



# BIRT: Introduction to the Eclipse Business Intelligence & Reporting Tools Project

**Paul Clenahan**

Eclipse BIRT Project Management Committee  
VP Product Management, Actuate Corporation

# Agenda

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## **BIRT Project = Business Intelligence and Report Tools Project**

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- Business Intelligence and Reporting Primer
- How Developers Solve the Problem Today
- The Emergence of the BIRT Project
- Demonstration
- Gallery
- API's, Extensibility
- Actuate BIRT
- Summary

# Business Intelligence and Reporting Primer

Product Order Invoice  
Bank Account Transaction List  
Network Outages Frequency  
Sales Commission Reports  
Shipping Manifest  
Defect Tracking  
Utility Bill  
Telecom Statement  
Online Work Order Task List  
Daily Work Order Printed  
Deviation from Service Level Objectives  
Product Supplier Status Reports  
Assets Under Management  
Web Site Traffic Analysis  
Product Sales Reporting  
Financial Budget Reports  
Single Customer View

- 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 JFaces  
XSLT XML JavaScript  
HTML

**Build**  
**Custom Developed Solution**

**Buy**  
**Closed Source Commercial Products**

Crystal Reports  
ReportNet JReports StyleReports

# Open Source Creates New Choices



# Business Intelligence and Reporting Tools

**ACTUATE** THE LEADER IN ENTERPRISE REPORTING APPLICATIONS

PRESS RELEASE

Print E-mail

**ACTUATE JOINS ECLIPSE FOUNDATION AS STRATEGIC DEVELOPER AND BOARD MEMBER**

**Actuate Proposes a Business Intelligence and Reporting Tools Project to the Eclipse Open-Source Community for Review**

**Actuate International User Conference- Los Angeles – August 24, 2004** – The Eclipse Foundation, a community committed to the implementation of a universal platform for tools integration, and Actuate Corporation (NASDAQ: ACTU), the world leader in Enterprise Reporting Applications, today announced that Actuate has joined the Eclipse Foundation as a Strategic Developer. Actuate will join existing Strategic Developers IBM Corporation, Intel and QNX Software Systems Limited as a Board Member for the Eclipse Community. In addition, Actuate is leveraging a decade of experience in business intelligence and enterprise reporting to propose the Business Intelligence and Reporting Tools (BIRT) Project. If approved by the Eclipse community, BIRT will be the first top-level Eclipse project for the development of applications that include business intelligence and enterprise reporting functionality. The BIRT project proposal will be available on the Eclipse Foundation website for review and comment over the next 30 days.

Actuate and Eclipse recognize that reporting and analysis are key functions of every enterprise and customer-facing application. Today, the majority of developers build reporting functionality into applications by hand coding Java Server Pages (JSP) and would

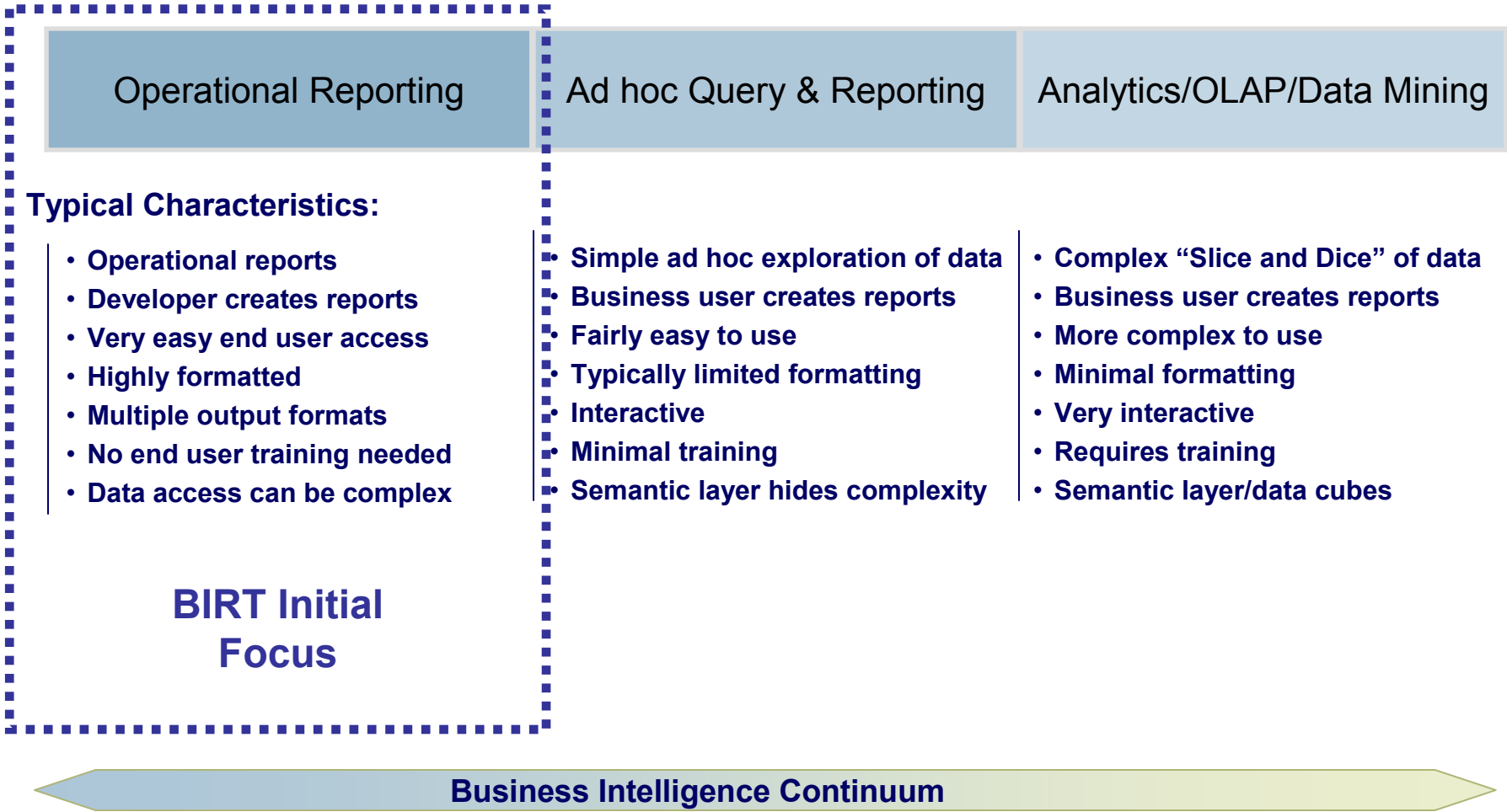
## BIRT Project Goals

- 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.innoventsolutions.com>)
- IBM (<http://www.ibm.com>)
- InetSoft (<http://www.inetsoft.com>)

# BIRT Project Scope



# BIRT Project Initial Target Users

<b>Audience</b>	<b>Easy</b> <b>Complex</b>	<b>Features</b>
Report Developers		Drag & Drop authoring, charting
Advanced Report Developers		Scripting, Script API
Runtime Integration Developers		BIRT Viewer and Engine APIs
Report Design Integration		Design Engine API
Extension Developers		BIRT Extension Points
Core Development		Eclipse Development, Open Source

# 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

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li>▪ Listing and Grouped Listing Reports</li> <li>▪ Multi-section Reports</li> <li>▪ Sub-reports</li> <li>▪ List (including groupings, subtotals)</li> <li>▪ Table (including groupings, subtotals)</li> <li>▪ Text</li> <li>▪ Grid</li> <li>▪ Chart</li> <li>▪ Label Element</li> <li>▪ Data Element</li> <li>▪ Image Element</li> <li>▪ Web Style Output</li> <li>▪ Web-based Report Viewer</li> <li>▪ PDF Output</li> </ul> | <ul style="list-style-type: none"> <li>▪ Printing</li> <li>▪ Cut, Copy, and Paste</li> <li>▪ Report Wizard (&gt; Cheat Sheets)</li> <li>▪ Schematic Design View</li> <li>▪ Outline View</li> <li>▪ Report Preview</li> <li>▪ Style Builder</li> <li>▪ Chart Wizard (&gt; Chart Properties)</li> <li>▪ Palette View</li> <li>▪ Page Setup User Interface</li> <li>▪ Grouping User Interface</li> <li>▪ Properties User Interface</li> <li>▪ Query Editor</li> <li>▪ Expression Builder</li> </ul> | <ul style="list-style-type: none"> <li>▪ Basic Parameters</li> <li>▪ Scripting</li> <li>▪ Aggregations</li> <li>▪ Computed Columns</li> <li>▪ Filtering</li> <li>▪ Sorting</li> <li>▪ Grouping</li> <li>▪ JDBC Queries</li> <li>▪ Custom Data Access</li> <li>▪ Multiple Data Sources and Queries</li> <li>▪ Report Execution and Viewing API</li> <li>▪ Extensible Model</li> <li>▪ Report Design API and Format</li> <li>▪ Internationalization</li> </ul> |
|--|--|--|

# BIRT: Feature Rich Open Source Technology

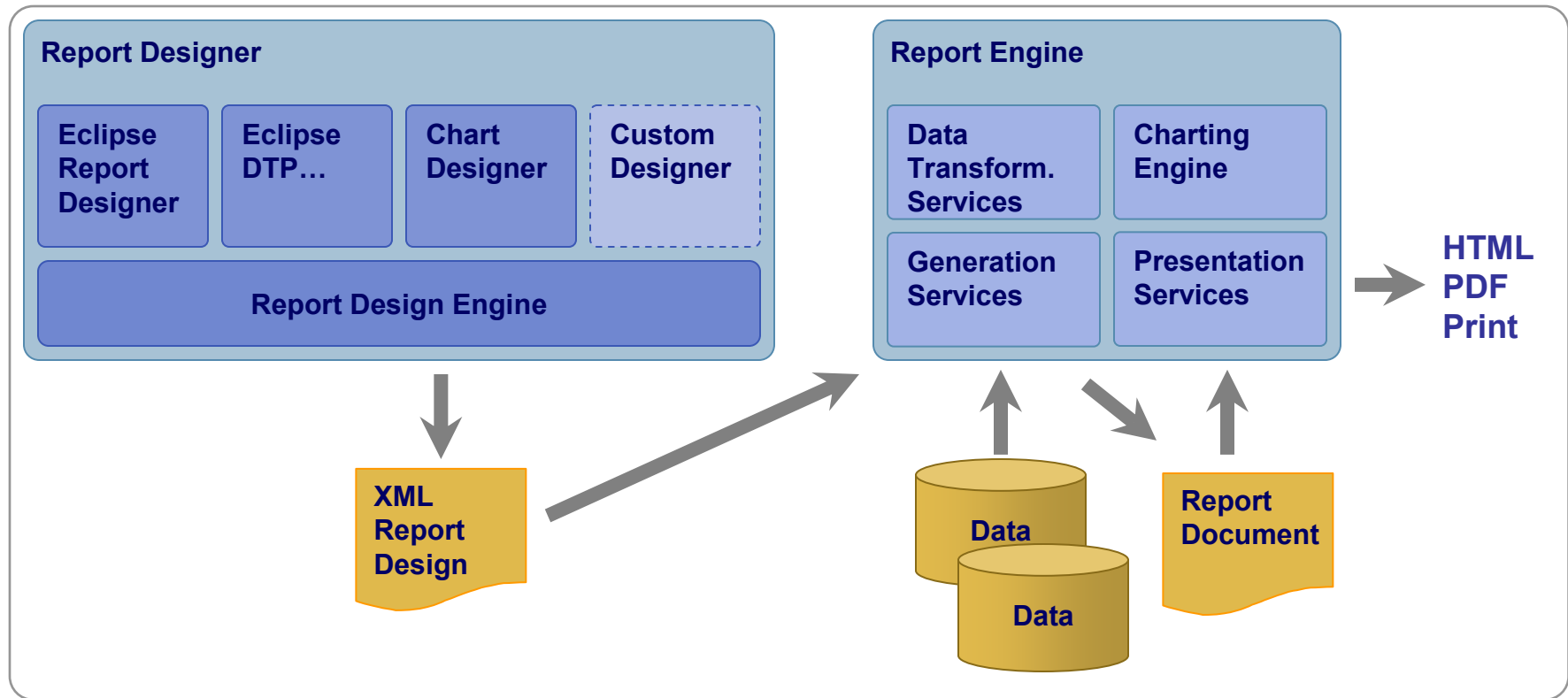
## Open Source BIRT Report 2.1 New Features

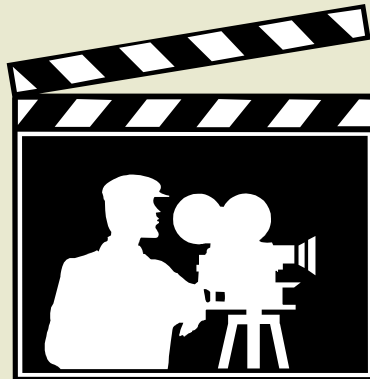
<ul style="list-style-type: none"> <li>▪ Enhanced chart interactivity and scripting</li> <li>▪ New chart marker, scale and legend control</li> <li>▪ Additional Y-axis support in charts</li> <li>▪ Percentage Pie chart type</li> <li>▪ Central location for resource files</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hyperlinks to Table of Contents entries</li> <li>▪ Automatic parameter discovery for hyperlink</li> <li>▪ Connection pooling for JDBC data sources</li> <li>▪ Multiple Master page support</li> <li>▪ Improved usability in parameter management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cascading parameters with multiple sources</li> <li>▪ Ability to JOIN datasets in BIRT</li> <li>▪ Advanced control on data bindings</li> <li>▪ More page break and heading control</li> <li>▪ Connection profile support</li> </ul>
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## Open Source BIRT Report 2.0 New Features

<ul style="list-style-type: none"> <li>▪ Table of Contents Support in Viewer UI</li> <li>▪ Chart Interactivity at View Time in Reports</li> <li>▪ Ability to Export Report Data as CSV</li> <li>▪ Data Extraction from a Report</li> <li>▪ Table of Contents API Support in Engine</li> <li>▪ Top N / Bottom N Report Layout</li> <li>▪ Multi-pass Aggregate, Sorting and Filtering Support</li> <li>▪ Hyperlinks to Other Reports</li> <li>▪ Multi-page Reports</li> <li>▪ Persistent Storage of Report Output</li> <li>▪ Basic XML as a Data Source</li> <li>▪ Improvements to Chart components</li> <li>▪ Provide Methods for Controlling Chart Behavior</li> <li>▪ Provide support for Displaying CLOB (Text) Data from Database</li> <li>▪ Provide support for Displaying BLOB (Image) Data from Database</li> <li>▪ Bookmarks (Hyperlinks into a Report Body)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Expanded JavaScript Support</li> <li>▪ New and improved chart types</li> <li>▪ Controlled/bounded use of System Memory</li> <li>▪ Disk-Based Sorting and Data Manipulation</li> <li>▪ Page-on-Demand Report Viewing APIs</li> <li>▪ Cache Query Results while Developing</li> <li>▪ Page-on-Demand Navigation UI/UI Framework</li> <li>▪ Concurrent User Scalability for large numbers of Active Users</li> <li>▪ Improve PDF Output Generation</li> <li>▪ Dynamic Parameter List Support</li> <li>▪ Cascading Dynamic Parameter Lists</li> <li>▪ Chart Builder/Wizard</li> <li>▪ Ability to use Property Editor for Chart Elements</li> <li>▪ New Expression Builder for Improved Usability</li> <li>▪ Syntax color coding in Expression Builder</li> <li>▪ Auto-complete in Expression Builder</li> </ul>	<ul style="list-style-type: none"> <li>▪ Custom Template Support for New Reports</li> <li>▪ Enhance Report Object Model API for Ease of Use</li> <li>▪ Improvements to Chart Engine API</li> <li>▪ Improve and Publish Chart Model</li> <li>▪ Library Support for Reusable Report Items and Objects</li> <li>▪ External Style Sheets for Use Across Multiple Report Designs</li> <li>▪ Perspective for Java Code Editing in Report Designs</li> <li>▪ Ability to import CSS Style Sheets</li> <li>▪ Pass-through of External Context Objects to ODA Data Providers</li> <li>▪ Support Data Set Output Parameters</li> <li>▪ Move ODA Runtime Extension Point and Java Interfaces to DTP</li> <li>▪ Provide Plug-in Adapter for BIRT ODA Drivers to DTP ODA</li> </ul>
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# High Level BIRT Architecture






## **BIRT in Action!**

# Report Gallery

		<b>Classic Models, Inc.</b> 701 Gateway Boulevard, San Francisco, CA 94107			
<b>Employee Directory</b>					
<b>Diane Murphy</b>	<b>President</b>	<a href="mailto:dmurphy@classicmodelcars.com">dmurphy@classicmodelcars.com</a>	<b>x5800</b>	<b>Office Code: 1</b>	
		Mary Patterson VP Sales	<a href="mailto:mpatterson@classicmodelcars.com">mpatterson@classicmodelcars.com</a>	x4611	
		Jeff Firrelli VP Marketing	<a href="mailto:jfirrelli@classicmodelcars.com">jfirrelli@classicmodelcars.com</a>	x9273	
<b>Mary Patterson</b>	<b>VP Sales</b>	<a href="mailto:mpatterson@classicmodelcars.com">mpatterson@classicmodelcars.com</a>	<b>x4611</b>	<b>Office Code: 1</b>	
		William Patterson Sales Manager (APAC)	<a href="mailto:wpatterson@classicmodelcars.com">wpatterson@classicmodelcars.com</a>	x4871	
		Gerard Bondur Sales Manager (EMEA)	<a href="mailto:gbondur@classicmodelcars.com">gbondur@classicmodelcars.com</a>	x5408	
		Anthony Bow Sales Manager (NA)	<a href="mailto:abow@classicmodelcars.com">abow@classicmodelcars.com</a>	x5428	
		Marni Nishi Sales Rep	<a href="mailto:mnishi@classicmodelcars.com">mnishi@classicmodelcars.com</a>	x101	
<b>William Patterson</b>	<b>Sales Manager (APAC)</b>	<a href="mailto:wpatterson@classicmodelcars.com">wpatterson@classicmodelcars.com</a>	<b>x4871</b>	<b>Office Code: 6</b>	
		Andy Fixter Sales Rep	<a href="mailto:afixter@classicmodelcars.com">afixter@classicmodelcars.com</a>	x101	
		Peter Marsh Sales Rep	<a href="mailto:pmarsh@classicmodelcars.com">pmarsh@classicmodelcars.com</a>	x102	
		Tom King Sales Rep	<a href="mailto:tking@classicmodelcars.com">tking@classicmodelcars.com</a>	x103	
<b>Gerard Bondur</b>	<b>Sale Manager (EMEA)</b>	<a href="mailto:gbondur@classicmodelcars.com">gbondur@classicmodelcars.com</a>	<b>x5408</b>	<b>Office Code: 4</b>	
		Lou Bondur Sales Rep	<a href="mailto:lbondur@classicmodelcars.com">lbondur@classicmodelcars.com</a>	x6493	
		Gerard Hernandez Sales Rep	<a href="mailto:ghernandez@classicmodelcars.com">ghernandez@classicmodelcars.com</a>	x2028	
		Pamela Castillo Sales Rep	<a href="mailto:pcastillo@classicmodelcars.com">pcastillo@classicmodelcars.com</a>	x2759	
		Larry Bott Sales Rep	<a href="mailto:lbott@classicmodelcars.com">lbott@classicmodelcars.com</a>	x2311	
		Barry Jones Sales Rep	<a href="mailto:bjones@classicmodelcars.com">bjones@classicmodelcars.com</a>	x102	
		Martin Gerard Sales Rep	<a href="mailto:mgerard@classicmodelcars.com">mgerard@classicmodelcars.com</a>	x2312	
<b>Anthony Bow</b>	<b>Sales Manager (NA)</b>	<a href="mailto:abow@classicmodelcars.com">abow@classicmodelcars.com</a>	<b>x5428</b>	<b>Office Code: 1</b>	
		Leslie Jennings Sales Rep	<a href="mailto:ljennings@classicmodelcars.com">ljennings@classicmodelcars.com</a>	x3291	
		Leslie Thompson Sales Rep	<a href="mailto:lthompson@classicmodelcars.com">lthompson@classicmodelcars.com</a>	x4065	

## Employee Directory


## Product Catalog

		<b>Classic Models Inc. Product Catalog</b>				
<a href="#">Vintage Cars</a>		<a href="#">Ships</a>		<a href="#">Trains</a>		
<a href="#">Planes</a>		<a href="#">Motorcycles</a>		<a href="#">Trucks &amp; Buses</a>		
					<a href="#">Printable View</a>	
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. The wooden train sets are ideal for children under the age of 5.						
Name	Vendor	Qty. In Stock	MSRP	Scale	Description	
Collectable Wooden Train	Carousel DieCast Legends	6,460	\$101	1:18	Hand crafted wooden toy train set is in about 1:18 scale, 25 inches in total length including 2 additional cars, of actual vintage train. This antique style wooden toy train model set is all hand-assembled with 100% wood.	
1950's Chicago Surface Lines Streetcar	Gearbox Collectibles	8,801	\$62	1:32	This streetcar is a joy to see. It has 80 separate windows, electric wire guides, detailed interiors with seats, poles and drivers controls, rolling and turning wheel assemblies, plus authentic factory baked-enamel finishes (Green Homet for Chicago and Cream and Crimson for Boston).	
1962 City of Detroit Streetcar	Classic Metal Creations	1,645	\$59	1:50	This streetcar is a joy to see. It has 99 separate windows, electric wire guides, detailed interiors with seats, poles and drivers controls, rolling and turning wheel assemblies, plus authentic factory baked-enamel finishes (Green Homet for Chicago and Cream and Crimson for Boston).	

# Report Gallery

## Crosstab/Matrix Report

**CLASSIC MODELS**



**Classic Models, Inc.**  
701 Gateway Boulevard  
South San Francisco, CA 94080


**Annual Sales By Product Lines**

Year	Classic Cars	Motorcycles	Planes	Ships	Trains	Trucks & Buses	Vintage Cars	Total
<b>2003</b>								
01	\$152,581	\$33,062	\$37,136	\$24,446	\$7,810	\$43,593	\$106,982	\$405,613
02	\$194,291	\$41,629	\$50,387	\$50,171	\$12,144	\$62,804	\$81,959	\$493,388
03	\$243,978	\$79,845	\$45,047	\$24,272	\$7,027	\$73,842	\$110,486	\$584,500
04	\$778,535	\$194,372	\$168,251	\$102,153	\$38,839	\$196,416	\$311,111	\$1,789,678
<b>Total</b>	<b>\$1,369,386</b>	<b>\$348,909</b>	<b>\$300,822</b>	<b>\$201,044</b>	<b>\$65,822</b>	<b>\$376,657</b>	<b>\$610,539</b>	<b>\$3,273,181</b>
<b>2004</b>								
01	\$317,306	\$85,681	\$65,159	\$66,762	\$21,028	\$67,942	\$136,849	\$760,730
02	\$252,165	\$80,101	\$69,780	\$30,719	\$4,862	\$73,696	\$119,997	\$631,322
03	\$419,674	\$127,310	\$105,973	\$66,859	\$21,728	\$106,833	\$200,420	\$1,048,801
04	\$739,276	\$234,150	\$204,551	\$141,609	\$39,278	\$200,230	\$366,660	\$1,925,757
<b>Total</b>	<b>\$1,728,423</b>	<b>\$527,243</b>	<b>\$445,464</b>	<b>\$305,951</b>	<b>\$86,897</b>	<b>\$448,702</b>	<b>\$823,927</b>	<b>\$4,366,611</b>
<b>2005</b>								
01	\$392,920	\$112,384	\$103,702	\$60,591	\$18,235	\$101,332	\$183,041	\$972,208
02	\$225,273	\$128,874	\$35,870	\$20,812	\$4,076	\$41,874	\$60,113	\$516,894
<b>Total</b>	<b>\$618,193</b>	<b>\$241,259</b>	<b>\$139,573</b>	<b>\$81,404</b>	<b>\$22,311</b>	<b>\$143,207</b>	<b>\$243,155</b>	<b>\$1,489,103</b>
<b>Grand Total</b>	<b>\$3,716,003</b>	<b>\$1,117,412</b>	<b>\$885,859</b>	<b>\$588,400</b>	<b>\$175,030</b>	<b>\$968,566</b>	<b>\$1,677,622</b>	<b>\$9,128,896</b>

## Form Letter

**BIRT Report Viewer**

Showing page 4 of 112      Go to page:



Violeta Benitez  
FunGItIdeas.com  
1785 First Street,  
USA

Jul 27, 2006 4:28 PM

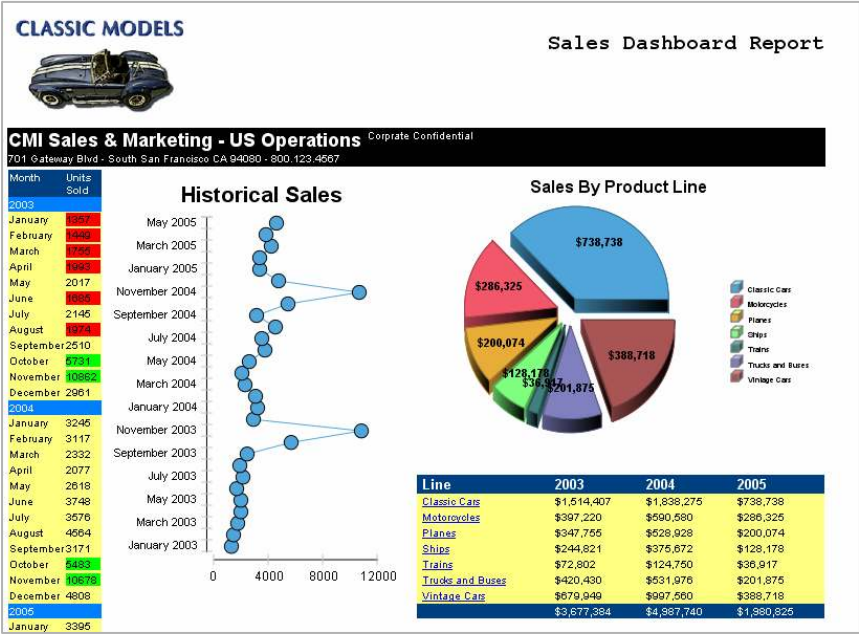
Dear **Violeta**,

Thank you for your recent order **10321**. 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**

## Sales Invoice



**Classic Models, Inc.**

701 Gateway Boulevard,  
San Francisco, CA 94107

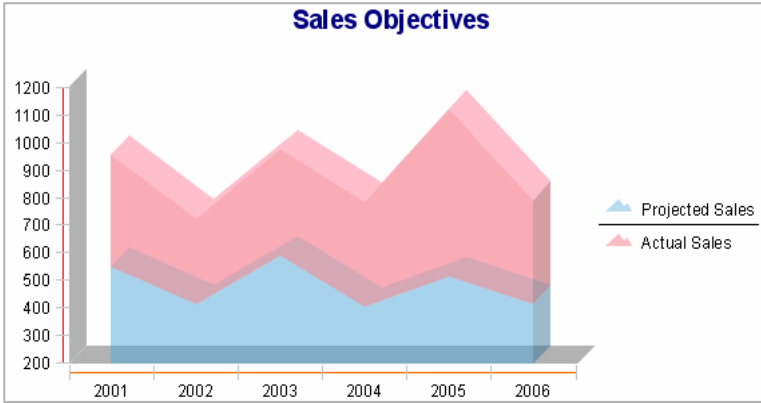
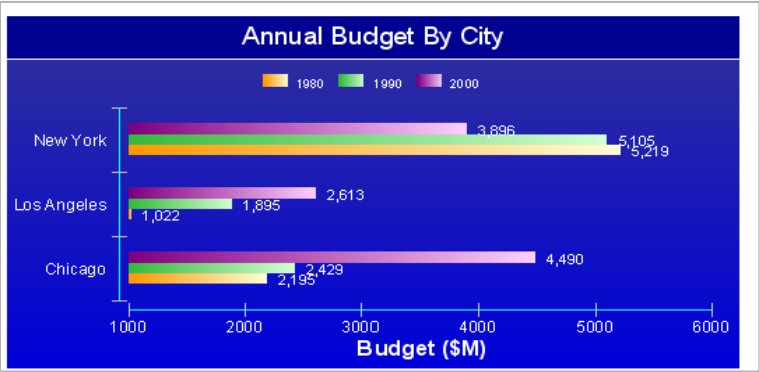
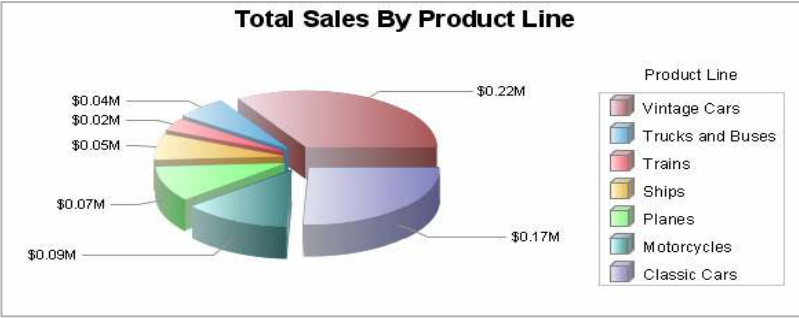
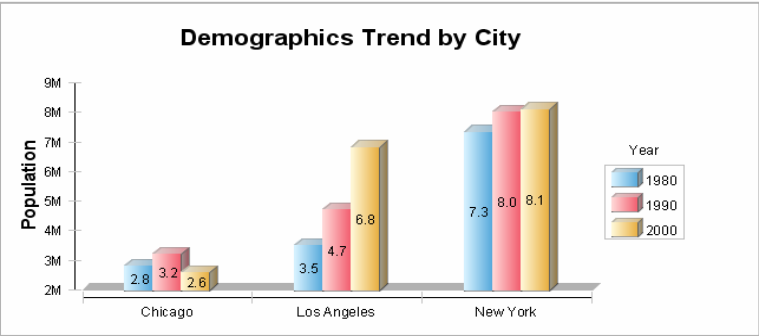
**Sales Invoice**

Customer Details		Invoice Details	
<b>Online Diecast Creations Co.</b>		Customer Number:	<b>363</b>
Dorothy Young		Order Number:	<b>10100</b>
2304 Long Airport Avenue		Order Date:	<b>Jan 6, 2003</b>
Nashua, NH 62005		Ship Date:	<b>Jan 10, 2003</b>
USA		Office:	<b>Boston</b>
		Sales Representative:	<b>Steve Patterson</b>

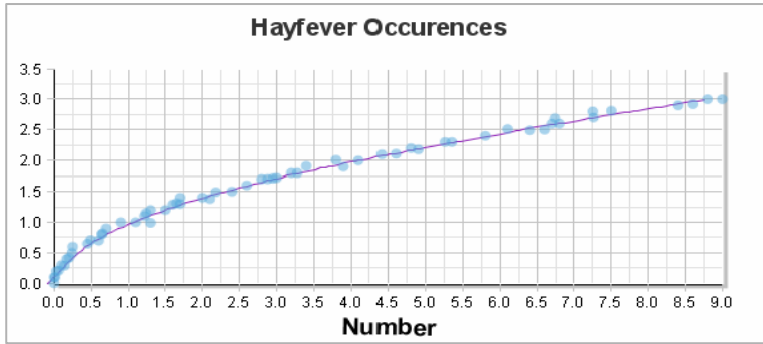
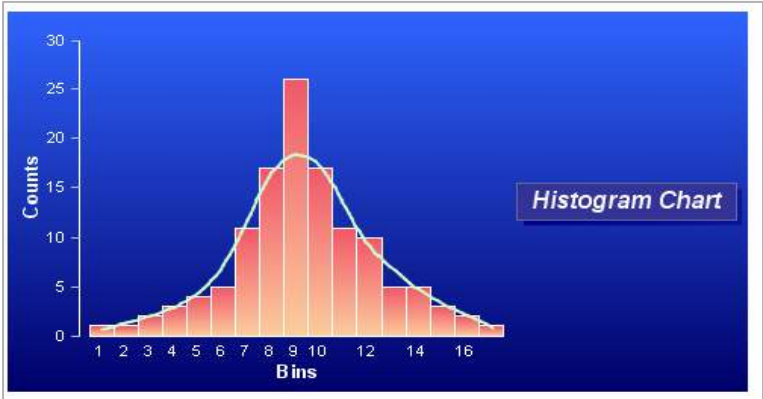
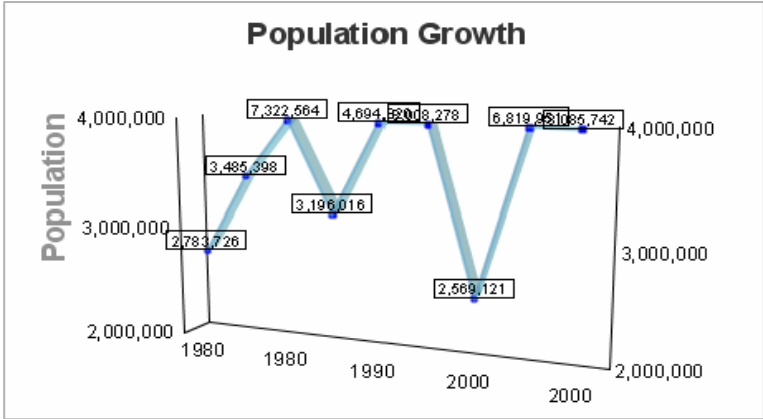
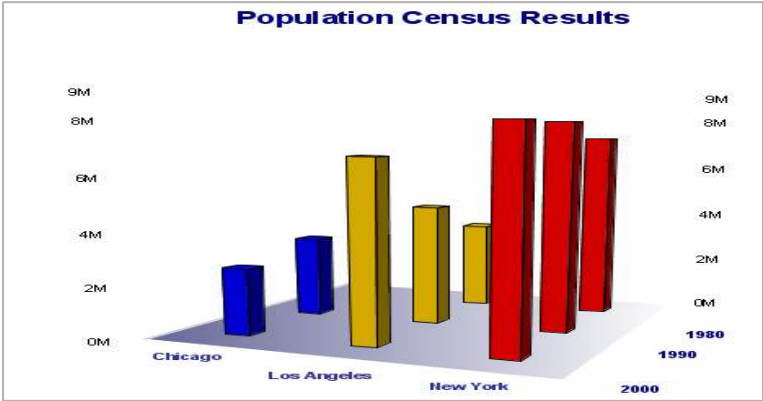
Code	Description	Quantity	MSRP (\$)	Discount	Unit Price (\$)	Total (\$)
S18_1749	1917 Grand Touring Sedan	30	170.00	20.00%	136.00	4,080.00
S18_2248	1911 Ford Town Car	50	60.54	9.00%	55.09	2,754.50
S18_4409	1932 Alfa Romeo 8C2300 Spider Sport	22	92.03	18.00%	75.46	1,660.12
S24_3969	1936 Mercedes Benz 500k Roadster	49	41.03	13.99%	35.29	1,729.21
<b>TOTAL \$</b>						<b>10,223.83</b>

Jul 27, 2006 4:46 PM

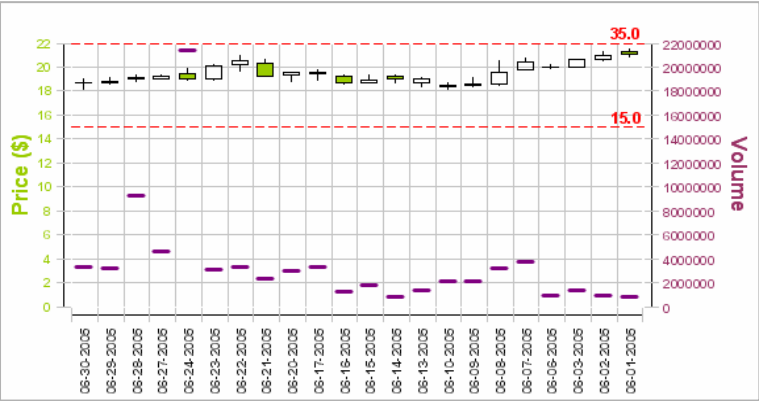
# Chart Gallery



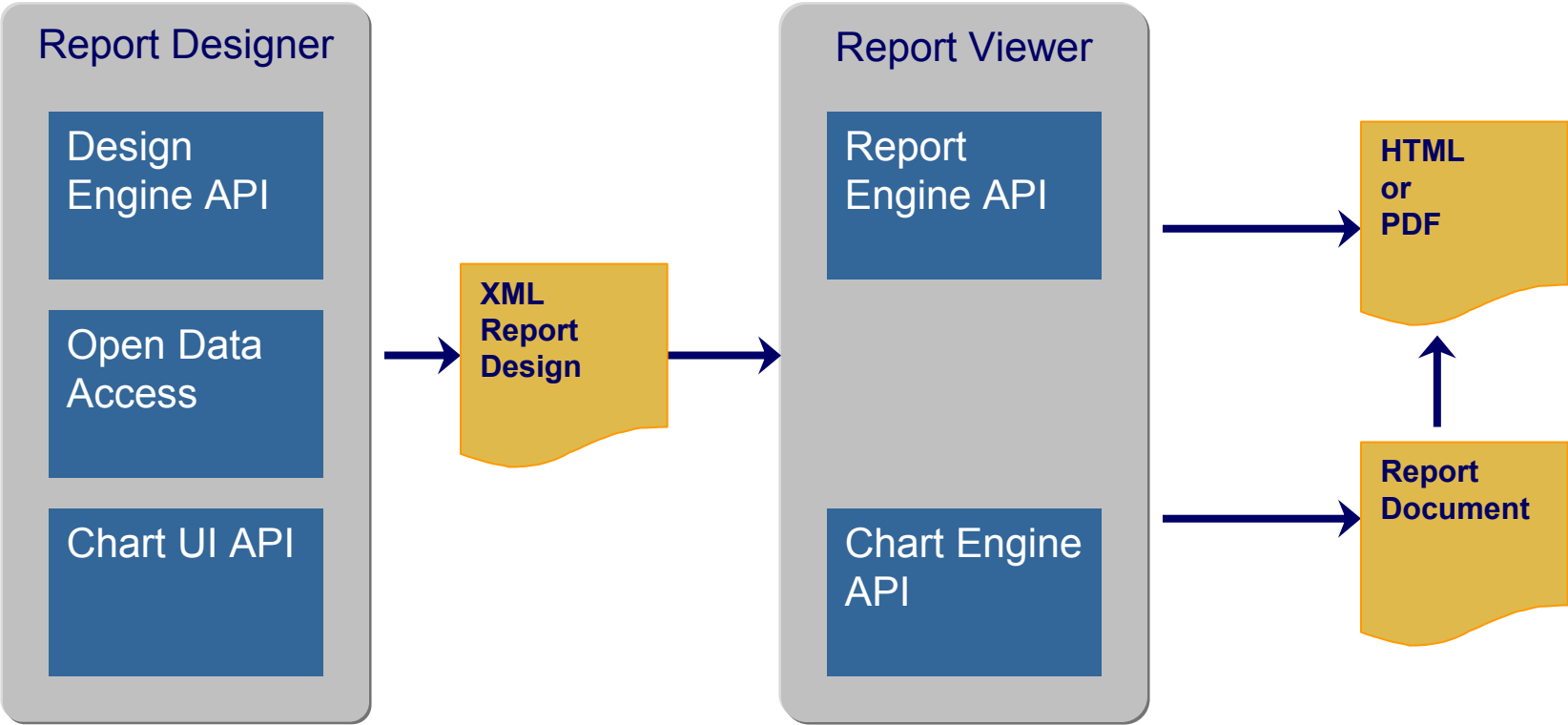
# Chart Gallery



# Chart Gallery



# Integration APIs: An Overview



## 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

Aug, 2004	<ul style="list-style-type: none"> <li>▪ BIRT Project Proposal posted for community review on Eclipse.org</li> </ul>
Sep, 2004	<ul style="list-style-type: none"> <li>▪ BIRT Project proposal accepted, and project launched</li> </ul>
Feb, 2005	<ul style="list-style-type: none"> <li>▪ 1.0 Preview: Eclipse Report Designer, Report Engine, Chart Engine</li> </ul>
Jun, 2005	<ul style="list-style-type: none"> <li>▪ 1.0 Release: Eclipse Report Designer, Report Engine, Chart Engine</li> </ul>
Jul, 2005	<ul style="list-style-type: none"> <li>▪ 1.0.1 Release: Support for Eclipse 3.1; RCP version of BIRT</li> </ul>
Dec, 2005	<ul style="list-style-type: none"> <li>▪ 2.0 Release: Support for a wide variety of common report types</li> </ul>
Jun, 2006	<ul style="list-style-type: none"> <li>▪ 2.1 Release: Advanced parameters, ability to join data sets</li> </ul>
Sep, 2006	<ul style="list-style-type: none"> <li>▪ 2.1.1 Release: Maintenance release</li> </ul>
Feb, 2007	<ul style="list-style-type: none"> <li>▪ 2.1.2 Release: Maintenance release</li> </ul>
TBD	<ul style="list-style-type: none"> <li>▪ 2.1.3 Release: Maintenance release</li> </ul>
Jun, 2007	<ul style="list-style-type: none"> <li>▪ 2.2 Target Release Date</li> </ul>

# BIRT Market Momentum and Uptake

*Sample Adopters To Date Since BIRT 1.0 Released in June 2005*

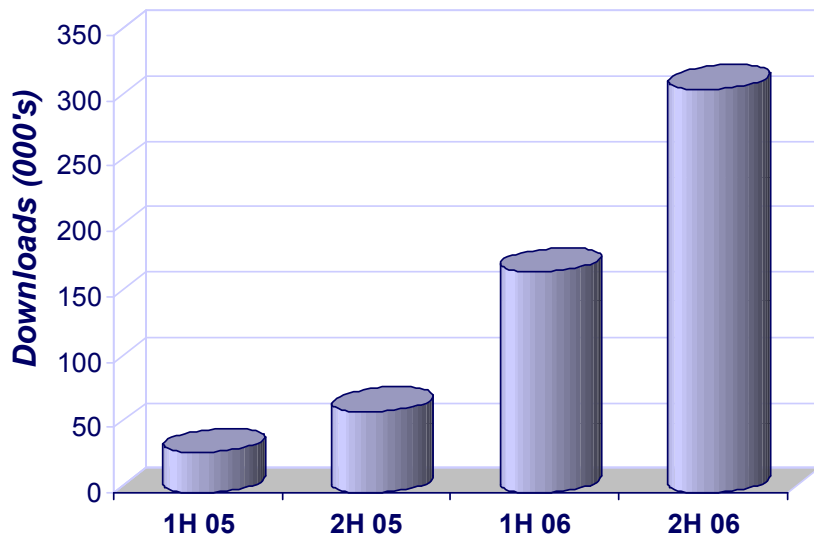
The image displays a collection of logos for various organizations that have adopted BIRT. The logos are arranged in a grid-like fashion within a rounded rectangular frame. The organizations include:

- GROUNDWORK OPEN SOURCE
- MAXIMUS HELPING GOVERNMENT SERVE THE PEOPLE®
- citigroup
- netcetera Quality Software Engineering
- Bank of America Higher Standards
- Kefta® Dynamic Targeting
- NightLabs
- NYSE Group™
- Allied-Visions
- L.L.Bean
- IVIS process improvement with project execution
- EMAGia
- LogicLibrary
- RPC SOFTWARE
- USDA
- métier
- First Franklin® A National City Company FIRST FOR A REASON™
- The BANK of NEW YORK.
- INGENIX. STARVIEW
- Borland®
- Yellowfin
- CHOICE HOTELS INTERNATIONAL
- AMERICAN EXPRESS
- pentaho™ open source business intelligence™
- INNŌOPRACT
- mro software make it all count
- Zend The php Company
- Hemisphere National Bank
- Embedded plus
- UNIVERSITY OF MISSOURI COLUMBIA • KANSAS CITY • ROLLA • ST. LOUIS
- b2d
- Scapa Technologies
- 4CS
- M UNIVERSITY OF MICHIGAN

COPYRIGHT.COM

# BIRT Market Momentum and Uptake

660K BIRT Downloads thru Q4 2006

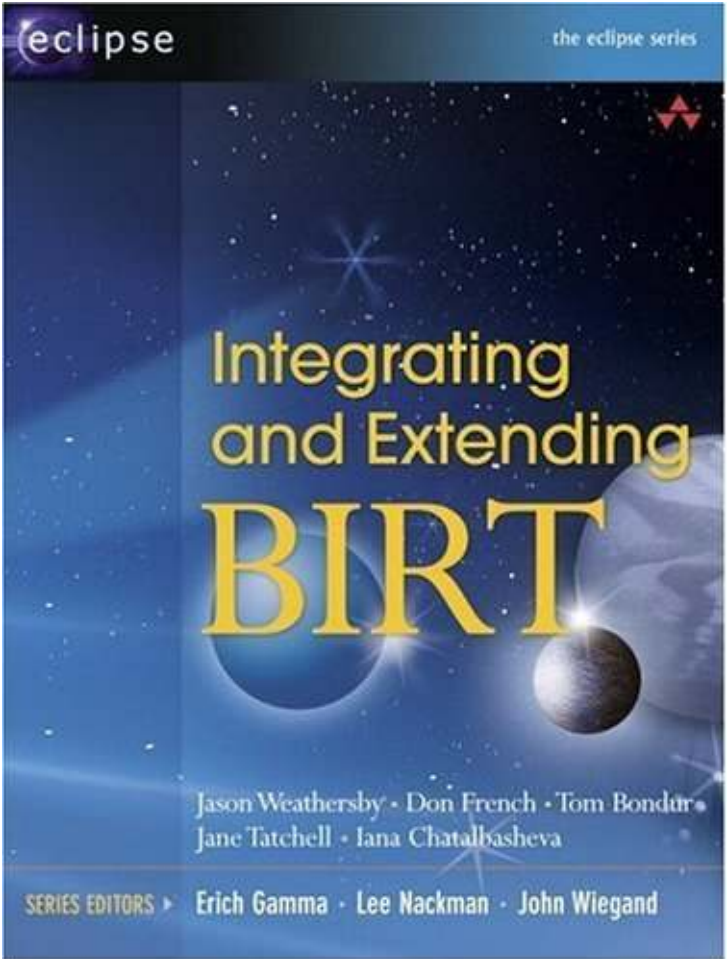
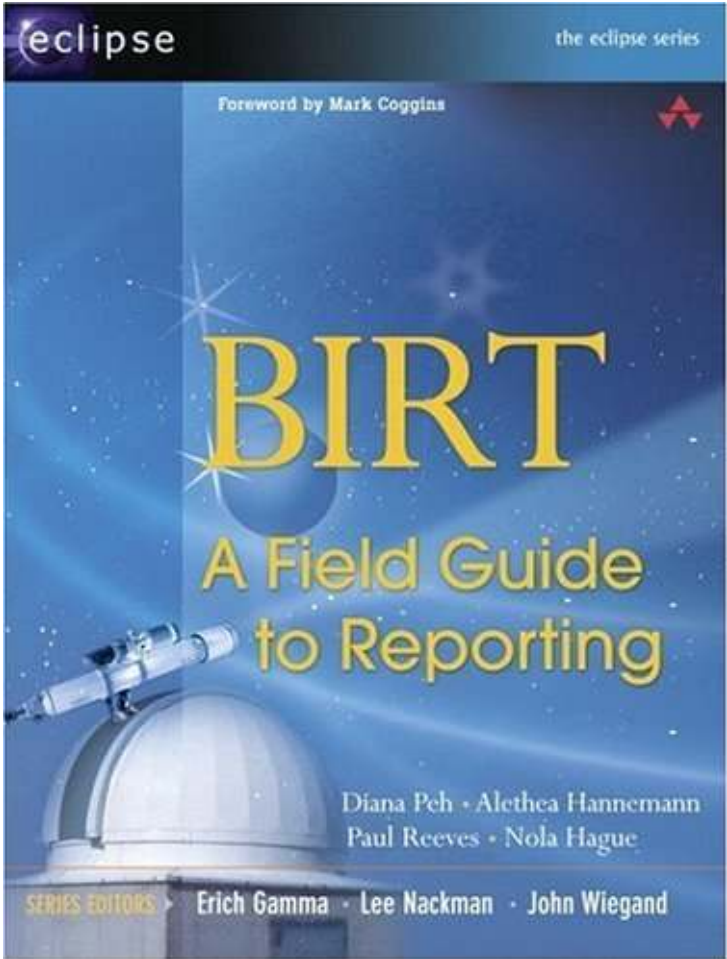


The collage consists of several overlapping screenshots:

- Eclipse BIRT Home:** A screenshot of the Eclipse BIRT project's main website, showing navigation links like 'Home', 'Community', and 'Downloads'.
- Enterprise Systems Article:** A screenshot of an article titled "BIRTH of a Notion" from Enterprise Systems, discussing the challenges of reporting and the role of BIRT.
- New to BIRT? Tutorial:** A screenshot of a tutorial page titled "New to BIRT?" which provides an introduction and a step-by-step guide to installing BIRT.
- Julio Santos Video:** A video player showing a man, Julio Santos, speaking. The video title is "BIRT at Nasa" and it includes a quote from him about his experience with BIRT.

“From my research, BIRT is a really big deal, it has legitimate traction in the market.”  
*Stephen O’Grady, RedMonk*

# New Publications Available From Amazon



## What is BIRT Being Used For?

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

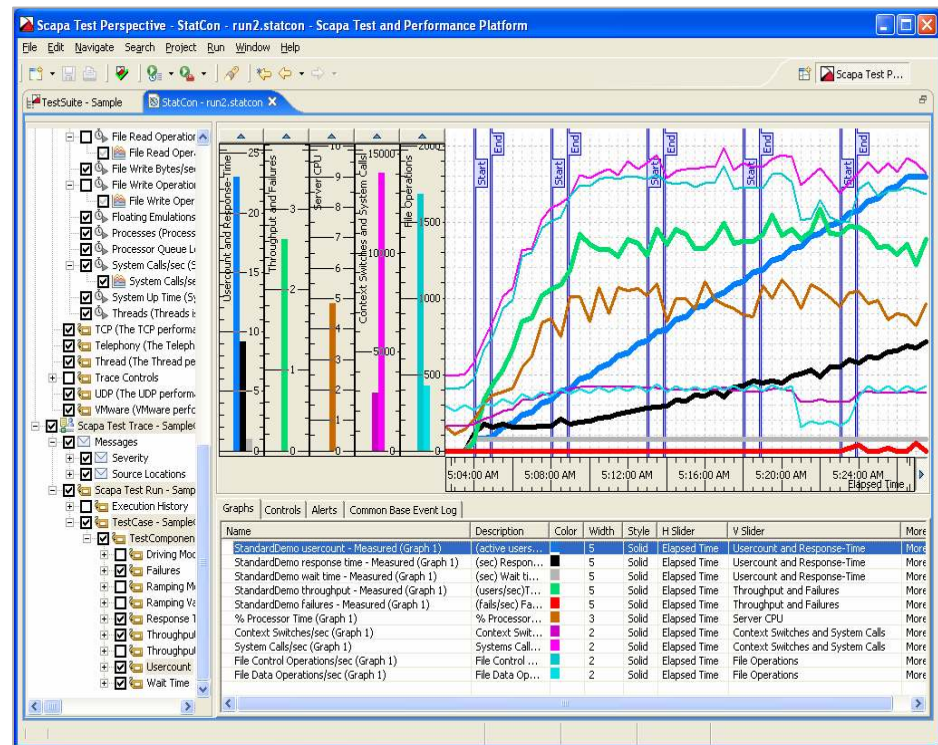
- Personal desktop report development tool
- Reporting technology integrated into corporate web applications
- Reporting technology integrated into corporate desktop applications
- Reporting technology integrated into ISV web applications
- Reporting technology integrated into ISV Eclipse-based applications

# 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

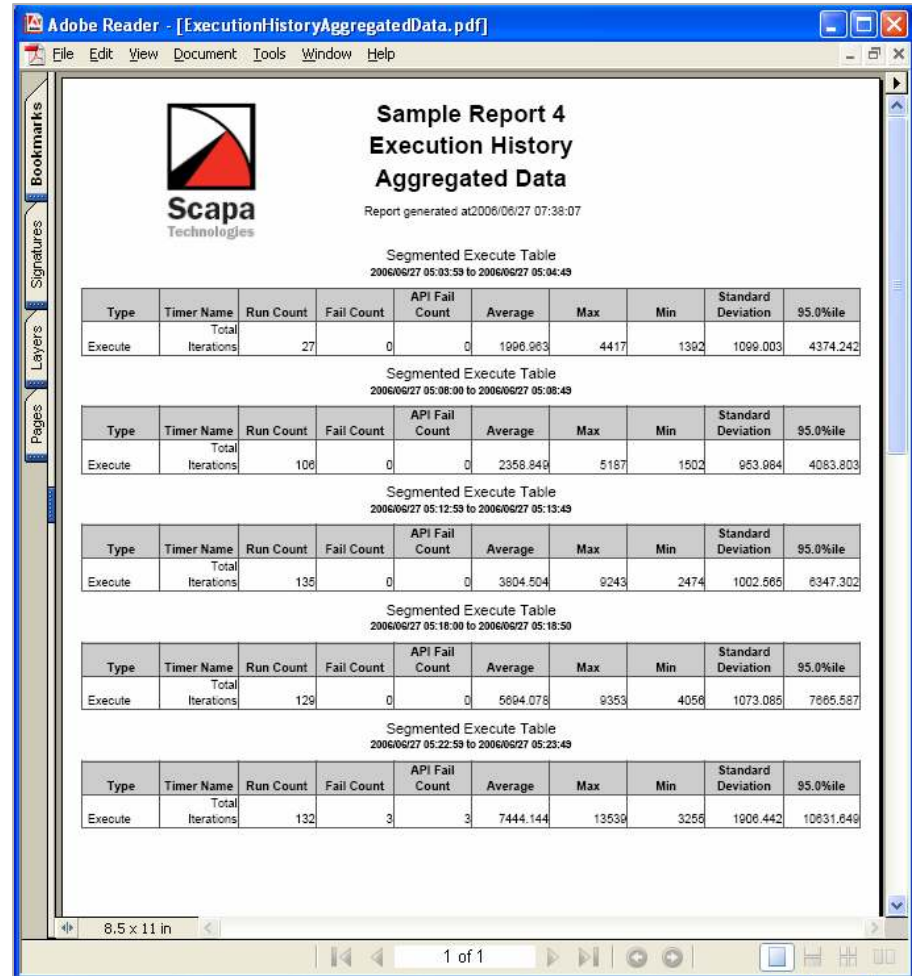
Scapa Test and Performance Platform is a powerful application performance testing, diagnosis & monitoring product applicable across a wide range of commercial software technologies at multiple points in the application lifecycle



<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



Adobe Reader - [ExecutionHistoryAggregatedData.pdf]

File Edit View Document Tools Window Help

**Sample Report 4**  
**Execution History**  
**Aggregated Data**  
 Report generated at 2006/06/27 07:38:07

Scapa Technologies

Segmented Execute Table  
 2006/06/27 05:03:53 to 2006/06/27 05:04:43

Type	Timer Name	Run Count	Fail Count	API Fail Count	Average	Max	Min	Standard Deviation	95.0%ile
Execute	Total Iterations	27	0	0	1006.063	4417	1302	1069.003	4374.242

Segmented Execute Table  
 2006/06/27 05:08:00 to 2006/06/27 05:08:43

Type	Timer Name	Run Count	Fail Count	API Fail Count	Average	Max	Min	Standard Deviation	95.0%ile
Execute	Total Iterations	106	0	0	2356.849	5187	1502	953.064	4063.803

Segmented Execute Table  
 2006/06/27 05:12:53 to 2006/06/27 05:13:43

Type	Timer Name	Run Count	Fail Count	API Fail Count	Average	Max	Min	Standard Deviation	95.0%ile
Execute	Total Iterations	135	0	0	3804.504	9243	2474	1002.566	6347.302

Segmented Execute Table  
 2006/06/27 05:18:00 to 2006/06/27 05:18:50

Type	Timer Name	Run Count	Fail Count	API Fail Count	Average	Max	Min	Standard Deviation	95.0%ile
Execute	Total Iterations	129	0	0	5604.078	9353	4056	1073.085	7865.587

Segmented Execute Table  
 2006/06/27 05:22:53 to 2006/06/27 05:23:43

Type	Timer Name	Run Count	Fail Count	API Fail Count	Average	Max	Min	Standard Deviation	95.0%ile
Execute	Total Iterations	132	3	3	7444.144	13539	3256	1906.442	10831.649

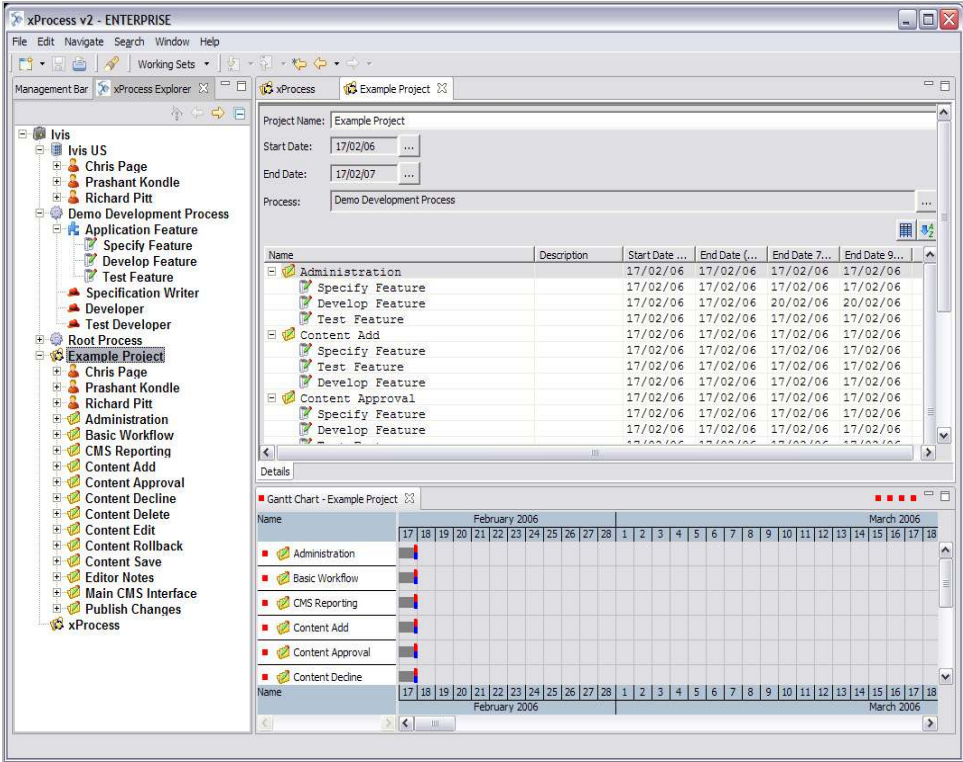
8.5 x 11 in | 1 of 1

# Case Study – Ivis Technologies

Ivis Technologies is privately held, based in Arizona, USA.

Build and sell software solutions that enable organizations to merge process improvement with live project execution.

xProcess is the premier process improvement and project execution environment that captures & creates processes, generates project plans and supports continuous process improvements



<http://www.ivis.com/public/products/xprocess>

# Case Study – Ivis Technology

- xProcess embeds BIRT
  - BIRT designer for built in reports
  - Custom built wrapper for DE API
  - Report lib => ~10 data sets
  - Runtime launched from xProcess
- Project Summary Report provides snapshot of a project at any time

**Project Summary Report**

Example Project Start Date: 2/1/2006 End Date: 3/6/2006

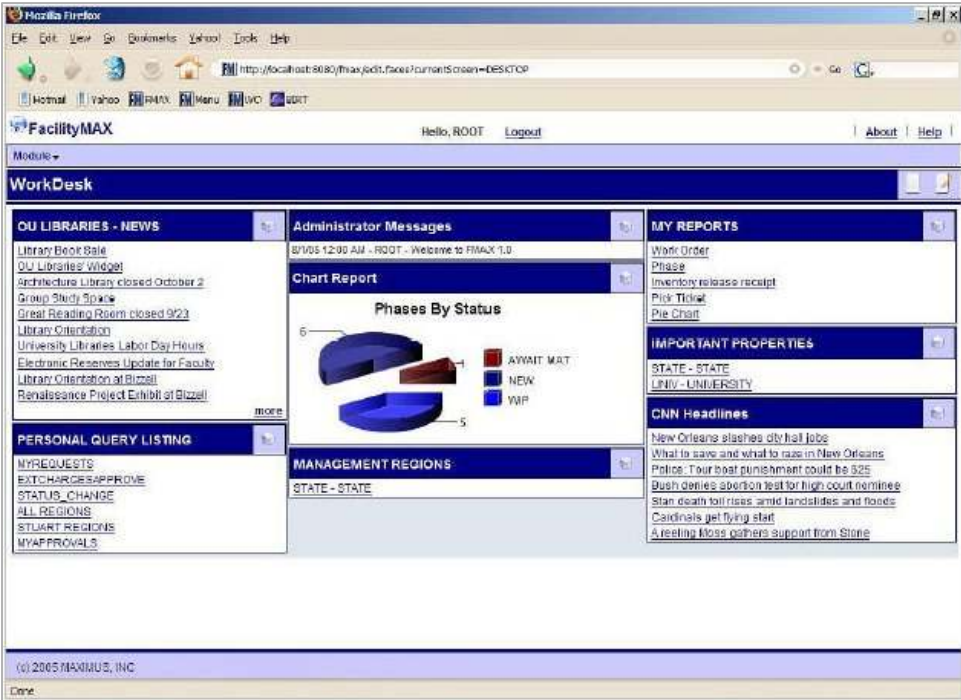
	Best Case	Most Likely	Worst Case	Estimate	Start Date	50% End Date	75% End Date	95% End Date
<b>Main CMS Interface</b>								
- Specify Feature	2	4	6	3.3	2/1/2006	2/1/2006	2/2/2006	2/2/2006
- Develop Feature	6	12	32	14.3	2/3/2006	2/3/2006	2/5/2006	2/9/2006
- Test Feature	2	3	6	3.3	2/3/2006	2/3/2006	2/4/2006	2/4/2006
<b>Content Add</b>								
- Specify Feature	2	4	6	3.3	2/4/2006	2/4/2006	2/4/2006	2/5/2006
- Develop Feature	6	12	32	14.3	2/5/2006	2/6/2006	2/8/2006	2/12/2006
- Test Feature	2	3	6	3.3	2/6/2006	2/6/2006	2/6/2006	2/7/2006
<b>Content Edit</b>								
- Specify Feature	2	4	6	3.3	2/6/2006	2/6/2006	2/7/2006	2/8/2006
- Develop Feature	6	12	32	14.3	2/8/2006	2/9/2006	2/10/2006	2/14/2006
- Test Feature	2	3	6	3.3	2/8/2006	2/9/2006	2/9/2006	2/10/2006
<b>Content Delete</b>								
- Specify Feature	2	4	6	3.3	2/9/2006	2/9/2006	2/10/2006	2/10/2006
- Develop Feature	6	12	32	14.3	2/11/2006	2/11/2006	2/13/2006	2/17/2006
- Test Feature	2	3	6	3.3	2/11/2006	2/11/2006	2/12/2006	2/12/2006
<b>Content Save</b>								
- Specify Feature	2	4	6	3.3	2/11/2006	2/12/2006	2/12/2006	2/13/2006
- Develop Feature	6	12	32	14.3	2/13/2006	2/14/2006	2/15/2006	2/19/2006
- Test Feature	2	3	6	3.3	2/14/2006	2/14/2006	2/14/2006	2/15/2006
<b>Basic Workflow</b>								
- Specify Feature	2	4	6	3.3	2/14/2006	2/14/2006	2/15/2006	2/15/2006
- Develop Feature	6	12	32	14.3	2/16/2006	2/17/2006	2/18/2006	2/22/2006
- Test Feature	2	3	6	3.3	2/16/2006	2/16/2006	2/17/2006	2/18/2006
<b>Content Approval</b>								
- Specify Feature	2	4	6	3.3	2/17/2006	2/17/2006	2/17/2006	2/18/2006
- Develop Feature	6	12	32	14.3	2/18/2006	2/19/2006	2/21/2006	2/25/2006
- Test Feature	2	3	6	3.3	2/19/2006	2/19/2006	2/19/2006	2/20/2006

# 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.assetsolutions.maximus.com>

# Case Study – MAXIMUS

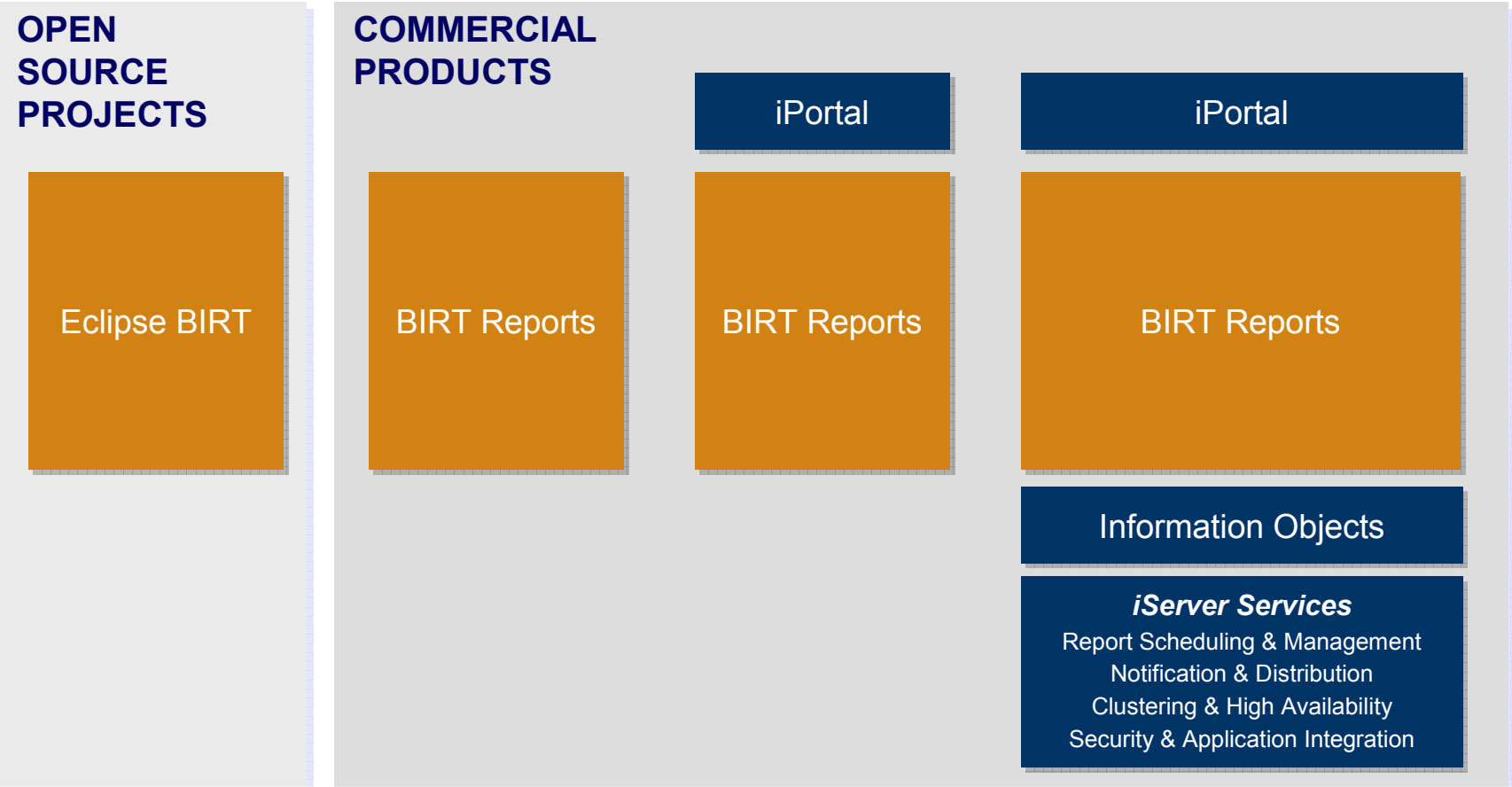
- BIRT is embedded in the FacilityMAX web application
- MAXIMUS selected BIRT because:
  - Low total cost of ownership
  - Solid technology and architecture
  - Comprehensive support for variety of report layouts
  - Ability to report on large volumes of data
  - Open standards, including 100% Java and 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



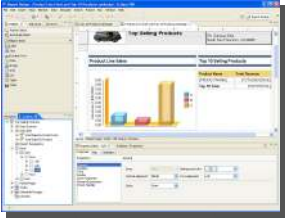
“The BIRT Reports technology offers a significantly lower report total cost of ownership and high-quality Web-based reports to our customers.”

*Trey Drake, Software Architect,  
Asset Solutions Group at MAXIMUS*

# Actuate Provides Flexible Deployment Choices

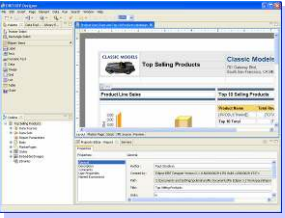


# Actuate BIRT Report Technology Family



## Actuate BIRT Report Designer Pro

Desktop tool for professional IT developers  
Full power of scripting in Java; Eclipse IDE; and more



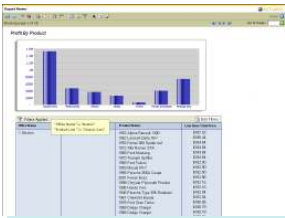
## Actuate BIRT Report Designer

Desktop tool for report developers and power users  
Easier to use; can leverage components created in Pro



## Actuate BusinessReport Studio

Web tool for report creation by business users  
Simple to use yet powerful template based model



## Actuate BusinessReport / BIRT Report Interactive Viewer

Web tool for exploring and manipulating report documents  
Answer ad hoc business questions without writing a report

## BIRT: What is Next?

- Continue to add reporting capabilities for existing components
  - BIRT 2.1.3 – Q2 2007: Maintenance Release
  - BIRT 2.2 – June 2007: Feature Release
- BIRT 2.2: Project Plan at [www.eclipse.org/birt](http://www.eclipse.org/birt)
  - Expanded support for report types (Example: Dynamic crosstab)
  - New and improved data sources (Example: Web Services)
  - Additional output formats (Example: Excel)
  - Developer productivity (Example: integration components)
  - Additional charts types and Smart Formatting
  - ... See project plan for many more
- 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 & 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>



**THANK YOU!**