Eclipse BIRT:
Open Source Reporting for Your Application

Paul Clenahan
Eclipse BIRT Project Management Committee
VP Product Management, Actuate Corporation
Agenda

BIRT Project = Business Intelligence and Report Tools Project

- Business Intelligence and Reporting Primer
- How Developers Solve the Problem Today
- Open Source and the Eclipse Platform
- The Emergence of the BIRT Project
- Demonstration
- Gallery
- API’s, Extensibility
- Actuate BIRT
- Summary
Most applications have some type of reporting need
Simple reporting is easy, but users demand more
Real-world report development is challenging
  - Non-relational data sources
  - Sorting, aggregation and calculations on data
  - Professional presentation of information
Meeting user demand for reporting is key to application success
How Developers Traditionally Solve the Problem

Java
JSP
XSLT
XML
JFaces
JavaScript
HTML

Build

Custom Developed Solution

Buy

Closed Source Commercial Products

Crystal Reports
ReportNet
JReports
StyleReports
Open Source Creates New Choices

Build

Custom Developed Solution

Build using Open Source Code

Leverage Open Source in a Custom Solution

Open Source Products

Open Source Based Products

Buy

Closed Source Commercial Products
Business Intelligence and Reporting Tools

BIRT Project Goals

- Next generation reporting technology
- Web centric design metaphor
- Open source and extensible
- XML report design format
- Foundation for commercial products
- Build community and ecosystem

BIRT Project Committers

- Actuate (http://www.actuate.com)
- Innovent Solutions (http://www.innoventssolutions.com)
- IBM (http://www.ibm.com)
- InetSoft (http://www.inetsoft.com)
BIRT Project Scope

Operational Reporting

Typical Characteristics:
- Operational reports
- Developer creates reports
- Very easy end user access
- Highly formatted
- Multiple output formats
- No end user training needed
- Data access can be complex

Ad hoc Query & Reporting

Typical Characteristics:
- Simple ad hoc exploration of data
- Business user creates reports
- Fairly easy to use
- Typically limited formatting
- Interactive
- Minimal training
- Semantic layer hides complexity

Analytics/OLAP/Data Mining

Typical Characteristics:
- Complex “Slice and Dice” of data
- Business user creates reports
- More complex to use
- Minimal formatting
- Very interactive
- Requires training
- Semantic layer/data cubes

BIRT Initial Focus

Business Intelligence Continuum
## BIRT Project Initial Target Users

<table>
<thead>
<tr>
<th>Audience</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Developers</td>
<td>Drag &amp; Drop authoring, charting</td>
</tr>
<tr>
<td>Advanced Report Developers</td>
<td>Scripting, Script API</td>
</tr>
<tr>
<td>Runtime Integration Developers</td>
<td>BIRT Viewer and Engine APIs</td>
</tr>
<tr>
<td>Report Design Integration</td>
<td>Design Engine API</td>
</tr>
<tr>
<td>Extension Developers</td>
<td>BIRT Extension Points</td>
</tr>
<tr>
<td>Core Development</td>
<td>Eclipse Development, Open Source</td>
</tr>
</tbody>
</table>

**Audience**

- Easy: Report Developers, Advanced Report Developers
- Complex: Runtime Integration Developers, Report Design Integration, Extension Developers, Core Development

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BIRT: Feature Rich Open Source Technology

- Designed to handle real-world reporting problems
- Innovative approach to report layout and design – a web page design paradigm
- Technology should make simple reports easy to develop…
  …but it should also be flexible enough to handle complex report layouts

### Open Source BIRT Report 1.0 New Features

<table>
<thead>
<tr>
<th>Listing and Grouped Listing Reports</th>
<th>Printing</th>
<th>Basic Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-section Reports</td>
<td>Cut, Copy, and Paste</td>
<td>Scripting</td>
</tr>
<tr>
<td>Sub-reports</td>
<td>Report Wizard (&gt; Cheat Sheets)</td>
<td>Aggregations</td>
</tr>
<tr>
<td>List (including groupings, subtotals)</td>
<td>Schematic Design View</td>
<td>Computed Columns</td>
</tr>
<tr>
<td>Table (including groupings, subtotals)</td>
<td>Outline View</td>
<td>Filtering</td>
</tr>
<tr>
<td>Text</td>
<td>Report Preview</td>
<td>Sorting</td>
</tr>
<tr>
<td>Grid</td>
<td>Style Builder</td>
<td>Grouping</td>
</tr>
<tr>
<td>Chart</td>
<td>Chart Wizard (&gt; Chart Properties)</td>
<td>JDBC Queries</td>
</tr>
<tr>
<td>Label Element</td>
<td>Palette View</td>
<td>Custom Data Access</td>
</tr>
<tr>
<td>Data Element</td>
<td>Page Setup User Interface</td>
<td>Multiple Data Sources and Queries</td>
</tr>
<tr>
<td>Image Element</td>
<td>Grouping User Interface</td>
<td>Report Execution and Viewing API</td>
</tr>
<tr>
<td>Web Style Output</td>
<td>Properties User Interface</td>
<td>Extensible Model</td>
</tr>
<tr>
<td>Web-based Report Viewer</td>
<td>Query Editor</td>
<td>Report Design API and Format</td>
</tr>
<tr>
<td>PDF Output</td>
<td>Expression Builder</td>
<td>Internationalization</td>
</tr>
</tbody>
</table>
## BIRT: Feature Rich Open Source Technology

### Open Source BIRT Report 2.1 New Features
- Enhanced chart interactivity and scripting
- New chart marker, scale and legend control
- Additional Y-axis support in charts
- Percentage Pie chart type
- Central location for resource files
- Hyperlinks to Table of Contents entries
- Automatic parameter discovery for hyperlink
- Connection pooling for JDBC data sources
- Multiple Master page support
- Improved usability in parameter management
- Cascading parameters with multiple sources
- Ability to JOIN datasets in BIRT
- Advanced control on data bindings
- More page break and heading control
- Connection profile support

### Open Source BIRT Report 2.0 New Features
- Table of Contents Support in Viewer UI
- Chart Interactivity at View Time in Reports
- Ability to Export Report Data as CSV
- Data Extraction from a Report
- Table of Contents API Support in Engine
- Top N / Bottom N Report Layout
- Multi-pass Aggregate, Sorting and Filtering Support
- Hyperlinks to Other Reports
- Multi-page Reports
- Persistent Storage of Report Output
- Basic XML as a Data Source
- Improvements to Chart components
- Provide Methods for Controlling Chart Behavior
- Provide support for Displaying CLOB (Text) Data from Database
- Provide support for Displaying BLOB (Image) Data from Database
- Bookmarks (Hyperlinks into a Report Body)
- Expanded JavaScript Support
- New and improved chart types
- Controlled/bounded use of System Memory
- Disk-Based Sorting and Data Manipulation
- Page-on-Demand Report Viewing APIs
- Cache Query Results while Developing
- Page-on-Demand Navigation UI/II Framework
- Concurrent User Scalability for large numbers of Active Users
- Improve PDF Output Generation
- Dynamic Parameter List Support
- Cascading Dynamic Parameter Lists
- Chart Builder/Wizard
- Ability to use Property Editor for Chart Elements
- New Expression Builder for Improved Usability
- Syntax color coding in Expression Builder
- Auto-complete in Expression Builder
- Custom Template Support for New Reports
- Enhance Report Object Model API for Ease of Use
- Improvements to Chart Engine API
- Improve and Publish Chart Model
- Library Support for Reusable Report Items and Objects
- External Style Sheets for Use Across Multiple Report Designs
- Perspective for Java Code Editing in Report Designs
- Ability to import CSS Style Sheets
- Pass-through of External Context Objects to ODA Data Providers
- Support Data Set Output Parameters
- Move ODA Runtime Extension Point and Java Interfaces to DTP
- Provide Plug-in Adapter for BIRT ODA Drivers to DTP ODA
BIRT 2.2: Addresses Remaining Report Needs

Open Source BIRT Report 2.2 New Features

- Dynamic Crosstab Support
- New Aggregation Builder
- Link to External CSS files
- Ability to use Styles in highlight rules
- Style support for Table of Contents
- Report Parameter Changes
- Property Editor Enhancements
- New Advanced Properties
- XML Source Editor Enhancements
- New Chart Types
- Improvements to Existing Charts
- New simple chart API
- XLS Emitter
- Word Emitter
- PPT Emitter
- Postscript Emitter
- Web Service ODA
- Flat File Data Source Updates
- Joint Data Set Improvement
- Dynamic Connection Profiles
- Application Context access
- BIRT Web Project Wizard
- BIRT Tag Library
- BIRT Chart Deployment
- ODA Project Wizards
- Report Examples View
- New Chart Examples View

Highlights:

- Support for a wider range of report types and easier report development
- New chart types and more control over charts
- New output formats to common office tools
- New data sources and improved data access
- Easier application integration and extension development
High Level BIRT Architecture
BIRT in Action!
### Employee Directory

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Email</th>
<th>Phone</th>
<th>Office Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diana Murphy</td>
<td>President</td>
<td><a href="mailto:DianaM@classicmodelsinc.com">DianaM@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mary Patterson</td>
<td>VP Sales</td>
<td><a href="mailto:mpaterson@classicmodelsinc.com">mpaterson@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeff Firelli</td>
<td>VP Marketing</td>
<td><a href="mailto:firelli@classicmodelsinc.com">firelli@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William Patterson</td>
<td>Sales Manager</td>
<td><a href="mailto:wpaterson@classicmodelsinc.com">wpaterson@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerard Danner</td>
<td>Sales Manager</td>
<td><a href="mailto:gndanner@classicmodelsinc.com">gndanner@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthony Brow</td>
<td>Sales Manager</td>
<td><a href="mailto:abrow@classicmodelsinc.com">abrow@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mary Hachi</td>
<td>Sales Rep</td>
<td><a href="mailto:mhachi@classicmodelsinc.com">mhachi@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andy Ziller</td>
<td>Sales Rep</td>
<td><a href="mailto:aziller@classicmodelsinc.com">aziller@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peter March</td>
<td>Sales Rep</td>
<td><a href="mailto:pmarch@classicmodelsinc.com">pmarch@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tim King</td>
<td>Sales Rep</td>
<td><a href="mailto:tking@classicmodelsinc.com">tking@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Boar</td>
<td>Sales Rep</td>
<td><a href="mailto:lboar@classicmodelsinc.com">lboar@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerard Fernandiz</td>
<td>Sales Rep</td>
<td><a href="mailto:gferandiz@classicmodelsinc.com">gferandiz@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pamela Castle</td>
<td>Sales Rep</td>
<td><a href="mailto:pcastle@classicmodelsinc.com">pcastle@classicmodelsinc.com</a></td>
<td></td>
<td></td>
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<tr>
<td>Larry Bell</td>
<td>Sales Rep</td>
<td><a href="mailto:lbell@classicmodelsinc.com">lbell@classicmodelsinc.com</a></td>
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<tr>
<td>Barry Jones</td>
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<td><a href="mailto:bjones@classicmodelsinc.com">bjones@classicmodelsinc.com</a></td>
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<tr>
<td>Mark Connett</td>
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<td><a href="mailto:mconnett@classicmodelsinc.com">mconnett@classicmodelsinc.com</a></td>
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<td></td>
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<tr>
<td>Liska Jennings</td>
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<td><a href="mailto:ljennings@classicmodelsinc.com">ljennings@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luke Thompson</td>
<td>Sales Rep</td>
<td><a href="mailto:lthompson@classicmodelsinc.com">lthompson@classicmodelsinc.com</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Product Catalog

**Model Trains** are a rewarding hobby for enthusiasts of all ages. Whether you're looking for collectible wooden trains, electric streetcars, or locomotives, you'll find a number of great choices for any budget within this category. The interactive aspect of trains makes toy trains perfect for young children. This wooden train set is ideal for children under the age of 15.

<table>
<thead>
<tr>
<th>Name</th>
<th>Vendor</th>
<th>City/State</th>
<th>MSRP</th>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago, Illinois Electric Locomotive</td>
<td>Classic Models</td>
<td>Chicago, IL</td>
<td>$195</td>
<td>1:87</td>
<td>This electric train set features a 3-car electric locomotive, detailed with wheels, trucks, and tender cars (Chicago and Grande Central for Chicago).</td>
</tr>
<tr>
<td>Chicago To St. Louis Electrical Locomotive</td>
<td>Classic Models</td>
<td>Chicago, IL</td>
<td>$245</td>
<td>1:87</td>
<td>This electric train set features a 3-car electric locomotive, detailed with wheels, trucks, and tender cars (Chicago and Grande Central for Chicago).</td>
</tr>
</tbody>
</table>

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Report Gallery

Crosstabs/Matrix Report

<table>
<thead>
<tr>
<th>CLASSIC MODELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classic Models, Inc.</td>
</tr>
<tr>
<td>701 Gateway Boulevard</td>
</tr>
<tr>
<td>South San Francisco, CA 94080</td>
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</tbody>
</table>

Annual Sales By Product Lines

<table>
<thead>
<tr>
<th>Year</th>
<th>Classic Cars</th>
<th>Motorcycles</th>
<th>Planes</th>
<th>Ships</th>
<th>Trains</th>
<th>Trucks &amp; Buses</th>
<th>Vintage Cars</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>$952,581</td>
<td>$33,462</td>
<td>$37,416</td>
<td>$2,846</td>
<td>$7,819</td>
<td>$43,593</td>
<td>$166,902</td>
<td>$405,613</td>
</tr>
<tr>
<td>Q1</td>
<td>$184,916</td>
<td>$41,679</td>
<td>$56,387</td>
<td>$68,174</td>
<td>$95,448</td>
<td>$25,466</td>
<td>$26,621</td>
<td>$492,984</td>
</tr>
<tr>
<td>Q2</td>
<td>$249,978</td>
<td>$75,646</td>
<td>$40,847</td>
<td>$13,472</td>
<td>$7,877</td>
<td>$23,784</td>
<td>$19,406</td>
<td>$564,579</td>
</tr>
<tr>
<td>Q3</td>
<td>$278,535</td>
<td>$91,477</td>
<td>$100,251</td>
<td>$282,533</td>
<td>$58,915</td>
<td>$196,416</td>
<td>$391,842</td>
<td>$1,705,678</td>
</tr>
<tr>
<td>Q4</td>
<td>$183,386</td>
<td>$34,899</td>
<td>$280,822</td>
<td>$294,844</td>
<td>$105,382</td>
<td>$370,657</td>
<td>$400,508</td>
<td>$1,271,398</td>
</tr>
<tr>
<td>Total</td>
<td>$1,388,386</td>
<td>$548,000</td>
<td>$1,680,343</td>
<td>$3,004,932</td>
<td>$1,211,975</td>
<td>$4,163,479</td>
<td>$6,271,165</td>
<td>$6,239,141</td>
</tr>
</tbody>
</table>

2004

<table>
<thead>
<tr>
<th>Year</th>
<th>Classic Cars</th>
<th>Motorcycles</th>
<th>Planes</th>
<th>Ships</th>
<th>Trains</th>
<th>Trucks &amp; Buses</th>
<th>Vintage Cars</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Q1</td>
<td>$317,986</td>
<td>$50,604</td>
<td>$65,599</td>
<td>$46,762</td>
<td>$21,823</td>
<td>$42,042</td>
<td>$376,040</td>
<td>$708,279</td>
</tr>
<tr>
<td>Q2</td>
<td>$335,616</td>
<td>$56,194</td>
<td>$60,709</td>
<td>$58,739</td>
<td>$24,812</td>
<td>$40,063</td>
<td>$375,992</td>
<td>$739,237</td>
</tr>
<tr>
<td>Q3</td>
<td>$419,674</td>
<td>$67,336</td>
<td>$105,373</td>
<td>$66,359</td>
<td>$23,539</td>
<td>$186,833</td>
<td>$290,430</td>
<td>$1,104,398</td>
</tr>
<tr>
<td>Q4</td>
<td>$323,726</td>
<td>$73,456</td>
<td>$284,551</td>
<td>$118,395</td>
<td>$29,238</td>
<td>$280,238</td>
<td>$356,608</td>
<td>$1,375,737</td>
</tr>
<tr>
<td>Total</td>
<td>$1,376,413</td>
<td>$367,826</td>
<td>$1,655,953</td>
<td>$3,070,969</td>
<td>$1,037,105</td>
<td>$4,361,184</td>
<td>$6,271,165</td>
<td>$6,239,141</td>
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</table>

2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Classic Cars</th>
<th>Motorcycles</th>
<th>Planes</th>
<th>Ships</th>
<th>Trains</th>
<th>Trucks &amp; Buses</th>
<th>Vintage Cars</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>$392,200</td>
<td>$91,298</td>
<td>$183,792</td>
<td>$65,599</td>
<td>$16,235</td>
<td>$199,332</td>
<td>$163,041</td>
<td>$722,281</td>
</tr>
<tr>
<td>Q2</td>
<td>$325,273</td>
<td>$97,874</td>
<td>$135,870</td>
<td>$58,012</td>
<td>$20,076</td>
<td>$148,574</td>
<td>$160,162</td>
<td>$596,059</td>
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<tr>
<td>Q3</td>
<td>$318,183</td>
<td>$231,759</td>
<td>$139,573</td>
<td>$21,845</td>
<td>$19,372</td>
<td>$149,579</td>
<td>$122,845</td>
<td>$645,105</td>
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<tr>
<td>Q4</td>
<td>$581,493</td>
<td>$1,147,417</td>
<td>$885,559</td>
<td>$580,000</td>
<td>$275,030</td>
<td>$580,056</td>
<td>$1,477,692</td>
<td>$5,120,090</td>
</tr>
<tr>
<td>Total</td>
<td>$3,216,493</td>
<td>$1,147,417</td>
<td>$885,559</td>
<td>$580,000</td>
<td>$275,030</td>
<td>$580,056</td>
<td>$1,477,692</td>
<td>$5,120,090</td>
</tr>
</tbody>
</table>

Form Letter

<table>
<thead>
<tr>
<th>MRT Report Viewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Showing page 4 of 12</td>
</tr>
</tbody>
</table>

Dear Violeta,

Thank you for your recent order 10221. We are currently processing your order. If you have any questions please contact your sales rep at 1-800-555-5555.

Sincerely,

Your friendly sales assistant
Report Gallery

Sales Dashboard Report

CMI Sales & Marketing - US Operations

Historical Sales

Sales By Product Line

Sales Invoice

Classic Models, Inc.
735 Galaxy Blvd., San Francisco, CA 94107

Sales Invoice

Customer Details
Online Creations Co.
Dorothy Young
2304 Long Airport Avenue
Nashua, NH 03005
USA

Invoice Details
Customer Number: 363
Order Number: 10150
Order Date: Jan 6, 2003
Ship Date: Jan 10, 2003
Sales Representative: Steve Patterson

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
<th>MSRP ($)</th>
<th>Discount</th>
<th>Unit Price ($)</th>
<th>Total ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S10_1749</td>
<td>1917 Grand Touring Sedan</td>
<td>20</td>
<td>170.00</td>
<td>20.00%</td>
<td>136.00</td>
<td>3,720.00</td>
</tr>
<tr>
<td>S10_2248</td>
<td>1911 Ford Town Car</td>
<td>50</td>
<td>80.54</td>
<td>9.00%</td>
<td>72.54</td>
<td>3,627.00</td>
</tr>
<tr>
<td>S16_4409</td>
<td>1982 Alfa Romeo 8C3200 Spider Sport</td>
<td>22</td>
<td>92.03</td>
<td>18.00%</td>
<td>75.68</td>
<td>1,660.12</td>
</tr>
<tr>
<td>S24_009</td>
<td>1936 Mercedes-Benz 500K Roadster</td>
<td>48</td>
<td>41.02</td>
<td>13.00%</td>
<td>35.29</td>
<td>1,720.21</td>
</tr>
</tbody>
</table>

TOTAL $10,225.83

Jul 27, 2006 4:46 PM
Chart Gallery

- 3D bar chart showing data for New York, Los Angeles, and Chicago for the years 1990 and 2000.
- Histogram chart showing distribution of counts across bins.
- Line graph titled "Hayfever Occurences" showing the number of occurrences.

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Integration APIs: An Overview

Design Time
- Design Engine API
- Open Data Access
- Chart UI API

Runtime
- Report Engine API
- Chart Engine API

XML Report Design

HTML PDF Excel PowerPoint...

Report Document
Extension Point Overview

- Extensibility is a key principle for the BIRT project
- Data source extensibility
  - Application specific design-time query builders
  - Custom design-time & run-time data access
- Custom business logic extensibility
  - Incorporate complex business logic scripting
  - Access existing and new Java code
- Visualization extensibility
  - Build new visual data presentation ‘widgets’
  - Extend charting with new chart types; new output formats
- Rendering reports for output
  - Target report output for specific devices & formats
# Business Intelligence & Reporting Tools Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug, 2004</td>
<td>BIRT Project Proposal posted for community review on Eclipse.org</td>
</tr>
<tr>
<td>Sep, 2004</td>
<td><strong>BIRT Project proposal accepted, and project launched</strong></td>
</tr>
<tr>
<td>Jul, 2005</td>
<td>1.0.1 Release: Support for Eclipse 3.1; RCP version of BIRT</td>
</tr>
<tr>
<td>Dec, 2005</td>
<td><strong>2.0 Release: Support for a wide variety of common report types</strong></td>
</tr>
<tr>
<td>Jun, 2006</td>
<td><strong>2.1 Release: Advanced parameters, ability to join data sets, ...</strong></td>
</tr>
<tr>
<td>Sep, 2006</td>
<td>2.1.1 Release: Maintenance release</td>
</tr>
<tr>
<td>Feb, 2007</td>
<td>2.1.2 Release: Maintenance release</td>
</tr>
<tr>
<td>July, 2007</td>
<td>2.1.3 Release: Maintenance release</td>
</tr>
<tr>
<td>Jun, 2007</td>
<td><strong>2.2 Release: Dynamic crosstab support, web services data source, ...</strong></td>
</tr>
<tr>
<td>Sep, 2007</td>
<td>2.2.1 Release: Maintenance release</td>
</tr>
</tbody>
</table>
BIRT Market Momentum and Uptake

Sample Adopters
BIRT Market Momentum and Uptake

Over 1 Million Downloads as of June, 2007

"From my research, BIRT is a really big deal, it has legitimate traction in the market.”

Stephen O’Grady, RedMonk
Publications Available

BIRT: A Field Guide to Reporting

Integrating and Extending BIRT
What is BIRT Being Used For?

**BIRT’s flexibility supports very diverse applications:**

- Personal desktop report development tool
- Reporting technology integrated into corporate web applications
- Reporting technology integrated into corporate desktop applications
- Reporting technology integrated into ISV web applications
- Reporting technology integrated into ISV Eclipse-based applications
Case Study – Scapa Technology

Scapa Technologies is privately-held, based in Edinburgh, UK.

Build and sell system performance & analysis solutions into vertical sectors, including telecommunications, retail & financial services.

Scapa Test and Performance Platform is a powerful application performance testing, diagnosis & monitoring product applicable across a wide range of commercial software technologies at multiple points in the application lifecycle.

http://www.scapatech.com/
Case Study – Scapa Technology

- BIRT runtime component is embedded in Scapa Test and Performance Platform
- Scapa application leverages the BIRT API to invoke the runtime component
- Users run reports & select the report layout, structure & visual preferences from within the Scapa user-interface
- BIRT runtime component adopts the look & feel of the Scapa application
- Built hooks within application that drive what the report should look like & create a report template programmatically
Case Study – MAXIMUS

MAXIMUS is a public company (NYSE: MMS) headquartered in Reston, Virginia, USA.

Leading government services company with over 5,200 employees providing consulting, systems and outsourcing services.

FacilityMAX is a web based application that enables organizations to improve, automate and integrate all of their facility management, asset management and maintenance operations. FacilityMAX has over 150 customers.

http://www.assetolutions.maximus.com
Case Study – MAXIMUS

- BIRT is embedded in the FacilityMAX web application
- MAXIMUS selected BIRT because:
  - Low total cost of ownership
  - Solid technology and architecture
  - Comprehensive support for variety of report layouts
  - Ability to report on large volumes of data
  - Open standards, including 100% Java and J2EE standard
  - Support from the Eclipse project and large open source community
- BIRT reports include work order status and trends; facility and project budgets; and employee productivity
- Initial integration completed in a few days
- Reports created in real-time and can refresh automatically on application screen

“The BIRT Reports technology offers a significantly lower total cost of ownership and high-quality Web-based reports to our customers.”

Trey Drake, Software Architect, Asset Solutions Group at MAXIMUS
Actuate BIRT Product Line

End User Creation
- BusinessReport Studio
  - Power tool for skilled users

End User Modification
- Interactive Viewer
  - Better serve everyday users

Deploy
- iPortal (Departmental)
- iServer (Enterprise)
  - Scale deployments

Design
- BIRT Open Source Report Designer
  - Create reports easily & flexibly

Technical Support, Training
Actuate BIRT Product Line

**Actuate BIRT Report Designers**
Desktop tools for professional IT developers and power users
Open Source BIRT plus, one-click installer and data adapters

**Actuate iPortal and iServer**
Ready-to-go deployment servers for BIRT Reports
Scheduling, security, email notifications, report management, …

**Actuate BIRT Report Interactive Viewer**
Web tool for exploring and manipulating report documents
Answer ad hoc business questions without writing a report

**Actuate BusinessReport Studio**
Web tool for BIRT report creation by business users
Simple to use yet powerful template based model
BIRT: What is Next?

- Participation in the Europa maintenance schedule
  - BIRT 2.2.2 – Feb 2008: Maintenance Release
- BIRT 2.3: Project Plan at [www.eclipse.org/birt](http://www.eclipse.org/birt)
  - Part of Eclipse Ganymede Simultaneous Release
  - Planning is underway now
  - ... See project plan for details
- Expand project into Analytics area of Business Intelligence
BIRT Project Summary

- Top level Eclipse project
- 100% Java, Open Source, powerful, extensible reporting technology
- Easy to use, with a web centric design metaphor
- Supported by an active community
- Open source and free, with a commercial friendly license
Getting Started and Learning More

- BIRT pages on Eclipse Web site http://www.eclipse.org/birt
- BIRT pages on Actuate Web site http://www.actuate.com/birt
- BIRT related blog http://birtworld.blogspot.com
- BIRT Newsgroup news://news.eclipse.org/eclipse.birt

- BIRT Exchange…
Learn More: BIRT Exchange Community Site

Centralized Knowledge Hub for BIRT Developers
- Access Demos. Tutorials, Tips & Techniques, Documentation, …
- Easy for users to contribute content, share knowledge
- Enables developers to be more productive and build applications faster

Welcome to BIRT Exchange!
Where BIRT know-how is easy to find, easy to share.

Share
- Report designs
- Code samples
- Technical tips

Download
- Documentation
- Software

Find
- Search, Sort
- Rate
- Comment

www.birt-exchange.com
THANK YOU!