

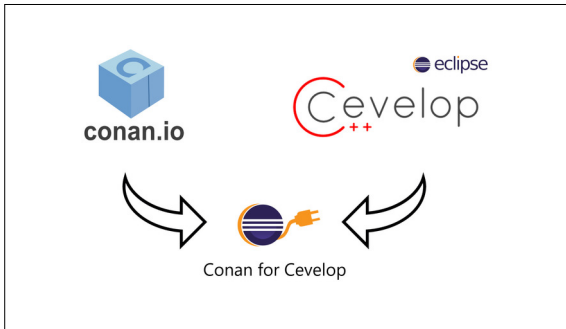
Pascal Schweizer



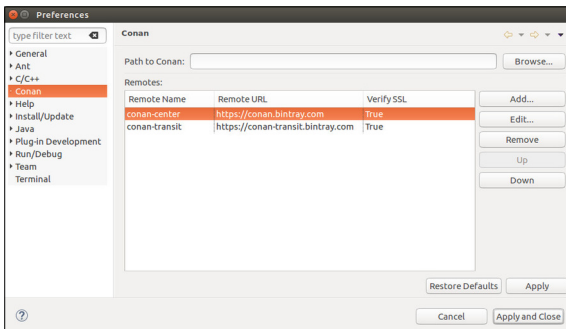
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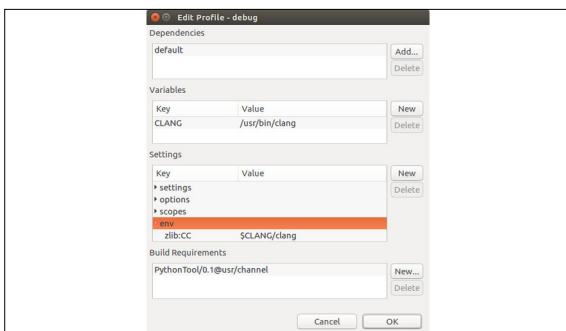
Conan for Cevelop



Conan for Cevelop: Package managing made easy



Manage Conan remotes ...



... and edit profile details

Introduction: There are many ways to handle package dependency management in software projects. From manually sharing library files within the development team to using dependency managers that automatically install all related libraries. The Conan C++ package manager belongs to the latter category.

It is a command line interface (CLI) tool for C++ development that can conveniently install dependencies for any given build configuration. Different build configurations are managed by Conan in user-definable profiles. Downloading the right files and preparing build information for any build tool chosen by the user is handled by the tool. Source for such files are either public Conan remotes, or the users may also set up their own private databases. These features make Conan a very flexible tool, as it works well in many environments.

Objective: Cevelop, developed at the Institute for Software, is an integrated development environment based on Eclipse C/C++ Development Tooling. Currently, there is no integration of Conan for Cevelop-managed projects. Developers need to manually call the CLI commands in the shell and insert the build information to the respective settings in the Cevelop project.

This term project's goal is to implement a Cevelop plug-in that fixes this problem. It must handle installing package dependencies and keeping them up-to-date. What's more, it should manage Conan profiles and remotes so that the user does not need to use the command-line or edit configuration files directly. Everything should be done in Cevelop alone.

Result: The developed plug-in has the following features:

- Conan for Cevelop handles the installation of all package dependencies in a very convenient way. The user needs only to click a button and the plug-in handles the rest. Notably, the necessary build settings are automatically updated. This feature also works when adding, removing, or updating dependencies later, as the plug-in purges obsolete build information and replaces it when the command is re-run.
- Conan for Cevelop manages Conan remotes. The user may add, edit or delete remotes from within Cevelop and does not need to edit any files or open a command-line tool.
- Conan for Cevelop manages Conan profiles. The user may add, edit or delete profiles. Furthermore, the user may select a workspace-wide default profile. Individual Cevelop projects can use the workspace profile, or override it with a different profile.

Currently, only one file needs to be edited by hand: conanfile.txt, which is used by Conan to specify the dependencies. In the future, a package browser may be added to the plug-in, which removes the need to edit the conanfile.txt manually.