



EPEL

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Extra Packages for Enterprise Linux (EPEL)

- Add-on repository containing additional packages for RedHat Enterprise Linux, CentOS and Scientific Linux
- Maintained by the Fedora community
- Packages are usually based on the corresponding packages in Fedora
- Currently EPEL is maintained for Enterprise Linux versions 4, 5 and 6

How to get a package into EPEL

- Get the package into Fedora first
- The maintainer can then request that it should also be included in EPEL
- The maintainer of a package in Fedora and EPEL does not have to be the same person but often is
- EPEL uses Fedora's infrastructure to build, maintain and distribute packages

Packaging Guidelines

- In order for a package submitted for review for inclusion in Fedora to be accepted it must comply with the Fedora packaging guidelines
 - <http://fedoraproject.org/wiki/Packaging:Guidelines>
- There is also a set of guidelines providing additional rules for EPEL
 - <http://fedoraproject.org/wiki/EPEL/GuidelinesAndPolicies>

Naming

- Allowed characters in package names
 - A-Z a-z 0-9 - . _ +

“When naming packages for Fedora, the maintainer must use the dash '-' as the delimiter for name parts. The maintainer must NOT use an underscore '_', a plus '+', or a period '.' as a delimiter.”

“However, if they [the upstream maintainers] do not express any preference of case, you should default to lowercase naming.”

Versions

- Name – Version – Release (NVR)
 - Example: `fetch-crl-3.0.5-1.el5`
- The release enumerates updates based on the same upstream version
 - `%{?dist}` tag
- Special rules for pre-release and snapshot versions

Shared libraries and dynamic linking preferred

“Packages including libraries should exclude static libs as far as possible (eg by configuring with `--disable-static`). Static libraries should only be included in exceptional circumstances. Applications linking against libraries should as far as possible link against shared libraries not static versions.”

- Always link to shared libraries
- Don't package static libraries

No inclusion of pre-built binaries or libraries

“All program binaries and program libraries included in Fedora packages must be built from the source code that is included in the source package.”

- Pre-built binaries can be malicious, dangerous or broken and can not be patched

“Many Java projects re-ship their dependencies in their own releases. This is unacceptable in Fedora. All packages **MUST** be built from source and **MUST** enumerate their dependencies with Requires. They **MUST NOT** build against or re-ship the pre-included JAR files but instead symlink out to the JAR files provided by dependencies.”

No duplication of system libraries

“A package should not include or build against a local copy of a library that exists on a system. The package should be patched to use the system libraries. This prevents old bugs and security holes from living on after the core system libraries have been fixed.”

- Do not include a copy of e.g. the gsoap library source – link to the system library instead
- This applies not only to C and C++, but to Perl, Python, Java, PHP, ... as well

rpm lint

- A tool that examines packages and specfiles for packaging issues
- Does not find everything
- Sometimes gives false positives

Submitting a package

- Become a Fedora Package Maintainer
 - <http://fedoraproject.org/wiki/PackageMaintainers/Join>
- Submit your package for review
 - https://bugzilla.redhat.com/bugzilla/enter_bug.cgi?product=Fedora&format=fedora-review
- Your first package will need to be reviewed by a sponsor

Reviewing packages

- Packages are reviewed by other Fedora packagers
- Review guidelines
 - <http://fedoraproject.org/wiki/Packaging:ReviewGuidelines>
- Review swaps

What about Debian?

- Debian Policy
 - <http://www.debian.org/doc/debian-policy/>
- Becoming a Debian Maintainer
 - <http://wiki.debian.org/DebianMaintainer>
- Becoming a Debian Developer
 - <http://wiki.debian.org/DebianDeveloper>



Thank you!

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