

Package.xml

⇒ Must be included with any catkin - compliant package's root folder.

↳ This file defines properties about the package and dependencies on the other catkin packages.

⇒ Others depend on this information to install the software they need for using your package.

↳ You may be able to run test without this file.

★ Format 2 (Recommended)

Each package.xml file has the <package> tag as the root tag in the document.

• <package format="2">

Required Tags

There are minimal set of tags that need to be nested within the <package> tag to make the package manifest complete.

<name>

<version>

<description>

<maintainer>

<license>

Dependencies

⑥

⇒ Package can have six types of dependencies.

① Build Dependencies

⇒ Specify which package are needed to build this package.

② Build Export Dependencies

⇒ which packages are needed to build libraries against this package.

③ Execution Dependencies

⇒ Specify which package are needed to run code in this package.

④ Test Dependencies

⇒ Specifies only additional dependencies for unit test.

⇒ They should never duplicate any dependencies already mentioned in its build or run dependencies.

⑤ Build Tool Dependencies

⇒ Specifies build tools which this package to build itself.

⑥ Documentation tool Dependencies

⇒ Specific tools that this package need to generate documentation.

⇒ The 6 type of dependencies are specified using the following respective tags.

`<depend>`

↳ specifies that a dependency is a build, export and execution dependencies.

⑤ `<buildtool-depend>`

① `<build-depend>`

② `<build-export-depend>`

③ `<exec-depend>`

④ `<test-depend>`

⑥ `<doc-depend>`

⇒ All packages must have at least one dependency, a build tool dependency on Catkin ~~as the following~~

Metapackage

⇒ It is always convenient to group multiple packages as a single logical package.

⇒ A metapackage is a named package with the following export tag in the package.xml.

<export>

<metapackage/>

</export>

⇒

⇒ meta package requires <buildtool-depends>
on catkin.

⇒ Metapackage has a required, boilerplate
CMakeLists.txt file:

cmake_minimum_required(VERSION 2.8.3)

project(<Package-Name>)

find_package(catkin REQUIRED)

catkin_metapackage()

Additional tags

<url>

→ URL for information on
the package, typically
on wiki page on ros.org

<author>

→ X — X —