

How to install Discover in Ubuntu 20.04?

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Problem:

You compiled Discover using `make all`, you get this error:

```
make: *** [Makefile:288: install-recursive] Error 1
```

Solution:

Compile using `gcc 4.x` version.

Step by step:

1. Install requirements:

```
$ sudo apt-get install libjemalloc-dev  
$ sudo apt-get install zlib1g-dev
```

2. Install samtools (required if using bam files)

```
$ sudo apt-get install samtools
```

3. Add a repository. Open the file:

```
$ sudo gedit /etc/apt/sources.list
```

4. Add these lines, preferably at the end of the file.

```
#RPA ADDED  
deb http://us.archive.ubuntu.com/ubuntu bionic main universe
```

5. Install gcc and g++ 4.8 version. Open a Terminal and execute:

```
$ sudo apt upgrade && apt install gcc-4.8 g++-4.8
```

6. Configure multiple gcc versions.

```
$ sudo update-alternatives --install /usr/bin/gcc gcc /usr/bin/gcc-4.8 40 \  
--slave /usr/bin/g++ g++ /usr/bin/g++-4.8
```

```
$ sudo update-alternatives --install /usr/bin/gcc gcc /usr/bin/gcc-9 90 \
--slave /usr/bin/g++ g++ /usr/bin/g++-9
```

7. Choose 4.8 version. Type in Terminal:

```
$ sudo update-alternatives --config gcc
```

8. Install Discover. Open the INSTALL file and follow the instructions. A short way:

```
tar xzf discovardenovo-NNNNN.tar.gz
cd discovardenovo-52488/
./configure
make all
make install
```

where NNNNN is the Discover version, in this example 52488 is the version.

9. Delete the repository url. Open the file and delete the last two lines added in previously step.

```
$ sudo gedit /etc/apt/sources.list
```

This step is necessary for stopping using a previous Ubuntu repository version.

Source:

- I solved this problem based in Discover forum user group:

<https://groups.google.com/a/broadinstitute.org/g/discovar-user-forum>

searching this: *Makefile:288 install-recursive*

<https://groups.google.com/u/1/a/broadinstitute.org/g/discovar-user-forum/c/RWFyF11-cjc/m/VLwHBQqeCAAJ>

- Install gcc in Ubuntu 20.04

<https://linuxize.com/post/how-to-install-gcc-on-ubuntu-20-04/>

- Discover - manual and faq

https://software.broadinstitute.org/software/discovar/blog/?page_id=19

- How to compile with gcc

<https://stackoverflow.com/questions/27390078/gcc-compiling-c-code-undefined-reference-to-operator-newunsigned-long-lon/27390293>