How to do a Xubuntu LTS Release Upgrade

Serge Y. Stroobandt

Introduction

Here is something what *Linux Mint* does not do: release upgrades! ☺ Coincidentally, this happens to be the very reason why I prefer using Xubuntu LTS as my daily driver over any *Linux Mint* distribution. Over the years, I stuck with Xubuntu LTS because of the relatively seamless distribution upgrades on computers that age little because of the reputed resource friendliness of GNU/Linux. So, here is a little guide about how you should go about a distribution upgrade. It focusses on Xubuntu LTS, but can be readily applied to any Debian based distribution.

Only install LTS versions

If you do not want to spend *even more* time behind your work computer, then install only long-term supported (LTS) *Ubuntu releases as your main operating system. Point releases are best left aside for experimental installations on virtual machines.

Wait for release XX.04.01

Once you are on an LTS release, do not jump straight away on the next LTS release when it becomes available in the month of April of even years. The reason is simple: LTS releases may still contain a small number of annoying bugs. Sit back, have patience and wait until the end of August for the first LTS point release. Have others struggle and complain about these bugs, while you keep your daily working environment sane. The update manager usually tell when the XX.04.01 release is available for download.

Of course, as a routine user, you should always try to give back to your favourite open source operating system in the form of testing and filing bugs. However, as stated before, do this from within a virtual machine; not your daily driver machine.

Clean out sources.list.d

Over the life span of a release, you may have accumulated a number of custom private package archive (PPA) repositories in your `apt sources.list` for numerous projects that were not supported by the main repositories. It is time to clear these PPAs out now, because these external repositories may interfere with the distribution upgrade. These PPAs used to be listed inside a `sources.list` file, but nowadays they are located as separate files inside a `sources.list.d` file directory.

Modern systems

All PPA files inside `/etc/apt/sources.list.d/` can have their contents edited automatically all at once using the following commands. How this works is further explained in my `find tutorial`.

```
$ cd /etc/apt/sources.list.d/
$ sudo find . -type f -readable -writable -exec sed -i 's/xenial/bionic/g'
{} \;
```

Finally, use the `rename` command to also rename all these `/etc/apt/sources.list.d/` files all at once:

```
$ sudo apt install rename
$ sudo rename 's/xenial/bionic/' *
```

Legacy systems

Legacy systems with a single `sources.list` file mentioning the PPAs are maintained as follows:

```
$ cd /etc/apt
$ sudo cp sources.list sources.list.bup
$ sudo vim sources.list
```

In the `sources.list` file, comment out with a pound `#` all `deb` and `deb-src` lines below the following lines:

```
## Uncomment the following two lines to add software from Canonical's
## 'partner' repository.
## This software is not part of Ubuntu, but is offered by Canonical and the
## respective vendors as a service to Ubuntu users.
```

```
## This software is not part of Ubuntu, but is offered by third-party
## developers who want to ship their latest software.
```

Find the fastest repository

Unfortunately, the Debian `netselect-apt` command line tool for finding out the *fastest —not the closest!—* repository is not available in Ubuntu. Hence, the following steps in the graphical user interface are necessary to perform this task:

1. Open `Update Manager`.
2. Click on the `Settings…` button.
3. Select the `Ubuntu Software` tab.
4. In the `Download from:` selector, choose `Other…`.
5. Click on the `Select Best Server` button and wait.
6. Once finished, click on the `Choose Server` button.
7. Click on `Close`.
8. Click on `Reload` and wait.
9. Finally, click on the `Close` button to close the `Update Manager`.

Upgrade from within TTY2

Hit `Ctrl`+`Alt`+`F2` to go to terminal TTY2. This will prevent `xscreensaver` lock-outs. TTY1 is avoided because during the upgrade it will get inundated with numerous system messages.

It might be that you never tried your TTY screens before and that these turn out to be blank without any login prompt. If this is the case, than edit `/etc/default/grub` as shown below:

```
$ sudo vim /etc/default/grub
```

Uncomment the line `GRUB_TERMINAL=console`. After performing this edit, do not forget to reboot:

```
$ sudo update-grub
$ sudo reboot -n
```

Once TTY2 is working, it is now time to issue the distribution upgrade command:

```
$ sudo do-release-upgrade
```

Clean up after the upgrade

http://askubuntu.com/questions/140246/how-do-i-resolve-unmet-dependencies

```
$ sudo apt-get autoclean
$ sudo apt-get -f install
```

```
0 upgraded, 0 newly installed, 0 to remove and 79 not upgraded.
```

```
$ sudo apt-get -u dist-upgrade
```

Rare i386 dependencies

Nowadays, one will most probably no longer run into 32-bit `i386` dependencies. Nonetheless, below solution is retained for legacy systems.

Example problem:

```
The following packages have unmet dependencies:
 wine1.6 : Depends: wine1.6-i386 (= 1:1.6.2-0ubuntu4) but it is not
installable
E: Unable to correct problems, you have held broken packages.
```

Solution:

```
$ sudo dpkg --add-architecture i386
$ sudo apt-get update
```

Check every PPA before restoring

Prior to restoring, every PPA line should be checked, and where necessary, edited for the proper Ubuntu release version. Restore `/etc/apt/sources.list`.