

# Yum: What's New in F12 and Planned for the Future

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fedora project/red hat

# yumdb

- What it does: Stores additional and optional data about installed packages.
- Why: we needed a place to put it and we couldn't do it in the rpmdb (at the time)
- How: simple fs-based “db” in `/var/lib/yum/yumdb`
- What's stored: installed-from-repo, reason-for-install, commandline of install, etc

# yumdb – the util

```
root@rosebud:~  
~# yumdb get from_repo yum-utils  
yum-utils-1.1.24-2.fc12.noarch  
  from_repo = fedora  
~# yumdb set note "installed by seth b/c he likes it" yum-utils  
yum-utils-1.1.24-2.fc12.noarch  
  note = installed by seth b/c he likes it  
~# yumdb get note yum-utils  
yum-utils-1.1.24-2.fc12.noarch  
  note = installed by seth b/c he likes it  
~# yumdb info yum-utils  
yum-utils-1.1.24-2.fc12.noarch  
  checksum_data = ecaf715c99e9b4b6624bbb400b5fcff354c5b72e217ba2a55e9c898ce76  
74269  
  checksum_type = sha256  
  command_line = update yum-utils totem gnome-desktop python-iniparse  
  from_repo = fedora  
  from_repo_revision = 1258743923  
  from_repo_timestamp = 1258755263  
  note = installed by seth b/c he likes it  
  reason = user  
  releasever = 12  
~# █
```

# yumdb – things to do

- Store change information in notes so an admin can know why something is installed or why this set of pkgs was installed
- Add information for a set of pkgs and make a yum plugin which takes action based on the presence or absence of that information
- Something else entirely :)

# yum history

- What: stores and allows actions based on what yum has done in the past.
- How: a sqlite db stores fairly detailed information about what yum is doing, while and immediately following the completion of a transaction.
- Why: Oft-requested feature to undo/revert/explain the set of pkgs which just changed.

# yum history

- **Commands:**
  - List – lists history items
  - Summary – short summary of a transaction
  - Info – detail of a transaction
  - Undo – undo what a transaction did
  - Redo/repeat – redo what a transaction did
  - New – create a new history db, preserving the old one

# yum history list

root@rosebud:~

~# yum history list

Loaded plugins: downloadonly, verify

ID	Login user	Date and time	Action(s)	Altered
72	seth vidal <skvidal>	2009-12-01 16:28	Erase	5
71	seth vidal <skvidal>	2009-12-01 16:20	Install	5
70	seth vidal <skvidal>	2009-12-01 16:02	Install	12
69	seth vidal <skvidal>	2009-11-27 11:01	Install	7
68	seth vidal <skvidal>	2009-11-24 10:10	Erase	2
67	seth vidal <skvidal>	2009-11-23 21:36	Update	5
66	seth vidal <skvidal>	2009-11-18 16:18	Erase	5
65	seth vidal <skvidal>	2009-11-18 16:18	Erase	2
64	seth vidal <skvidal>	2009-11-18 16:08	Install	2
63	seth vidal <skvidal>	2009-11-18 14:21	Install	5
62	seth vidal <skvidal>	2009-11-16 16:25	Erase	1
61	seth vidal <skvidal>	2009-11-16 16:22	Install	1
60	seth vidal <skvidal>	2009-11-16 10:55	Install	1 **
59	seth vidal <skvidal>	2009-11-16 10:55	Install	1 **
58	seth vidal <skvidal>	2009-11-14 13:37	Erase	1
57	seth vidal <skvidal>	2009-11-14 13:36	Erase	2
56	seth vidal <skvidal>	2009-11-14 11:26	Erase	2 **
55	seth vidal <skvidal>	2009-11-13 15:29	Install	1
54	seth vidal <skvidal>	2009-11-13 15:28	Erase	2
53	seth vidal <skvidal>	2009-11-13 15:26	Install	22

history list

~#

# yum history summary

```
root@rosebud:~  
~# yum history summary 72  
Loaded plugins: downloadonly, verify  
Login user          | Time                | Action(s)          | Altered  
-----  
seth vidal <skvidal> | Last day            | Erase              |      5  
history summary  
~#  
~#  
~#  
~#  
~#  
~# yum history summary zsh  
Loaded plugins: downloadonly, verify  
Login user          | Time                | Action(s)          | Altered  
-----  
seth vidal <skvidal> | Last 3 months      | E, I, R            |     13  
history summary  
~# 
```



# yum history info

```
root@rosebud:~  
~# yum history info 72  
Loaded plugins: downloadonly, verify  
Transaction ID : 72  
Begin time      : Tue Dec  1 16:28:38 2009  
Begin rpmdb     : 1740:c0a1f292f79164a0f50c76819b8c6c27c9a79f6c  
End time        : 16:28:48 2009 (10 seconds)  
End rpmdb       : 1735:9fcf26fdab2a2405ee6d070e71c9b9616f068251  
User            : seth vidal <skvidal>  
Return-Code     : Success  
Transaction performed with:  
  Installed      rpm-4.7.1-6.fc12.i686  
  Installed      yum-3.2.25-1.fc12.noarch  
Packages Altered:  
  Erase          compat-readline5-5.2-17.fc12.i686  
  Erase          koffice-core-3:1.6.3-26.20090306svn.fc12.i686  
  Erase          koffice-kpresenter-3:1.6.3-26.20090306svn.fc12.i686  
  Erase          koffice-libs-3:1.6.3-26.20090306svn.fc12.i686  
  Erase          ruby-libs-1.8.6.383-4.fc12.i686  
history info  
~#
```

# yum history undo

```
root@rosebud:~  
~# yum history undo 72  
Loaded plugins: downloadonly, verify  
rpmfusion-free-rawhide | 3.8 kB | 00:00  
updates/metalink | 9.9 kB | 00:00  
Undoing transaction 72, from Tue Dec 1 16:28:38 2009  
Erase compat-readline5-5.2-17.fc12.i686  
Erase koffice-core-3:1.6.3-26.20090306svn.fc12.i686  
Erase koffice-kpresenter-3:1.6.3-26.20090306svn.fc12.i686  
Erase koffice-libs-3:1.6.3-26.20090306svn.fc12.i686  
Erase ruby-libs-1.8.6.383-4.fc12.i686  
Resolving Dependencies  
--> Running transaction check  
---> Package compat-readline5.i686 0:5.2-17.fc12 set to be updated  
---> Package koffice-core.i686 3:1.6.3-26.20090306svn.fc12 set to be updated  
---> Package koffice-kpresenter.i686 3:1.6.3-26.20090306svn.fc12 set to be updated  
---> Package koffice-libs.i686 3:1.6.3-26.20090306svn.fc12 set to be updated  
---> Package ruby-libs.i686 0:1.8.6.383-4.fc12 set to be updated  
--> Finished Dependency Resolution  
  
Dependencies Resolved  
  
=====
```

Package	Arch	Version	Repository	Size
Installing:				
compat-readline5	i686	5.2-17.fc12	fedora	121 k
koffice-core	i686	3:1.6.3-26.20090306svn.fc12	fedora	1.4 M
koffice-kpresenter	i686	3:1.6.3-26.20090306svn.fc12	fedora	2.6 M
koffice-libs	i686	3:1.6.3-26.20090306svn.fc12	fedora	3.5 M
ruby-libs	i686	1.8.6.383-4.fc12	fedora	1.6 M

```
=====
```

Transaction Summary  
=====

```
Install      5 Package(s)  
Upgrade      0 Package(s)  
  
Total size: 9.2 M  
Is this ok [y/N]: █
```

# yum history redo

```
root@rosebud:~  
~# yum history redo 72  
Loaded plugins: downloadonly, verify  
Repeating transaction 72, from Tue Dec 1 16:28:38 2009  
Erase          compat-readline5-5.2-17.fc12.i686  
Erase          koffice-core-3:1.6.3-26.20090306svn.fc12.i686  
Erase          koffice-kpresenter-3:1.6.3-26.20090306svn.fc12.i686  
Erase          koffice-libs-3:1.6.3-26.20090306svn.fc12.i686  
Erase          ruby-libs-1.8.6.383-4.fc12.i686  
No package matched to remove  
No package matched to remove  
No package matched to remove  
No package matched to remove  
No package matched to remove  
history redo  
~#
```

# yum history new

- Nothing to show here. It makes a new sqlite database file in `/var/lib/yum/history/` that has a higher date than the previous one.
- If you want to go back to the older one just `[re]move` the new one and that's it.

# yum history - other info

- Warning: RPMDB has been altered since the last yum transaction.
- undo can only work if the packages you want to put BACK on the system are available.
- History commands 'list, summary and info' all take an argument of a package name or glob so you can look up when the last events were that happened to a particular package without having to sift through all of them.

# other new items

- SSL certificates for authentication to repositories
- yum version: generate a unique identifier for the current installed set of pkgs or a specific set of pkgs. Useful for quickly comparing systems.
- yum downgrade

# more other new items

- Createrepo new things:
  - Deltarpms
  - Arbitrary-url for pkgs
  - Mergerepos
- yum-utils:
  - needs-restarting

# Find new things

- <http://yum.baseurl.org/wiki/whatsnew>



# future plans

- Weakdeps?
- summary/description translation files?
- tags/keyword searching from fedora's packagedb
- python 3.0 compat?
- Api breaking?
- Parallel downloads?
- What else do we need?

# credits

- James Antill
- Tim Lauridisen
- Ville Skyttä
- Many Many Translators

# help needed

We need help on yum-utils and yum plugins in particular. To clean ones up that are old and crufty and to better document and explain the use cases of them. If you're interested in helping contact the yum-devel mailing list at [yum-devel@lists.baseurl.org](mailto:yum-devel@lists.baseurl.org)

# Q&A

This is where you ask me difficult questions about why yum sucks and/or I suck.