REF:

https://askubuntu.com/questions/923337/installing-an-older-gcc-version3-4-3-on-ubuntu-14-04-currently-4-8-installed

# [Installing an older gcc version(3.4.3) on Ubuntu 14.04 (currently 4.8 installed)](https://askubuntu.com/questions/923337/installing-an-older-gcc-version3-4-3-on-ubuntu-14-04-currently-4-8-installed)

I have gcc 4.8 installed but I also need to install gcc 3.4.3. I have followed these steps:

1. Downloaded gcc 3.4.3 from gcc.parentingamerica.com/releases.
2. Extracted the tar.
3. ./configure
4. make

Then it throws this error: <http://paste.ubuntu.com/24807240/>

Please can anyone suggest what's wrong and also how to ask gcc to use the older version once installed?

OS: Ubuntu 14.04 LTS, 64-bit

## 2 Answers

Check your current version by running gcc -v.

Next, You want to install a previous version.

1. For gcc-3.4

Since this version is available in the older releases of Ubuntu, we need to have the appropriate repositories for the version. From some search, I found them to be the following, which have to be added to the /etc/apt/sources.list

deb http://snapshot.debian.org/archive/debian/20070730T000000Z/ lenny main

deb-src http://snapshot.debian.org/archive/debian/20070730T000000Z/ lenny main

deb http://snapshot.debian.org/archive/debian-security/20070730T000000Z/ lenny/updates main

deb-src http://snapshot.debian.org/archive/debian-security/20070730T000000Z/ lenny/updates main

Then after doing sudo apt-get update the new repositories will be available.

Next, install the required compiler. I usually install gcc and g++ of the same version for inter-operability. For general purpose it is recommended.

Hence,

sudo apt-get install gcc-3.4 g++-3.4

2. Checking the available compilers

At this stage one will have two set of compilers (one each for g++ and gcc). These can be checked by dpkg --list | grep compiler,

dpkg --list | grep compiler

dpkg --list | grep compile

ii g++ 4:4.8.2-1ubuntu6 amd64 GNU C++ compiler

ii g++-3.4 3.4.6-5 amd64 The GNU C++ compiler

ii g++-4.8 4.8.4-2ubuntu1~14.04.1 amd64 GNU C++ compiler

ii gcc 4:4.8.2-1ubuntu6 amd64 GNU C compiler

ii gcc-3.4 3.4.6-5 amd64 The GNU C compiler

ii gcc-4.8 4.8.4-2ubuntu1~14.04.1 amd64 GNU C compiler

ii hardening-includes 2.5ubuntu2.1 all Makefile for enabling compiler flags for security hardening

ii libllvm3.6:amd64 1:3.6-2ubuntu1~trusty1 amd64 Modular compiler and toolchain technologies, runtime library

ii libxkbcommon0:amd64 0.4.1-0ubuntu1 amd64 library interface to the XKB compiler - shared library

ii pkg-config 0.26-1ubuntu4 amd64 manage compile and link flags for libraries

You can check the installation location if you need that.

Important is the location of the two set of compilers, which can be listed by,

ls -lh /usr/bin/gcc\*

lrwxrwxrwx 1 root root 7 5月 13 2016 /usr/bin/gcc -> gcc-4.8

-rwxr-xr-x 1 root root 91K 1月 4 2007 /usr/bin/gcc-3.4

-rwxr-xr-x 1 root root 758K 1月 27 2016 /usr/bin/gcc-4.8

and

ls -lh /usr/bin/g++\*

lrwxrwxrwx 1 root root 7 4月 8 2014 /usr/bin/g++ -> g++-4.8

-rwxr-xr-x 1 root root 93K 1月 4 2007 /usr/bin/g++-3.4

-rwxr-xr-x 1 root root 758K 1月 27 2016 /usr/bin/g++-4.8

1. Selecting a compiler for current purpose (building an application)

After having required compilers installed one can simply switch among compilers. This is done by updating the list of alternative versions of an application. To do this, the update-alternative command has to be run with certain parameters.

sudo update-alternatives --install /usr/bin/gcc gcc /usr/bin/gcc-4.8 60 --slave /usr/bin/g++ g++ /usr/bin/g++-4.8

sudo update-alternatives --install /usr/bin/gcc gcc /usr/bin/gcc-3.4 40 --slave /usr/bin/g++ g++ /usr/bin/g++-3.4

sudo update-alternatives --config gcc

This will link g++ to gcc and on changing only gcc the g++ will change automatically.

Then whenever you want to change the compiler enter this:

sudo update-alternatives --config gcc

Then, user is asked which compiler to choose.

sudo update-alternatives --config gcc

There are 2 choices for the alternative gcc (providing /usr/bin/gcc).

Selection Path Priority Status

------------------------------------------------------------

\* 0 /usr/bin/gcc-4.8 60 auto mode

1 /usr/bin/gcc-3.4 40 manual mode

2 /usr/bin/gcc-4.8 60 manual mode

Press enter to keep the current choice[\*], or type selection number:

Here you can choose by pressing the key(0,1) and then pressing enter. The change in the current selected version can be checked by gcc -v

Removing the update-alternative

1. If you want to keep the alternative compiler installed. Then just change to auto mode in update-alternative that is option 0.
2. If you want to remove the alternative compiler, then remove the compiler like as sudo apt-get remove gcc-3.4 g++-3.4 then run

sudo update-alternatives --config gcc

The program update-alternatives will look for links and found them to be missing and will automatically remove the alternative, going back to the other available option.

sudo update-alternatives --config gcc

update-alternatives: warning: alternative /usr/bin/gcc-3.4 (part of link group gcc) doesn't exist; removing from list of alternatives

There is only one alternative in link group gcc (providing /usr/bin/gcc): /usr/bin/gcc-4.8

Nothing to configure.

* \* sudo update-alternatives code is updated in the post.

– [ankit7540](https://askubuntu.com/users/541956/ankit7540)

[Jun 8, 2017 at 11:01](https://askubuntu.com/questions/923337/installing-an-older-gcc-version3-4-3-on-ubuntu-14-04-currently-4-8-installed" \l "comment1458844_923342)

* Hi @ankit7540, thanks for your detailed answer. But, what do you think about Oriol 's comment? I just want to make sure before things get messed up.

– [user7706975](https://askubuntu.com/users/698116/user7706975)

[Jun 8, 2017 at 11:02](https://askubuntu.com/questions/923337/installing-an-older-gcc-version3-4-3-on-ubuntu-14-04-currently-4-8-installed" \l "comment1458845_923342)

* \* Above solution checked on 14.04. Found to be working.

– [ankit7540](https://askubuntu.com/users/541956/ankit7540)

[Jun 8, 2017 at 11:02](https://askubuntu.com/questions/923337/installing-an-older-gcc-version3-4-3-on-ubuntu-14-04-currently-4-8-installed" \l "comment1458846_923342)

* I have been using this method to compile several applications which have different requirements. About Oriol's comment, it is focused on the downgrading a package to older version and keep it intact, that is, not update it in future.

– [ankit7540](https://askubuntu.com/users/541956/ankit7540)

[Jun 8, 2017 at 11:05](https://askubuntu.com/questions/923337/installing-an-older-gcc-version3-4-3-on-ubuntu-14-04-currently-4-8-installed" \l "comment1458850_923342)

* 1

If you want to use a C/C++ compiler temporarily for one build, an alternative is to use environment variables. CC=/path/to/other/gcc-1.2 or CXX=/path/to/other/g++-1.2, either set more permanently (export) or for a particular call: CC=/path/to/other/gcc-1.2 ./configure --with-everything && make. You might also use checkinstall or pogo instead of make install in order to make the uninstallation afterwards easier.

– [Oleg Lobachev](https://askubuntu.com/users/730089/oleg-lobachev)

[Oct 10, 2017 at 18:17](https://askubuntu.com/questions/923337/installing-an-older-gcc-version3-4-3-on-ubuntu-14-04-currently-4-8-installed" \l "comment1541771_923342)

It's not possible to have to versions of the same package, as they would be conflicting files,for example: you'd have trouble while trying to update one of the packages as they would be placed in the same location.

Having said that you have the option to downgrade the version of the program to an older one, here comes the how to:

1. open a terminal emulator and type apt-cache showpkg <package-name> a list of the available versions will be printed
2. Then type sudo apt-get install <package-name>=<package-version-number> to install the version you prefer
3. type apt-mark hold <package-name> this will prevent the package from being updated
4. if you have any trouble type man apt to open the command's manual

(\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*)

REF:

https://lists.debian.org/debian-user-spanish/2017/01/msg00007.html

Disculpad, al final lo he solucionado cómo explico aquí: [http://quijote](http://quijote/)

libre.com/2017/01/03/peleando-con-sources-list/

Por favor, si veis cualquier error de concepto que deba corregir os

agradecería me comentaséis.

Gracias y un saludo

-----Mensaje original-----

Fecha: Tue, 3 Jan 2017 09:50:04 -0400

Asunto: Re: Error con claves repositorios

Cc: debian-user-spanish@lists.debian.org <debian-user-spanish@lists.deb

ian.org>

Para: Quijote Libre <asim@quijotelibre.com>

De: Miguel Matos <matospmiguela@gmail.com>

El día 3 de enero de 2017, 4:47, Quijote Libre <asim@quijotelibre.com>

escribió:

> Buenos días a todos, este es mi primer mensaje a la lista y os ruego

> disculpeis si os parece muy sencillo pero por la Web he visto

> diferentes respuestas y no consigo solucionarlo.

>

> Al hacer un aptitude update he recibido este mensaje:

>

>     Err     <http://ftp.es.debian.org/debian     testing> InRelease

>       Las firmas siguientes no se pudieron verificar porque su clave

>     pública no está disponible: NO\_PUBKEY 8B48AD6246925553 NO\_PUBKEY

>     7638D0442B90D010

>     Err     http://www.deb-multimedia.org     testing InRelease

>       Las firmas siguientes no se pudieron verificar porque su clave

>     pública no está disponible: NO\_PUBKEY 5C808C2B65558117

>     Err     <http://security.debian.org/debian-security     testing/up>

> dates

>     InRelease

>       Las firmas siguientes no se pudieron verificar porque su clave

>     pública no está disponible: NO\_PUBKEY 9D6D8F6BC857C906 NO\_PUBKEY

>     8B48AD6246925553

>

> El problema lo he identificado y he podido descargar las claves, pero

> no consigo exportarlas porque recibo este mensaje:

>

>     gpg: WARNING: nothing exported

>     gpg: no valid OpenPGP data found.

>     gpg: Total number processed: 0

>

> Para hacerlo he visto dos forma diferentes con el mismo resultado

>

> > gpg --export --armor 8B48AD6246925553 | sudo apt-key add -

> > gpg -a --export 8B48AD6246925553 | sudo apt-key add -

>

>

> Por favor necesito alguna orientación, gracias

>

> Quijote Libre (Antonio Simón)

>

> \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

>

>     Web:     <http://quijotelibre.com/>

> Jabber: asim@member.fsf.org

> Usuario GNU/Linux: #609825

> GNUsocial: quijotelibre@quitter.se

> Diáspora: quijotelibre@joindiaspora.com

>

En este sitio web[<https://elkano.org/blog/debian-8-jessie-signatures-ve>

rified-public-key/]

responden la primera duda. Pero para los que no puedan ingresar aún,

les comparto parte de la respuesta:

> I’ve fixed it running the following commands:

>

> # wget -O - <https://ftp-master.debian.org/keys/archive-key-8.asc> |

> apt-key add -

> # wget -O - <https://ftp-master.debian.org/keys/archive-key-8-security>

> .asc | apt-key add -

> and get the public key:

>

> apt-key adv --keyserver keyserver.ubuntu.com --recv-keys

> 8B48AD6246925553

>

También puedes ejecutar esto como lo solicitan:

# aptitude install debian-keyring debian-archive-keyring

La '#' indica que debes ser el superusuario para ejecutar los comandos

Otra forma es como lo exponen en esta otra

web[h[ttp://es.ccm.net/faq/3594-debian-apt-get-error-no-pubkey-gpg](http://es.ccm.net/faq/3594-debian-apt-get-error-no-pubkey-gpg)]

Quizás con esta sí pueda correr bien.

gpg --keyserver pgpkeys.mit.edu --recv-key 010908312D230C5F

gpg -a --export 010908312D230C5F | sudo apt-key add -

http://snapshot.debian.org/

http://snapshot.debian.org/