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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'yum2dnf.8' command**

**\$ man yum2dnf.8**

YUM2DNF(8)                      DNF                      YUM2DNF(8)

NAME

    yum2dnf - Changes in DNF compared to YUM

--SKIP-BROKEN

    For install command:

    The --skip-broken option is an alias for --setopt=strict=0. Both options could be used with DNF to skip all unavailable packages or packages with broken dependencies given to DNF without raising an error causing the whole operation to fail. This behavior can be set as default in dnf.conf file. See strict conf option.

    For upgrade command:

    The semantics that were supposed to trigger in YUM with --skip-broken are now set for plain dnf update as a default. There is no need to use --skip-broken with the dnf upgrade command. To use only the latest versions of packages in transactions, there is the --best command line switch.

UPDATE AND UPGRADE COMMANDS ARE THE SAME

    Invoking dnf update or dnf upgrade, in all their forms, has the same effect in DNF, with the latter being preferred. In YUM yum upgrade was exactly like yum --obsoletes update.

CLEAN\_REQUIREMENTS\_ON\_REMOVE ON BY DEFAULT

    The clean\_requirements\_on\_remove switch is on by default in DNF. It can thus be confusing to compare the "remove" operation results between DNF

and YUM as by default DNF is often going to remove more packages.

#### NO RESOLVEDEP COMMAND

The YUM version of this command is maintained for legacy reasons only.

The user can just use `dnf provides` to find out what package provides a particular file.

#### NO DEPLIST COMMAND

An alternative to the YUM `deplist` command to find out dependencies of a package is `dnf repoquery --deplist` using `repoquery` command.

#### NOTE:

Alternatively there is a YUM compatibility support where `yum deplist` is alias for `dnf repoquery --deplist` command

#### EXCLUDES AND REPO EXCLUDES APPLY TO ALL OPERATIONS

YUM only respects `excludes` during installs and upgrades. DNF extends this to all operations, among others erasing and listing. If you e.g. want to see a list of all installed `python-f*` packages but not any of the Flask packages, the following will work:

```
dnf -x '*flask*' list installed 'python-f*'
```

#### THE INCLUDE OPTION HAS BEEN REMOVED

Inclusion of other configuration files in the main configuration file is no longer supported.

#### DNF PROVIDES /BIN/<FILE> IS NOT FULLY SUPPORTED

After `UsrMove` there's no directory `/bin` on Fedora systems and no files get installed there, `/bin` is only a symlink created by the filesystem package to point to `/usr/bin`. Resolving the symlinks to their real path would only give the user a false sense that this works, while in fact provides requests using globs such as:

```
dnf provides /b*/<file>
```

will fail still (as they do in YUM now). To find what provides a particular binary, use the actual path for binaries on Fedora:

```
dnf provides /usr/bin/<file>
```

Also see related Fedora bugzillas [982947](#) and [982664](#).

#### SKIP\_IF\_UNAVAILABLE COULD BE ENABLED BY DEFAULT

In some distributions DNF is shipped with `skip_if_unavailable=True` in

the DNF configuration file. The reason for the change is that third-party repositories can often be unavailable. Without this setting in the relevant repository configuration file YUM immediately stops on a repository synchronization error, confusing and bothering the user.

See the related Fedora bug 984483.

#### OVERWRITE\_GROUPS DROPPED, COMPS FUNCTIONS ACTING AS IF ALWAYS DISABLED

This config option has been dropped. When DNF sees several groups with the same group ID it merges the groups' contents together.

#### MIRRORLIST\_EXPIRE DROPPED

To simplify things for the user, DNF uses `metadata_expire` for both expiring metadata and the mirrorlist file (which is a kind of metadata itself).

#### METALINK NOT RECOGNIZED IN THE MIRRORLIST REPO OPTION

The following part of `yum.conf(5)` no longer applies for the mirrorlist option:

As a special hack if the mirrorlist URL contains the word "metalink" then the value of mirrorlist is copied to metalink (if metalink is not set).

The relevant repository configuration files have been fixed to respect this, see the related Fedora bug 948788.

#### ALWAYS\_PROMPT DROPPED

Unsupported to simplify the configuration.

#### UPGRADE\_REQUIREMENTS\_ON\_INSTALL DROPPED

Dropping this config option with blurry semantics simplifies the configuration. DNF behaves as if this was disabled. If the user wanted to upgrade everything to the latest version she'd simply use `dnf upgrade`.

#### DNF\_HISTORY\_ROLLBACK\_CHECK DROPPED

Since DNF tolerates the use of other package managers, it is possible that not all changes to the RPMDB are stored in the history of transactions. Therefore, DNF does not fail if such a situation is encountered and thus the `force` option is not needed anymore.

#### PACKAGES REPLACEMENT WITHOUT YUM SWAP

Time after time one needs to remove an installed package and replace it

with a different one, providing the same capabilities while other pack-  
ages depending on these capabilities stay installed. Without (tran-  
siently) breaking consistency of the package database this can be done  
by performing the remove and the install in one transaction. The common  
way to set up such a transaction in DNF is to use `dnf shell` or use the  
`--allowerasing` switch.

E.g. say you want to replace A (providing P) with B (also providing P,  
conflicting with A) without deleting C (which requires P) in the  
process. Use:

```
dnf --allowerasing install B
```

This command is equal to `yum swap A B`.

DNF provides `swap` command but only `dnf swap A B` syntax is supported

#### DEPENDENCY PROCESSING DETAILS ARE NOT SHOWN IN THE CLI

During its depsolving phase, YUM outputs lines similar to:

```
---> Package rubygem-rhc.noarch 0:1.16.9-1.fc19 will be an update
```

```
--> Processing Dependency: rubygem-net-ssh-multi >= 1.2.0 for package: rubygem-rhc-1.16.9-1.fc19.noarch
```

DNF does not output information like this. The technical reason is that  
depsolver below DNF always considers all dependencies for update candi-  
dates and the output would be very long. Secondly, even in YUM this  
output gets confusing very quickly especially for large transactions  
and so does more harm than good.

See the related Fedora bug [1044999](#).

#### DNF PROVIDES COMPLIES WITH THE YUM DOCUMENTATION OF THE COMMAND

When one executes:

```
yum provides sandbox
```

YUM applies extra heuristics to determine what the user meant by `sand-  
box`, for instance it sequentially prepends entries from the `PATH` envi-  
ronment variable to it to see if it matches a file provided by some  
package. This is an undocumented behavior that DNF does not emulate.

Just typically use:

```
dnf provides /usr/bin/sandbox
```

or even:

```
dnf provides '*/sandbox'
```

to obtain similar results.

## BANDWIDTH LIMITING

DNF supports the `throttle` and `bandwidth` options familiar from YUM. Contrary to YUM, when multiple downloads run simultaneously the total downloading speed is throttled. This was not possible in YUM since downloaders ran in different processes.

## INSTALLONLYPKGS CONFIG OPTION

Compared to YUM, DNF appends list values from the `installonlypkgs` config option to DNF defaults, where YUM overwrites the defaults by option values.

## THE USAGE OF DELTA RPM FILES

The boolean `deltarpm` option controls whether delta RPM files are used. Compared to YUM, DNF does not support `deltarpm_percentage` and instead chooses some optimal value of DRPM/RPM ratio to decide whether using `deltarpm` makes sense in the given case.

## HANDLING .SRPM FILES AND NON-EXISTENT PACKAGES

DNF will terminate early with an error if a command is executed requesting an installing operation on a local `.srpm` file:

```
$ dnf install fdn-0.4.17-1.fc20.src.rpm tour-4-6.noarch.rpm
```

```
Error: Will not install a source rpm package (fdn-0.4.17-1.fc20.src).
```

The same applies for package specifications that do not match any available package.

YUM will only issue a warning in this case and continue installing the "tour" package. The rationale behind the result in DNF is that a program should terminate with an error if it can not fulfill the CLI command in its entirety.

## PROMOTING PACKAGE TO INSTALL TO A PACKAGE THAT OBSOLETE IT

DNF will not magically replace a request for installing package X to installing package Y if Y obsoletes X. YUM does this if its `obsoletes` config option is enabled but the behavior is not properly documented and can be harmful.

See the related Fedora bug 1096506 and guidelines for renaming and obsoleting packages in Fedora.

## BEHAVIOR OF --INSTALLROOT OPTION

DNF offers more predictable behavior of installroot. DNF handles the path differently from the --config command-line option, where this path is always related to the host system (YUM combines this path with installroot). Reposdir is also handled slightly differently, if one path of the reposdirs exists inside of installroot, then repos are strictly taken from installroot (YUM tests each path from reposdir separately and use installroot path if existed). See the detailed description for --installroot option.

## DIFFERENT PROMPT AFTER TRANSACTION TABLE

DNF doesn't provide download functionality after displaying transaction table. It only asks user whether to continue with transaction or not.

If one wants to download packages, they can use the 'download' command.

## LIST COMMAND SHOWS ALL REPO ALTERNATIVES

DNF lists all packages from all repos, which means there can be duplicate package names (with different repo name). This is due to providing users possibility to choose preferred repo.

## YUM-LANGPACKS SUBCOMMANDS HAVE BEEN REMOVED

Translations became part of core DNF and it is no longer necessary to manage individual language packs.

Following sub-commands were removed:

? langavailable

? langinstall

? langremove

? languist

? langinfo

??

?Original YUM tool ? DNF command/option ? Package ?

??

?yum check ? dnf repoquery --un? ? dnf ?

? ? satisfied ? ?

??

?yum-langpacks ? ? dnf ?

??

?yum-plugin-aliases ? dnf alias ? dnf ?

??

?yum-plugin-auto-up? ? option in debug? ? dnf-plugins-core ?

?date-debug-info ? info-install.conf ? ?

??

?yum-plugin-changelog ? ? dnf-plugins-core ?

??

?yum-plugin-copr ? dnf copr ? dnf-plugins-core ?

??

?yum-plugin-fastest? ? fastestmirror op? ? dnf ?

?mirror ? tion in dnf.conf ? ?

??

?yum-plugin-fs-snap? ? ? dnf-plugins-ex? ?

?shot ? ? tras-snapper ?

??

?yum-plugin-local ? ? dnf-plugins-core ?

??

?yum-plugin-merge-conf ? ? dnf-plugins-ex? ?

? ? ? tras-rpmconf ?

??

?yum-plugin-post-trans? ? ? dnf-plugins-core ?

?action-actions ? ? ?

??

?yum-plugin-priorities ? priority option in ? dnf ?

? ? dnf.conf ? ?

??

?yum-plugin-re? ? dnf autoremove ? dnf ?

?move-with-leaves ? ? ?

??

?yum-plugin-show-leaves ? ? dnf-plugins-core ?

??

?yum-plugin-tmprepo ? --repofrompath op? ? dnf ?

? ? tion ? ?

??

?yum-plugin-tsflags ? tsflags option in ? dnf ?

? ? dnf.conf ? ?

??

?yum-plugin-versionlock ? ? python3-dnf-plugin-ver? ?

? ? ? sionlock ?

??

?yum-rhn-plugin ? ? dnf-plugin-spacewalk ?

??

Plugins that have not been ported yet:

- yum-plugin-filter-data, yum-plugin-keys, yum-plugin-list-data,
- yum-plugin-protectbase, yum-plugin-ps, yum-plugin-puppetverify,
- yum-plugin-refresh-updatesd, yum-plugin-rpm-warm-cache, yum-plugin-up?
- grade-helper, yum-plugin-verify

Feel free to file an RFE for missing functionality if you need it.

All ported YUM tools are now implemented as DNF plugins.

??

?Original YUM tool ? New DNF command ? Package ?

??

?debuginfo-install ? dnf debuginfo-in? ? dnf-plugins-core ?

? ? stall ? ?

??

?find-repos-of-in? ? dnf list installed ? dnf ?

?stall ? ? ?

??

?needs-restarting ? dnf tracer ? dnf-plugins-ex? ?

? ? ? tras-tracer ?

??

?package-cleanup ? dnf list, dnf repo? ? dnf, dnf-plugin? ?

? ? query ? ins-core ?

??

?repoclosure ? dnf repoclosure ? dnf-plugins-ex? ?



? ? ? tras-repoclosure ?  
??  
?reporiff ? dnf repodiff ? dnf-plugins-core ?  
??  
?repo-graph ? dnf repograph ? dnf-plugins-ex? ?  
? ? ? tras-repograph ?  
??  
?repomanage ? dnf repomanage ? dnf-plugins-ex? ?  
? ? ? tras-repomanage ?  
??  
?repoquery ? dnf repoquery ? dnf ?  
??  
?reposync ? dnf reposync ? dnf-plugins-core ?  
??  
?reporack ? dnf download --re? ? dnf-plugins-core ?  
? ? solve --alldeps ? ?  
??  
?yum-builddep ? dnf builddep ? dnf-plugins-core ?  
??  
?yum-config-manager ? dnf config-manager ? dnf-plugins-core ?  
??  
?yum-debug-dump ? dnf debug-dump ? dnf-plugins-ex? ?  
? ? ? tras-debug ?  
??  
?yum-debug-restore ? dnf debug-restore ? dnf-plugins-ex? ?  
? ? ? tras-debug ?  
??  
?yumdownloader ? dnf download ? dnf-plugins-core ?  
??

Detailed table for package-cleanup replacement:

??  
?package-cleanup --dupes ? dnf repoquery --duplicates ?  
??

```

?package-cleanup --leaves ? dnf repoquery --unneeded ?
????????????????????????????????????????????????????????????????
?package-cleanup --orphans ? dnf repoquery --extras ?
????????????????????????????????????????????????????????????????
?package-cleanup --problems ? dnf repoquery --unsatis? ?
? ? fied ?
????????????????????????????????????????????????????????????????
?package-cleanup --cle? ? dnf remove --duplicates ?
?andupes ? ?
????????????????????????????????????????????????????????????????
?package-cleanup --oldker? ? dnf remove --oldinstal? ?
?nels ? lonly ?
????????????????????????????????????????????????????????????????
?package-cleanup --oldker? ? dnf remove $(dnf repoquery ?
?nels --keep=2 ? --installonly --lat? ?
? ? est-limit=-2) ?
????????????????????????????????????????????????????????????????

```

YUM-UPDATEONBOOT AND YUM-CRON

DNF does not have a direct replacement of yum-updateonboot and yum-cron commands. However, the similar result can be achieved by dnf automatic command (see automatic).

You can either use the shortcut:

```
$ systemctl enable --now dnf-automatic-install.timer
```

Or set apply\_updates option of /etc/dnf/automatic.conf to True and use generic timer unit:

```
$ systemctl enable --now dnf-automatic.timer
```

The timer in both cases is activated 1 hour after the system was booted up and then repetitively once every 24 hours. There is also a random delay on these timers set to 5 minutes. These values can be tweaked via dnf-automatic\*.timer config files located in the /usr/lib/systemd/system/ directory.

UTILITIES THAT HAVE NOT BEEN PORTED YET

repo-rss, show-changed-rco, show-installed, verifytree, yum-groups-man?

ager

Take a look at the FAQ about YUM to DNF migration. Feel free to file an RFE for missing functionality if you need it.

#### AUTHOR

See AUTHORS in DNF source distribution.

#### COPYRIGHT

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