

Rollback an apt-get upgrade if something goes wrong on Debian / Ubuntu Linux

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5-6 minutes

Rolling back to the previous version may solve the problem or free the disk space. Both [CentOS/RHEL support rollback feature](#), but I learned hard way both Debian and Ubuntu does not support rollback feature yet.

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Know the problem before choosing the solution

I remotely administer a Ubuntu 14.04.3 LTS server in one of those dirt cheap clouds, and I will periodically use [apt-get command](#) to install packages or do upgrades. I wanted to set up [“Planet Venus” \(a flexible feed aggregator \) software](#) on my system. For some weird reason, I ran:

```
$ sudo apt-get -y --install-suggests install planet-venus
```

I should have stopped the installation. But, I was too tired and overworked that day. The result was a disaster. I ran out of disk space, and it installed 1764 packages on the system. My planet-venus installation broke down too. It was one of those days where I made mistakes and forgot to take snapshot/backups. Long story short:



Related: This is not the first time I f*cked up. See [my 10 Unix command line mistakes](#).

Solution

I tried Google and [found this wiki page](#) not so helpful. A couple of mailing list and forum posts did not help at all. Finally, a hint come from Twitter:

How to rollback an apt-get upgrade from command line?

I quickly ran:

```
# grep -A 2 'Start-Date: 2016-01-17 07:56:42' /var/log  
/apt/history.log
```

Sample output (full [dump here](#)):

```
root@backup2:~# grep -A 2 'Start-Date: 2016-01-17 07:56:42' /var/log/apt/history.log  
Start-Date: 2016-01-17 07:56:42  
Commandline: apt-get --install-suggests install planet-venus  
Install: libmaa3:amd64 (1.3.2-2, automatic), ant:amd64 (1.9.3-2build1, automatic), libmimic0:amd64 (1.0.4-2.1ubuntu1, automatic), dc:amd64 (1.06.95-8ubuntu1, automatic), libparse-yapp-perl:amd64 (1.05-12, automatic), girl.2-clutter-1.0:amd64 (1.16.4-0ubuntu2, automatic), libjna-java:amd64 (3.2.7-4, automatic), python-egenix-mxbase:amd64 (3.2.7-1build1, automatic), libxkbcommon-x11-0:amd64 (0.4.1-0ubuntu1, automatic), libmpeg2-4:amd64 (0.5.1-5ubuntu1, automatic), libopencv-core2.4:amd64 (2.4.8+dfsg1-2ubuntu1, automatic), libdvdread4:amd64 (4.2.1-2ubuntu1, automatic), libhunspell-1.3-0:amd64 (1.3.2-6ubuntu2.1, automatic), fonts-lobster:amd64 (2.0-2, automatic), libtotem-plparser18:amd64 (3.10.2-0ubuntu1, automatic), libodbcinstq4-1:amd64 (2.3.0-4, automatic), jed-common:amd64 (0.99.19-2.1, automatic), emacs-common:amd64 (2.0.7, automatic), libgll-mesa-dev:amd64 (10.1.3-0ubuntu0.5, automatic), brasero-cdrkit:amd64 (3.10.0-0ubuntu1, automatic), libjsr305-java:amd64 (0.1-+svn49-4, automatic), opus-tools:amd64 (0.1.8-1, automatic), libbibutils2:amd64 (4.12-5, automatic), libdbil:amd64 (0.9.0-1, automatic), aptdaemon-data:amd64 (1.1.1-1ubuntu5.2, automatic), dict-foldoc:amd64 (20120518-1, automatic), tcl:amd64 (8.6.0+6ubuntu3, automatic), libcdio-paranoia1:amd64 (0.83-4.1ubuntu1, automatic), python3-pil.imagetk:amd64 (2.3.0-1ubuntu3, automatic), libavformat54:amd64 (9.18-0ubuntu0.14.04.1, automatic), printer-driver-cjet:amd64 (0.8.9-4, automatic), libfontforge1:amd64 (20120731.b-5, automatic), libboost-regex1.54.0:amd64 (1.54.0-4ubuntu3.1, automatic), libclutter-gtk-1.0-0:amd64 (1.4.4-3ubuntu2.2, automatic), libpython3-dbg:amd64 (3.4.0-0ubuntu2, automatic), libstartup-notification0:amd64 (0.12-3ubuntu1, automatic), heirloom-mailx:amd64 (12.5-2+deb7ulbuild0.14.04.1, automatic), liblqr-1-0:amd64 (0.4.1-2ubuntu1, automatic), libqt5concurrent5:amd64 (5.2.1+dfsg-1ubuntu14.3, automatic), apache2-utils:amd64 (2.4.7-1ubuntu4.8, automatic), tcsh:amd64 (6.18.01-2, automatic), libunipanel0:amd64 (0.3.20130501-3, automatic), ttf
```



```
(0.18.01-2, automatic), libunistring:amd64 (0.9.20150501-3, automatic), ca
-adv-gillius:amd64 (0.20090423-2, automatic), fop:amd64 (1.1.dfsg-2ubuntu1, aut
omatic), libsgmls-perl:amd64 (1.03ii-32, automatic), qt5-qmake:amd64 (5.2.1+dfsg
-1ubuntu4.3, automatic), sensor:amd64 (3.3.4-2ubuntu1, automatic), libmpfr-d
oc:amd64 (3.1.2-1, automatic), dvi2pdf:amd64 (1.14-2, automatic), libdc1394-22:a
md64 (2.2.1-2ubuntu2, automatic), subversion:amd64 (1.8.8-1ubuntu3.2, automatic
), lib32gfortran-4.8-dev:amd64 (4.8.4-2ubuntu1-14.04, automatic), libfluidsynth
1:amd64 (1.1.6-2, automatic), liblua5.1-0:amd64 (5.1.5-5ubuntu0.1, automatic),
python-egenix-mxtexttools-doc:amd64 (3.2.7-1build1, automatic), slime:amd64 (20
130626-1, automatic), texlive-lang-czechslovak:amd64 (2013.20140215-1, automati
c), liba52-0.7.4:amd64 (0.7.4-17, automatic), cdrkit-doc:amd64 (1.1.11-2ubuntu3
, automatic), libjffi-jni:amd64 (1.0.2-11, automatic), sbcl:amd64 (1.1.14-2, au
tomatic), gawk:amd64 (4.0.1+dfsg-2.1ubuntu2, automatic), jed:amd64 (0.99.19-2.1
, automatic), ipython-gtconsole:amd64 (1.2.1-2, automatic), dwww:amd64 (1.12.1,
automatic), libunicode-string-perl:amd64 (2.09-5build1, automatic), fonts-comf
ortaa:amd64 (2.003-1, automatic), hplip:amd64 (3.14.3-0ubuntu3.4, automatic), l
ibjs-jquery-hotkeys:amd64 (0-20130707+git2d51e3a9+dfsg-2ubuntu1, automatic), li
bboost-atomic1.54.0:amd64 (1.54.0-4ubuntu3.1, automatic), libidn1-dev:amd64 (1
.28-1ubuntu2, automatic), libautodie-perl:amd64 (2.23-1, automatic), libfishsou
nd1:amd64 (1.0.0-1.1ubuntu2, automatic), libboost-mpi-python1.54-dev:amd64 (1.5
```

Fig.01: history.log to rescue

Rollback / undo an apt-get install command

Rest was easy.

Create the list:

```
grep -A 2 'Start-Date: 2016-01-17 07:56:42' /var/log
/apt/history.log | tail -1 >/tmp/packages.txt
```

```
grep -A 2 'Start-Date: 2016-01-17 07:56:42' /var/log/apt/history.log | tail -1
>/tmp/packages.txt
```

Edit the /tmp/packages.txt file and delete Install: word:

OR

```
sed -i 's/Install://' /tmp/packages.txt
```

```
sed -i 's/Install://' /tmp/packages.txt
```

Finally, I need to clean up a few things:

```
tr ', ' '\n' < /tmp/packages.txt | sed '/automatic)/d' |
awk '{ print $1}' > /tmp/final.packages.txt
wc -l /tmp/final.packages.txt
```

```
tr ', ' '\n' < /tmp/packages.txt | sed '/automatic)/d' | awk '{ print $1}' >
/tmp/final.packages.txt wc -l /tmp/final.packages.txt
```

Sample outputs:

```
1764 /tmp/final.packages.txt
```

Delete the packages

Now, I have an entire list of all packages installed on that unfaithful day

```
# less /tmp/final.packages.txt
```

```
libmaa3:amd64
ant:amd64
libmimic0:amd64
dc:amd64
libparse-yapp-perl:amd64
gir1.2-clutter-1.0:amd64
libjna-java:amd64
python-egenix-mxbeebase:amd64
libxkbcommon-x11-0:amd64
libmpeg2-4:amd64
libopencv-core2.4:amd64
libdvdread4:amd64
libhunspell-1.3-0:amd64
fonts-lobster:amd64
libtotem-plparser18:amd64
libodbcinstq4-1:amd64
jed-common:amd64
....
..
...
xfonts-cyrillic:amd64
postgresql:amd64
db5.3-util:amd64
libopencore-amrnb0:amd64
firebird2.5-examples:amd64
libboost-random1.54-dev:amd64
libtbb2:amd64
libwxgtk2.8-0:amd64
libc6-x32:amd64
magicfilter:amd64
```

Just uninstall it:

```
# Run as root
# Store packages name in $p
p="$(cat /tmp/final.packages.txt)"

# Nuke it
apt-get --purge remove $p

#clears out the local repository of retrieved package
files
```

```
apt-get clean
```

```
# Just in case ...
```

```
apt-get autoremove
```

```
# Verify disk space
```

```
df -H
```

```
# Run as root # Store packages name in $p p="$(/tmp/final.packages.txt)" #  
Nuke it apt-get --purge remove $p #clears out the local repository of retrieved  
package files apt-get clean # Just in case ... apt-get autoremove # Verify disk  
space df -H
```

Conclusion

To help yourself, you must be yourself. Be the best that you can be. When you make a mistake, learn from it, pick yourself up and move on. –Dave Pelzer

I learned that:

1. The best time to backup is before you do major stuff on the server.
2. Think twice. Hit enter once.
3. Never trust blindly the apt-get or any command that has -y option.
4. Always make the snapshot. Unfortunately, this box still uses ext4. There is no option to set my filesystem to BTRFS/ZFS (Linux on ZFS) with this cloud server provider. So I'm stuck with ext4 for now.

The author is the creator of nixCraft and a seasoned sysadmin, DevOps engineer, and a trainer for the Linux operating system/Unix shell scripting. Get the **latest tutorials on SysAdmin, Linux/Unix and open source topics** via [RSS/XML feed](#) or [weekly email newsletter](#).