Eclipse BIRT 2.2 Release Review

May 31, 2007

Eclipse BIRT PMC

Summary for Overall Europa Slide Set

- Eclipse BIRT 2.2 is a new major release and included in Europa
- Many new features, including:
    - Dynamic crosstab support based on multi-dimensional OLAP engine
    - Output formats (e.g. MS Excel, MS Word, MS PowerPoint output)
    - Improved Charts (e.g. Gantt; Smart Labels; improved scaling/grouping)
    - New formatting (e.g. Reference external CSS; Table of Contents formatting)
    - Deployment and Integration (e.g. components to easily deploy BIRT in a web application)
    - Parameter improvements (e.g. default values; optional parameters)
- Updated APIs (APIs are different levels, see detailed slide for information)
- Committer and 3rd party contributions have followed Eclipse IP process
    - All contributions have been approved by EMO
- Committer community includes Actuate, IBM, Innovent Solutions and InetSoft

Introduction: BIRT 2.2 Release Review

- **BIRT 2.2 is targeted for availability June 29, 2007**
  - Based on Eclipse Platform 3.3
  - Part of Europa Simultaneous Release

- **Major Milestone History**
  - 1.0, Jun 2005; 1.0.1, Jul 2005
  - 2.0, Jan 2006; 2.0.1, Feb 2006
  - 2.1, Jun 2006; 2.1.1 Sep, 2006; 2.1.2 Feb 2007

- **Release alignment**
  - "Major" release designation determined by feature set
  - Summer releases will be aligned with Eclipse release train

Features: BIRT 2.2 Requirements Process

- **Requirements gathered from multiple sources:**
  - Enhancement requests already entered in Bugzilla
  - Discussions in BIRT newsgroup
  - Innovation/experience from within the BIRT project team
- **Requirements captured in Bugzilla**
  - Community encouraged to enter all enhancements into Bugzilla for planning and tracking
- **Candidate projects identified and listed on BIRT Wiki**
- **BIRT Project Specifications (BPS) created to define scope and encourage discussion and feedback**
- **BIRT 2.2 Plan developed and published on Eclipse.org**

Features: Summary of BIRT 2.2 Objectives & Themes

- Integrate and provide BIRT as part of the Europa Simultaneous Release
  - Support use of BIRT in a wide range of Eclipse 3.3 applications
  - Ensures BIRT technology is easily accessible to Eclipse 3.3 community
- Specific additional features can be grouped into broad categories
  - Dynamic crosstab support based on multi-dimensional OLAP engine
  - Support for Eclipse 3.3 (tested with Europa components)
  - Data access/Contributions to DTP (e.g. Web Services data source; dynamic connection profiles; enhanced runtime API)
  - Output formats (e.g. MS Excel, MS Word, MS PowerPoint output)
  - Formatting (e.g. Reference external CSS; Table of Contents Formatting)
  - Deployment and Integration (e.g. components to easily deploy BIRT in a web application)
  - Parameters (e.g. default values; optional parameters)
  - Charts (e.g. New chart types, including Gantt; Smart Labels; improved scaling/grouping)
  - Usability improvements (e.g. Chart Designer; XML Editor; Report Examples View; Extensibility)
  - Scripting (e.g. improved access to documentation)
  - Use of Eclipse 3.2 features (e.g. new Property Editor; use new SWT Widgets)
- Incorporate Eclipse Themes & Priorities where applicable

> For Details, refer to BIRT 2.2 Release Plan and Bugzilla

Non-Code Aspects: Documentation & Examples

- BIRT 2.2 download includes online documentation
    - Created by professional technical writers
- Tutorials and examples available on www.eclipse.org/birt
    - How-To recorded demos
    - Articles on common BIRT usage scenarios
    - Examples of common reports
    - Example code snippets
- BIRT includes an embedded Derby sample database
    - Easy to learn how to use BIRT with tutorials and examples
    - Standard SQL data that can easily be loaded into other DBs
- New & Noteworthy documents
    - Have been created for Milestone releases
    - Comprehensive BIRT 2.2 N&N will be created for final 2.2 release

Non-Code Aspects: Internationalization & Localization

- BIRT uses Eclipse and Java localization/internationalization infrastructure
- Report architecture enables easy localization of labels/text in actual reports
- BIRT is tested for 23 locales
- Currently right to left (bi-directional) support in PDF output is limited

APIs: Overview

- Intention is for new APIs to go through at least one release of Provisional status to allow for feedback

- Community feedback on APIs prompted a number of enhancements and improvements in BIRT 2.2

- Goal for BIRT 2.2 is to support BIRT 2.1 APIs that are in use by the community. Known exceptions are:
    - BIRT 2.1 or earlier APIs that did not work
    - BIRT 2.1 APIs that have transitioned to DTP project

- Any compatibility issues should be reported as defects and we will work to address them where possible

APIs: Status

Name	Status	Doc Status	Test Cases	# of Clients	Backward Compatible	Maturity
BIRT Report Object Model	Platform	Comprehensive document	Yes	2+	Indefinite	Platform
BIRT Design Engine API	Platform	Overview, How To, Examples and JavaDoc	Yes	2+	1.0.x, 2.0.x, 2.1.x	Mature
BIRT Report Engine API	Provisional	Overview, How To, Examples and JavaDoc	Yes	3+	1.0.x, 2.0.x, 2.1.x	Medium
BIRT Report Scripting API	Provisional	JavaDoc , Examples	Yes	N/A	2.0.x, 2.1.x	Medium
BIRT Report Item Extension API	Provisional	Overview , Examples and JavaDoc	Yes	2+	1.0.x, 2.0.x, 2.1.x	High
BIRT Report Rendering Extension API	Provisional	JavaDoc	Yes	2+	1.0.x, 2.0.x, 2.1.x	Medium
BIRT Chart Engine API	Provisional	Overview, FAQ, Model Specification and JavaDoc	Yes	2+	1.0.x, 2.0.x, 2.1.x	Medium
BIRT Chart Type Extension API	Provisional	JavaDoc	Yes	5+	1.0.x, 2.0.x, 2.1.x	Medium
BIRT Chart Device Rendering Extension API	Provisional	JavaDoc	Yes	3+	1.0.x, 2.0.x, 2.1.x	Medium

API Contract Compatibility: BIRT 2.2 is upwards contract-compatible with BIRT 1.x; 2.0.x and 2.1.x to the greatest extent possible. All incompatibility exceptions will be documented. Downward contract compatibility is not supported. There is no guarantee that compliance with BIRT 2.2 APIs will ensure compliance with BIRT 1.x; 2.0.x; 2.1.x APIs. Refer to general Eclipse document on Evolving APIs for a discussion of the kinds of API changes that maintain contract compatibility.

End of Life Issues

- No features or APIs are moving into End of Life in this release

Architectural Items

- No changes from BIRT 2.1

Bugzilla Statistics

- Dedicated professional QA team testing BIRT

- Strong participation in testing from Community

- All bugs are tracked through Bugzilla

- Release Exit Criteria

  - Zero outstanding Critical defects

  - Zero outstanding Major defects

  - 100% test attempt / pass

- All automated tests/JUnit tests are in CVS

Bugzilla Statistics

Target Milestone	2.0 Milestone Releases													Total 2.2	2.2.1	Future
	2.2.0	M1	M2	M3	M4	M5	M6	RC0	RC1	RC2	RC3	RC4	Final			
Blocker	5	8	6	0	7	8	13	13	0	5	0	0	0	65	2	3
Critical	10	9	10	3	8	16	24	29	0	11	1	0	0	121	0	2
Major	32	20	29	8	30	44	38	74	3	28	8	0	0	314	5	10
Normal	192	110	176	54	217	243	302	423	11	203	44	0	0	1975	34	244
Minor	11	1	3	0	9	13	10	5	0	4	2	0	0	58	2	12
Trivial	0	0	2	0	0	1	0	1	0	0	1	0	0	5	0	2
Enh	59	14	23	8	24	29	33	31	0	19	5	0	0	245	12	239
Grand Total	**309**	**162**	**249**	**73**	**295**	**354**	**420**	**576**	**14**	**270**	**61**	**0**	**0**	**2783**	**55**	**512**

Note: NEW and ASSIGNED for Target Milestone 2.2.0 are still candidates for 2.2 but will likely move to 2.2.1 (88 bugs fall into this category)

Bug statistics as of 4:30 pm Pacific, May 30, 2007

Code Statistics

Project Area	BIRT 1.0	BIRT 2.0	BIRT 2.1	BIRT 2.2	% Increase (2.1 to 2.2)
Report Designer Lines of Code	61K	100K	110K	202K	+84%
Charting Engine Lines of Code	60K	111K	125K	199K	+59%
Report Engine Lines of Code	113K	180K	232K	661K	+185%
Test and Release Engineering Tools				365K	
TOTAL Lines of Code:	**234K**	**391K**	**467K**	**1,427K**	**+206%**
Number of Java Files	N/A	N/A	4,787	7,793	

Statistics as of May 31, 2007.

Statistics do not include 3rd party open source code and binaries.

Line count does not include comments and blank lines.

Standards (same as BIRT 1.0.x, 2.0.x, 2.1.x)

- **BIRT is designed to work in a standards-based environment**
  - Eclipse plug-ins for design-time activities
  - General Java class libraries for deployment
  - Ability to render reports as HTML pages for output
  - Example deployment implementation for Apache Tomcat

- **BIRT uses JavaScript for scripting (Mozilla Rhino engine)**
  - Conforms to ECMA-262 standard
  - Reference: http://www.mozilla.org/js/

Schedule

- BIRT 2.2 adopted Eclipse Europa Simultaneous Release Schedule

Feb 14, 2007	▪ BIRT 2.2 M4 released
Feb 23, 2007	▪ BIRT 2.2 M5 released
Apr 6, 2007	▪ BIRT 2.2 M6 released
May 18, 2007	▪ BIRT 2.2 RC0 released
	▪ BIRT 2.2 RC1 Not Planned
Jun 5, 2007	▪ BIRT 2.2 RC2 target
Jun 14, 2007	▪ BIRT 2.2 RC3 target
Jun 21, 2007	▪ BIRT 2.2 RC4 target
Jun 29, 2007	▪ BIRT 2.2 GA target
Q4 2007	▪ BIRT 2.2.1 Maintenance Release
Summer 2008	▪ BIRT 2.3/3.0 (Designation TBD)

Process

- 80 committers for the Eclipse BIRT project
  - Committer elections and removals have followed charter principles
  - Continuing to recruit additional contributor organizations/individuals
- Open and inclusive release planning and tracking processes
  - Bugzilla used to request and track all defects and enhancements
- Leveraging other open source in the project where possible
  - Examples: Rhino; Flute; Tomcat; Derby
- All contributions made directly to Eclipse CVS
  - Nightly, stable, and release builds available to the community
- Project specific process details are posted on project web site
  - http://www.eclipse.org/birt/phoenix/project/
- Weekly PMC meeting with minutes distributed to community

Community

- Open communications via 6 BIRT mailing lists and 1 newsgroup
  - Project activities communicated via mailing lists for PMC/general
  - One mailing list for each sub-project
  - Plus low-noise news only mailing list
- Newsgroup is very active
  - 19,752 postings as of May 30, 2007
  - Many how-to questions and discussions
  - Typically same day responses from BIRT team
  - Have adjusted projects in response to newsgroup feedback
- Dedicated resources generating content for BIRT community at Eclipse.org
  - BIRT project pages
  - BIRT Wiki
- Coordination/cooperation between other open source projects
  - TPTP incorporates BIRT functionality
  - BIRT Committers also work on DTP project; DTP is key component of BIRT

Community

- Articles and Technical Content Placement
    - 11 significant articles published in last 12 months
    - See http://wiki.eclipse.org/index.php/Articles(BIRT) for details
- Conferences and User Groups
    - EclipseCon 2007, March 2007: 11 talks/tutorials on BIRT project technology
    - Presented on BIRT at over 10 other conferences during last 12 moths
- Blogging
    - BIRT World: http://birtworld.blogspot.com
    - Promoting BIRT on many other sites such as TheServerSide, JavaLobby and EclipseZone
- Books
    - Two books are published by Addison-Wesley on BIRT:
        - BIRT: A Field Guide to Reporting
        - Integrating and Extending BIRT
    - Both can be pre-ordered from Amazon or your favorite retailer

Intellectual Property

- Accepting Contributions (In-Bound Licensing)
  - All BIRT code provided under Eclipse Public License (EPL)
  - BIRT downloads include only 3rd party (non-EPL) components approved by EMO

- Licensing Contributions (Out-Bound Licensing)
  - BIRT 2.2 provided under EPL
  - About files and license files are complete and correct

- Due Diligence and Record Keeping
  - All BIRT Committers completed Committer Agreement & approved by PMC/EMO
  - PMC maintains list of all 3rd-party (non-EPL) components used by BIRT
    - All 3rd party components completed IP review process and approval by EMO
  - Project Log maintained by the PMC

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

Intellectual Property Cleanliness

- The following significant and third party contributions have been reviewed by Eclipse Legal
    - Rhino 1.6R1
    - Apache Derby 10.1.2.1
    - Jakarta Commons CLI 1.0
    - JTidy R7
    - Simple API for CSS 1.3
    - Flute 1.3
    - Commons codec1.3
    - Xerces2 Java Parser 2.6.2
    - Apache Axis 1.3
    - Prototype.js 1.4.0
    - Batik 1.6
    - iText 1.5.2
- Project log complete and in the process of being reviewed by Eclipse Legal
    - The URL is http://www.eclipse.org/birt/project-info/ProjectLog.html

Project Plan

- BIRT 2.2 scheduled for Jun 29, 2007
  - Based on and supports Eclipse 3.3
  - Part of Eclipse Europa Simultaneous Release
  - Does not support Eclipse 3.2.x or earlier
- BIRT 2.2.1 tentatively scheduled for Q4 2007
  - Maintenance release
  - Ideally, synchronized and tested with Eclipse Platform 3.3.1
  - Exact date pending data on planned date for Eclipse Platform 3.3.1
- BIRT release tentatively targeted for Jun 2008
  - Synchronized with Eclipse Ganymede Simultaneous Release
  - Feature set and planning will determine release designation
  - Detailed planning and release designation TBD

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=BIRT

- **Submit questions / issues in the BIRT Newsgroup:**
  news://news.eclipse.org/eclipse.birt

- **Engage with the PMC to contribute:**
  birt-pmc@eclipse.org or individual PMC members (see
  http://www.eclipse.org/birt/phoenix/project/pmc.php)