# *CDT 7.0 Helios Release Review*


Planned Review Date: June 11, 2010

Communication Channel: cdt-dev

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# *Introduction*

- The CDT (C/C++ Development Tools) project builds a platform that supports edit, build, and debug of C and/or C++ applications.
- Exemplary support is provided for the GNU toolchain which supports Windows (via external Wascana project), Linux, and Mac development out of the box.

# *Features*

- DSF/GDB debug interface reached sufficient parity with existing CDI/GDB interface to warrant switch in default launch configuration type.
- New Eclipse C/C++ Debugger (EDC) introduced as optional component provides direct debugger interface to OS APIs for Windows and Linux and communication back to CDT using the Target Communication Framework (TCF).
- New Codan static analysis framework as optional component to provide semantic error reports ahead of compile time.

# *Non-Code Aspects*

- Documentation getting a good work over thanks to our new tech writer committer.
- Nothing else has changed.

# *APIs*

- I can certify that the CDT APIs are not Eclipse Quality.
- We continue to use API tooling to ensure they are managed.
- There are some minor changes in CDT 7.0.
- The hope is that we can reach this goal by CDT 8.0 Indigo, but that depends on the willingness and investment from the community to achieve this.

# *Architectural Issues*

- The debugger interfaces continue to improve in architectural quality. DSF is well exercised thanks to GDB and EDC integrations.
- Core architecture quality is good, but there may be challenges adding new languages and parsing technologies (e.g. Objective-C using ANTLR).
- CDT Project Description Model continues to really struggle. Scanner Discovery integration with the model is broken right now and may not get fixed by release time.

# *Tool Usability*

- Simple edit/compile/debug cycle has good usability.
- New Project Wizard could still use a clean up to re-arrange toolchain/project type selection order.
- Project properties have improved but there is still the strange duality between General and Build properties.
- With multiple launch config types fighting for C/C++ Local application launches, it will be difficult for users to do anything but the default.

# *End-of-Life*

- Nothing is end-of-lifed.
- While CDI/GDB is no longer the default, it is still supported by a few contributors.

# *Bugzilla*

- Current open bug count (May 28): 1204
  - Very close to traditional number at this time of year
- 1570 bugs created over last year
  - Which means close to that many closed

# *Standards*

- CDT continues to support C and C++ language standards as well as the language variants supported by the GNU compiler.
- Support for C++0x is progressing well matching support provided by gcc 4.3+.
- CDT continues to support the defacto MI (Machine Interface) protocol for connecting to gdb complaint debuggers.
  - EDC adds support for gdb serial (gdbserver) and Windows debug APIs.

# *UI Usability*

- IBM committers continue to invest in section 508 compliance and internationalization.

# *Schedule*

- CDT has been following the Helios schedule as planned.

# *Communities*

- Great presence at EclipseCon 2010 this year.
- Newsgroup and cdt-dev mailing list remain very active.
- Future of community growth will be in improving usability of CDT for host development of the big three platforms used by the community: Windows (through the external Wascana project), Linux, and Mac, as well as open mobile platforms like Android (through the Eclipse Sequoyah project).
  - Adding Objective-C support to our wish list to support Mac and iPhone development

# *IP Log*

- The project leadership verifies that the Eclipse IP policies and procedures have been followed.
- The frozen IP log for 7.0 Helios is here:
  - http://www.eclipse.org/cdt/releases/cdt7.0/cdt7_project_log.html
- The live IP log is here:
  - http://www.eclipse.org/projects/ip_log.php?projectid=tools.cdt

# *IP Issues*

- The EMO explicitly asks during the Release Review if any Member would like to assert that this release infringes their IP rights.
- If so, the EMO and the project will follow the Eclipse IP Policy in discussions with that Member.

# *Notes*

- That is all :)

# *Credits and Kudos*

- Thanks to the 24 CDT committers who pour their heart and soul into making the CDT an industry leading C/C++ IDE.
- Thanks to the CDT vendor community for adopting the CDT and providing it with much needed investment.
- Thanks to the many contributors who help us make the CDT work well for them and the community.
- Thanks to the CDT user community who produced an astounding 600,000 downloads of CDT 6.0.x.