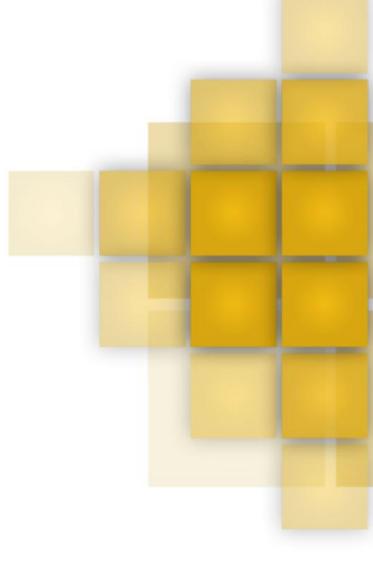# Eclipse C/C++ Development Tooling (CDT) Indigo Release Review

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Introduction

- Indigo Release – CDT 8.0

- Includes TCF which is now a sub-project of CDT
  - TCF has been tagged 0.4 for this release
  - A brief slide covering state of TCF at end of deck

- New and Noteworthy are here:
  - http://wiki.eclipse.org/CDT/User/NewIn80

Features - Core

- Codan hits mainstream
  - Static Analysis and Quick Fix framework
  - Previously optional feature, now part of main CDT feature
- Camel Case Code Completion
- Lightweight Rename Refactoring
  - JDT style, change name in editor
- Build Console clean up

Features - Debug

- **Project-less Debugging**

  - Now able to launch debug session without setting the Project

- **GDB Pretty Printing**

- **DSF/GDB support for pending breakpoints**

- **Pin & Clone of debug views**

  - Show multiple debug contexts at same time

- **GDB Remote launch**

  - Using RSE to download binary and launch gdbserver

Non-Code Aspects

- Little has changed for CDT in it's documentation, state of internationalization, etc.

- CDT wiki remains central repo for documentation created over the release

    - http://wiki.eclipse.org/CDT

APIs

- CDT 8.0 is another major release

- APIs continue to churn in certain areas
  - Particularly managed build and debug

- Confidence is not high that this won't happen again next release
  - More work needed on build model
  - Debug continues to evolve to support multi-context debugging

Architectural Issues

- Little has changed in the CDT architecture in this release

Tool Usability

- Build Console cleaned up to improve usability

- Pin & Clone introduced to help visualize views from different contexts at same time

- More work to be done in Build and New Project Wizard UI

End-of-Life

- CDT Full Indexer has been removed
  - Fast indexer much faster with almost same accuracy
- CDT CDI debug interface has *NOT* been deprecated
  - Most work happing on DSF front though

Bugzilla

- CDT contributors do not use priority/severity settings well enough to be useful

- 1285 bugs currently open
  - In line with status in previous releases

- 811 bugs have been fixed since last release (June 2010)
  - Also in line with previous releases

Standards

- C++ parser continues to gain support for C++11
  - C++11 standard approved this year
  - Matching support in gcc is the benchmark
- Continue to match GDB MI spec as gdb evolves
  - Support 6.8 - 7.2 with DSF, earlier with CDI

UI Usability

- CDT continues to support 508 compliance and internationalization

- CDT continues to fit well within the Eclipse Workbench

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Schedule

- CDT follows the Indigo Release train schedule
  - All milestones met on time

Communities

- CDT continues to be one of the most diverse projects at Eclipse

  - >20 committers

- Discussions occur on cdt-dev mailing list

  - Technical discussions usually move to bugzilla

- CDT user forum very active as well

IP Issues

- The project leadership verifies that:
  - ... that the about files and use licenses are in place as per the Guidelines to Legal Documentation
  - ... all contributions (code, documentation, images, etc) has been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - ... that all significant contributions have been reviewed by the Foundation's legal staff. Include references to the IPZilla numbers of all clearances.
  - ... that all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff. Include references to the IPZilla numbers of all clearances.
  - ... that all Contribution Questionnaires have been completed
  - ... the "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is *rarely* the copyright owner).
  - ... that any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - ... that any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- Frozen IP log to be listed at: http://www.eclipse.org/cdt/releases/

Project Plan

- CDT project plan usually set in September

- Work continues in all areas of CDT

  - Codan additional checkers and quality improvement

  - Build UI clean up and adoption of platform multi-config support

  - Debug support for multi-context continues

- CDT will move to git immediately following Indigo release

  - All branches moving, CVS repos will be archived

  - Adopt Tycho for building CDT artifacts

TCF

- **TCF a fairly new project out of Wind River**

  - Target Communication Framework with services architecture for managing targets through agents

  - Community still forming and code base evolving quickly

  - Previously in DSDP/TM but moved to subproject of CDT

- **Indigo release will be numbered 0.4**

  - Mainly included due to dependency from CDT's EDC debugger

  - Included in CDT's IP Log and release review for Indigo

- **Release 1.0 will occur likely before Juno**

  - Services API in good state

  - Plug-in rename to org.eclipse.tcf completed

  - Move from SVN to Git shortly after CDT's move