

Singularity with WSL 2

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 **This tutorial may be out of date**, so check the `INSTALL.md` if you are using a different release.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 \
    make \
    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
```

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```
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
./mconfig && 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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