compose

Docker Hub

Docker subscription

Administration

📄 Edit this page

✓ Request docs changes

⚙️ ☒ 🌙

On this page:

System requirements

WSL 2 backend

Hyper-V backend and Windows containers

About Windows containers

Install Docker Desktop on Windows

Install interactively

Install from the command line

Start Docker Desktop

Quick Start Guide

Updates

Uninstall Docker Desktop

Where to go next

Install Docker Desktop on Windows

Estimated reading time: 10 minutes

📢 Update to the Docker Desktop terms

Commercial use of Docker Desktop in larger enterprises (more than 250 employees OR more than \$10 million USD in annual revenue) now requires a paid subscription.

Welcome to Docker Desktop for Windows. This page contains information about Docker Desktop for Windows system requirements, download URL, instructions to install and update Docker Desktop for Windows.

📄 Download Docker Desktop for Windows

Docker Desktop for Windows

For checksums, see [Release notes](#)

System requirements

Your Windows machine must meet the following requirements to successfully install Docker Desktop.

WSL 2 backend

Hyper-V backend and Windows containers

WSL 2 backend

- Windows 11 64-bit: Home or Pro version 21H2 or higher, or Enterprise or Education version 21H2 or higher.
- Windows 10 64-bit: Home or Pro 21H1 (build 19043) or higher, or Enterprise or Education 20H2 (build 19042) or higher.
- Enable the WSL 2 feature on Windows. For detailed instructions, refer to the [Microsoft documentation](#).
- The following hardware prerequisites are required to successfully run WSL 2 on Windows 10 or Windows 11:

Docker Desktop 1...exe

331/496MB, 9초 남음

모두 표시

✕



Installing Docker Desktop 4.10.1 (82475)



Configuration

☒ Add shortcut to desktop

Ok



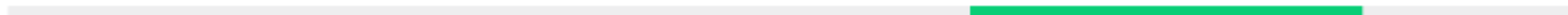
Installing Docker Desktop 4.10.1 (82475)



Docker Desktop 4.10.1

Unpacking files...

Unpacking file: resources/docker-desktop.iso
Unpacking file: resources/ddvp.ico
Unpacking file: resources/config-options.json
Unpacking file: resources/componentsVersion.json
Unpacking file: resources/bin/docker-compose
Unpacking file: resources/bin/docker
Unpacking file: resources/.gitignore
Unpacking file: InstallerCli.pdb
Unpacking file: InstallerCli.exe.config
Unpacking file: frontend/vk_swiftshader_icd.json
Unpacking file: frontend/v8_context_snapshot.bin
Unpacking file: frontend/snapshot_blob.bin
Unpacking file: frontend/resources/regedit/vbs/util.vbs
Unpacking file: frontend/resources/regedit/vbs/regUtil.vbs





Installing Docker Desktop 4.10.1 (82475)



Docker Desktop 4.10.1

Installation succeeded

Close





Containers



Images



Volumes

Dev Environments **BETA**

Extensions

BETA

Add Extensions



Docker Desktop - Install WSL 2 kernel update

**WSL 2 installation is incomplete.**

The WSL 2 Linux kernel is now installed using a separate MSI update package. Please click the link and follow the instructions to install the kernel update: <https://aka.ms/wsl2kernel>.

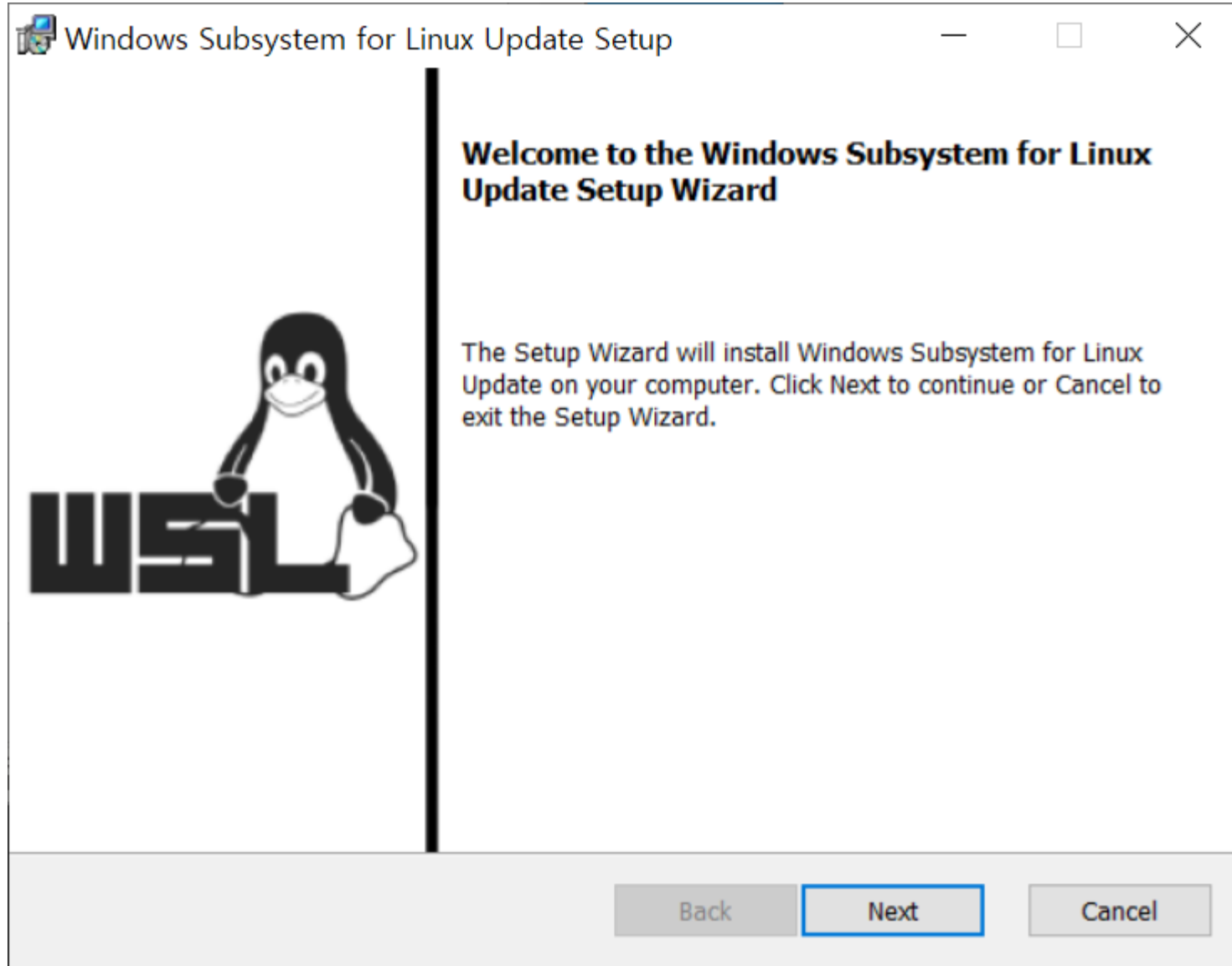
Press Restart after installing the Linux kernel.

Restart

Cancel

WSL 2 installation incomplete error 발생시 설치 Package

<https://docs.microsoft.com/ko-kr/windows/wsl/install-manual#step-4--download-the-linux-kernel-update-package>



C:\> 관리자: 명령 프롬프트

Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>wsl --set-default-version 2_

C:\ 관리자: 명령 프롬프트

Microsoft Windows [Version 10.0.19044.1766]

(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>wsl --set-default-version 2

WSL 2와의 주요 차이점에 대한 자세한 내용은 <https://aka.ms/wsl2>를 참조하세요
작업을 완료했습니다.

C:\Windows\system32>_

설치 가능한 리눅스 배포본은 "-l -o" 옵션으로 확인

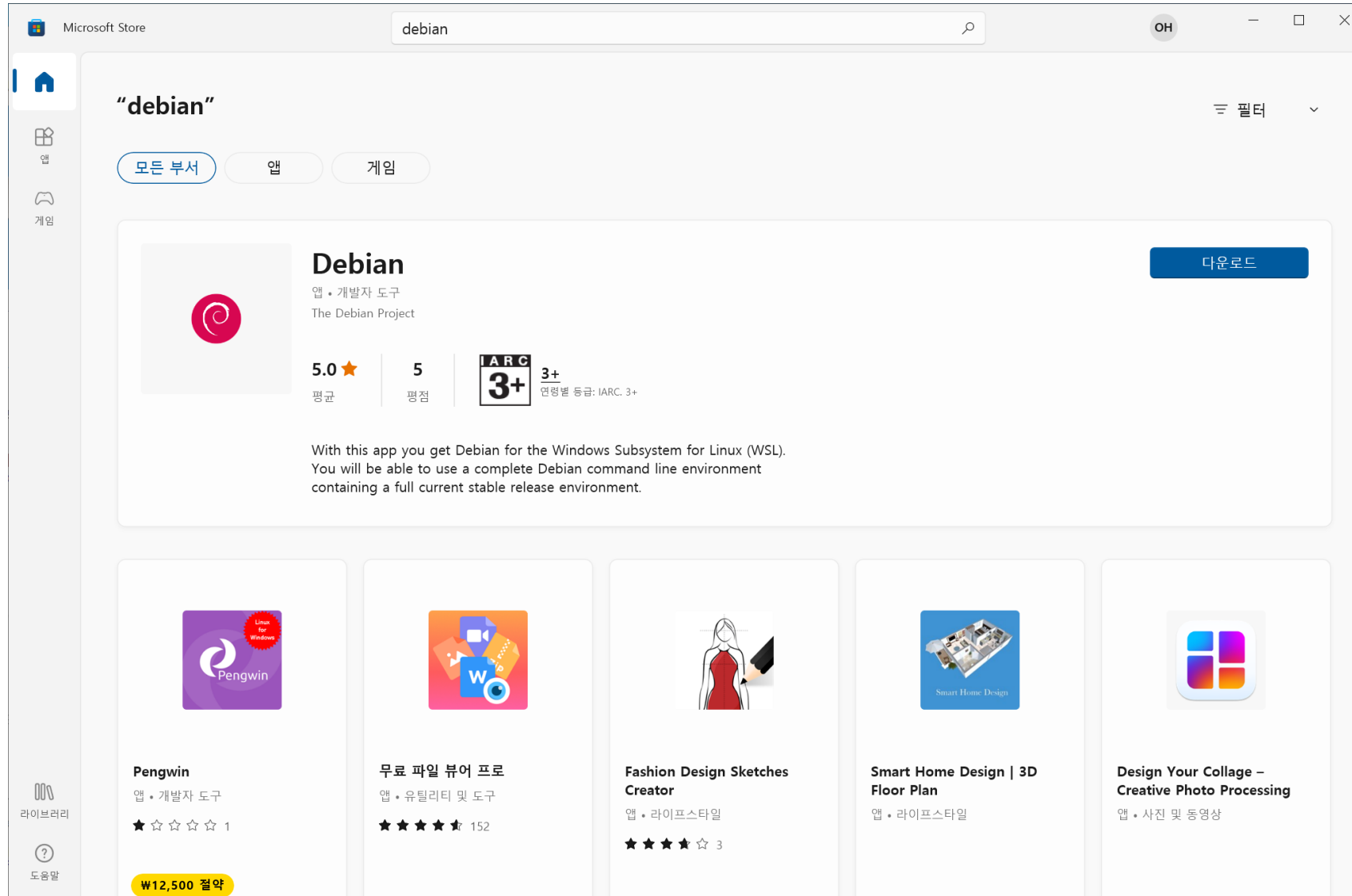
```
관리자: 명령 프롬프트
Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>wsl -l -o
다음은 설치할 수 있는 유효한 배포 목록입니다.
'wsl --install -d <배포>'를 사용하여 설치하세요.

NAME                FRIENDLY NAME
Ubuntu              Ubuntu
Debian              Debian GNU/Linux
kali-linux          Kali Linux Rolling
openSUSE-42         openSUSE Leap 42
SLES-12             SUSE Linux Enterprise Server v12
Ubuntu-16.04        Ubuntu 16.04 LTS
Ubuntu-18.04        Ubuntu 18.04 LTS
Ubuntu-20.04        Ubuntu 20.04 LTS

C:\Windows\system32>
```

Microsoft Store에서: Linux 선택



←

ubuntu

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앱

게임

20.04 LTS

Ubuntu 20.04.4 LTS

Canonical Group Limited

4.6

★

10

평점

IARC

3+

3+

연령별 등급: IARC: 3+

80.53MB/494.6MB 다운로드...

Install a complete Ubuntu terminal environment in minutes with Windows Subsystem for Linux (WSL)....

개발자 도구

🔗

스크린샷

WSL

ubuntu

Best match

Ubuntu

App

Search the web

Ubuntu - Linux Distribution

Apps

Ubuntu 20.04 LTS

WSLView (Ubuntu-Connect)

WSLView (Ubuntu Preview)

Language Support (Ubuntu)

Bus Preferences (Ubuntu)

Command

ubuntu

Documents (9+)

Folders (6+)

설명

Install a complete Ubuntu terminal environment in minutes with Windows Subsystem for Linux (WSL). Develop cross-platform applications, improve your data science or web development workflows and manage IT infrastructure without leaving Windows.

Key features:

- Efficient command line utilities including bash, ssh, git, apt, npm, pip and many more
- Manage Docker containers with improved performance and startup times
- Leverage GPU acceleration for AI/ML workloads with NVIDIA CUDA
- A consistent development to deployment workflow when using Ubuntu in the cloud

라이브러리

?

도움말

17

Installing, this may take a few minutes...
Please create a default UNIX user account. The username does not need to match your Windows username.
For more information visit: <https://aka.ms/wslusers>
Enter new UNIX username: admin

UNIX username: me

passwd: diana

\$ sudo passwd root

diana

<https://positivemh.tistory.com/583>

```
me@DESKTOP-HAAIOJO: ~  
Retype new password:  
passwd: password updated successfully  
Installation successful!  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.10.16.3-microsoft-standard-WSL2 x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:        https://ubuntu.com/advantage  
  
System information as of Sat Jul  9 14:52:19 KST 2022  
  
System load:  0.06      Processes:            8  
Usage of /:   0.5% of 250.98GB  Users logged in:     0  
Memory usage: 0%      IPv4 address for eth0: 172.30.199.88  
Swap usage:   0%  
  
1 update can be applied immediately.  
To see these additional updates run: apt list --upgradable  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
  
This message is shown once a day. To disable it please create the  
/home/me/.hushlogin file.  
me@DESKTOP-HAAIOJO: ~$
```

C:\> 관리자: 명령 프롬프트

Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>wsl --set-default-version 2_

C:\ 관리자: 명령 프롬프트

Microsoft Windows [Version 10.0.19044.1766]

(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>wsl --set-default-version 2

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작업을 완료했습니다.

C:\Windows\system32>_



앱



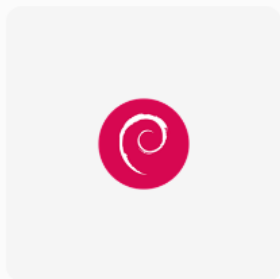
게임



라이브러리



도움말



Debian

[The Debian Project](#)

설치

5.0 ★

평균

5

평점

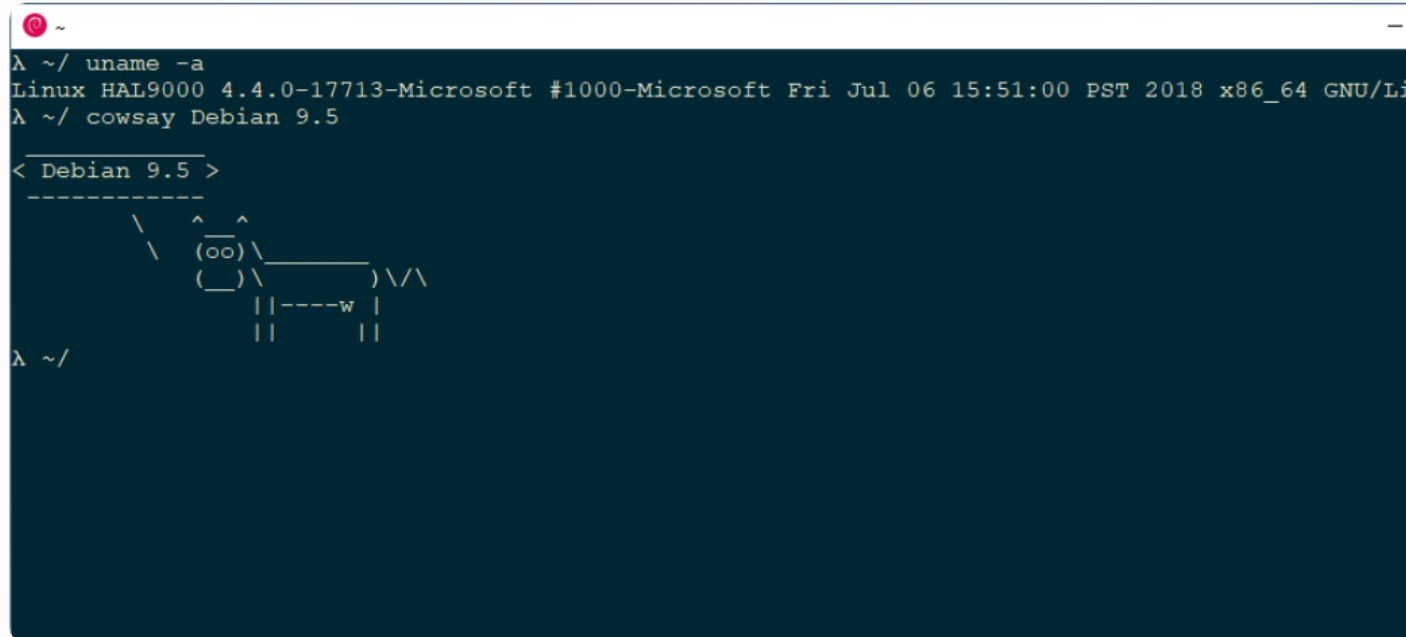


3+

연령별 등급: IARC. 3+



스크린샷



설명

With this app you get Debian for the Windows Subsystem for Linux (WSL).

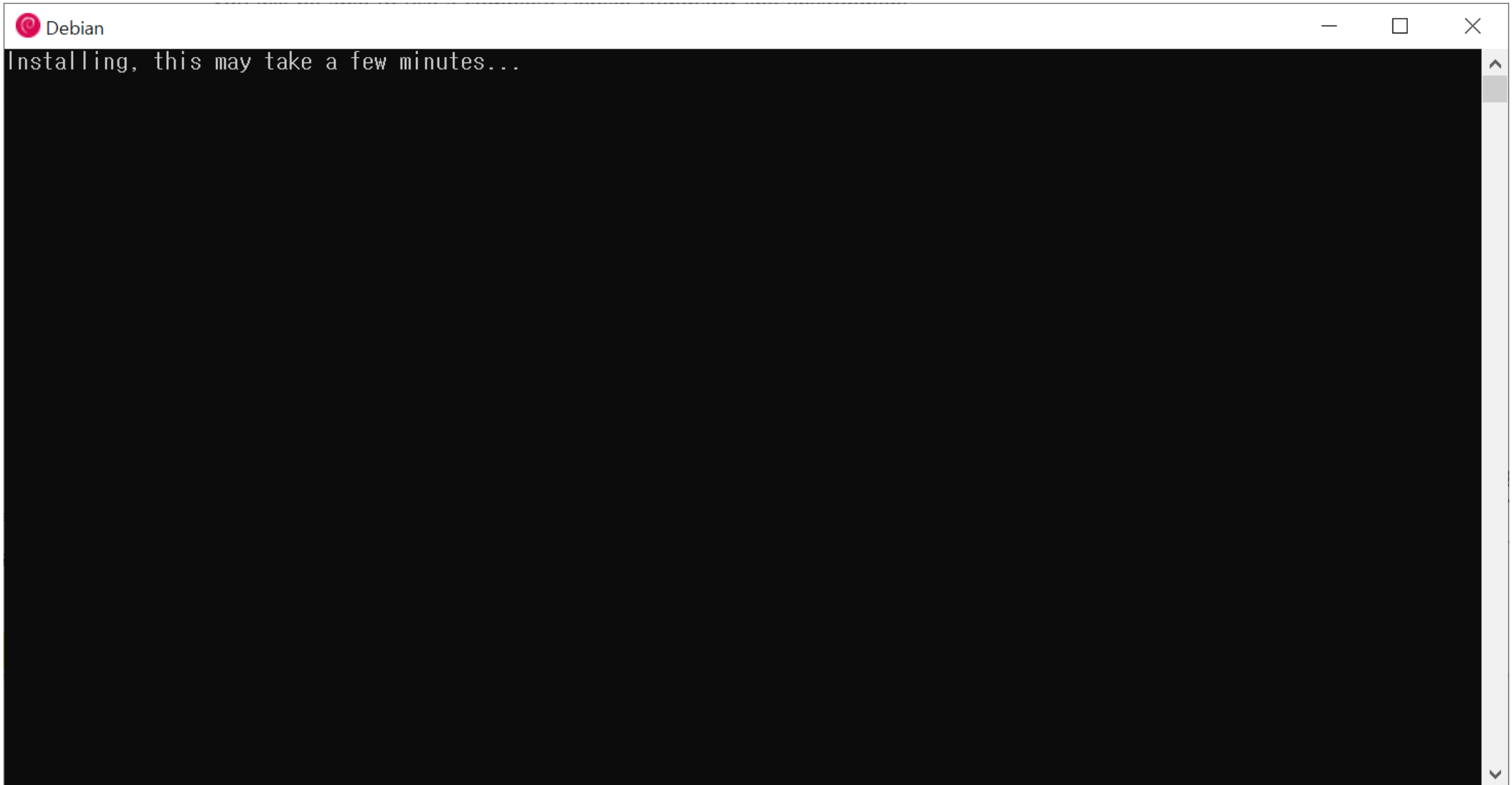
You will be able to use a complete Debian command line environment containing a full current stable release environment.

If this is your first WSL app you might have to enable WSL first (or contact your device administrator to do so).

<https://docs.microsoft.com/en-us/windows/wsl/install>

After the installation you can start the WSL console by either clicking the "Debian" tile in the start

Debian 설치 과정



Debian 설치 과정

```
oakyo@DESKTOP-HAAIOJO: ~  
Installing, this may take a few minutes...  
Please create a default UNIX user account. The username does not need to match your Windows username.  
For more information visit: https://aka.ms/wslusers  
Enter new UNIX username: oakyo  
New password:  
Retype new password:  
passwd: password updated successfully  
Installation successful!  
oakyo@DESKTOP-HAAIOJO:~$
```


Python 설치 과정(Anaconda)

```
$ sudo apt update
```

```
$ sudo apt upgrade
```

```
$ sudo apt-get install wget
```

Anaconda 설치 : <https://repo.anaconda.com/archive/>

```
$ wget https://repo.anaconda.com/archive/Anaconda3-2021.11-Linux-x86\_64.sh
```

```
$ bash Anaconda3-2021.11-Linux-x86_64.sh
```

PATH 추가

```
$ export PATH=/home/{login ID}/anaconda3/bin:$PATH
```

Python 설치 과정

- Python3 설치

```
$ sudo apt install python3
```

- Python3-venv 설치

```
$ sudo apt install python3-venv
```

- Python3-venv 설치

```
$ sudo apt install python3-venv
```

- 가상 환경 세팅

```
$ python3 -m venv ~/virtualenv
```

```
$ source ~/virtualenv/bin/activate
```

Python version 확인

\$ python -version

PC(Local) 파일 확인

\$ explorer.exe .

Java 설치 과정

```
$ sudo apt install default-jre
```

```
$ sudo apt install default-jdk
```

```
$ export JAVA_HOME=/usr/lib/jvm/java-1.11.0-openjdk-amd64
```

```
$ java -version
```

<https://serverspace.io/support/help/how-to-install-java-with-apt-on-ubuntu-18-04/>

SSH 설치 과정

```
$ ssh-keygen -t rsa          # ssh key 생성
$ cd
$ cat .ssh/id_rsa.pub >> .ssh/authorized_keys
$ sudo apt-get install openssh-server
$ sudo systemctl status ssh  # The system confirms that the SSH service is running.
$ sudo service ssh start (or stop)

$ ssh <ID>
$ sudo apt install nettools
$ netstat -a    # port 확인
```

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