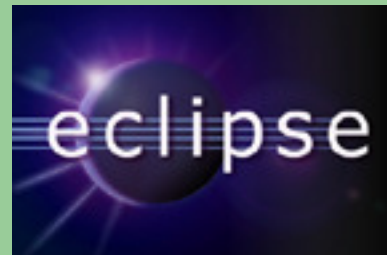


Eclipse Data Tools Platform (DTP) 1.7 Release Review

Eclipse DTP PMC
May 27, 2009





Introduction

- DTP 1.7 is scheduled for week of 6/26
- Build Platform
 - Platform: Eclipse 3.4.2
 - Dependencies: EMF 2.4.2, GEF 3.4.2
 - JVM: Sun J2SE 1.5
- Primary Target Platform
 - Platform: Eclipse 3.4.2
 - Dependencies: EMF 2.4.2, GEF 3.4.2
 - JVM: Sun J2SE 1.5
- Secondary Target Platform
 - Platform: Eclipse 3.5
 - Dependencies: EMF 2.5, GEF 3.5
 - JVM: Sun J2SE 1.5



DTP: Previous Releases

- DTP 0.7: April 7, 2006
- DTP 0.9 (Callisto): June 30, 2006
- DTP 0.9.1 (Callisto): September 29, 2006
- DTP 1.0: December 22, 2006
- DTP 1.5 (Europa): June 25, 2007
- DTP 1.5.1 (September 2007)
- DTP 1.5.2 (February 2008)
- DTP 1.6 (Ganymede): June 25, 2008
- DTP 1.6.1 (September 2008)
- DTP 1.6.2 (February 2009)
- DTP 1.7 (Galileo): June 26, 2009



DTP Projects

- Model Base: Core EMF models for DTP
- Connectivity: Frameworks and tools for connecting to data sources
- SQL Development Tools: Frameworks and tools for working with SQL
- Enablement: Data source specializations for DTP frameworks
- Incubator: New and upcoming projects for eventual inclusion in main DTP sub-projects



DTP 1.7 Milestones

- M4: January 12
- M5: February 16
- M6: March 23
- M7/RC0: May 7
- RC1: May 18
- RC2: May 25
- RC3: June 1
- RC4: June 8
- 1.7 Release: Week of June 26



DTP 1.7 Requirements Process

- Community feedback on DTP 1.6, 1.6.1 and 1.6.2
- Presentations & Discussions:
 - EclipseCon 2008
 - Eclipse Summit Europe 2008
 - EclipseCon 2009
- Bugzilla bugs and enhancements requests
- Newsgroup & mailing list comments



DTP 1.7 Design Efforts

- Captured in documents
 - Project plans published on each projects' site
 - Highlighted in top-level plans and combined release-train plan
- Captured in meeting minutes
 - Published to mailing lists
 - Open decision process
- Discussions on dtp-dev with community at large
- Key points captured in Bugzilla



DTP 1.7 Themes

- Provide incremental feature improvements for all projects
- Additional enablement support and exemplary tools
- Evolve the core frameworks past DTP 1.6
- Provide API improvements for UI components and better support for RCP
- Provide stability and new functionality in the SQL Query Builder component



DTP 1.7 Features: Some Examples

- Enablement
 - SQLite support
 - Ingres contributions
 - SQL Server 2000/2005/2008 Contributions
 - New exemplary tooling for SQL Object schema editing (Stored procedures, tables, schemas, etc.) for Sybase ASA
- Core Connectivity
 - Better APIs for managing ad hoc connections
- SQL Query Builder
 - Continued improvement from IBM & Sybase contributions
- Further stabilize the foundation of DTP by resolving as many bugs and *Discouraged Access* warnings as possible.
- Enhance user tools to make DTP a compelling choice for developing data centric applications in Eclipse.
- Make DTP easier to understand and leverage, from both the extender and user perspectives.
- Meet milestone dates in tight synchronization with Galileo plans.



Non-Code Aspects: Documentation & Examples

- Database Examples
 - Driver templates for 15 databases
 - Generic JDBC Support
 - Apache Derby 10.x Support
- ODA Examples:
 - Flat File Connection Profile
 - Flat File UI Examples
- Documentation: ISV and User



Non-Code Aspects: Localization, Internationalization & Accessibility

- Using ICU libraries
- Strings externalized and ready to be localized
- Part of the Babel project
- Working through Accessibility checklists



DTP 1.7 API Statement

- We follow the platform's policy*
 - Usage of “internal” consistent with platform
 - Presence of clear API declaration
 - Support and evolution commitment in line with platform practices

* http://wiki.eclipse.org/Provisional_API_Guidelines



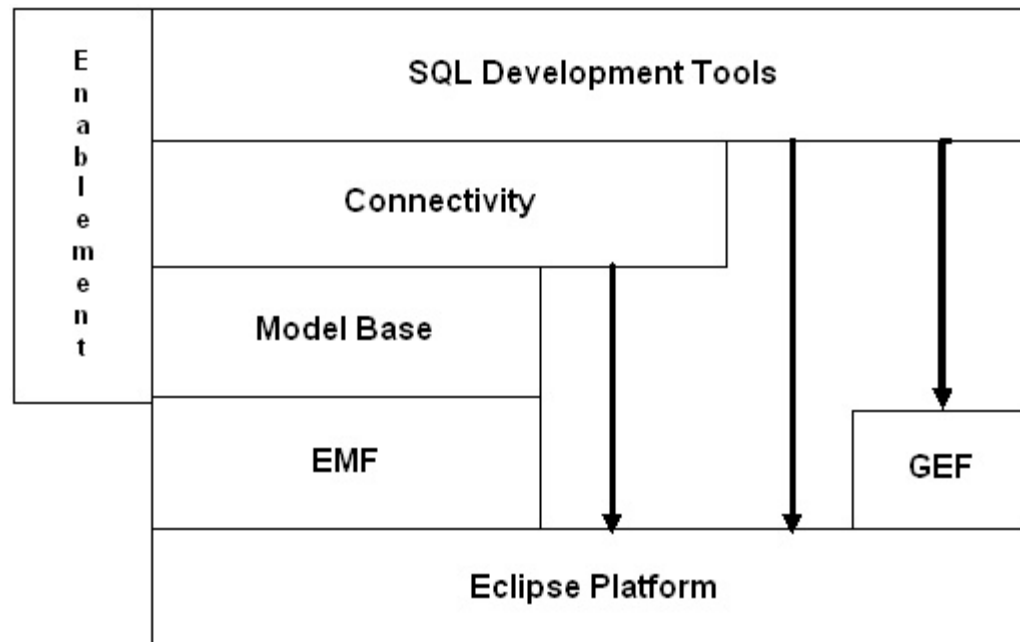
DTP 1.7 API: Details

- Usage details in ISV plug-in
- Requirements, specifications available on web site, wiki, and Bugzilla
- Unit tests available in CVS
- Exemplary clients bundled with DTP
- Some of the new extension points are lacking sufficient documentation (will be resolved by 1.7.1)



DTP Architecture

High level architecture view, at project granularity:





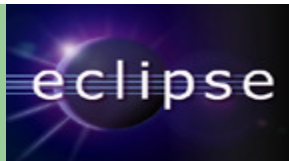
Architectural Issues

- Further integration of DTP models and components, including parser
- Streamlining of some DTP Connectivity models to simplify implementation and usage
- Increase number, depth and quality of exemplary and extensible tools going forward
- Pull code up into frameworks from Enablement as necessary



Defect Policies

- Tested by DTP committers and community
- All automated tests available in CVS
- Release Criteria
 - No blocking, critical or major defects assigned against release candidate
 - Anyone in the community can petition the PMC to delay a milestone or release for a specific bug
 - Designed a Rampdown policy to be adhered to by all DTP developers



Bugs Resolved as of 5/20

	M4	M5	M6	M7	RC1	RC2	Total
Blocking	0	2	0	0	1	0	3
Critical	1	1	1	1	1	1	6
Major	0	1	4	8	1	0	14
Normal	8	13	17	31	9	6	84
Minor	0	1	1	2	0	0	4
Trivial	0	0	0	0	1	0	1
Enhancement	0	1	9	3	1	0	14
Total	9	19	32	49	14	7	126



Bug Trends

Number of bugs open on release date, excluding enhancements:

	Open	Delta
DTP 0.7	13	---
DTP 0.9	19	6
DTP 0.9.1	29	10
DTP 1.0	40	11
DTP 1.5 (est.)	90	50
DTP 1.6 (est.)	190	100
DTP 1.7 (est.)	210	20



Code Statistics

	Plug-ins	KLOC
Model Base	6	91
Connectivity	23	110
SQL Dev Tools	27	183
Enablement	60	177
Total	116	561



Standards

- Based on the SQL99/03 standard
 - SQL model
 - SQL query model
 - SQL query parser
- Sample database connectivity is based on JDBC standard



UI Usability

- SQL editor allows users to create, edit, and test SQL statements
- SQL routine editor allows for execution of stored procedures
- SQL query builder allows for graphical construction of SQL queries
- Connectivity components allow for using heterogeneous data sources



Schedule

- Iterative development cycle, enabling agile reactions to community feedback
 - Milestones at regular intervals
 - Nightly builds between milestones
 - Release candidates for endgame
- Project plan and endgame plan posted on DTP web site and updated as necessary



Schedule: Planned v. Actual, as of RC2 (5/30)

	Planned	Actual	Delta (days)
M5	2/16	2/16	0
M6	3/23	3/23	0
M7/RC0	5/11	5/11	0
RC1	5/18	5/18	0
RC2	5/25	5/26	1



Process: Achievements

- Extensive use of mailing lists and newsgroups for discussions and decisions
- Code available in CVS early
- Full disclosure of schedules and delays
- Announcements about major feature deliveries
- Bugzilla used to mark defect and feature work
- Weekly PMC and project lead/PMC meetings



Process: Room to Grow

- Earlier and better design documentation
- Develop use cases, especially for API
- More automated tests
- Follow and update Bugzilla faster
- In general, strive for continuous improvement



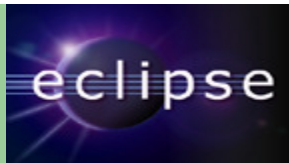
Community: Participation

- Mailing lists
 - General development (dtp-dev)
 - PMC (dtp-pmc)
 - One for each project
- Newsgroup
- Dtp-dev has some traffic, project mailing lists less so
- Newsgroup mostly as gateway to DTP
- Committers from
 - Actuate
 - IBM
 - Sybase



Community: Visibility

- Conference presentations
 - EclipseCon 2008, 2009
 - Eclipse Summit Europe 2008
- Articles
 - Blog Articles
- Other Events
 - Eclipse Live Webinars



Community: Adoption

- “Community” page on DTP web site*
- Commercial Adoption
 - Sybase
 - Actuate
 - Nexaweb
 - Oracle
 - Ingres
 - IBM
- Open Source
 - BIRT
 - Jalcedo
 - JFire
 - NightLabs
 - WTP
- Standards
 - OMG for *Information Management Metamodel* (IMM)**
- Based on community feedback, estimating about 8 to 10 more commercial products in development using DTP

* <http://www.eclipse.org/datatools/community.html>

** <http://www.omg.org/cgi-bin/doc?ab/05-12-02>



Community: Download Details*

	SDK	Runtime	Update Site
DTP 0.7	3,102	0	(no update site)
DTP 0.9	8,247	50	31
DTP 0.9.1	1,706	689	7,520
DTP 1.0	12,255	4,203	11,870
DTP 1.5	67,641	16,250	Tbd
DTP 1.6	42,165	13,398	Tbd
Subtotal	135,116	34,590	19,421

* Through May 20, 2009



Community: Statistics*

- 179,127 downloads of DTP 0.7 – 1.6
- Newsgroup
 - Number of posts: 1537 (about 400 new posts between 1.6 and 1.7)
- Bugzilla
 - Total (bugs & enhancements): 2326
 - Bugs Resolved: 1963
 - Remaining Open: 205

* Through May 22, 2008



Intellectual Property

- Contributions
 - All DTP 1.7 comes only from approved channels
 - All DTP 1.7 code provided under the Eclipse Public License (EPL)
- Third Party Libraries
 - All third party libraries sourced from Orbit
 - SQL Query Parser depends on *lpg.jar*, available for separate download from SourceForge
- Due Diligence & Record Keeping
 - All DTP committers have signed Committer Agreement forms and been approved by EMO
 - IP Log maintained by PMC and available on DTP web site
 - <http://www.eclipse.org/datatools/dtp-log.csv>
 - Individual sub-projects have their automated IP Logs as well:
 - http://www.eclipse.org/projects/ip_log.php?projectid=datatools.connectivity
 - http://www.eclipse.org/projects/ip_log.php?projectid=datatools.enablement
 - http://www.eclipse.org/projects/ip_log.php?projectid=datatools.incubator
 - http://www.eclipse.org/projects/ip_log.php?projectid=datatools.modelbase
 - http://www.eclipse.org/projects/ip_log.php?projectid=datatools.sqltools
 - Eclipse legal review complete



Project Plan

- DTP 1.7 maintenance releases with Galileo
- Two maintenance releases planned for 2009/2010
- Next major release will coincide with the next major platform release (June 2010)
- Additional releases will be considered based on community requests and readiness



Thank You!

- For the interest and support so far
- Please visit us on our mailing lists and newsgroups
- New proposals for DTP always welcome...
www.eclipse.org/datatools