Eclipse C/C++ Development Tools (CDT) Version 8.1 for Juno Release Review

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Introduction

- Juno Release – CDT 8.1

- API compatible with CDT 8.0/Indigo

- New Optional Features

  – Multicore Visualizer View

  – C/C++ Unit Testing Support

- Major Feature Improvements

  – Scanner Discovery

  – Numerous Debug Enhancements

- New and Noteworthy are here:

  – http://wiki.eclipse.org/CDT/User/NewIn81

Non-Code Aspects

- Little has changed for CDT in it's documentation
  - Continues to be a critically unresourced area
- CDT wiki remains central repo for documentation created over the release
  - http://wiki.eclipse.org/CDT
- Numerous upgrades to SCM systems
  - Repositories migrated to git
  - Build system moved to Maven/Tycho
  - Moved to Gerrit for contributions
  - Should make it easier to adopt, modify, and contribute

APIs

- CDT 8.1 is a minor release
  - There are new APIs
  - But remain API compatible for CDT 8.0
- The discipline not to change APIs seems to have gone well
  - Not as hard or limiting as we had thought
- We may be able to continue this trend unless a major API needs to be rewritten.

Architectural Issues

- Architecture of Scanner Discovery has undergone a overhaul

  - Should be easier to maintain/use

  - Should affect downstream unless issues with the backwards compatibility layer surface.

- Continue to work with platform team on architectural areas we inherit from them

  - Debug especially to help with multi-core support

  - Also have some changes to build that need to be propagated back up to CDT in next release

Tool Usability

- Scanner Discovery UI revamped

- MulticoreVisualizer to provide higher level view of ebug session.

End-of-Life

- EDC has been removed from builds
  - Nokia is no longer maintaining it and community did not step up to save it.

- TCF has been removed for CDT builds and is now a stand-alone project
  - Although still a subproject of CDT

- CDT CDI debug interface is "defacto" deprecated
  - No longer being actively maintained
  - Almost all work happing on DSF front

Bugzilla

- 1396 bugs currently open
  - Slightly up from 1285 open at Juno release

- 643 bugs have been resolved since last release (June 2011)
  - Slightly lower than last release
  - But more feature work has been done in this release

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 – 7.4 with DSF, earlier with CDI

UI Usability

- CDT continues to support 508 compliance and internationalization

- CDT continues to fit well within the Eclipse Workbench

Schedule

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

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Communities

- CDT continues to be one of the most diverse projects at Eclipse
    - \>20 committers
    - Number of truly active committers though is low at this time
    - But they are doing great work
- 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.
- Approved IP log attached to https://bugs.eclipse.org/bugs/show_bug.cgi?id=380493

Project Plan

- CDT project plan usually set in September

- Work continues in all areas of CDT

  - Quality improvements to Codan

  - Support for C++11

  - Project and Build UI and workflows

  - Debug support for multicore continues