Eclipse Dynamic Languages Toolkit 4.0 (DLTK) Release Review

June 6, 2012
DLTK - Introduction

- DLTK 4.0 releasing following components to Helios
  - Core Frameworks
  - Ruby IDE
  - TCL IDE
  - XOTcl and ITcl OO Extensions support for TCL IDE
  - Remote development via DSDP TM RSE
  - Mylyn Integration Component
DLTK - Community

- Community
- 13 committers from Zend Technologies, Embarcadero, NumberFour AG, Xored Software, Servoy, and individual committers
- DLTK Core Frameworks serves as a foundation for Eclipse PDT Project
- Embarcadero 3rdRail Ruby on Rails IDE and TurboRuby products are built on top of DLTK Ruby component
- froglogic is utilizing DLTK project in new version of their leading GUI testing and automation tool – Squish
- Servoy works on cross-platform application development environment based on DLTK JavaScript component
- More projects built on top of DLTK: [http://wiki.eclipse.org/DLTK_Based_Projects](http://wiki.eclipse.org/DLTK_Based_Projects)
DLTK - Major Project Milestones

- Proposed December 2005
- Created December 2006
- DLTK 0.9 Released with Europa (June 2007)
- DLTK 0.95 Released with Ganymede (June 2008)
  Project plan available at [http://wiki.eclipse.org/DLTK_0.95_Project_Plan](http://wiki.eclipse.org/DLTK_0.95_Project_Plan)
- DLTK 1.0 Released with Galileo (June 2009)
- DLTK 2.0 Released with Helios (June 2010)
- DLTK 3.0 Released with Indigo (June 2011)
- DLTK 4.0 is under development and going to be released with Juno (June 2012)
  DLTK 4.0 did not introduced significant features, but the team was focused on project stability, API refinements, performance improvements and adopters support.
DLTK 4.0 Features

- Core Frameworks
  - Structural Source Code Model
  - Type Inference Engine
  - Search and Indexing
  - Launching and Debugging over DBGp protocol
  - Interactive Console
  - Common UI components (Wizards, Views, Preference Pages, etc)

- Ruby IDE Component
  - Many of JDT-alike features implemented

- TCL IDE Component
  - Many of JDT-alike features implemented

- Python IDE Component
  - Many of JDT-alike features implemented

- JavaScript IDE Component
  - Many of JDT-alike features implemented

- Integration Components
  - Mylyn Integration and Remote Projects support via RSE
DLTK - Intellectual Property

- Core, TCL, Python, Ruby, and JavaScript components source code approved have been made under EPL 1.0 (CQ #1135).
- Ruby component contains source code derived from JRuby (available under CPL). Code approved to use with DLTK (CQ #1137).
- org.apache.xmlbeans 2.3 (CQ #1598) – approved but not used in DLTK yet
- ANTLR Runtime (Only) 3.0 (CQ #1647) – used by Python and JavaScript components (incubated within DLTK Project)
- Rhino Version 1.6R2 (CQ #1591) - derived code used by JavaScript Component
- h2 Database 1.1.117 (CQ #3467) - used by the DLTK Indexing Framework
- All plugins contain appropriate license files
- All committers have completed Eclipse Committer Agreements and have been approved by the PMC
DLTK - API: 4.0 Status

- **Implementation**
  - DLTK Core Frameworks API is used by 10+ projects and quite stable
  - Other DLTK components and external projects depends on the Core

- **Documentation**
  - Project still lacks of documentation, but well supported by community using newsgroup and other communication channels

- **Test Cases**
  - Essential parts of the code covered well with test cases

- **Compatibility**
  - Version 4.0 is not backward compatible with 3.0
DLTK - Defect Statistics (All Components)

- Version 4.0 to be released:
  - 908 - TOTAL
  - 219 - NEW
  - 66 ASSIGNED + REOPENED
  - 623 RESOLVED + VERIFIED + CLOSED