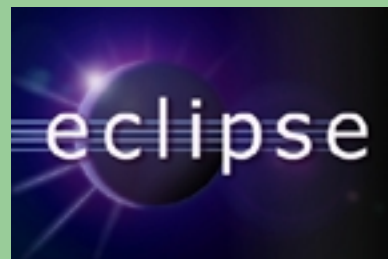# Eclipse Data Tools Platform (DTP) 1.0 Release Review

Eclipse DTP PMC

December 20, 2006

Introduction

- DTP 1.0 is scheduled for week of 12/18
  - Platform version: Eclipse 3.2.1
  - Dependencies: EMF 2.2.1, GEF 3.2.1
- Moving from incubating to mature status with this release
  - Core frameworks and tools established
  - API set defined
  - Ecosystem built around DTP
  - Project operating the "Eclipse Way"

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 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

DTP 1.0 Milestones

- M1: September 8
- M2: October 6
- M3: October 27
- M4/RC0: November 17
- RC1: December 1
- RC2: December 15
- 1.0 Release: Week of December 18

DTP 1.0 Requirements Process

- Community feedback on DTP 0.7 and 0.9
- EclipseCon 2006 Presentations & Discussions
- EclipseWorld 2006 Presentations & Discussions
- DTP Requirements Council
- Newsgroup & mailing list comments

DTP 1.0 Design Efforts

- Captured in documents
  - Published on each projects' site
  - Highlighted in top-level plans

- 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 1.0 Themes

- Create provisional set of API based on community experience

- Provide incremental feature improvements for all projects

- Refactor for enablement support

- Evolve the core frameworks further past DTP 0.9.1

DTP 1.0 Features: Some Examples

- "WTP Parity" items
  - DDL generation
  - Data Source Explorer actions
  - Offline support
- Improved generic JDBC catalog loading
- Plug-in project wizards for ODA runtime & designer extensions
- ODA XML driver in Enablement project
- Driver definition jars can be used in Java class-path
- SQL tooling
  - Enhanced content assist in SQL editor
  - Further preference support
  - Further support for Eclipse launch configurations
- Full list of enhancements (28): See "Useful Bugzilla Queries" page on DTP Wiki for a query

Non-Code Aspects: Documentation & Examples

- Database Examples
  - Driver templates for 8 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: Internationalization & Localization

- Using ICU libraries

- Strings externalized and ready to be localized

- NL packs for DTP 0.9.1 can be used as a base for DTP 1.0 localization efforts

- ODA and dependencies localized as part of BIRT releases

DTP 1.0 API Statement

- All API are *provisional* for DTP 1.0
- We follow the platform's policy and Jim des Rivières "How to Use the Eclipse API" article*
  - Usage of "internal" consistent with platform
  - Presence of clear API declaration
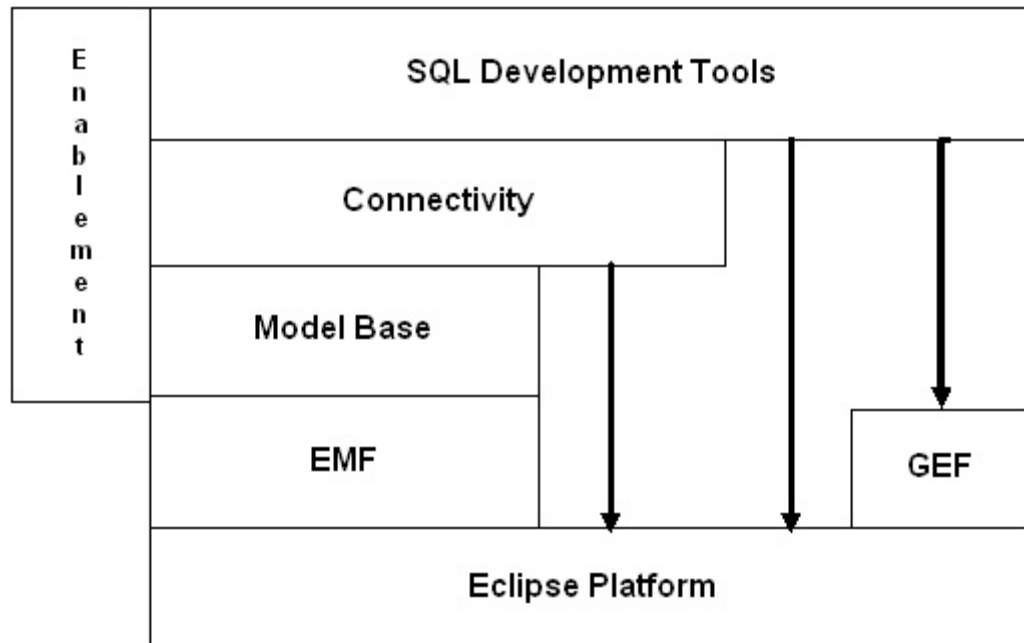 - Support and evolution commitment in line Jim's article and platform practices

* http://www.eclipse.org/articles/Article-API%20use/eclipse-api-usage-rules.html

DTP 1.0 API: Details

- 17 extension points declared

- 85 Java packages

- 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

DTP Architecture

High level architecture view, at project granularity:

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Architectural Issues

- Further integration of DTP models and components, including parser

- 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

Bugzilla Statistics (Resolved)

	M1	M2	M3	RC0	RC1	RC2	Total
Blocking	0	1	0	0	0	1	2
Critical	0	1	1	1	1	2	6
Major	1	1	1	1	3	4	11
Normal	2	5	9	39	5	0	60
Minor	0	0	1	0	0	0	1
Trivial	0	0	0	0	0	0	0
Enhancement	0	11	5	6	0	2	24
Total	3	19	17	47	9	9	**104**

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 (est.)	40	11

Code Statistics

	Plug-ins	KLOC
Model Base	6	121
Connectivity	24	75
SQL Dev Tools	17	120
Enablement	21	9
Total	67	325

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

- 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

	Planned	Actual	Delta (days)
M1	9/8	9/8	0
M2	10/6	10/6	0
M3	10/27	10/27	0
RC0	11/17	11/21	+4
RC1	12/1	12/5	+4
RC2	12/15	12/15	0
1.0	12/22	12/22	0

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 is busy, project mailing lists less so
- Newsgroup mostly as gateway to DTP
- Core contributors: Actuate, IBM, Sybase
- DTP is a member of Europa

Community: Visibility

- Conference presentations
  - EclipseWorld 2005, 2006
  - EclipseCon 2005, 2006, 2007
  - JavaOne 2006
  - Eclipse Summit Europe 2006
- Articles
  - Two in ACM "Queue" magazine
  - EclipseZone
  - Eclipse Developers Journal
  - Eclipse Review
- Other Events
  - bostonEdge Eclipse Developers Group
  - "Eclipse in Motion" Code Camps: Raleigh and Atlanta
  - Callisto podcast
  - DTP Requirements Council calls

Community: Adoption

- "Community" page on DTP web site*
- Commercial Adoption
  - Sybase
  - Actuate
- Open Source
  - BIRT
  - WTP (in Europa)
- 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
Subtotal	13,055	739	7,551

* Through October 27, 2006

Community: Statistics*

- 21,345 downloads of DTP before 1.0
- Newsgroup
  - Number of posts: 158
  - Number of participants (not DTP committers): 59
  - Repeat Rate (not DTP committers): 56%
- Bugzilla
  - Total (bugs & enhancements): 436
  - Accepted bugs: 370
  - Enhancement requests: 85
  - Number of submitters (not DTP committers): 95

* Through October 27, 2006

Intellectual Property

- Contributions
  - All DTP 1.0 comes only from DTP committers
  - All DTP 1.0 code provided under the Eclipse Public License (EPL)
- Third Party Libraries
  - No third party libraries included (EPL or otherwise)
  - 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
  - Eclipse legal review complete

Project Plan

- DTP 1.0 planned for December 2006

- DTP 0.9 maintenance release with Callisto in early 2007

- DTP Europa release planned for June, 2006

Thank You!

- For the interest and support so far
- Please visit us on our mailing lists and newsgroups
- Come visit us at EclipseCon!
- New proposals for DTP always welcome…

  www.eclipse.org/datatools