

Python packaging in openSUSE

Advantages against other distributions

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openSUSE Conference, June 2022

Problems in the Python non-specific packaging

- ▶ Multiple interpreters
- ▶ Complicated commands
- ▶ Sheer number of packages
- ▶ Not enough checking

Multiple interpreters

```
%build  
%if %{with python3}  
%py3_build  
%else  
%py2_build  
%endif
```

Multiple interpreters

```
%build  
%if %{with python3}  
%py3_build  
%else  
%py2_build  
%endif
```

```
%build  
%python_build
```

Complicated commands

`%check`

```
export PYTHONPATH=%{buildroot}%{python_sitelib} PYTHONDONTWRITEBYTECODE=1
pytest --ignore=build.* -v
```

Complicated commands

```
%check
```

```
export PYTHONPATH=%{buildroot}%{python_sitelib} PYTHONDONTWRITEBYTECODE=1  
pytest --ignore=build.* -v
```

```
%check
```

```
%pytest
```

Example

```
%{?!python_module:%define python_module() python3-%{**}}
Name:          python-foobar
Version:       1.0.2
Release:       0
Summary:       Example foobar package
License:       MIT
URL:           https://github.com/bumba/foobar
Source:        https://files.pythonhosted.org/packages/source/f/foobar/foobar-%{version}.tar.gz
# PATCH-FIX-UPSTREAM remove_mock.patch bsc#123456 mcepl@suse.com
# we don't need stinking mock
Patch0:        remove_mock.patch
BuildRequires: %{python_module appdirs}
BuildRequires: %{python_module pytest}
BuildRequires: fdupes
BuildRequires: python-rpm-macros
Requires:      python-appdirs
BuildArch:     noarch
%python_subpackages
```

%description

foobar is a collection of enhancements to the Python packages that allow you to build and distribute Python packages,

Example (cont.)

```
%prep
%autosetup -p1 -n foobar-%{version}

%build
export NOBUMPA=1
%python_build

%install
%python_install
%python_expand %fdupes %{buildroot}%{$python_sitelib}

%check
# %pyunittest discover -v
%pytest

%files %{python_files}
%license LICENSE
%doc CHANGES.rst README.rst
%{python_sitelib}/foobar
%{python_sitelib}/foobar-%{version}*-info

%changelog
```


Toil to machines!

- ▶ Given the number of packages we maintain (over 2,500 in Factory) we need to put as much work as possible on machines.
- ▶ Packages are auto-generated by 'py2pack'.
- ▶ Automatic rebuilds
- ▶ All submissions are reviewed
- ▶ Every build in openSUSE ecosystem is checked by rpmlint and unless specifically permitted, failed rpmlint check means failed build.

Thank you!

My email is `mcepl@cepl.eu`.

\LaTeX source of this presentation is available on <https://gitlab.com/mcepl/opensuseconf.git>.