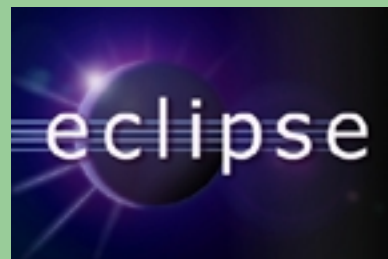# Eclipse Data Tools Platform (DTP) 1.5 Release Review

Eclipse DTP PMC

June 6, 2007

Introduction

- DTP 1.5 is scheduled for week of 6/25
- Build Platform
  - Platform: Eclipse 3.2.2
  - Dependencies: EMF 2.2.2, GEF 3.2.2
  - JVM: Sun J2SE 1.4.2
- Primary Target Platform
  - Platform: Eclipse 3.3
  - Dependencies: EMF 2.3, GEF 3.3
  - 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 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 1.5 Milestones

- M5: February 16
- M6: March 30
- M7/RC0: May 11
- RC1: May 23
- RC2: May 30
- RC3: June 13
- RC4: June 20
- 1.5 Release: Week of June 25

DTP 1.5 Requirements Process

- Community feedback on DTP 0.9.x and 1.0
- Presentations & Discussions:
    - EclipseCon 2007
    - EclipseWorld 2006
- Bugzilla bugs and enhancements requests
- DTP Requirements Council
- Newsgroup & mailing list comments

DTP 1.5 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 1.5 Themes

- Facilitate adoption of DTP frameworks
- Promote selected API to "platform" status
- Provide incremental feature improvements for all projects
- Additional enablement support
- Evolve the core frameworks past DTP 1.0

DTP 1.5 Features: Some Examples

- Enablement:
  - Sybase SQL Anywhere model and catalog loader
  - ODA Web services
  - HSQLDB profile and catalog loader
- Database Table Creation Wizard
  - Contributed by NEC Soft
  - NEC Soft joins the DTP team in Europa
- Feature definitions reorganized (BZ185820)

Non-Code Aspects: Documentation & Examples

- Database Examples
  - Driver templates for 10 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
- NL packs for DTP 0.9.x can be used as a base for DTP 1.5 localization efforts
- ODA and dependencies localized as part of BIRT releases
- DTP 1.5 has completed accessibility check lists

DTP 1.5 API Statement

- Selected ODA and Connectivity framework API promoted to platform status:
  - Proposed to community on public mailing list; no objections
  - See http://dev.eclipse.org/mhonarc/lists/dtp-dev/msg01210.html for details.
- All other API are *provisional* for DTP 1.5
- 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
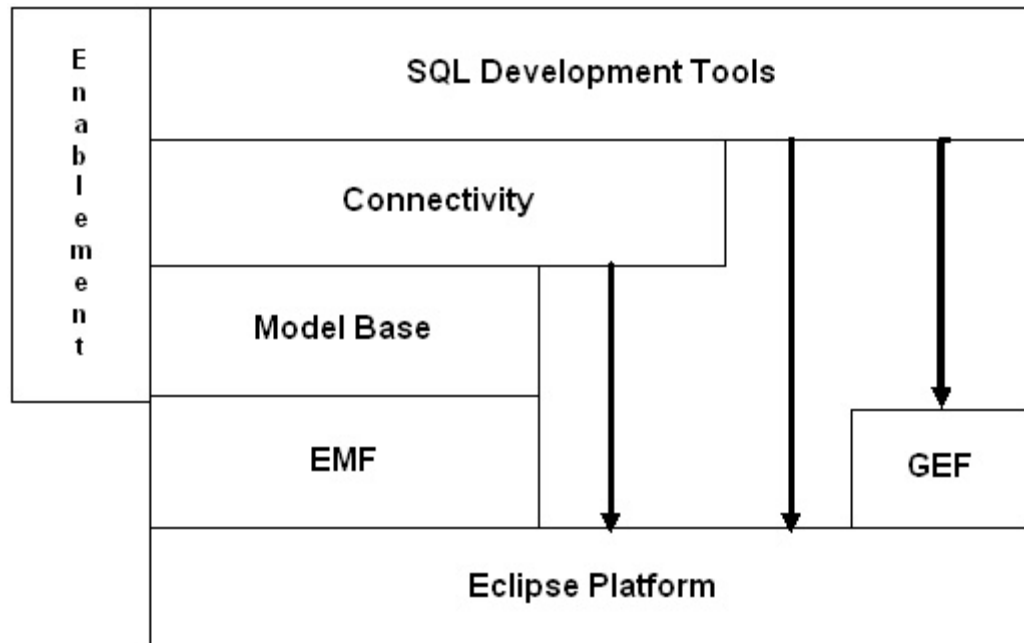 - Support and evolution commitment in line Jim's article and platform practices

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

DTP 1.5 API: Details

- 17 extension points declared

- 86 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:

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

Bugs Resolved as of RC2 (5/30)

	M5	M6	RC0	RC1	RC2	1.5	Total
Blocking	0	0	4	1	0	5	10
Critical	0	0	5	3	0	1	9
Major	1	2	11	3	4	7	28
Normal	3	15	16	19	12	47	112
Minor	10	1	1	2	2	2	18
Trivial	1	0	0	0	0	0	1
Enhancement	1	7	5	3	0	12	28
Total	16	25	42	31	18	74	**206**

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

Code Statistics

	Plug-ins	KLOC
Model Base	6	81
Connectivity	23	82
SQL Dev Tools	19	132
Enablement	29	52
Total	77	347

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, as of RC2 (5/30)

	Planned	Actual	Delta (days)
M5	2/16	2/16	0
M6	3/30	3/30	0
M7/RC0	5/11	5/11	0
RC1	5/23	5/23	0
RC2	5/30	5/30	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
- Committers from
  - Actuate
  - IBM
  - NEC Soft
  - Sybase

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
    - Nexaweb
- 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	4203	11,870
Subtotal	25,310	4,942	19,421

* Through May 15, 2007

Community: Statistics*

- 49,673 downloads of DTP 0.7 – 1.0
- Newsgroup
  - Number of posts: 709
  - Number of participants (not DTP committers): 101
  - Repeat Rate (not DTP committers): 60%
- Bugzilla
  - Total (bugs & enhancements): 781
  - Accepted bugs: 725
  - Enhancement requests: 125
  - Number of submitters (not DTP committers): 128

* Through May 18, 2007

Intellectual Property

- Contributions
  - All DTP 1.5 comes only from approved channels
  - All DTP 1.5 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
  - DBUnit integration depends on DBUnit plug-ins, 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 1.5.x maintenance releases with Europa
- DTP "Ganymede" planned for June, 2008
- 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
- Come visit us at EclipseWorld!
- New proposals for DTP always welcome…

www.eclipse.org/datatools