

TPTP 4.5 Release Review -- One Quick Foil



New and Improved

- IPv6 and Java 1.6.0 support
- Platform: Eliminate JVM activation on AC startup; editable property information in Method Statistics view
- Test: Parallel test suite execution; encrypted datapools; move, cut/copy/paste, delete, and rename of test assets
- Monitoring: Capability to re-face Log and Trace Analyzer; Java 5 annotations for Common Base Event and JMX instrumentation; Common Base Event v1.0.1 C# implementation
- Trace: Improved thread profiler; new profiler API for Java 1.5+; binary format for profiling traces

API quality – Code continues to mature/stabilize

- APIs are not changing significantly, a few new interfaces
- Cleared out lots of “old” defects; code base is now more solid w/ more tests.
 - We uncovered more latent opportunities to further improve stability

End-of-life issues in this release

- Moved to As-Is (no longer supported – help wanted):
 - Perfmon (monitoring agent and statistical views)
 - Manual Test (test type, runner, and Manual Test View)
 - BIRT Reports (test, log, trace, and statistical BIRT report generators)
 - RCP Log Analyzer and Symptom Catalog Editor
 - Automated GUI Recorder (AGR) (recorder, test type, and runner)
- Retired deprecated Technology Previews (X-Ray Profiler, Code Coverage, and Memory Manager)

IP clearance and licenses in the code

- Inclusion of 3rd-party (non-EPL) components approved by EMO
 - Project Log Updated http://www.eclipse.org/tptp/home/project_info/releaseinfo/TPTP%20Project%20Log.htm
- Outbound license EPL (of course)
- Continue due diligence (Committer Agreements, PMC maintains list of non-EPL components, EMO source scan)

Diversity of the committer population & Openness of Community

- ~23 Committers plus a few Developers from 3 organizations
 - Continuing to recruit additional contributor (organizations and individuals) -- Help wanted
- Open communications/processes
 - 6 TPTP mailing lists and newsgroup
 - Bi-annual F-2-F Meetings: PMC+PG; Weekly Calls: PMC+PG, AG, Project
 - Open use of Bugzilla to track defects/enhancements; Visibility of nightly builds to community; Daily test reports published to web site



Eclipse™ TPTP 4.5 Release Review

June 4, 2008

Eclipse TPTP PMC & Planning Group

Introduction: TPTP 4.5 Release Review



■ Major Milestones

- Current release: 4.5 (June 6) (part of Ganymede train)
- Prior releases: 4.4 (June'07), 4.3 (Dec'06), 4.2 (June'06), 4.1 (Nov'05), 4.0 (July'05), 3.3 (June'05), 3.2 (Dec'04)
- Next release: 4.5.x (sustaining mode - no plans for 4.6)
- Moved to bi-annual releases starting from 2006 (vs. quarterly releases)
 - TPTP “major” releases aligned with Eclipse “release train”
 - TPTP “minor” releases ~5 months later
 - TPTP maintenance releases aligned w/ Eclipse Platform maintenance releases (and simultaneous maintenance release trains)

Features: TPTP 4.5 Requirements Process



- August 10 - 24, 2007:
 - Determine input/requirements from community/contributors/PMC input:
 - New enhancements.
 - Voting against Bugzilla enhancements.
- August 27 – October 18, 2007:
 - Preparation of the draft plan:
 - RG: Themes and priorities updated for 4.5
 - PG: Estimate resource availability and advice PL (used to calibrate list of enhancements)
 - AG: Architectural analysis and cost estimates, preliminary priorities
 - PG: Develop Feature Plan (resource allocation)
- October 18, 2007:
 - Community review of TPTP 4.5 draft plan.
- October 24, 2007:
 - Approval and announcement of TPTP 4.5 final plan.

Features: TPTP 4.5 Themes



- Adopted Eclipse Themes & Priorities in Q4'04 for TPTP (Hyades) 3.3 onwards
- Planning to adopt updated Eclipse Themes & Priorities for 4.5
- Examples by theme:
 - **Scaling Up:** Support for larger data volumes and processing rates in data collection, user interface and model persistence. For example, binary format for profiling traces.
 - **Simple to Use:** Enhanced UI and simplified user experience by using Java 5 annotations for Common Base Event and JMX instrumentation, tutorials, white papers, demonstrations, and usability improvements.
 - **Appealing to Broader Community:** IPv6 and Java 1.6.0 support.
 - **Design for Extensibility: Be a Better Platform:** Externalized APIs, defined extension points, improved flexibility and extendable functionality (e.g. capability to re-face Log and Trace Analyzer).



Features: TPTP 4.5 Key Feature Set

- IPv6 support
- Java 1.6.0 support
- **Platform Project :**
 - Eliminate JVM activation on AC startup
 - Editable property information in Method Statistics view
- **Test Project:**
 - Parallel test suite execution
 - Encrypted datapools
 - Move, cut/copy/paste, delete, and rename of test assets
- **Trace Project:**
 - Improved thread profiler
 - New profiler API for Java 1.5+
 - Binary format for profiling traces
- **Monitoring Project:**
 - Capability to re-face Log and Trace Analyzer
 - Java 5 annotations for Common Base Event and JMX instrumentation
 - Common Base Event v1.0.1 C# implementation

Features: Responding to the Community



- **New standards:**
 - IPv6
 - Java 1.6.0

- **Performance improvements:**
 - Eliminate JVM activation on AC startup
 - Binary format for profiling traces
 - Parallel test suite execution

- **Usability Improvements:**
 - Editable property information in Method Statistics view
 - Move, cut/copy/paste, delete, and rename of test assets
 - Improved thread profiler
 - Capability to re-face Log and Trace Analyzer

Non-Code Aspects: Documentation & Examples

- TPTP 4.5 download includes online documentation
 - Created by developers and professional technical writers
- Tutorial & presentation materials available on www.eclipse.org/tptp
 - Current: Eclipse World 2005-2007, ST&P 2005-2006, EclipseCon 2005-2008, Eclipse Summit 2006
- TPTP 4.5 New & Noteworthy
 - To be made available via TPTP website
- TPTP Datasheet
 - Introduction to TPTP, outlining benefits to end-users, contributors
 - To be updated for 4.5 (last updated for 4.3)
- Continuing incremental improvements/updates to TPTP website and download page
 - www.eclipse.org/tptp

Non-Code Aspects: Communications



- Eclipse Live Webinar
 - Profiling and Testing Applications Using the Eclipse TPTP (Eugene Chan, Valentina Popescu, and Paul Slauenwhite)
 -
- Conferences
 - EclipseCon 2008: 1 tutorial, 3 long talks, and 1 BoF
- Community outreach for 4.5 release
 - Engagement discussions with Nokia/Ericsson/Fokus/SAP to collaborate and contribute to TPTP
 - Ganymede PR campaign
 - News alert on TPTP website
 - Postings on popular Eclipse websites and blogs

Architectural Issues



- Focus on increasing the quality of our test buckets
 - Increased automated test coverage
 - Overall increased number of testcases
 - Test cases created for any defects not caught by the current test bucket
 - Infrastructure developed to run tests (TPTP JUnit, JUnit Plug-in, and AGR) during builds (BVTs)
 - Revamped the TPTP testing process
- Increase in self use of TPTP testing and profiling tools
 - Continue using TPTP Test tools to create tests, run and report results
 - Infrastructure (based on TPTP) developed to run tests (TPTP JUnit, JUnit Plug-in, and AGR) during builds (BVTs)
 - Continue using TPTP profiler to locate memory leaks and performance problems
- Profiler of the Gods (PoG):
 - Identified/enhanced several core profiling use cases and resolved limitations
- Support and participation to the Ganymede release process
- Future direction
 - Continue focusing on improving quality, performance, and scalability



End-of-Life

- Moved to As-Is (no longer supported – help wanted):
 - Perfmon (monitoring agent and statistical views)
 - Manual Test (test type, runner, and Manual Test View)
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- Retired deprecated Technology Previews:
 - X-Ray Profiler
 - Code Coverage
 - Memory Manager

Bugzilla Statistics



Target Milestone

Defects	---	4.4.0.1	4.4.0.2	4.4.0.3	4.4.1	4.4i3	4.5i4	4.5i5	4.5i6	4.5i7	4.5i8	future	Total
NEW	93									105	43	844	1085
ASSIGNED	21									9	83	289	402
REOPENED	3										3	18	24
RESOLVED	39	47	25	41	339	45	168	161	216	201	80	111	1473
VERIFIED		2		1				3					6
CLOSED	36	14	3	16	91	8	61	57	27	21	10	98	442
Total	192	63	28	58	430	53	229	221	243	336	219	1360	3432

Parallel Development

Bug statistics as of May 20, 2008

Release Exit Criteria

- No high severity defects & 100% test attempt/pass (95% pass on early iterations)
- Test results posted; All exceptions reviewed before deferral/discharge
- All tests are in CVS as TPTP Manual, JUnit, JUnit Plug-in, and AGR tests

TPTP 4.5 statistics (including parallel fix releases)

- 963 Bugzilla defects resolved in 4.5 – 513 less defects than 4.4
 - ~138 defects per iteration (53/i3, 229/i4, 221/i5, 243/i6, 222/i7, 90/i8)
- 95 feature enhancements integrated in 4.5 – 54 in 4.4



Standards

- JMX
- ARM

Schedule



- Currently In the TPTP 4.5 final iteration leading to GA declaration
 - Release consisted of five 4/6/7 -week development iterations and one 5-week shut-down iteration
 - Every iteration is aligned with Ganymede +2 Simultaneous Releases

Key Dates	
Oct 3, 2007	Commenced TPTP 4.5 development
Nov 11, 2007	Completed TPTP 4.5 Iteration 3
Jan 4, 2008	Completed TPTP 4.5 Iteration 4
Feb 15, 2008	Completed TPTP 4.5 Iteration 5
Feb 25, 2008	Released TPTP 4.4.1 Europa Winter Maintenance release
Apr 4, 2008	Completed TPTP 4.5 Iteration 6
May 2, 2008	Completed TPTP 4.5 Iteration 7
Jun 6, 2008	Target for TPTP 4.5 Iteration 8 Completion (RC)
Jun 25, 2008	Target for TPTP 4.5 GA (Supporting Eclipse Platform 3.3)





Process

- ~23 Committers plus a few developers from 3 organizations
 - Committer elections and removals have followed charter principles
 - Continuing to recruit additional contributor (organizations and individuals)
- Open communications via 6 TPTP mailing lists and newsgroup
 - Project activities communicated via mailing lists for PMC/general, one each for each sub-project, and low-noise news only mailing list.
- Meetings, meeting, meetings – numerous, open, and documented
 - Bi-annual F-2-F Meetings: PMC+PG; Weekly Calls: PMC+PG, AG, Project
- Open and inclusive release planning and tracking processes
 - Bugzilla used to request and track all defects and enhancements
 - Additional reports (defects, tests, etc.) used to enhance planning/tracking
 - Daily test reports published to web site
- All contributions made directly to Eclipse CVS
 - Nightly, stable/iteration, and release builds available to the community

Community



- Open communications via 6 TPTP mailing lists and newsgroup
 - Low-noise news only list: tptp-news@eclipse.org
 - PMC, Groups, coordination, announcements, etc.: tptp-pmc@eclipse.org
 - Separate Committer mailing lists for each TPTP project: tptp-platform-dev, tptp-testing-tools-dev , tptp-tracing-profiling-tools-dev, tptp-monitoring-tools-dev
 - Improved Committer responsiveness to newsgroups
- Open and inclusive release planning and tracking processes
 - Bugzilla used to request and track all defects and enhancements
 - Additional reports (defects, tests, etc) used to enhance planning/tracking
 - Daily test reports published to web site
- Coordination/cooperation between other Eclipse projects
 - Platform, EMF/XSD, BIRT, WTP
- TPTP evangelism and outreach in the market & broader community
 - Continuing to drive adoption across other Eclipse projects and industry
 - Presence at Eclipse World 2007 and EclipseCon 2008



Intellectual Property

- Accepting Contributions (In-Bound Licensing)
 - All new code provided under [Eclipse Public License \(EPL\)](#)
 - Inclusion of 3rd-party (non-EPL) components approved by EMO
 - Project Log Updated
http://www.eclipse.org/tptp/home/project_info/releaseinfo/TPTP%20Project%20Log.htm
- Licensing Contributions (Out-Bound Licensing)
 - TPTP 4.5 provided under EPL
 - [about.html/licenses](#) are updated
- Due Diligence and Record Keeping
 - All TPTP Committers completed Committer Agreement & approved by PMC/EMO
 - PMC maintains list of all 3rd-party (non-EPL) components used by TPTP
 - EMO completed source scan and due diligence to confirm contributions

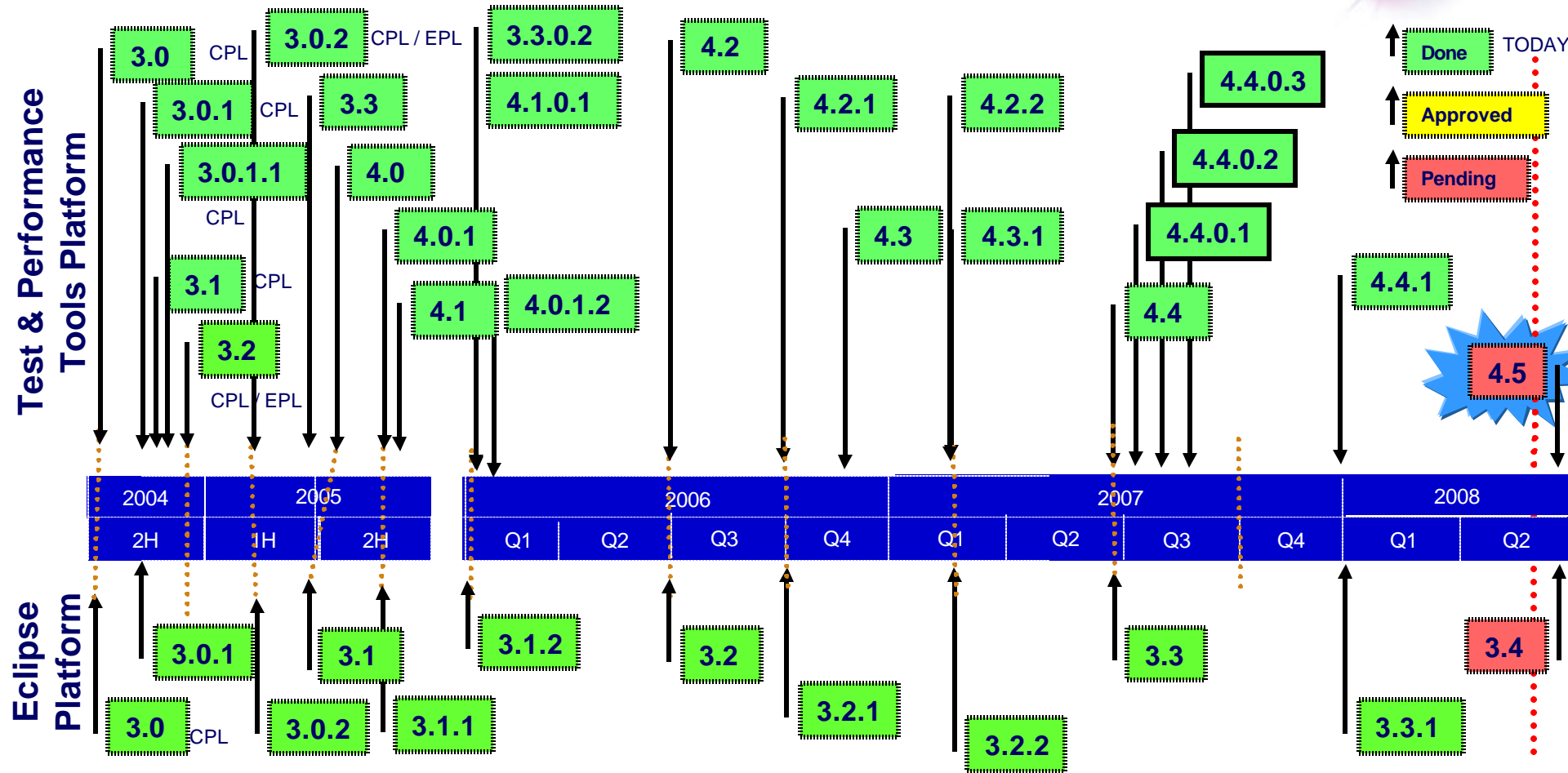
Eclipse Foundation IP Policy: http://www.eclipse.org/org/documents/Eclipse%20IP%20Policy2003_12_03%20Final.pdf



Project Plan

- TPTP 4.5 scheduled for June 2008
 - Based on Eclipse Platform 3.4
- TPTP 4.5.x maintenance releases targeted for 2008/2009
 - Aligned with Eclipse Platform 3.4 maintenance releases
 - Sustaining mode - no plans for 4.6

Project Plan: TPTP Roadmap



- TPTP 3.x, 4.[0|1].x and 4.[2|3].x releases are based on Eclipse Platform 3.0.x, 3.1.x and 3.2.x respectively
- CPL / EPL notations refer to the license(s) under which the release will be made; TPTP 3.3 and EP 3.1 and later are EPL only

Thanks and...



Feedback, Feedback, Feedback!

- Please provide us with your feedback, requirements, issues
- Submit enhancement requests / defects in Bugzilla
https://bugs.eclipse.org/bugs/enter_bug.cgi?product=TPTP
- Submit questions / issues in the TPTP Newsgroup:
<news://news.eclipse.org/eclipse.tptp>
- Engage with the PMC to contribute:
tptp-pmc@eclipse.org or individual PMC members at
<http://www.eclipse.org/tptp/groups/PMC/pmc.html>