



PTP 2.1 Release Review

October 29, 2008



Agenda



- New Features
- Non-Code Aspects
- APIs
- Defects
- Schedule
- Process
- Community
- IP Issues
- Project Plan

New Features



- Support for Ganymede (Eclipse 3.4, CDT 5.0, RSE 3.0)
- New Open MPI Resource Manager
 - Completely redesigned resource manager for Open MPI
 - Eliminates need for proxy agent running on target system
 - Supports Open MPI v1.2 and v1.3
 - Extensible to support other MPI implementations
- Re-designed Parallel Debugger
 - More portable; no longer uses MPI for communication
 - Flexible architecture allows different routing and communication layers
 - Full asynchronous command support
 - Supported by IBM PE resource manager

New Features (cont...)



- Parallel Language Development Tools
 - UPC support; finding artifacts, API help
 - MPI code templates
- Services Model
 - Allows the user to configure which services in their system are mapped to which providers and locations (e.g. to a remote machine).
 - Allows ISVs and tool implementers to define new services, and contribute providers to any defined services.

New Features (cont...)



- Performance Tools Framework
 - Support for PAPI Component counter selection
 - Parametric analysis capabilities (Supported primarily for TAU at this time)
 - Significant modifications to increase work-flow flexibility
 - Various bugfixes

New Features (cont...)



- Remote Development Tools (RDT)
 - Enables C and C++ projects to be located on a remote machine
 - Provides remote indexing and parsing services
 - New remote C/C++ project wizard
 - Automatic source code delta handling (the index is automatically updated when files in your project are added/removed/changed)
 - Remote "scanner info" support to allow the user to define include paths and defined preprocessor macros as a context for the parser to operate
 - Remote Search, Call Hierarchy, Navigation (e.g. Go To Declaration), Content Assist, Type Hierarchy
 - Remote Standard Make for building remote makefile-based projects

New Features (cont...)



- Support for Cell-based systems:
 - Custom source code templates for Cell development
 - Full configurable build properties for PPU and SPU using GNU and XL compilers
 - Managed Build for PPU and SPU using GNU and XL compilers
 - Remote launch and debug of Cell Applications
 - Support for PPU & SPU combined remote debugger
 - Cell performance tools support
 - ALF programming model support
 - IBM PDT (Performance Debug Tools) instrumentation plug-ins
 - Mambo Simulator plug-ins
 - Five pre-configured Cell projects

Non-code Aspects



- User documentation:
 - <http://eclipse.org/ptp/doc.php>
- Release plan:
 - <http://wiki.eclipse.org/index.php/PTP/planning/2.1>
- Release notes:
 - http://wiki.eclipse.org/PTP/release_notes/2.1
- Design documentation:
 - <http://wiki.eclipse.org/PTP/designs>
- Test plan:
 - <http://wiki.eclipse.org/PTP/testing/2.x>
- FAQ
 - <http://eclipse.org/ptp/faq.php>

APIs



- New 2.1 interfaces are Eclipse quality
- Version numbers incremented from 2.0 to 2.1
- Internal APIs marked as such

Defect Statistics



- 251 bugs opened
- 184 bugs resolved/closed
- 50 new bugs
- 2 P1 and 3 P2 bugs outstanding

Schedule



- Original tentative release date was August/September 2008
- Final release date October 31, 2008
 - M1 - Aug 29 (actual Aug 15)
 - M2 - Sep 12 (actual Sep 15)
 - M3 - Sep 26 (actual Sep 19)
 - M4 - Sep 29 (actual Oct 1)
 - M5 - Oct 6 (actual Oct 7)
 - RC1 - Oct 10 (actual Oct 10)
 - RC2 - Oct 17 (actual Oct 19)
 - RC3 - Oct 24 (on track)
 - GA (on track)

Process



- This release has been developed using open, transparent, and inclusive processes
- This release has followed its charter principles
- The PTP project makes appropriate use of
 - Bugzilla
 - Mailing lists (ptp-announce@eclipse.org, ptp-dev@eclipse.org, ptp-user@eclipse.org)
 - Newsgroups (eclipse.technology.ptp)
 - Regular, monthly, conference calls
 - Wiki (<http://wiki.eclipse.org/PTP>)
- There were two committer elections during the 2.1 release cycle
 - Chris Recoskie, IBM
 - Daniel Ferber, IBM

Community



- Monthly developer meetings
 - ~10 participants
 - Held every second Tuesday of the month
- Papers/presentations:
 - “An Integrated Environment for the Development of Parallel Applications”, Proceedings of the 2nd International Workshop on Parallel Tools for High Performance Computing, HLRS, Stuttgart, July 2008
 - “Static Analysis in PTP with CDT”, EclipseCon 2008
 - “Enabling Remote Development with PTP and CDT”, EclipseCon 2008

Community (cont...)



- Tutorials:
 - HPCSW 2008
 - OSCON 2008
 - Scientific Software Days, TACC 2008
- BOFs:
 - EclipseCon 2008
 - SC 2008
- Demos:
 - IBM exhibition booth at SC 2008

IP Issues



- All plugins contain appropriate about and license files
- All contributions (code, documentation, images, etc) have 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
- Major contributions have followed due diligence process
- All non-committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff
- All contribution questionnaires have been completed
- IP Log available at
 - http://www.eclipse.org/projects/ip_log.php?projectid=tools.ptp

Project Plan



- Project plan available at:
 - <http://wiki.eclipse.org/index.php/PTP/planning/2.1>

Communication Channel



- The communication channel for the review should be the following mailing list:
 - ptp-dev@eclipse.org