



Eclipse BIRT 2.1 Release Review

May 30, 2006

Eclipse BIRT PMC



Introduction: BIRT 2.1 Release Review



- BIRT 2.1 is targeted for availability June 30, 2006
 - Based on Eclipse Platform 3.2
 - Part of Callisto Simultaneous Release
- Major Milestone History
 - 1.0, Jun 2005; 1.0.1, Jul 2005
 - 2.0, Jan 2006; 2.0.1, Feb 2006
- Release alignment
 - “Major” release designation determined by feature set
 - Summer releases will be aligned with Eclipse release train

Features: BIRT 2.1 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 2.1 Plan developed and published

Features: Summary of BIRT 2.1 Objectives & Themes

- Integrate and provide BIRT as part of the Callisto Simultaneous Release
 - Support use of BIRT in a wide range of Eclipse 3.2 applications
 - Ensures BIRT technology is easily accessible to Eclipse 3.2 community
- Specific additional features can be grouped into broad categories
 - Support for Eclipse 3.2 (e.g. repackaging of “features”; ICU4J support)
 - Download and install (e.g. integrated all-in-one install)
 - Report page generation (e.g. page break enhancements; Reportlets)
 - Enhanced ODA framework (from DTP project)
 - Data access (e.g. ability to join data; new XML data source features)
 - Accessibility support (e.g. Accelerator Keys)
 - Templates (e.g. easier to create templates)
 - Highlighting (e.g. highlight Top N/Bottom N rows)
 - Chart enhancements (e.g. Mouse-over tips to annotate charts)
 - General usability (e.g. Data Set Editor UI improvements)
- Incorporate Eclipse Themes & Priorities where applicable

For Details, refer to BIRT 2.1 Release Plan and Bugzilla

Non-Code Aspects: Documentation & Examples

- BIRT 2.1 download includes online documentation
 - Created by professional technical writers
- Tutorials and examples available on www.eclipse.org/birt
 - How-To recorded demos (25 currently available)
 - 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 document will be created for final 2.1 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 and localized for 23 locales/languages:

- 9 group 1 languages

- German
- Spanish
- French
- Italian
- Japanese
- Korean
- Brazilian Portuguese
- Traditional Chinese
- Simplified Chinese

- 4 group 2 CEMA languages

- Czech
- Hungarian
- Polish
- Russian

- 8 group 2a additional languages

- Danish
- Dutch
- Finnish
- Greek
- Norwegian
- Portuguese
- Swedish
- Turkish

- 2 group Bi-Directional languages

- Arabic
- Hebrew

- Currently right to left (bi-directional) support in PDF output is limited

APIs: Overview



- BIRT 1.0.x introduced new APIs based on expertise and extensive review of senior architects with 10+ years of experience in BI field
- All except BIRT ROM were marked as “Provisional” in BIRT 1.0
- Intention is for new APIs to go through at least one release of Provisional status to allow for feedback
- Community feedback on BIRT 1.0.x APIs prompted a number of enhancements and improvements in BIRT 2.0
- Goal for BIRT 2.1 is to support BIRT 2.0 APIs that are in use by the community. Known exceptions are:
 - BIRT 2.0 or earlier APIs that did not work
 - BIRT 2.0 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, 1.0.1, 2.0, 2.0.1	Mature
BIRT Report Engine API	Provisional	Overview, How To, Examples and JavaDoc	Yes	3+	1.0, 1.0.1, 2.0, 2.0.1	Medium
BIRT Report Scripting API	Provisional	JavaDoc , Examples	Yes	N/A	2.0, 2.0.1	Medium
BIRT Open Data Access Extension API	Deprecated (Moved to DTP)	Overview , Examples and JavaDoc	Yes	3+	1.0, 1.0.1, 2.0, 2.0.1	Medium
BIRT Report Item Extension API	Provisional	Overview , Examples and JavaDoc	Yes	2+	1.0, 1.0.1, 2.0, 2.0.1	High
BIRT Report Rendering Extension API	Provisional	JavaDoc	Yes	2+	1.0, 1.0.1, 2.0, 2.0.1	Medium
BIRT Chart Engine API	Provisional	Overview, FAQ, Model Specification and JavaDoc	Yes	2+	1.0, 1.0.1, 2.0, 2.0.1	Medium
BIRT Chart Type Extension API	Provisional	JavaDoc	Yes	5+	1.0, 1.0.1, 2.0, 2.0.1	Medium
BIRT Chart Device Rendering Extension API	Provisional	JavaDoc	Yes	3+	1.0, 1.0.1, 2.0, 2.0.1	Medium

API Contract Compatibility: BIRT 2.1 is upwards contract-compatible with BIRT 1.x and 2.0.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 2.1 APIs will ensure compliance with BIRT 1.x or 2.0.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 2.0

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 2.1	2.1.1	Future
	M5	RC0	RC1	RC2	RC3	RC4	RC5	Final			
Blocker	14	49	1	21	12	12	0	2	111	1	1
Critical	13	49	1	17	15	10	2	4	110	0	0
Major	35	131	15	38	60	48	26	17	370	1	0
Normal	150	404	47	141	180	186	114	55	1277	45	161
Minor	10	7	2	2	7	8	6	7	48	3	9
Trivial	1	1	0	1	0	0	0	3	6	0	3
Enhancement	34	82	3	24	22	12	19	17	213	15	168
Grand Total	257	723	69	244	295	275	167	105	2135	65	342

Bug statistics as of 10:30 am Pacific, May 29, 2006

Code Statistics



Project Area	BIRT 1.0	BIRT 2.0	BIRT 2.1	% Increase (2.0 to 2.1)
Report Designer Lines of Code	61K	100K	110K	+10%
Charting Engine Lines of Code	60K	111K	125K	+11%
Report Engine Lines of Code	113K	180K	232K	+29%
TOTAL Lines of Code:	234K	391K	467K	+19%
Number of Java Files	N/A	N/A	4,787	

Statistics as of May 30, 2006.

Statistics do not include 3rd party open source code.

Line count does not include comments.

Standards (same as BIRT 1.0.x, 2.0.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 2.1 adopted Eclipse Callisto Simultaneous Release Schedule
- Initial milestone labeled “M5” to synchronize with Callisto names

Tue, Mar 7, 2006	▪ BIRT 2.1 M5 released
Mon, Apr 17, 2006	▪ BIRT 2.1 RC0 released
Mon, Apr 24, 2006	▪ BIRT 2.1 RC1a released
Fri, May 5, 2006	▪ BIRT 2.1 RC2 released
Fri, May 19, 2006	▪ BIRT 2.1 RC3 released
Wed, May 31, 2006	▪ BIRT 2.1 RC4 target
Tue, Jun 20, 2006	▪ BIRT 2.1 RC5 target
Wed, Jun 28, 2006	▪ BIRT 2.1 RC6 target
Fri, Jun 30, 2006	▪ BIRT 2.1 GA target
Q4 2006	▪ BIRT 2.1.1 Maintenance Release
Summer 2007	▪ BIRT 2.2/3.0 (Designation TBD)

Process



- 85 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
- 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
 - 10,090 postings as of May 30, 2006 (compared to 3794 as of Dec 7, 2005)
 - Many how-to questions and discussions
 - Typically same day responses from development team
 - Have adjusted projects in response to newsgroup feedback
- Dedicated resources generating content for BIRT web site pages, community
- BIRT is frequently in top 2 or 3 projects in “Liveliness” scale
- Coordination/cooperation between other open source projects
 - TPTP incorporates BIRT functionality
 - Moved BIRT ODA architecture and resources to Eclipse DTP as part of BIRT 2.0
 - Working with Zend to provide easy PHP access to BIRT

Community



- Articles and Technical Content Placement
 - SD Times "Spotlight on Eclipse" Supplement, Jan 2006 (<http://www.bzmedia.com/retrieve/eclipse.htm>)
- Conferences and User Groups
 - EclipseCon 2006, March 2006: 1 Tutorial and 2 Talks
 - MySQL User Conference, April 2006: 2 Talks
 - Eclipse Forum Europe, May 2006: 1 Talk
- Blogging
 - BIRT World: <http://birtworld.blogspot.com>
 - Promoting BIRT on many other sites such as TheServerSide, JavaLobby and EclipseZone
- Books
 - Two books are in the process of being 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

Newsgroup Feedback



"I've gotten through what I think is a complex development and I'm impressed with exactly how much BIRT can do"

Developer

"It is an elegant and well implemented design ..."

Colombian developer on BIRT 2.0's Cascading Parameter feature design

"I'm relatively new to BIRT, but I'm really impressed with what I've learned so far."

Developer

"I wrote an ODA and I have to say BIRT is fantastic."

Developer

"Birt is a great Eclipse project."

Developer

"Have upgraded to 2.0 M2 and must say - it rocks! ... Thanks for all the great work."

*Peter Hazzard, Founder and Principal Consultant with more than 18 years of system integration experience
(www.moshierislandgroup.com)*

"I'm relatively new to BIRT, but I'm really impressed with what I've learned so far."

Developer



Framework Uptake Examples

- BIRT continues to generate a lot of interest and uptake is strong

Pentaho – <http://www.pentaho.org>

Pentaho provides an integrated open source BI stack solution that includes BIRT.

Actuate – <http://www.actuate.com/birt>

Commercial version of BIRT with support, indemnification and support.

EmbeddedPlus – <http://www.embeddedplus.com>

Commercial DoorKeeper product uses BIRT as the reporting component.

Ivis Technologies – <http://www.ivis.com>

BIRT is the reporting component of commercial xProcess product.

Zend – <http://www.zend.com>

Zend and BIRT team are investigating integration of BIRT with PHP.

Eclipse TPTP Project – <http://www.eclipse.org/tptp>

Including BIRT as the reporting component within TPTP.

Possibly Many Others...

Newsgroup includes postings from many large organizations: IBM, L.L.Bean, SPSS, NASA JPL...

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
 - Used but not distributed: iText is used by BIRT for PDF generation
 - iText must be downloaded and installed separately
- Licensing Contributions (Out-Bound Licensing)
 - BIRT 2.1 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
 - EMO source scan and due diligence is in progress
 - BIRT 2.1 will not be released until this is complete with a positive result
 - 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 2.8
 - Apache Axis 1.3
 - Prototype.js 1.4.0
 - Batik 1.6
- 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 2.1 scheduled for Jun 30, 2006
 - Based on and supports Eclipse 3.2
 - Part of Eclipse Callisto Simultaneous Release
 - Does not support Eclipse 3.1.x or earlier
- BIRT 2.1.1 tentatively scheduled for Q4 2006
 - Maintenance release
 - Ideally, synchronized and tested with Eclipse Platform 3.2.1
 - Exact date pending data on planned date for Eclipse Platform 3.2.1
- BIRT release tentatively targeted for Jun 2007
 - Synchronized with Eclipse Platform release in that timeframe
 - 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/phenix/project/pmc.php>)