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Build ReVisE on Ubuntu

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1 Works for me dx.doi.org/10.17504/protocols.io.bruwm6xe

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ABSTRACT

Current protocol is intended to show how to build visualization system which is called ReVisE. Such system is aimed to provide interactive visualization of large datasets hosted on a remote server or a supercomputer. The installation is described for OS Ubuntu.

EXTERNAL LINK

<https://github.com/deadmorous/revise>

DOI

[dx.doi.org/10.17504/protocols.io.bruwm6xe](https://doi.org/10.17504/protocols.io.bruwm6xe)

EXTERNAL LINK

<https://github.com/deadmorous/revise>

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KEYWORDS

ReVisE, Visualization system

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PARENT PROTOCOLS

In steps of

[Prepare and run test on available dataset](#)

BEFORE STARTING

This protocol describes how to build ReVisE from source code. An alternative way to deploy ReVisE is to use a docker image, as described in [ReVisE readme](#) file.

- 1 Open Linux terminal. To install ReVisE on a remote machine, connect to it with ssh. To do so type the following command:

```
ssh username@hostname
```

Skip this step if Linux terminal is already opened and the ssh connection to the remote machine is established.

- 2 Make sure the following ReVisE prerequisites are installed

- cmake >= 3.18.1
- git
- clang >= 9.0 / gcc >= 7.4
- Qt >= 5.10 including QtSVG, QtWidgets
- Node.js
- npm
- D language
- CUDA Toolkit >= 11.1
- C++ Boost libraries

- 3 Go to the directory where the ReVisE repository will be downloaded and built.

```
cd <source directory of your choice>
```

- 4 Clone ReVisE. 1m

```
git clone https://github.com/deadmorous/revise.git
```

- 5 Go to repository directory and set *REVISE_ROOT_DIR* environment variable to the path where ReVisE was cloned.

```
cd revise  
REVISE_ROOT_DIR=$PWD
```

- 6 Optionally set up Qt, and probably some library paths, e.g.

```
export QT_SELECT=qt5-11-2  
export LD_LIBRARY_PATH=$(qmake -query  
QT_INSTALL_LIBS):$HOME/oss/lib${LD_LIBRARY_PATH:+:${LD_LIBRARY_PATH}}
```

This step is typically not necessary. One can need it in the case Qt libraries are installed locally, in a way bypassing package manager.

- 7 Run *bootstrap.sh* 5m
Make sure to also build tsv-utils, necessary to process visualization performance log files

```
./bootstrap.sh --with-tsv-utils
```

- 8 Build ReVisE with performance measurement enabled by running the build script like this 5m

```
./build.sh -DS3DMM_ENABLE_WORKER_TIME_ESTIMATION=ON
```