Eclipse Data Tools Platform (DTP) 0.7 Release Review

Eclipse DTP PMC
March 8, 2006
Introduction

- DTP 0.7 is scheduled for March 17
  - Supports Eclipse 3.1.x
  - Supports Eclipse 3.2M5

- DTP 0.7 is a step toward a DTP Callisto release in June 2006
  - Supports Eclipse 3.2
  - Potential maintenance releases of 0.7 depending on community feedback
DTP 0.7 Milestones

- M1: 11/11
- M2: 12/23
- M3: 1/20
- M5: 3/1
  - First release candidate (RC0)
  - Skipped “M4” to synchronize with Callisto numbering scheme
DTP 0.7 Requirements Process

- Community feedback on DTP proposal
- EclipseCon 2005 Meetings
- Code reviewed from
  - WTP, BIRT, Sybase, objectNation
- Code adopted in DTP 0.7 from
  - WTP, BIRT, Sybase
- Newsgroup & mailing list comments
DTP 0.7 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 0.7 Themes

- Consolidate shared experience and code of initial contributors
- Concentrate on frameworks first, tools second
- Provide a solid foundation for future components building on DTP
- Become accustomed to working within the Eclipse community
DTP Features: Model Base

• Based on Eclipse Modeling Framework (EMF)
• Provides domain models for
  – SQL
  – Database definition
  – SQL Query
• Leverages domain-driven design and coding in the spirit of EMF
DTP Features: Connectivity

- Frameworks for making and working with connections:
  - Driver Management Framework
  - Connection Management Framework
  - Open Data Access (ODA) Framework

- Exemplary Tools:
  - Data Source Explorer (DSE)
  - ODA Design UI
DTP Features: SQL Dev Tools

- Frameworks for SQL development:
  - SQL Editor Framework
  - Routine Editor & Debugger Framework
  - SQL Execution Plan Framework
  - SQL Query Parser Framework

- Exemplary Tools:
  - SQL Scrapbook editor
  - Results and History Views
Non-Code Aspects: Documentation and Examples

- Database Examples
  - Generic JDBC Support
  - Apache Derby 10/10.1 Support
- ODA Examples:
  - Flat File Connection Profile
  - Flat File UI Examples
- Documentation on every project site
- Documentation plug-in included in SDK
Non-Code Aspects: Internationalization & Localization

• Support of ICU libraries
  - Native in Eclipse 3.2 DTP stream
  - Also included in Eclipse 3.1.x DTP stream

• Enablement Process (w/ IBM)
  - Work in progress: Expected for DTP Callisto
  - L10N support and testing in wide number of languages (~23)
DTP 0.7 API Statement

- This is the first DTP release
  - No official, Eclipse-quality APIs
  - With exception of ODA runtime interfaces, provisional API since M1

- Provisional API statement for DTP 0.7

- Documented in SDK help plug-in
  - Extension points
  - Code APIs

- Example code included in SDK
Architectural Issues

- Integration with BIRT in DTP 0.7
- Integration planned with WTP 2.0
- Planned integration with STP

Issues
- Need to work with these clients to enable easy integration
- Given more general community adoption, need to adjust DTP design accordingly

Parts of DTP work well in RCP
Defect Policies

- Tested by DTP committers and community
- All automated tests available in CVS
- Release Criteria
  - No blocking, critical or major defects
  - “Stability vote” by DTP committers
## Bugzilla Statistics

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<thead>
<tr>
<th>Category</th>
<th>At M5 (RC0)</th>
<th>Up to M5</th>
<th>Totals</th>
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</table>
Code Statistics

- Based on Eclipse Metrics project: http://metrics.sourceforge.net/
- Model Base:
  - 5 plug-ins
  - 125 KLOC
- Connectivity:
  - 22 plug-ins
  - 55 KLOC
- SQL Dev Tools:
  - 15 plug-ins
  - 86 KLOC
- Totals
  - 42 plug-ins
  - 266 KLOC
Standards

- SQL Model is based directly on the SQL 99/03 SQL standard
- Sample database connectivity is based on JDBC standard
UI Usability

- SQL Dev Tooling allows users to create, edit, and test SQL statements
- Connectivity components allow for using heterogeneous data sources during development
  - Now: Generic JDBC, Apache Derby example
  - With community support, more databases
  - ODA has flat file, other drivers from community
Schedule

• Iterative development cycle, enabling agile reactions to community feedback
  – Milestones at major points
  – Iterations during milestones
  – Nightly builds at critical junctures

• Adopting best practices from other Eclipse top-level projects
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
- Mitigating factors
  - First time through Eclipse release for DTP
  - Large initial code contributions
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
- Interest in DTP from BIRT, WTP, STP
- DTP is a member of Callisto
Community: Visibility

- Presentation at EclipseWorld 2005
- Two articles in ACM “Queue” magazine
- Article on EclipseZone
- Article in Eclipse Developers Journal
- EclipseCon 2006
  - One tutorial session
  - Two long talks
  - BOF, informal meetings
- bostonEdge Eclipse Developers Group
- “Eclipse in Motion” Code Camps: Raleigh and Atlanta
Community: Newsgroup Feedback

- “We're eager to use the new datasource explorer…”
  (http://www.eclipse.org/newsportal/article.php?id=175&group=eclipse.dtp#175)
- “I have to say that I like what I've seen so far…”
  (http://www.eclipse.org/newsportal/article.php?id=141&group=eclipse.dtp#141)
- “The BIRT & DTP projects look very promising …”
  (http://www.eclipse.org/newsportal/article.php?id=213&group=eclipse.dtp#213)
Intellectual Property

- **Contributions**
  - All DTP 0.7 comes only from DTP committers
  - All DTP 0.7 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 IBM

- **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
  - EMO source scan and due diligence in progress
Project Plan

- DTP 0.7 planned for March, 2006
- DTP Callisto release planned for June, 2006
  - In synchronization with Eclipse 3.2 release
  - Aiming for “1.0” designation
- Tentative release planned for late 6Q4
- Talking about two major releases per year going forward, but no settled plans yet
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