



Packaging Workshop: Guidelines, Language Specifics and Tools

(What do you mean it does not use autotools?)

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Abstract

Additional information after packaging your first RPM:
Packaging guidelines, language-specific tips and helper tools to
help you along the way

Beyond basic guidelines

- Most RPM examples deal with simple C/autotools projects
- Reality is more complicated
 - Ruby
 - Python
 - Perl
 - Java
 - KDE, Gnome
 - ...

What guidelines should I follow?

- 1 What is primary type of package (there can be multiple)
 - ./configure => autotools based
 - *.pro => qmake (Qt)
 - setup.py => Python setuptools
 - SConstruct => scons buildsystem (usually Python)
 - build.xml => Java/Ant build
 - *.gem => Rubygems
 - ...
- 2 Find guidelines for given type of package¹
- 3 Copy from package already in distribution!

¹http://fedoraproject.org/wiki/Packaging:Guidelines#Application_Specific_Guidelines

Which package to copy at first?

- The more recently updated the better
 - Python => python-unittest2 (yum search python-*)
 - Perl => perl-threads (yum search perl-*)
 - Java/Maven => munge-maven-plugin (yum search maven-*)
- The shorter the spec file the better

Useful tools for packaging and advanced usage

- fedpkg
- rpmdev-bumpspec
- rpmdev-vercmp 1.2.3-rc1 ?? 1.2.3-final
- repoquery
- mock
- fedora-easy-karma
- fedora-review

fedpkg

```
# clone anonymously  
$ fedpkg clone -a python-kitchen  
  
# switch to version from F19  
$ fedpkg switch-branch f19
```

rpmdev-bumpspec

```
# Add proper changelog entry
$ export RPM_PACKAGER="name <my@email.add>"
$ rpmdev-bumpspec -c "Update to version 1.2.3" *.spec
```

repoquery

```
# What packages require python-kitchen? (default repos)
```

```
$ repoquery --whatrequires python-kitchen
```

```
# What are contents of python-kitchen in rawhide?
```

```
$ repoquery --repoid=rawhide --list python-kitchen
```

```
# Generate graph of dependencies in SVG format
```

```
$ repoquery --repoid=rawhide --requires python-kitchen \  
  --output dot-tree > /tmp/kitchen.dot
```

```
$ dot -Tsvg /tmp/kitchen.dot -o /tmp/kitchen.svg
```

mock

```
# Build SRPM in default clean environment
```

```
$ mock maven-3.0.5-10.fc21.src.rpm
```

```
# Build SRPM in x86_64 Fedora 17
```

```
# ls /etc/mock for possible values of -r
```

```
$ mock -r fedora-17-x86_64 maven-3.0.5-10.fc21.src.rpm
```

```
# Build SRPM but don't clean chroot
```

```
# Useful after small fixes in spec (faster build)
```

```
$ mock maven-3.0.5-10.fc21.src.rpm --no-clean
```

```
# Install RPM into default mock
```

```
# mock install maven-3.0.5-10.fc21.noarch.rpm
```

fedora-review

```
# Run fedora-review on Package Review bug
```

```
$ fedora-review -b 995025
```

```
# Run fedora-review on specific SRPM
```

```
$ fedora-review -rn /tmp/maven-3.0.5-10.fc21.src.rpm
```

```
# List all available checks
```

```
$ fedora-review -d
```

Examples!