Creating Data Driven Web Apps with BIRT
Michael Williams
March 18, 2014
Today’s Agenda and Goals

- Introduction to BIRT
- Designing BIRT Reports
  - Designer
  - APIs
- Deploying BIRT
  - BIRT Viewer
  - Report Engine (Java)
  - BIRT Viewer Toolkit
  - JavaScript API
- Questions
What is BIRT?

A New Generation of Data Visualization Technology

- Makes all data-driven content development easy
- Modern, web-page design metaphor
- Open and standards-based
- Flexible with rich programmatic control
- Full support for libraries and reuse
- Foundation for a range of solutions

Simplicity that makes simple layouts easy

Power to create very complex layouts
# BIRT Release History

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2004</td>
<td></td>
<td>BIRT Project proposal accepted, and <strong>project launched</strong></td>
</tr>
<tr>
<td>June 2005</td>
<td>1.0</td>
<td>Eclipse Report Designer, Report Engine, Chart Engine</td>
</tr>
<tr>
<td>December 2005</td>
<td>2.0</td>
<td>Support for a wide variety of common layouts</td>
</tr>
<tr>
<td>June 2006</td>
<td>2.1</td>
<td>Advanced parameters, <strong>ability to join data sets</strong>, …</td>
</tr>
<tr>
<td>June 2007</td>
<td>2.2</td>
<td>Dynamic crosstab support, web services data source, …</td>
</tr>
<tr>
<td>June 2008</td>
<td>2.3</td>
<td>JavaScript Debugger, BiDi Support, Charts in Crosstabs, …</td>
</tr>
<tr>
<td>June 2009</td>
<td>2.5</td>
<td>Page aggregates, Multiple drill-downs in Charts, …</td>
</tr>
<tr>
<td>June 2010</td>
<td>2.6</td>
<td>New charts, more chart control, developer productivity, …</td>
</tr>
<tr>
<td>June 2011</td>
<td>3.7</td>
<td><strong>POJO Runtime</strong>, <strong>Hive/Hadoop</strong>, Open Office emitters…</td>
</tr>
<tr>
<td>June 2012</td>
<td>4.2</td>
<td>Maven Support, Excel Data Source, Relative Time Periods…</td>
</tr>
<tr>
<td>June 2013</td>
<td>4.3</td>
<td><strong>MongoDB</strong> &amp; POJO ODAs, PPT &amp; Word 2010 Support, XLSX Support…</td>
</tr>
</tbody>
</table>
Designing BIRT Reports
BIRT Data Access

- BIRT Offers many ways to get data
  - Standard Data Sources
    - Flat File (CSV, TSV, SSV, PSV)
    - Hive Data Source (Hadoop)
    - Cassandra Scripted Data Source
    - MongoDB Data Source
    - JDBC Textual or Graphical
    - Web Service - XPath syntax
    - XML - XPath syntax
    - XLS/XLSX
  - Scripted Data Source Written in Java or JavaScript
  - Open Data Access (ODA) DTP Project
  - Extensible JDBC Driver Framework

Community Contributions

- GoogleDocs
- XML/A
- Cassandra
- REST
- MongoDB
- Multi-Flat File
- GitHub
- Twitter JSON Search
- Dropbox usage
- YQL
- Google Analytics
- LinkedIn
- Facebook FQL
BIRT Formatting Capabilities

- Listings, cross-tab, dashboard, pixel-perfect, charts
- Grouping, advanced aggregations, sub-totals,
- Multi-section and sub-reports
- Conditional sections and logic
- Full programmatic control and scripting
- Embedded images
- Dynamic hyperlinking
- And much more!
BIRT Re-use and Productivity

- Library support for publishing and sharing components
- Leverages common standards
  - SQL
  - Java
  - JavaScript
  - XML
- Cascading Style Sheets
- Integrated debugger
BIRT Expressions and Scripting

• Expressions are everywhere
  • Data Source\Set, Parameters
  • Report Items
    • Data, Crosstab, Images
  • Chart Elements
  • Visibility, TOC, Bookmarks
  • Events

• Helper Object References
  • Data Sets\Table Bindings
  • Native JavaScript Func’s
  • BIRT Functions
  • Operators
BIRT Output Formats

- HTML, PDF, MS Office, Open Office
- Custom emitters: CSV, Text, ...
- Internationalization of labels and text
- Localization of date and numeric fields
- Support for Asian character sets and right-to-left display
### Sales by Customer

**Customer:** Atelier graphique - 103  
**Payment:** $22,314.36

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Order Date</th>
<th>Shipped Date</th>
<th>Product Code</th>
<th>Product Name</th>
<th>Orders</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>10123</td>
<td>May 20, 2003 12:00 AM</td>
<td>May 22, 2003 12:00 AM</td>
<td>S18_1589</td>
<td>1965 Aston Martin DBS</td>
<td>26</td>
<td>$120.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S18_2670</td>
<td>1999 Indy 500 Monte Carlo SS</td>
<td>46</td>
<td>$114.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S18_3685</td>
<td>1948 Porsche Type 356 Roadster</td>
<td>34</td>
<td>$117.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S24_1628</td>
<td>1966 Shelby Cobra 427 S/C</td>
<td>50</td>
<td>$431.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Order Date</th>
<th>Shipped Date</th>
<th>Product Code</th>
<th>Product Name</th>
<th>Orders</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>10298</td>
<td>Sep 27, 2004 12:00 AM</td>
<td>Oct 1, 2004 12:00 AM</td>
<td>S10_2016</td>
<td>1906 Moto Guzzi 1100i</td>
<td>30</td>
<td>$105.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S18_2625</td>
<td>1936 Harley Davidson Knucklehead</td>
<td>22</td>
<td>$60.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Order Date</th>
<th>Shipped Date</th>
<th>Product Code</th>
<th>Product Name</th>
<th>Orders</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>10345</td>
<td>Nov 25, 2004 12:00 AM</td>
<td>Nov 26, 2004 12:00 AM</td>
<td>S24_2622</td>
<td>1938 Cadillac V-16 Presidential Limousine</td>
<td>43</td>
<td>$38.0</td>
</tr>
</tbody>
</table>

**Total Price:** $22,314.36

---

### Charts and Tables

#### Revenue History by Product Line

![Revenue History Chart](chart1.png)

#### Revenue by Customer

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Product Line</th>
<th>Customer</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>03 Q1</td>
<td>Classic Cars</td>
<td>Chuz &amp; Sons Co.</td>
<td>$40,232</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Motor Mint Distributors Inc.</td>
<td>$25,833</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AV Stores, Co.</td>
<td>$25,306</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ebury Shopping Channel</td>
<td>$22,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Danish Wholesale Imports</td>
<td>$18,941</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bamco Mini Imports</td>
<td>$19,549</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Volvo Model Replicas, Co</td>
<td>$5,718</td>
</tr>
<tr>
<td></td>
<td>Motorcycles</td>
<td>Land of Toys Inc.</td>
<td>$22,293</td>
</tr>
</tbody>
</table>
BIRT Design Gallery

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

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>$452,541</td>
<td>$33,062</td>
<td>$37,156</td>
<td>$24,404</td>
<td>$7,810</td>
<td>$43,593</td>
<td></td>
<td>$520,530</td>
</tr>
<tr>
<td>2004</td>
<td>$415,174</td>
<td>$31,629</td>
<td>$50,387</td>
<td>$50,171</td>
<td>$12,444</td>
<td>$52,840</td>
<td></td>
<td>$520,530</td>
</tr>
<tr>
<td>2005</td>
<td>$370,570</td>
<td>$29,642</td>
<td>$54,214</td>
<td>$56,812</td>
<td>$14,919</td>
<td>$57,856</td>
<td></td>
<td>$520,530</td>
</tr>
</tbody>
</table>

Total | $1,366,248   | $118,060    | $138,802| $108,644| $36,412| $176,545        |              | $1,926,463 |

Inventory Turn Trend
Jan 01, 08 to Dec 31, 08

Report Description: This report shows the inventory issue turn rate for each Business Unit and Facility by month.

Inventory Turn Trend by Month for Business Unit

<table>
<thead>
<tr>
<th>Month</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAG</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>MHC</td>
<td>377</td>
<td>270</td>
<td>94</td>
<td>136</td>
<td>307</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>87857</td>
</tr>
<tr>
<td>MHP</td>
<td>69</td>
<td>365</td>
<td>5076</td>
<td>36</td>
<td>5099</td>
<td>9214</td>
<td>4414</td>
<td>3950</td>
<td>42583</td>
<td>0</td>
<td>717</td>
<td>71644</td>
<td></td>
</tr>
<tr>
<td>MSH</td>
<td>35888</td>
<td>52</td>
<td>620</td>
<td>1412</td>
<td>40</td>
<td>345</td>
<td>926</td>
<td>489</td>
<td>32943</td>
<td>9155</td>
<td>4373</td>
<td>0</td>
<td>86194</td>
</tr>
<tr>
<td>MWG</td>
<td>287</td>
<td>460</td>
<td>276</td>
<td>19</td>
<td>338</td>
<td>319</td>
<td>124</td>
<td>664</td>
<td>223</td>
<td>210</td>
<td>0</td>
<td>0</td>
<td>2921</td>
</tr>
<tr>
<td>Total</td>
<td>36971</td>
<td>1148</td>
<td>6066</td>
<td>1655</td>
<td>6596</td>
<td>8847</td>
<td>12275</td>
<td>41256</td>
<td>58149</td>
<td>66436</td>
<td>4638</td>
<td>2595</td>
<td>248632</td>
</tr>
</tbody>
</table>

Crosstabs
### Assignment Manager Monthly Format

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### UNITED STATES SECURITIES AND EXCHANGE COMMISSION

**FORM 4**

Statement of Changes in Beneficial Ownership

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 30(b) of the Public Utility Holding Company Act of 1935 or Section 30(a) of the Investment Company Act of 1940

(Please Type or Print Responses)

1. **Title of Security**
2. **Transaction Date**
3. **Transaction Code**
4. **Security Acquired (A) or Disposed of (D)**
5. **Number of Securities Beneficially Owned Following the Transaction**
6. **Ownership Form**
7. **Nature of Indirect Beneficial Ownership**

<table>
<thead>
<tr>
<th>Name and Address of Reporting Person*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Callenbeke Ltd.</td>
</tr>
<tr>
<td>1793 Fourth Circle</td>
</tr>
<tr>
<td>Bakersfield, CA 93317</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Issuer Name and Ticker or Trading Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT &amp; T Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship of Reporting Person(s) to Issuer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of End of Transaction (Month/Day/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Feb 2000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual or Group Filing (Check applicable line)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>X</em> Form filed by one Reporting Person</td>
</tr>
<tr>
<td>_ _ Form filed by more than one Reporting Person</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(Instr. 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1: Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned</td>
</tr>
<tr>
<td>1. Title of Security (Instr. 5)</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>AT &amp; T Co.</td>
</tr>
<tr>
<td>AT &amp; T Co.</td>
</tr>
<tr>
<td>AT &amp; T Co.</td>
</tr>
<tr>
<td>AT &amp; T Co.</td>
</tr>
</tbody>
</table>

Calendar / Schedule
BIRT Chart Gallery

Demographics Trend by City

Total Sales By Product Line

Product Line
- Vintage Cars
- Trucks and Buses
- Trains
- Ships
- Planes
- Motorcycles
- Classic Cars

New Users by Week by Title

# of Past Due POs by Facility for BU: Biocides

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High Level BIRT Architecture

**BIRT Designer**
- Eclipse Designer
- Eclipse DTP, WTP,…
- Chart Designer

**Design Engine**

**BIRT Engine**
- Generation Services
- Charting Engine
- Data Services
- Presentation Services

**Document**
- HTML
- PDF
- Excel
- Word
- PowerPoint
- PostScript…

**XML Design**

**Data**
High Level BIRT Architecture

DE API  Design Engine
Produces XML Report, Templates, and Library Designs

RE API  Report Engine
Runs Reports and produces output – PDF, HTML, Doc, XLS, PS, PPT Etc

CE API  Chart Engine
Consume Chart EMF model and produces Chart Output. Supports 14 Main types and many sub types. Outputs to PNG, JPG, BMP, SVG, PDF, SWT, and SWING

All Engines can be run with or without OSGi

Core BIRT Open Source Products
Report Designer  Chart Builder  Example Viewer
Can be ran outside of BIRT

Actuate Corporation © 2012
Deploying BIRT Reports
Multiple Deployment Options

BIRT Design

BIRT Engine and APIs

BIRT onDemand

BIRT iHub
BIRT AJAX-Based Sample Viewer

Top 5 Customers

- Euro+ Shopping Channel: 820,690
- Mini Gifts Distributors Ltd: 591,827
- Australian Collectors, Co.: 180,585
- Muscle Machine Inc: 177,914
- La Rochelle Gifts: 158,573

Top 25% Customers (sorted by name)

<table>
<thead>
<tr>
<th>Customer Name</th>
<th>Customer Number</th>
<th>Customer Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV Stores, Co.</td>
<td>187</td>
<td>$148,410.09</td>
</tr>
<tr>
<td>Anna's Decorations, Ltd.</td>
<td>276</td>
<td>$137,034.22</td>
</tr>
<tr>
<td>Australian Collectors, Co.</td>
<td>114</td>
<td>$180,585.07</td>
</tr>
<tr>
<td>Corporate Gift Ideas Co.</td>
<td>321</td>
<td>$132,340.78</td>
</tr>
<tr>
<td>Corr Ea Auto Replicas, Ltd</td>
<td>458</td>
<td>$112,440.09</td>
</tr>
<tr>
<td>Danish Wholesale Imports</td>
<td>145</td>
<td>$129,085.12</td>
</tr>
</tbody>
</table>
Copy WebViewerExample from the runtime download to the application server and rename it “birt”
BIRT Web Viewer URLs

As a straight HTML output:

http://localhost:8080/birt/run?__report=SD.rptdesign

With viewer toolbar, pagination, etc.:


Other servlet mappings:

preview, document, output, extract

URL parameters include:

id    title    showtitle    toolbar    navigationbar    locale
format report    document    parameterpage    pagerange    fittopage
svg    isnull    islocale    masterpage    resourceFolder    bookmark
rtl    page    overwrite
Output to PDF:


To display a single report item as a reportlet:

http://localhost:8080/birt/run?__report=SD.rptdesign&__bookmark=myTable&__isreportlet=true
Example JSP to embed viewer:

```html
<%@ page language="java" contentType="text/html; charset=ISO-8859-1" pageEncoding="ISO-8859-1" %>
<%@ taglib uri="/birt.tld" prefix="birt" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>My Report - JSP</title>
</head>
<body>
<birt:viewer id="birtViewer" reportDesign="reportName.rptdesign"
    pattern="frameset"
    height="450"
    width="700"
    format="html"></birt:viewer>
</body>
</html>

Live Example: http://localhost:8080/birt/dashboard.jsp
Example JSP to embed parameters:

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<%@ taglib uri="/birt.tld" prefix="birt" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
  </head>
  <style type="text/css">
    .class1 { background-color:#ff0000; color: #ffffff; }
  </style>
  <body>
    Parameter Page 1
    <br>
    <birt:parameterPage
      id="report1"
      name="page1"
      reportDesign="cascade_report.rptdesign"
      isCustom="true"
      pattern="frameset">
      ...
    </birt:parameterPage>
  </body>
</html>
```
Example JSP to embed parameters (cont.):

Cascading Parameter1: `<birt:paramDef id="5" name="Country" /></b><br/>
Cascading Parameter2: `<birt:paramDef id="6" name="City" /></b><br/>
Cascading Parameter3: `<birt:paramDef id="7" name="Customer" cssClass="class1" /></b><br/>
<input type="submit" name="submit" value="Submit form" />
</birt:parameterPage>
<body>
</html>

Live Example: http://localhost:8080/birt/cascade_report.jsp
Report Engine API (REAPI)

- Report Engine can be used in different ways
  - 3 tasks related to report execution and rendering
    - RunTask
    - RenderTask
    - RunAndRenderTask

- Using RunTask and then RenderTask means multiple processes to generate and view a report.
- RunAndRenderTask happens in single process so event firing order is different
static void executeReport() throws EngineException
{
    IReportEngine engine=null;
    EngineConfig config = null;
    try{
        config = new EngineConfig();
        config.setLogConfig("C:\BIRT_422\logs", java.util.logging.Level.FINEST);
        Platform.startup(config);
        IReportEngineFactory factory = (IReportEngineFactory) Platform.createFactoryObject(IReportEngineFactory.EXTENSION_REPORT_ENGINE_FACTORY);
        engine = factory.createReportEngine(config);
        IReportRunnable design = null;
        design = engine.openReportDesign("C:\BIRT_43\designs\param.rptdesign");
        IRunAndRenderTask task = engine.createRunAndRenderTask(design);
        task.setParameterValue("ordParam", (new Integer(10101)));
        task.setParameterValue("ordParam", (new Integer(10101)));
        task.validateParameters();
    ...
PDFRenderOption options = new PDFRenderOption();
options.setOutputFileName("my_report.pdf");
options.setOutputFormat("pdf");
task.setRenderOption(options);
task.run();
task.close();
engine.destroy();
}catch( Exception ex){
ex.printStackTrace();
}
finally{
Platform.shutdown();
}
public class birt2jsf {
    String executeReport(String param) throws EngineException {
        IReportEngine engine=null;
        EngineConfig config = null;
        try{
            config = new EngineConfig();
            config.setLogConfig("/logs", java.util.logging.Level.FINEST);
            Platform.startup( config );
            IReportEngineFactory factory = (IReportEngineFactory) Platform.createFactoryObject(IReportEngineFactory.EXTENSION_REPORT_ENGINE_FACTORY );
            engine = factory.createReportEngine( config );
            IReportRunnable design = null;
            design = engine.openReportDesign("E:/apache-tomcat-6.0.36/webapps/JSF_2/test.rptdesign");
            IRunAndRenderTask task = engine.createRunAndRenderTask(design);
            task.setParameterValue("Country", param);
            task.validateParameters();
...
IRunAndRenderTask task = engine.createRunAndRenderTask(design);
task.setParameterValue("Country", param);
task.validateParameters();

HTMLRenderOption options = new HTMLRenderOption();
ByteArrayOutputStream outs = new ByteArrayOutputStream();
options.setOutputStream(outs);
options.setImageHandler(new HTMLServerImageHandler());
options.setBaseImageURL("images");
options.setImageDirectory("E:/apache-tomcat-6.0.36/webapps/JSF_2/images");
options.setEmbeddable(true);
options.setOutputFormat("html");
task.setRenderOption(options);
String output;

...
task.run();
output = outs.toString();
task.close();
engine.destroy();
return output;
}catch( Exception ex){
  ex.printStackTrace();
  return "Error";
}
finally
{
  Platform.shutdown( );
  RegistryProviderFactory.releaseDefault();
}
}
@ManagedBean(name="birtBean")
@SessionScoped
public class BirtBean implements Serializable {
    private static final long serialVersionUID = 1L;
    private String name;

    public String getReport() {
        birt2jsf report = new birt2jsf();
        String reportHTML = null;
        try {
            reportHTML = report.executeReport(name);
        } catch (EngineException e) {
            e.printStackTrace();
        }
        return reportHTML;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }
}
<?xml version="1.0" encoding="UTF-8"?><!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
    <h:head>
        <title>BIRT JSF 2.0 Example</title>
    </h:head>
    <h:body>
        <h3>Enter Country</h3>
        <h:form>
            <h:inputText value="#\{birtBean.name\}" />
            <h:commandButton value="View Report" action="page-a" />
            <h:outputText value="#\{birtBean.report\}" escape="false" />
        </h:form>
    </h:body></html>

http://localhost:8080/JSF_2/
REAPI with JSF

Dynamic Text:

Report Parameter (number):

Update

BIRT Report as JSF component

Bar Chart Title

Dynamic Text: Dynamic Text

Series 1

3,387,230 3,387,230 3,393,040

Bondur Firrelli Patterson

3386000 3388000 3390000 3392000 3394000

3,387,230 3,387,230 3,393,040
New product for use with open-source (OS) BIRT. BVT is available for download at developer.actuate.com

Key Features:

- **It’s FREE!**
- It uses the Actuate Viewer (Built on OS Viewer)
  - More modern look and feel
  - More seamless parameter entry screen
  - Calendar date-picker
- It’s built on the latest BIRT version (4.3)
- **Includes JavaScript API (JSAPI) AJAX library for easier integration into applications of all types.**
- **BVT Webinar:**
  **Title:** Introducing the Free BIRT Viewer Toolkit - Enhance the Way Your Users View BIRT Designs
  **Duration:** 30 minutes
  **Location:** Available for download at developer.actuate.com
The URLs used with the OS viewer can still be used with BVT.

With viewer toolbar, pagination, etc.:

As a straight HTML output:
http://localhost:8080/BVT/run?__report=SD.rptdesign

Output to PDF:

To display a single report item as a reportlet:
http://localhost:8080/BVT/run?__report=SD.rptdesign&__bookmark=myChart

Parameterized report with date picker:
http://localhost:8080/BVT/frameset?__report=DynamicParameter.rptdesign
<html><head>
<script type="text/javascript" language="JavaScript"
src="http://localhost:8080/BIRTViewerToolkit/jsapi"></script>
</head>
<body onload="init();">
<div id="myDivContainer" style="border-width: 1px; border-style: solid;"></div>
<script type="text/javascript" language="JavaScript">
var myViewer;
function init() {
    actuate.load("viewer");
    actuate.initialize( "http://localhost:8080/BIRTViewerToolkit/", null, "administrator", "", createViewer );
}
function createViewer() {
    myViewer = new actuate.Viewer( "myDivContainer" );
    myViewer.setReportName("/reports/TableReport.rptdesign" );
    myViewer.submit();
}
</script>
</body></html>

**Live Example:** [http://localhost:8080/BVT/JSAPIReport.html](http://localhost:8080/BVT/JSAPIReport.html)
Centralized hub for BIRT developers

- Access demos, tutorials, tips and techniques, documentation…
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developer.actuate.com
Creating Data Driven Web Apps with BIRT
Michael Williams
mwilliams@actuate.com
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2. Select session from schedule

3. Evaluate: [1] [0] [-1]