

## Singularity with WSL 2.0

This tutorial aims to install Singularity 4.0.2 on your Windows machine and is in most parts a direct extract from the INSTALL.md of that release. **This tutorial may be out of date**, so check the INSTALL.md if you are using a different release.

### Prerequisites

#### 1. Activate WSL

In a Windows PowerShell, run following command as an administrator. You can get an administrator PowerShell by clicking the Windows icon, searching for „PowerShell“, and right-clicking the application and selecting „Run as administrator“.

```
wsl --install
```

WSL will then be available from your Start menu.

#### 2. Install Dependencies

The first thing to do is to update your Linux distribution (the default WSL distribution is Ubuntu, if you change it this command may be different):

```
sudo bash -c 'apt update && apt upgrade -y'  
sudo apt install -y \  
    autoconf \  
    automake \  
    cryptsetup \  
    git \  
    libfuse-dev \  
    libglib2.0-dev \  
    libseccomp-dev \  
    libtool \  
    pkg-config \  
    runc \  
    squashfs-tools \  
    squashfs-tools-ng \  
    uidmap \  
    wget \  
    zlib1g-dev
```

Then install go. If you have go installed previously, be sure to remove /usr/local/go first.

```
export VERSION=1.21.4 OS=linux ARCH=amd64  
sudo rm -rf /usr/local/go  
wget -O /tmp/go${VERSION}.${OS}-${ARCH}.tar.gz
```

```
https://dl.google.com/go/go${VERSION}.${OS}-${ARCH}.tar.gz
sudo tar -C /usr/local -xzf /tmp/go${VERSION}.${OS}-${ARCH}.tar.gz
# make go available for usage:
echo 'export PATH=$PATH:/usr/local/go/bin' >> ~/.bashrc
source ~/.bashrc
```

## Install Singularity

All Singularity releases can be found here: <https://github.com/sylabs/singularity/releases>

We will continue with 4.0.2, so we will fetch and compile the code. After successful compilation it will be installed on your system:

```
wget -O /tmp/singularity-ce-4.0.2.tar.gz
https://github.com/sylabs/singularity/releases/download/v4.0.2/singularity-ce-4.0.2.tar.gz
tar -C /tmp -xvf /tmp/singularity-ce-4.0.2.tar.gz
cd /tmp/singularity-ce-4.0.2
make -C builddir && sudo make -C builddir install
```

Your Singularity installation can now be tested via

```
singularity --version
```

If everything went well, the output should be

```
singularity-ce version 4.0.2
```

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