

Conan - C/C++ Package Manager

Consuming Packages

\$conan install <recipe_reference>
Install dependencies

\$conan install . -build=missing Builds dependencies if no suitable binary found. "." specifies the location of the conanfile

Creating Packages

\$conan new <recipe_reference>
Creates a new recipe with boilerplate code

\$conan new mypackage/0.1 -t Creates a new recipe with the name mypackage and adds a test_package

\$conan export <path_to_conanfile>
Export recipe to local cache but does not build it

\$conan create . -pr <profile> Creates a package with the given profile and stores it to local cache

\$conan build Builds a package. Invokes the build method

Inspecting Packages

\$conan search Lists all packages in local cache

\$conan search <recipe_reference>
Shows info about package. No info, if no binaries existing

\$conan inspect <recipe_reference>
Lists available attributes of the package

\$conan info Shows dependencies of a package

Working with remotes

\$conan remote list Shows remote repositories

\$conan remote add <remote_repo_name> <url> Adds a remote repository

\$conan search <recipe_reference> -r=<remote_repo_name> Searches for packages in a remote repo

\$conan upload <recipe_reference> -all -r=<remote_repo_name> Uploads a package to the specified remote repository

Terms

profile Stores settings and options

settings Attribute which contains settings for a build system such as arch, os, compiler and compiler version. Will affect all dependencies

options Attribute which contains options for a package such as if a library should be SHARED or STATIC. Affect only parts of the dependency tree

requires Attribute to specify the requirements for an application

requirements() Python function inside a conanfile.py to specify the requirements for an application. Can contain conditional logic in comparison to the 'requires' attribute

build_requires Attribute in a conanfile for specifying requirements for a build. Testing Frameworks and Build Frameworks

python_requires Calling python code from another recipe or python module

local cache Location on developer machine where conan packages are stored. Usually "~/.conan/data"

recipe reference Identifies a recipe e.g. pkg/0.1@user/testing

conan center Default remote repo

package ID Identifies a unique binary. Represented as a hash string which is calculated out of the settings and options

In-source recipe When the recipe and the sources are in the same repo

Out-of-source recipe When the recipe is not in the same repo as the sources

Cheatsheet Template

emmajane
cheatography.com/emmajane

Cheatsheet creator

namorDev
<https://github.com/namorDev/Conan-Cheatsheet>

Event

Noser Engineering AG
Kickoff 2022