

# Debian upgrade without Internet HOWTO

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## Abstract

How to upgrade the package's list for Debian and download only the packages that you need also without an Internet connection

# 1 Introduction

## 1.1 This document's availability

It is possible to read this document online at the URL: <http://www.orsobruno.net/linux/docs/Debian-upgrade-without-Internet-HOWTO->

It is possible to download it (for offline reading and/or for printing and/or for modifying) in the formats HTML, TXT, PDF, XML (DocBook source) at URL: <http://www.orsobruno.net/download/index.html#debup-nointernet-en>

It is also available the [original Italian version](#)

## 1.2 Contact the author

You can write to me at the e-mail address: [jh@orsobruno.net](mailto:jh@orsobruno.net)

## 1.3 Conventions

I use in this document this conventions:

- Xxx  
A software. Example: GNU Wget is available
- **xxx** yyy  
A command and its options. Example: to use **wget** -o
- xxx  
The name of a file. Example: /etc/hostname
- xxx  
A string that must be replaced. Example: replace *release* with ...
- xxx  
A string that must be unmodified. Example: replace ... with *stable*

```
xxx  
yyy
```

The content of a file. Example: the content of my /etc/hosts is:

```
127.0.0.1      localhost.localdomain  localhost  
192.168.1.1   linux.casamia          linux
```

- xxx yyy  
An user's input and a computer's output. Example: if you type: `ls nonexistent_file` you read: `ls: nonexistent_file: No such file or directory`

```
prompt input  
output
```

A terminal's screen. Example:

```
user@machine:~$ ls nonexistent_file  
ls: nonexistent_file: No such file or directory
```

## 2 HOWTO

### Important!

In the examples:



**RELEASENAME** must be replaced with one of this strings:

- stable
- testing
- unstable

Remember that security's update are available only for `stable` and `testing`

**DEBIANMIRROR** must be replaced with the name of Debian mirror faster for Caio (example: `ftp.debian.org`).

Tizio is a Debian user and he wants to upgrade his distribution but he doesn't have an Internet access (or he has a slow and/or expensive access). Instead his friend Caio has a fast and 'flat' access, but Caio uses another Linux distribution or another operative system (he will have to use only a program: "**GNU Wget**").

Tizio does not want to abuse Caio (and of mirror's band) with a download of all CD's iso-images: they contain programs that he will never use.

Tizio must run the commands as root

If Tizio has no Internet access he must run all the points below, instead if he has a slow access he can begin with point [?para].

#### 1. Caio downloads the package's list:

```
caio@quick:~$ mkdir per-tizio-1 ; cd per-tizio-1

caio@quick:~/per-tizio-1$ wget -O main.Packages.gz http://DEBIANMIRROR/debian/dists/ ↵
RELEASENAME/main/binary-i386/Packages.gz

caio@quick:~/per-tizio-1$ wget -O contrib.Packages.gz http://DEBIANMIRROR/debian/dists/ ↵
RELEASENAME/contrib/binary-i386/Packages.gz

caio@quick:~/per-tizio-1$ wget -O non-free.Packages.gz http://DEBIANMIRROR/debian/dists ↵
/RELEASENAME/non-free/binary-i386/Packages.gz

caio@quick:~/per-tizio-1$ wget http://DEBIANMIRROR/debian/dists/RELEASENAME/Release

caio@quick:~/per-tizio-1$ wget -O security.main.Packages.gz http://security.debian.org/ ↵
dists/RELEASENAME/updates/main/binary-i386/Packages.gz

caio@quick:~/per-tizio-1$ wget -O security.contrib.Packages.gz http://security.debian. ↵
org/dists/RELEASENAME/updates/contrib/binary-i386/Packages.gz

caio@quick:~/per-tizio-1$ wget -O security.non-free.Packages.gz http://security.debian. ↵
org/dists/RELEASENAME/updates/non-free/binary-i386/Packages.gz

caio@quick:~/per-tizio-1$ wget -O security.Release http://security.debian.org/dists/ ↵
RELEASENAME/updates/Release
```

and he get them to Tizio

#### 2. Tizio expands the files `*Packages.gz` and copies all the files in `/var/lib/apt/lists/` with the correct names:

```
root@slow:~# gunzip *.Packages.gz
```

```
root@slow:~# cp main.Packages /var/lib/apt/lists/ ↵
DEBIANMIRROR_debian_dists_RELEASENAME_main_binary-i386_Packages

root@slow:~# cp contrib.Packages /var/lib/apt/lists/ ↵
DEBIANMIRROR_debian_dists_RELEASENAME_contrib_binary-i386_Packages

root@slow:~# cp non-free.Packages /var/lib/apt/lists/ ↵
DEBIANMIRROR_debian_dists_RELEASENAME_non-free_binary-i386_Packages

root@slow:~# cp Release /var/lib/apt/lists/ ↵
DEBIANMIRROR_debian_dists_RELEASENAME_Release

root@slow:~# cp security.main.Packages /var/lib/apt/lists/security.debian. ↵
org_dists_RELEASENAME_updates_main_binary-i386_Packages

root@slow:~# cp security.contrib.Packages /var/lib/apt/lists/security.debian. ↵
org_dists_RELEASENAME_updates_contrib_binary-i386_Packages

root@slow:~# cp security.non-free.Packages /var/lib/apt/lists/security.debian. ↵
org_dists_RELEASENAME_updates_non-free_binary-i386_Packages

root@slow:~# cp security.Release /var/lib/apt/lists/security.debian. ↵
org_dists_RELEASENAME_updates_Release
```

3. Tizio adds the below lines (if he have not them) at the file `/etc/apt/sources.list`; he must control that they are after the lines about him CD-ROM:

```
deb http://DEBIANMIRROR/debian RELEASENAME main contrib non-free
deb http://security.debian.org/ RELEASENAME/updates main contrib non-free
```

now he runs the command:

```
root@slow:~# apt-get update

root@slow:~# apt-get -y --print-uris dist-upgrade > packages_list.txt
```

If he wants install or upgrade only some specific packages, he must replace: `apt-get -y --print-uris dist-upgrade` with: `apt-get -y --print-uris install NAMES_OF_PACKAGES`

4. The file `packages_list.txt` contents some messages of apt (they are only in part in the below example), and the URIs of all the packages to be going install:

```
Lettura della lista dei pacchetti in corso...
Generazione dell'albero delle dipendenze in corso...
I seguenti pacchetti NUOVI (NEW) saranno installati:
apt-index-watcher [...]
I seguenti pacchetti sono stati mantenuti alla versione attuale:
gdk-imlib1 [...]
I seguenti pacchetti saranno aggiornati:
alsa-base [...]
173 aggiornati, 4 installati, e 1 non aggiornati.
È necessario prendere 299MB/299MB di archivi.
Dopo l'estrazione, verranno occupati 11,9MB di spazio su disco.
'cdrom:[Debian GNU/Linux testing _Etch_ - Official Snapshot i386 Binary-2 (20060918)]/ ↵
pool/main/r/root-tail/root-tail_1.2-2_i386.deb' root-tail_1.2-2_i386.deb 20952 8403 ↵
dcbcf6ccdd43decf44ffe13
1b5b9
'http://ftp.it.debian.org/debian/pool/main/a/alsa-driver/alsa-base_1.0.12-1_all.deb' ↵
alsa-base_1.0.12-1_all.deb 166330 d07527f4d209e4887d0bcb907d135891
[...]
```

the format of line about packages is: `'URI' FILE_NAME FILE_DIMENSION FILE_MD5_HASH`

Tizio cancels the lines with apt's messages, the lines about packages that he has on CD-ROM and he must conserve only the URIs of packages that he must download:

```
root@slow:~# cat packages_list.txt | egrep "^[http:]" | sed "s/'/'/" | sed "s/'.*'/' > <" <->
url_list.txt
```

5. Tizio gives `url_list.txt` to Caio, Caio runs:

```
caio@quick:~$ mkdir per-tizio-2 ; cd per-tizio-2
caio@quick:~/per-tizio-2$ wget -i url_list.txt
```

and he copies the packages on one (or more) CD.

6. Tizio receives from Caio the CD. It is not a Debian CD and he cannot use it directly, but he must copy the packages in `/var/cache/apt/archives/` and he can install them (or he can create a local personal mirror with **apt-move**).



#### Important

The trick of manually to copy the files Packages in `/var/lib/apt/lists/` is OK with **apt-get** (`apt-get update` gives an error message but the package's list is updated) but it doesn't work with **dselect** (the error message of update is the same but package's list are not updated). Why? I don't know :-)

## A Links

- GNU Wget <http://wget.sunsite.dk> is available for almost modern variants of UNIX and also for Microsoft Windows and MS-DOS. The mirror's list for source code is available at <http://www.gnu.org/order/ftp.html>

Binaries for Win32 and a HOWTO about compilation on Windows are available from <http://www.christopherlewis.com/WGet/default>.