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Linux Ubuntu 22.4.5 Manual Pages on command 'pybuild.1'

\$ man pybuild.1

PYBUILD(1)

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NAME

pybuild - invokes various build systems for requested Python versions in order to build modules and extensions

SYNOPSIS

pybuild [ACTION] [BUILD SYSTEM ARGUMENTS] [DIRECTORIES] [OPTIONS]

DEBHELPER COMMAND SEQUENCER INTEGRATION

? build depend on dh-python,

? build depend on all supported Python interpreters, pybuild will use it to create a list of interpreters to build for. Recognized dependencies:

? python3-all-dev - for Python extensions that work with Python 3.X interpreters,

? python3-all-dbg - as above, add this one if you're building -dbg packages,

? python3-all - for Python modules that work with Python 3.X interpreters,

? python3-dev - builds an extension for default Python 3.X interpreter (useful for private extensions, use python3-all-dev for public ones),

? python3 - as above, used if headers files are not needed to build private module,

? python-all-dev - for Python extensions that work with obsolete Python 2.X interpreters,

? python-all-dbg - as above, add this one if you're building -dbg packages,

? python-all - for Python modules that work with obsolete Python 2.X interpreter?

preters,

? pypy - for PyPy 2.X interpreter.

? add --buildsystem=pybuild to dh's arguments in debian/rules,

? if more than one binary package is build: add debian/python-foo.install files, or

export PYBUILD_NAME=modulename (modulename will be used to guess binary package prefixes), or export PYBUILD_DESTDIR env. variables in debian/rules

? add --with=python3 or --with=python3,python2,pypy to dh's arguments in de?

bian/rules (see proper helper's manpage for more details) or add dh-se?

quence-python3 (dh-sequence-python2 for Python 2.X, dh-sequence-pypy for PyPy) to

Build-Depends

debian/rules file example:

```
#!/usr/bin/make -f
```

```
export PYBUILD_NAME=foo
```

```
%:
```

```
dh $@ --with python2,python3 --buildsystem=pybuild
```

OPTIONS

Most options can be set (in addition to command line) via environment variables.

PyBuild will check:

? PYBUILD_OPTION_VERSIONED_INTERPRETER (f.e. PYBUILD_CLEAN_ARGS_python3.2)

? PYBUILD_OPTION_INTERPRETER (f.e. PYBUILD_CONFIGURE_ARGS_python3-dbg)

? PYBUILD_OPTION (f.e. PYBUILD_INSTALL_ARGS)

optional arguments

-h, --help

show this help message and exit

-v, --verbose

turn verbose mode on

-q, --quiet

doesn't show external command's output

-qq, --really-quiet

be quiet

--version

show program's version number and exit

ACTION

The default is to build, install and test the library using detected build system version by version. Selecting one of following actions, will invoke given action for all versions - one by one - which (contrary to the default action) in some build systems can overwrite previous results.

--detect

return the name of detected build system

--clean

clean files using auto-detected build system specific methods

--configure

invoke configure step for all requested Python versions

--build

invoke build step for all requested Python versions

--install

invoke install step for all requested Python versions

--test invoke tests for auto-detected build system

--list-systems

list available build systems and exit

--print

print pybuild's internal parameters

TESTS

unittest's `discover` from standard library (available in Python 2.7 and ≥ 3.2) is used in test step by default.

--test-nose

use nose module in test step, remember to add `python-nose` and/or `python3-nose` to Build-Depends

--test-pytest

use `pytest` module in test step, remember to add `python-pytest` and/or `python3-pytest` to Build-Depends

--test-tox

use `tox` command in test step, remember to add `tox` to Build-Depends. Requires `tox.ini` file

testfiles

Tests are invoked from within build directory to make sure newly built files are

tested instead of source files. If test suite requires other files in this directory, you can list them in `debian/pybuild.testfiles` file (you can also use `debian/pybuild-pythonX.testfiles` or `debian/pybuild-pythonX.Y.testfiles`) and files listed there will be copied before test step and removed before install step. By default only test and tests directories are copied to build directory.

BUILD SYSTEM ARGUMENTS

Additional arguments passed to the build system. `--system=custom` requires complete command in `--foo-args` parameters.

`--before-clean COMMAND`

invoked before the clean command

`--clean-args ARGUMENTS`

arguments added to clean command generated by build system plugin

`--after-clean COMMAND`

invoked after the clean command

`--before-configure COMMAND`

invoked before the configure command

`--configure-args ARGUMENTS`

arguments added to configure command generated by build system plugin

`--after-configure COMMAND`

invoked after the configure command

`--before-build COMMAND`

invoked before the build command

`--build-args ARGUMENTS`

arguments added to build command generated by build system plugin

`--after-build COMMAND`

invoked after the build command

`--before-install COMMAND`

invoked before the install command

`--install-args ARGUMENTS`

arguments added to install command generated by build system plugin

`--after-install COMMAND`

invoked after the install command

`--before-test COMMAND`

invoked before the test command

`--test-args ARGUMENTS`

arguments added to test command generated by build system plugin

`--after-test COMMAND`

invoked after the test command

variables that can be used in ARGUMENTS and COMMAND

? `{version}` will be replaced with current Python version, you can also use `{version.major}`, `{version.minor}`, etc.

? `{interpreter}` will be replaced with current interpreter, you can also use `{interpreter.include_dir}`

? `{dir}` will be replaced with sources directory,

? `{destdir}` will be replaced with destination directory,

? `{home_dir}` will be replaced with temporary HOME directory, where plugins can keep their data (`.pybuild/interpreter_version/` by default),

? `{build_dir}` will be replaced with build directory

? `{install_dir}` will be replaced with install directory.

? `{package}` will be replaced with suggested package name, if `--name` (or `PY?BUILD_NAME`) is set to `foo`, this variable will be replaced to `python-foo`, `python3-foo` or `pypy-foo` depending on interpreter which is used in given iteration.

DIRECTORIES

`-d DIR, --dir DIR`

set source files directory - base for other relative dirs [by default: current working directory]

`--dest-dir DIR`

set destination directory [default: `debian/tmp`]

`--ext-dest-dir DIR`

set destination directory for `.so` files

`--ext-pattern PATTERN`

regular expression for files that should be moved if `--ext-dest-dir` is set [default: `.so(?:[^\s]*)?$/`]

`--ext-sub-pattern PATTERN`

regular expression for part of path/filename matched in `--ext-pattern`

that should be removed or replaced with --ext-sub-repl

--ext-sub-repl PATTERN

replacement for matches in --ext-sub-pattern

--install-dir DIR

set installation directory [default: ../dist-packages]

--name NAME

use this name to guess destination directories (depending on interpreter, "foo" sets debian/python-foo, debian/python3-foo, debian/python3-foo-dbg, etc.)

variables that can be used in DIR

? {version} will be replaced with current Python version,

? {interpreter} will be replaced with selected interpreter.

LIMITATIONS

-s SYSTEM, --system SYSTEM

select a build system [default: auto-detection]

-p VERSIONS, --pyver VERSIONS

build for Python VERSIONS. This option can be used multiple times. Versions can be separated by space character. The default is all Python 3.X supported versions.

-i INTERPRETER, --interpreter INTERPRETER

change interpreter [default: python{version}]

--disable ITEMS

disable action, interpreter, version or any mix of them. Note that f.e. python3 and python3-dbg are two different interpreters, --disable test/python3 doesn't disable python3-dbg's tests.

disable examples

? --disable test/python2.5-dbg - disables tests for python2.5-dbg

? --disable '2.4 2.7' - disables all actions for version 2.4 and 2.7

? PYBUILD_DISABLE_python2=1 - disables all actions for Python 2.X

? PYBUILD_DISABLE_python3.3=test - disables tests for Python 3.3

? PYBUILD_DISABLE=test/python3.3 - same as above

? PYBUILD_DISABLE=configure/python3 2.4 pypy - disables configure action for all python3 interpreters, all actions for version 2.4, and all actions for pypy

SEE ALSO

? [dh_python2\(1\)](#)

? [dh_python3\(1\)](#)

? <https://wiki.debian.org/Python/Pybuild>

? <http://deb.li/pybuild> - most recent version of this document

AUTHOR

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