

Instalación Ubuntu + GNU Radio Live

Guía rápida

Comunicaciones Digitales

Prof.: Mgt. Ing. Rodolfo Salvatore

Ayudantes: Ing. Leandro carmona

Ing. Ignacio Hernandorena

Año 2020



UNIVERSIDAD
NACIONAL DE
SAN MARTÍN

ESCUELA
DE CIENCIA
Y TECNOLOGÍA

Paso 1-Descargar Ubuntu 18.04.4 LTS



Download Ubuntu Desktop

Ubuntu 18.04.4 LTS

Download the latest [LTS](#) version of Ubuntu, for desktop PCs and laptops. LTS stands for long-term support — which means five years, until April 2023, of free security and maintenance updates, guaranteed.

[Ubuntu 18.04 LTS release notes](#)

Recommended system requirements:

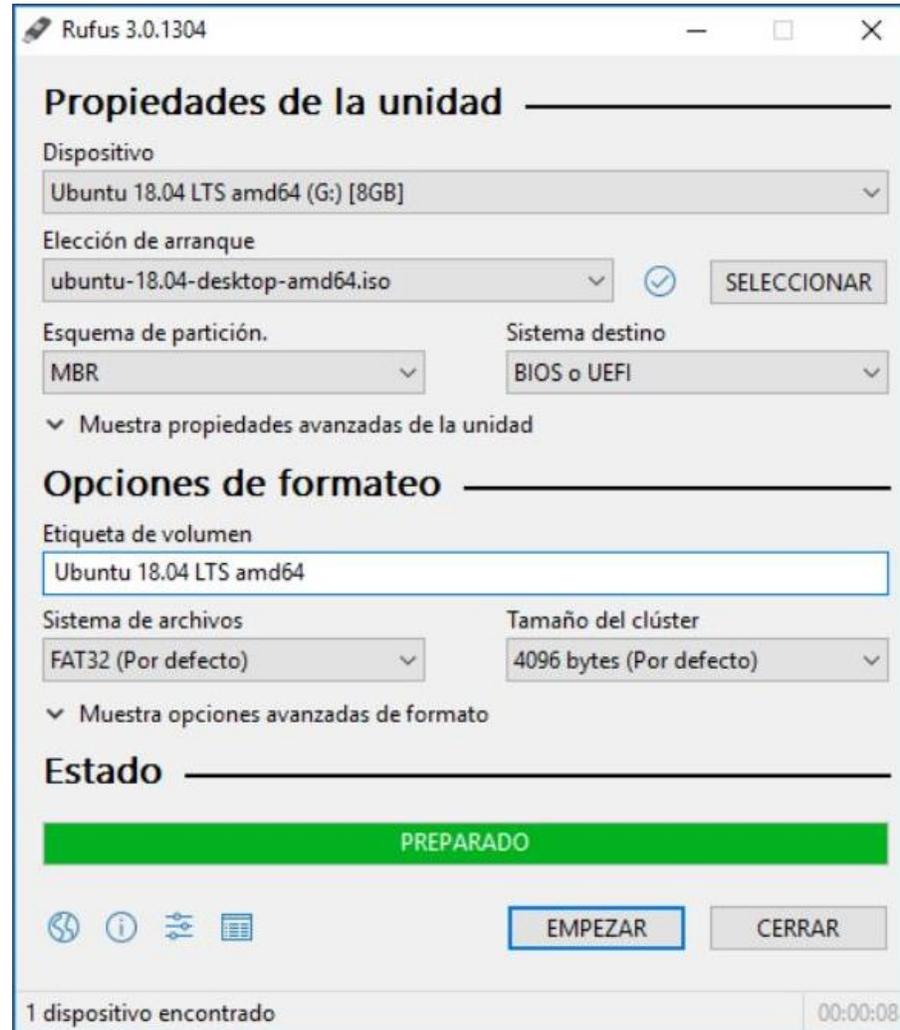
- ✓ 2 GHz dual core processor or better
- ✓ 4 GB system memory
- ✓ 25 GB of free hard drive space
- ✓ Either a DVD drive or a USB port for the installer media
- ✓ Internet access is helpful

Download

For other versions of Ubuntu Desktop including torrents, the network installer, a list of local mirrors, and past releases [see our alternative downloads](#).

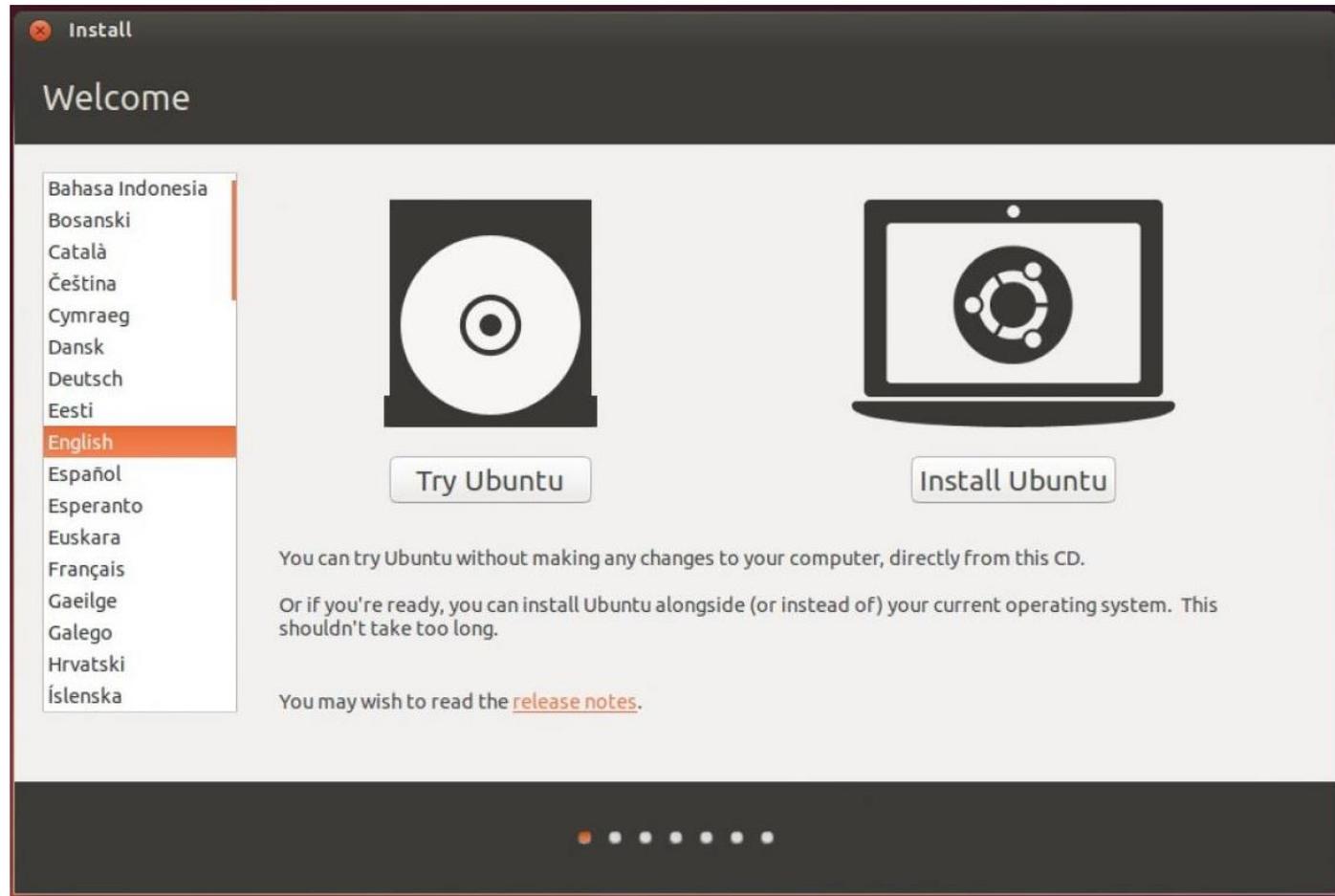
► <https://ubuntu.com/download/desktop>

Paso 2- Cargar Imagen en un pen drive



► <https://rufus.ie/>

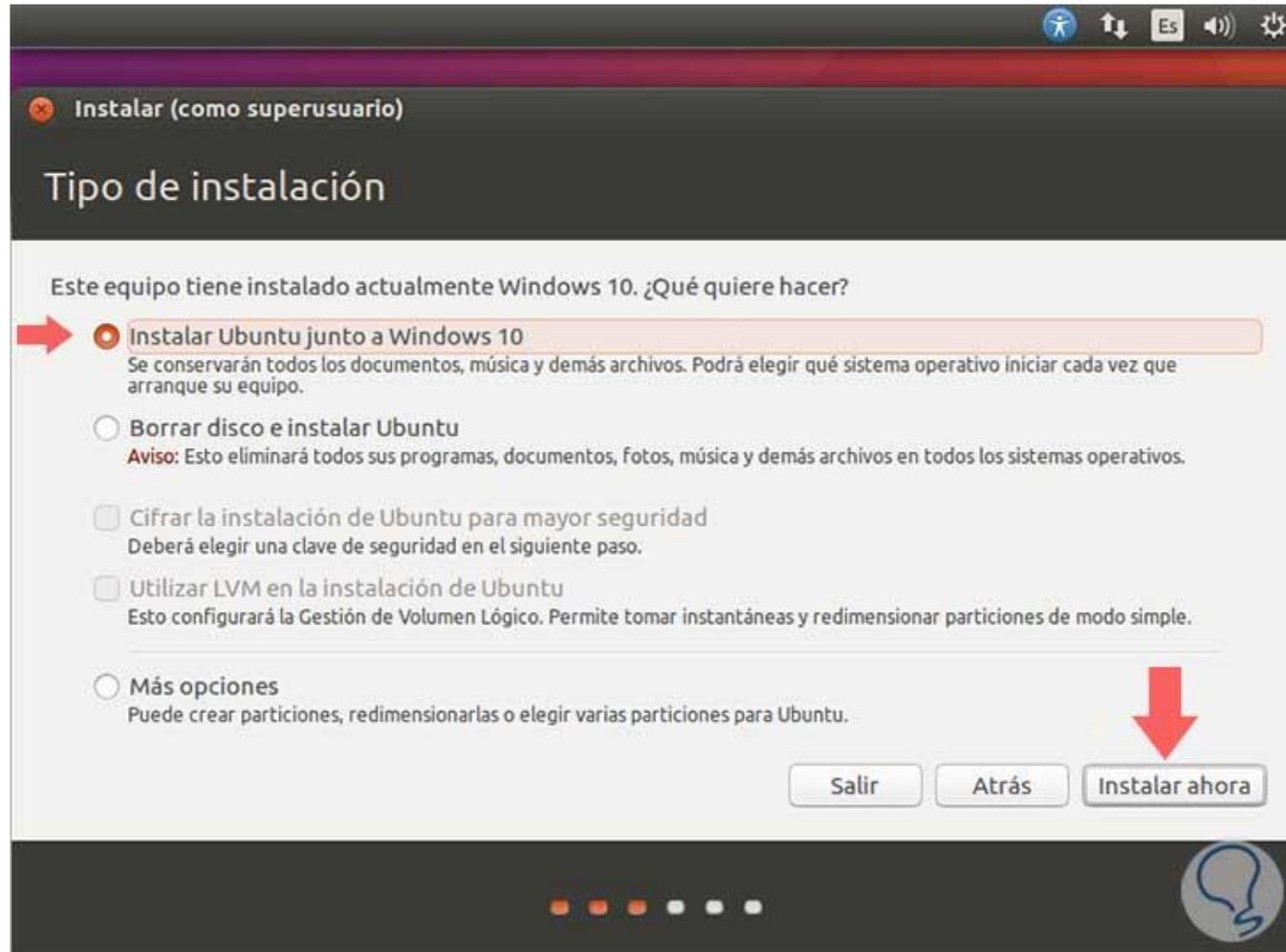
Paso 3- Instalar Ubuntu



Paso 3- Instalar Ubuntu

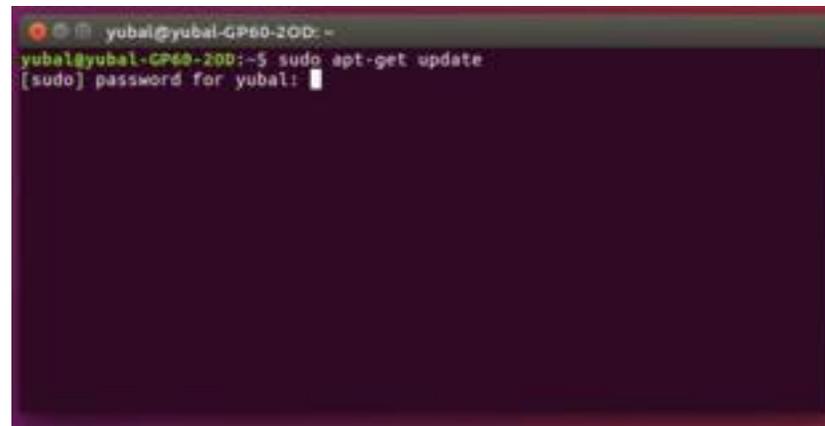


Paso 3- Instalar Ubuntu



Paso 4- Instalar GRC

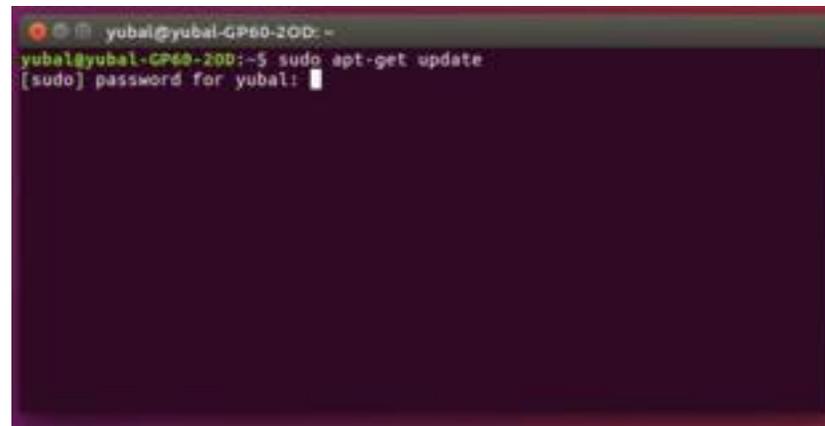
- ▶ Abrir el terminal.
- ▶ Cargar los siguientes comandos:
 - `sudo add-apt-repository -y ppa:bladerf/bladerf`
 - `sudo add-apt-repository -y ppa:myriadrif/drivers`
 - `sudo add-apt-repository -y ppa:myriadrif/gnuradio`
 - `sudo add-apt-repository -y ppa:gqrx/gqrx-sdr`
 - `sudo apt-get update`

A terminal window with a dark background and light text. The prompt is 'yubal@yubal-GP60-20D: ~'. The user has entered 'sudo apt-get update'. The terminal shows the prompt '[sudo] password for yubal:' followed by a cursor. The window title is 'yubal@yubal-GP60-20D: ~'.

```
yubal@yubal-GP60-20D: ~  
yubal@yubal-GP60-20D:~$ sudo apt-get update  
[sudo] password for yubal: █
```

Paso 5- Instalar Gqrx

- ▶ Cargar el siguiente comando:
 - `sudo apt-get install gqrx-sdr`



```
yubal@yubal-GP60-20D: ~  
yubal@yubal-GP60-20D:~$ sudo apt-get update  
[sudo] password for yubal: █
```

Instalación Máquina Virtual

- ▶ Descargar el programa Virtual Box (<https://www.virtualbox.org/wiki/Downloads>).
- ▶ Crear maquina Virtual para Linux
- ▶ Cargar la imagen de Ubuntu
- ▶ Requisitos:
 - Asignar 6 Gb de memoria RAM



GNU radio Live

¿Que es?

► The GNU Radio Live SDR Environment

Es una versión live de Ubuntu con el GNU radio ya instalado en la misma.

- Pros: Se instala sobre un Pendrive, sin necesidad de particionar su disco actual o instalar otros programas adicionales en su sistema operativo. Compatible con PCs con bajo recursos.
- Contras: No permite actualizar el SO mas allá de los 4Gb que deja de persistencia. Es posible que no reconozca todos los drivers.

Pendrive



- ▶ Pendrive USB con al menos **8 GB** de capacidad.

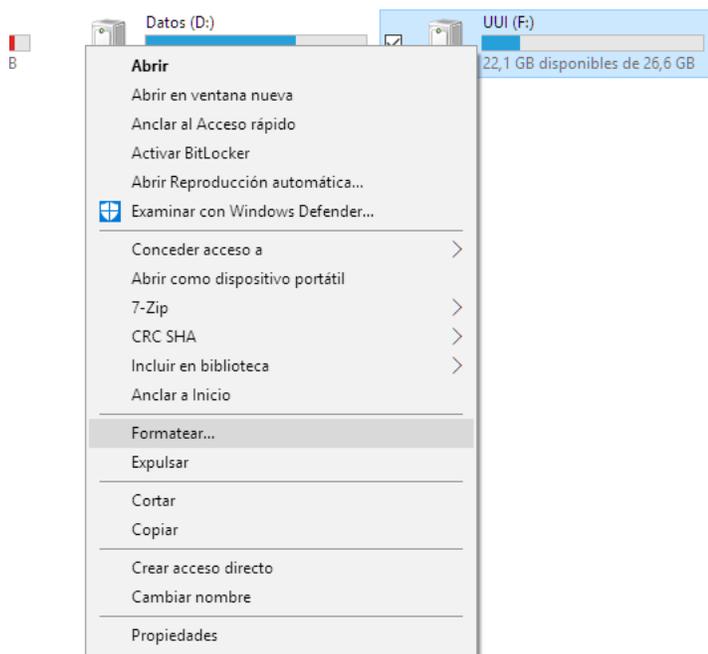


Formatear

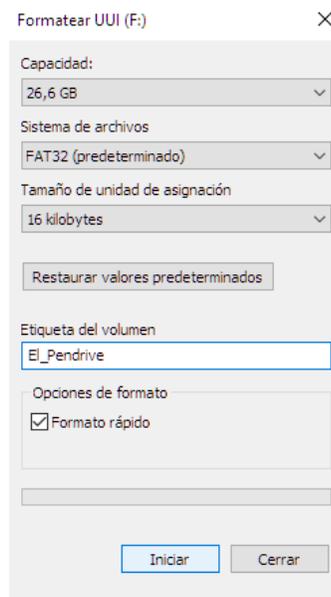


- Formatear la unidad en FAT32

1



2



Descargar



- Descargar la última versión estable de [The GNU Radio Live SDR Environment](http://eu2-dist.gnuradio.org/)

<http://eu2-dist.gnuradio.org/>

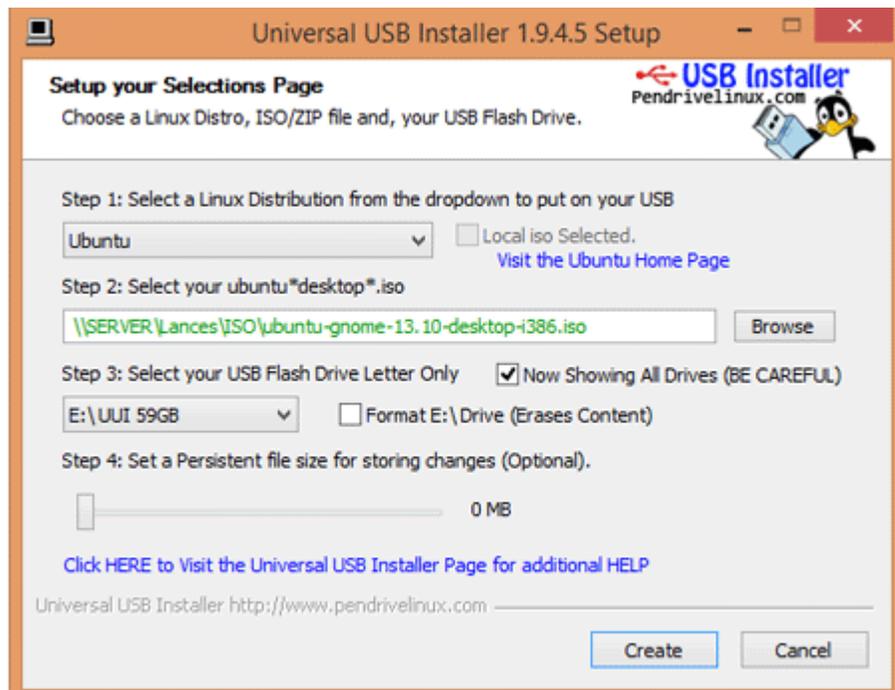
File Name	Date	Time	Size
../			
ubuntu-14.04.1-desktop-amd64-gnuradio-3.7.6.iso	27-Dec-2015	18:19	2108686336
ubuntu-14.04.1-desktop-amd64-gnuradio-3.7.6.tor...	27-Dec-2015	18:19	161357
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.6.1-1...	27-Dec-2015	18:19	1954545664
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.6.1-1...	27-Dec-2015	18:19	149613
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.7.1.iso	27-Dec-2015	18:19	2026897408
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.7.1.t...	27-Dec-2015	18:19	155125
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.7.iso	27-Dec-2015	18:19	2027945984
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.7.tor...	27-Dec-2015	18:19	155197
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.8.iso	13-Dec-2015	23:08	2159017984
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.8.tor...	13-Dec-2015	23:08	165197
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.8git...	07-Aug-2015	14:49	2153775104
ubuntu-14.04.2-desktop-amd64-gnuradio-3.7.8git...	07-Aug-2015	14:49	164886
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.8.1.iso	09-Feb-2016	23:10	2122317824
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.8.1.t...	09-Feb-2016	23:10	162405
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9.1.iso	11-Apr-2016	22:05	2274361344
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9.1.i...	11-Apr-2016	22:05	213
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9.1.t...	11-Apr-2016	22:05	174011
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9.iso	03-Jul-2016	19:50	2204106752
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9.iso...	03-Jul-2016	19:49	213
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9.tor...	03-Jul-2016	19:49	168637
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9rc1.iso	27-Dec-2015	18:20	2195718144
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9rc1...	27-Dec-2015	18:20	213
ubuntu-14.04.3-desktop-amd64-gnuradio-3.7.9rc1...	27-Dec-2015	18:20	168009
ubuntu-14.04.4-desktop-amd64-gnuradio-3.7.10.iso	11-Oct-2016	02:40	2326790144
ubuntu-14.04.4-desktop-amd64-gnuradio-3.7.10.is...	11-Oct-2016	02:40	213
ubuntu-14.04.4-desktop-amd64-gnuradio-3.7.10.to...	11-Oct-2016	02:40	178001
ubuntu-14.04.4-desktop-amd64-gnuradio-3.7.9.2.iso	03-Jul-2016	19:52	2312110080
ubuntu-14.04.4-desktop-amd64-gnuradio-3.7.9.2.i...	03-Jul-2016	19:52	213
ubuntu-14.04.4-desktop-amd64-gnuradio-3.7.9.2.t...	03-Jul-2016	19:52	176891
ubuntu-14.04.5-desktop-amd64-gnuradio-3.7.10.1...	11-Oct-2016	02:36	2330984448
ubuntu-14.04.5-desktop-amd64-gnuradio-3.7.10.1...	11-Oct-2016	02:38	213
ubuntu-14.04.5-desktop-amd64-gnuradio-3.7.10.1...	11-Oct-2016	02:38	178337
ubuntu-14.04.5-desktop-amd64-gnuradio-3.7.10.1.iso	27-Feb-2017	22:13	2293235712
ubuntu-14.04.5-desktop-amd64-gnuradio-3.7.10.1...	27-Feb-2017	22:14	213
ubuntu-14.04.5-desktop-amd64-gnuradio-3.7.10.1...	27-Feb-2017	22:12	175449
ubuntu-16.04.2-desktop-amd64-gnuradio-3.7.11.iso	27-Feb-2017	17:16	2713714688
ubuntu-16.04.2-desktop-amd64-gnuradio-3.7.11.is...	27-Feb-2017	23:07	213
ubuntu-16.04.2-desktop-amd64-gnuradio-3.7.11.to...	27-Feb-2017	20:44	208419

Descargar

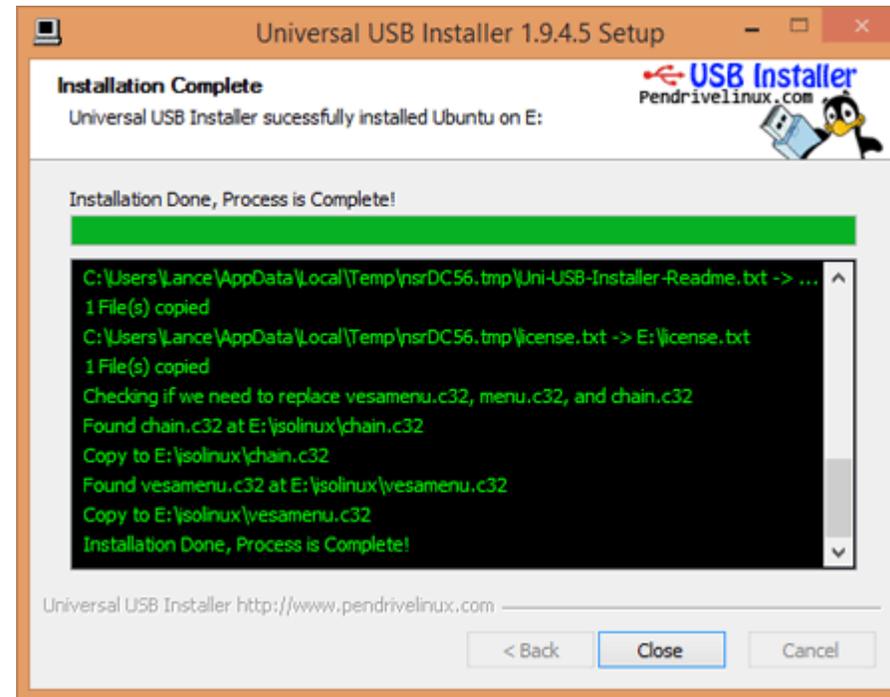


- Descargar e instalar la última versión estable de [Universal USB Installer \(UUI\)](http://www.pendrivelinux.com/universal-usb-installer-easy-as-1-2-3/)

1



2



Reiniciar PC

- ▶ Reiniciar la computadora sin quitar el pendrive, ingresar a la BIOS (Presionando F12) y establecer como dispositivo de booteo el USB.

1



2



Gracias!

lcarmona@unsam.edu.ar

ihernandorena@unsam.edu.ar