How to Easily Integrate BIRT Reports into your Web Application

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BIRT and us – Who are we? Who are you?

- Who are we?
  - Rima Kanguri
    - Actuate Corporation BIRT Committer
  - Krishna Venkatraman
    - Actuate Corporation BIRT Committer
- Who are you?
  - Name, Company, technical background (C, SQL, java, reporting…)
  - Experience with BIRT
  - What are you hoping to get out of today's presentation?

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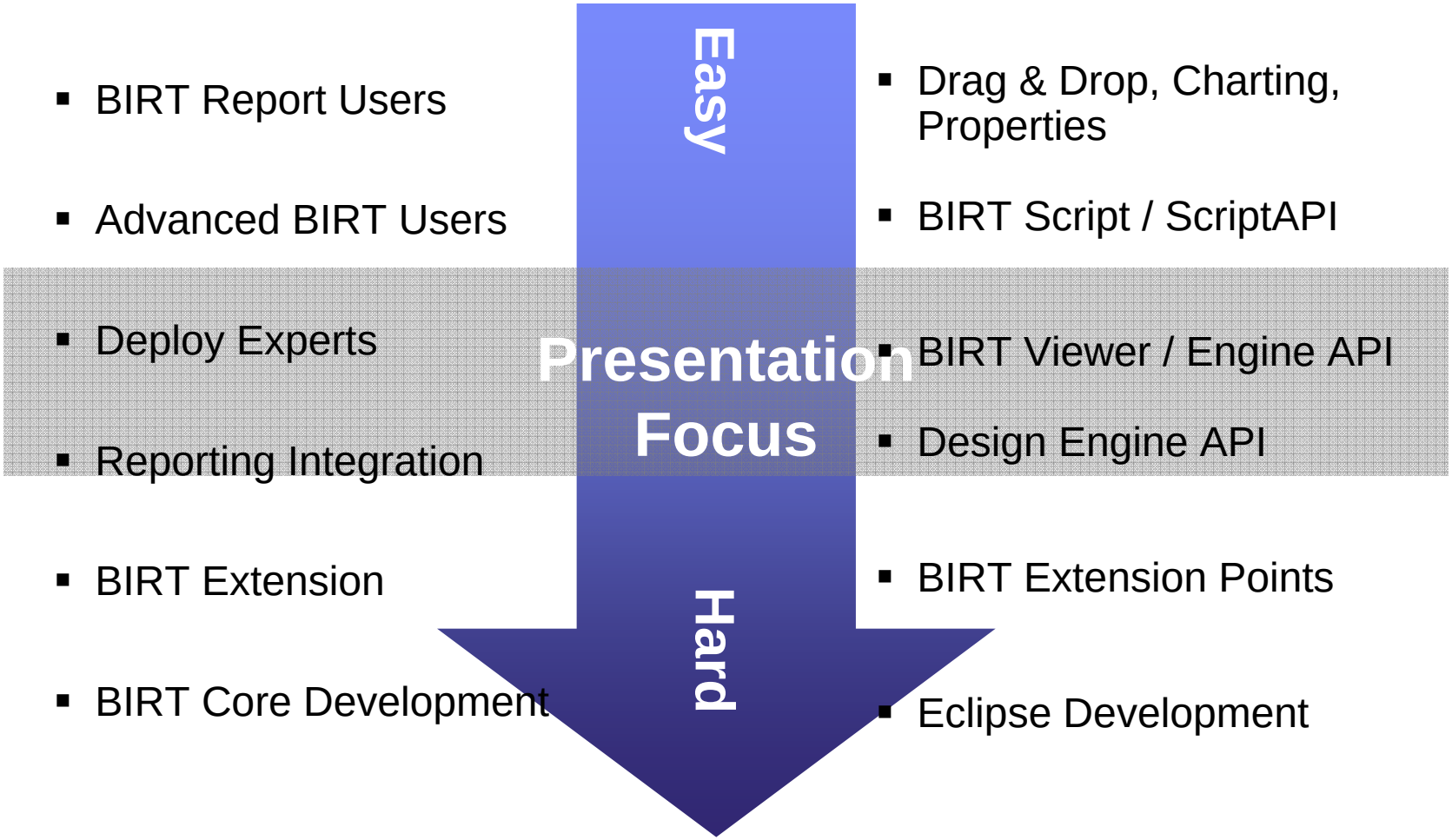
BIRT Tasks – Audience



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Agenda

- Brief Look at BIRT
- What is a BIRT Web Application?
- Creating a BIRT Web Application
- Deploying a BIRT Web Application to an application server
- Demonstration 1 – Creating a BIRT Web Application
- Demonstration 2 – Integrating BIRT in existing Web Applications
- BIRT Tag Library
- Demonstration 3 – BIRT Tag Library
- Q & A

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Brief Look at BIRT

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Reporting in BIRT

Operational Reporting	Ad hoc Query & Reporting	Analytics/OLAP/Data Mining

In Reality, this is a Continuum:

- **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**

BIRT Initial Focus

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

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

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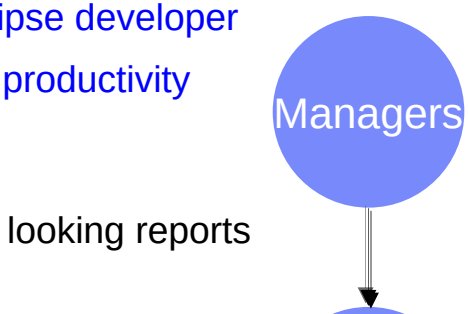
BIRT Users & Benefits

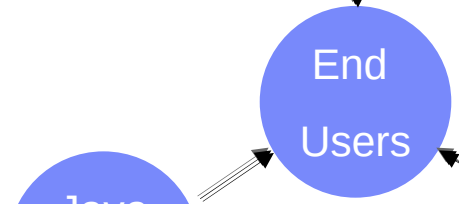


- Minimizes Eclipse developer training
- Increase dev. productivity
- Lower costs

- Focused on $, developer productivity
- End user satisfaction

- Nice looking reports

- Nice looking reports
- Content as HTML and PDF



- Designs reports using Eclipse-based designer
- Embed pre-designed reports in application
- Creates report libraries & templates

- Saves calories vs. JSP/Java
- Minutes vs. days for HTML, vs. weeks for PDF
- Minutes to modify as user requirements change
- Iterative development gets the right reports quicker

- Uses report facilities provided by Java developer
- Uses RCP based report designer
- Creates & uses report libraries & templates

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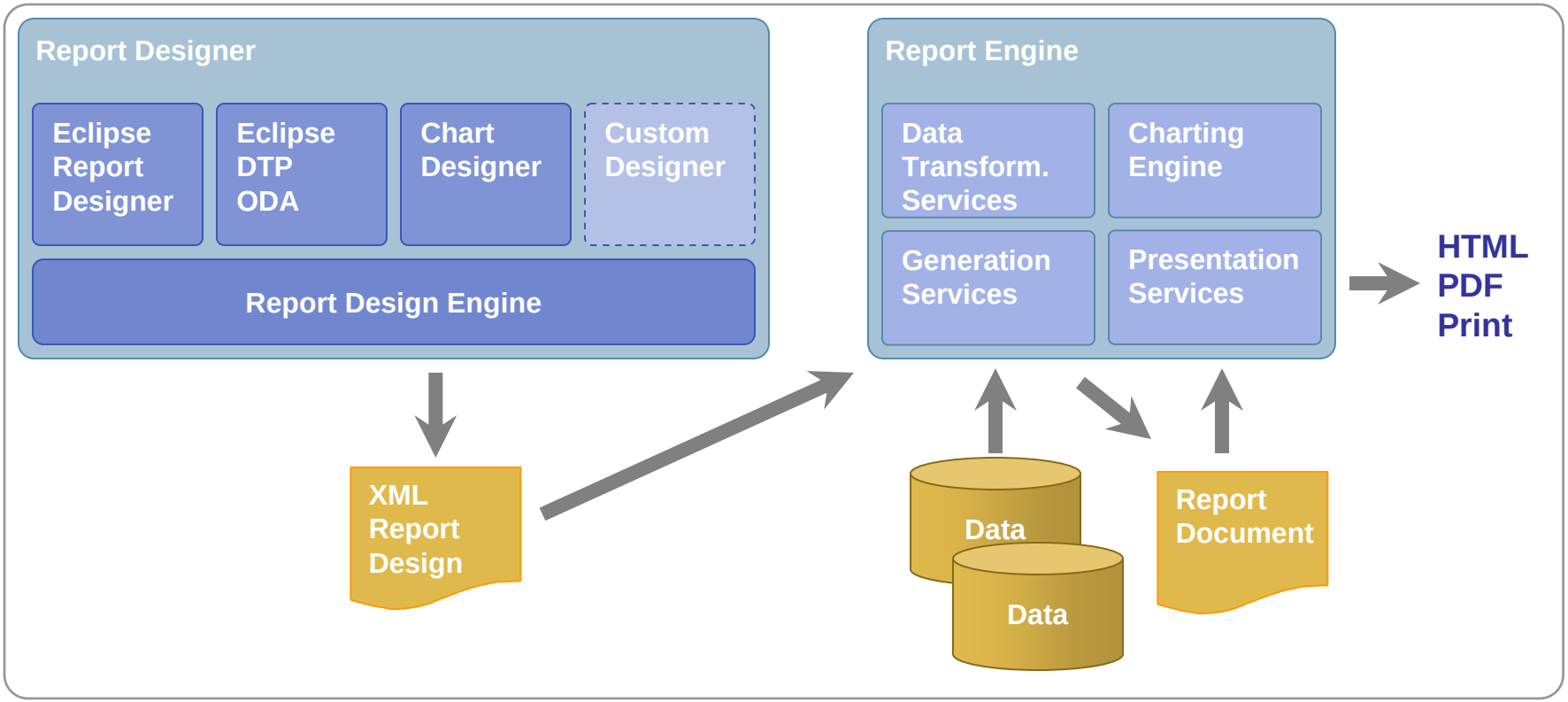
High Level BIRT Architecture



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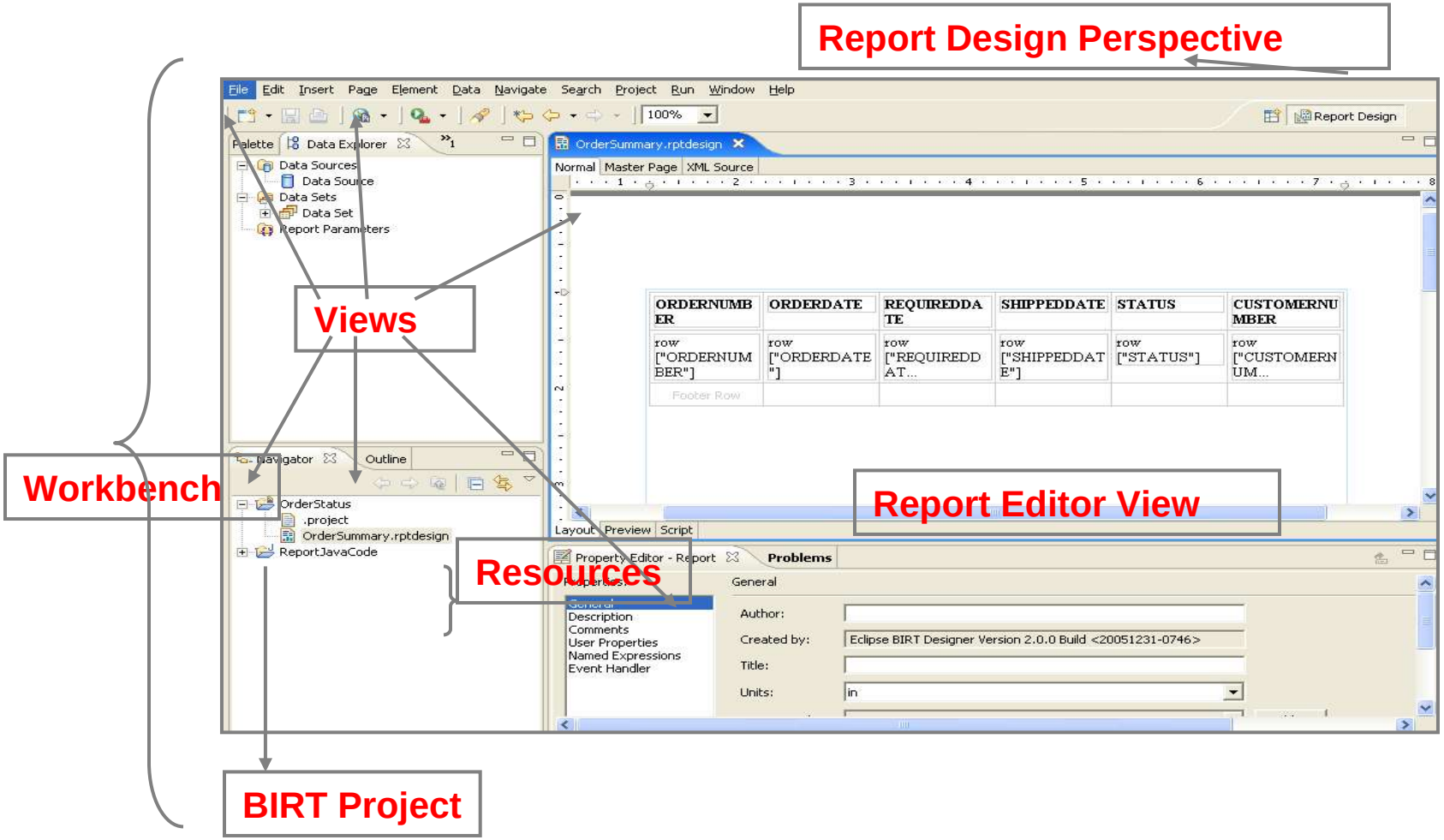
Features at a Glance

Easy to use; web centric design metaphor



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BIRT Market Momentum and Uptake

Sample Adopters To Date Since BIRT 1.0 Released in June 2005

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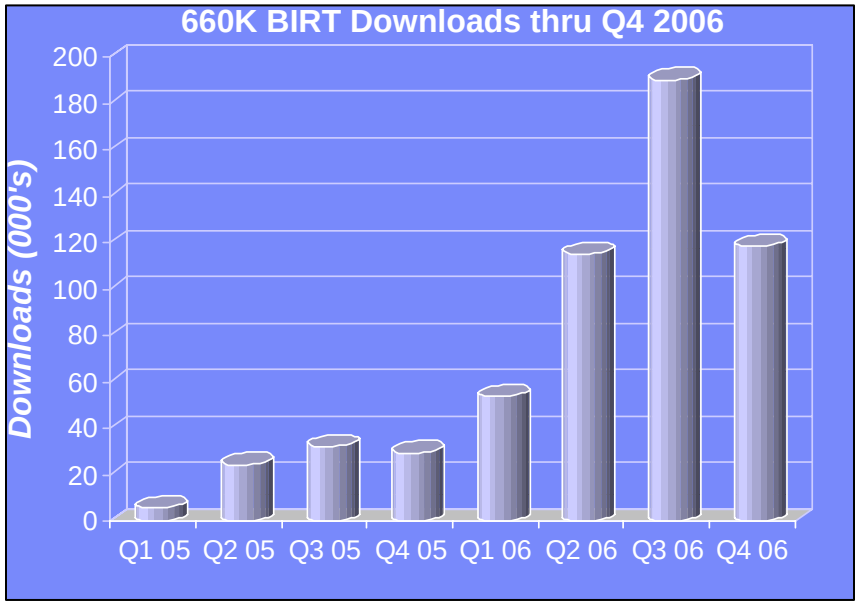
BIRT Market Momentum and Uptake



"From my research, BIRT is a really big deal, it has legitimate traction in the market."
Stephen O'Grady, RedMonk

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The BIRT Web Application

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What is the BIRT Web Application?

- Set of tools
  - Makes it easy to embed BIRT Reporting functionality in J2EE web applications
- It contains -
  - BIRT engine
  - BIRT viewer
  - BIRT chart engine
  - BIRT tag library
- Leverages Web Tools Project (WTP)

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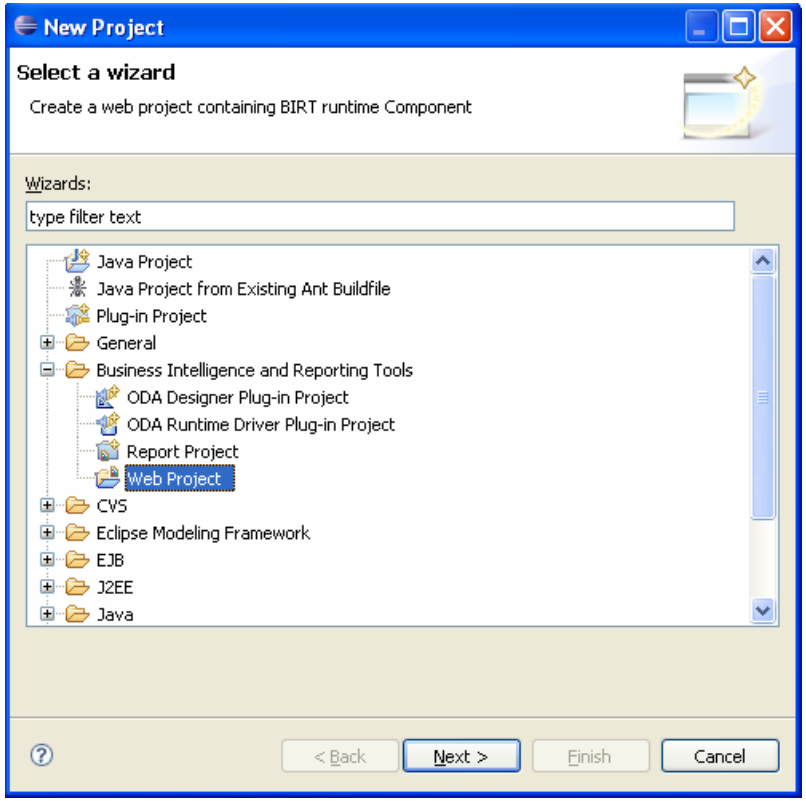
Creating a BIRT Web Application

- Wizard allows a user to create a new BIRT Web Project



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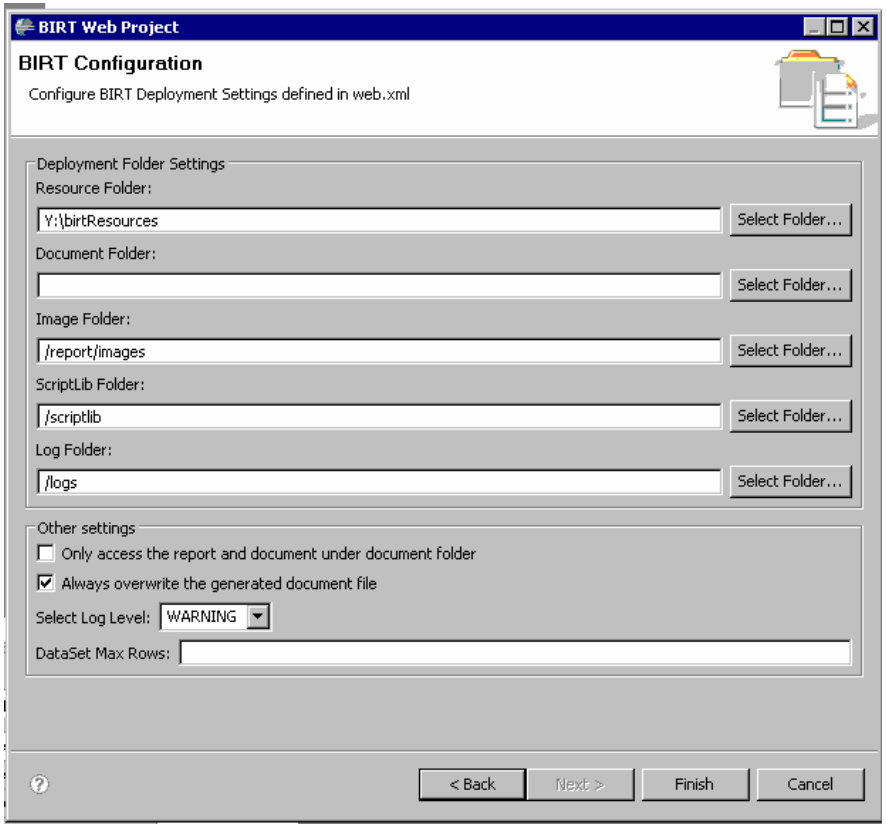
Creating a BIRT Web Application

- Configuration dialog allows user to configure web.xml



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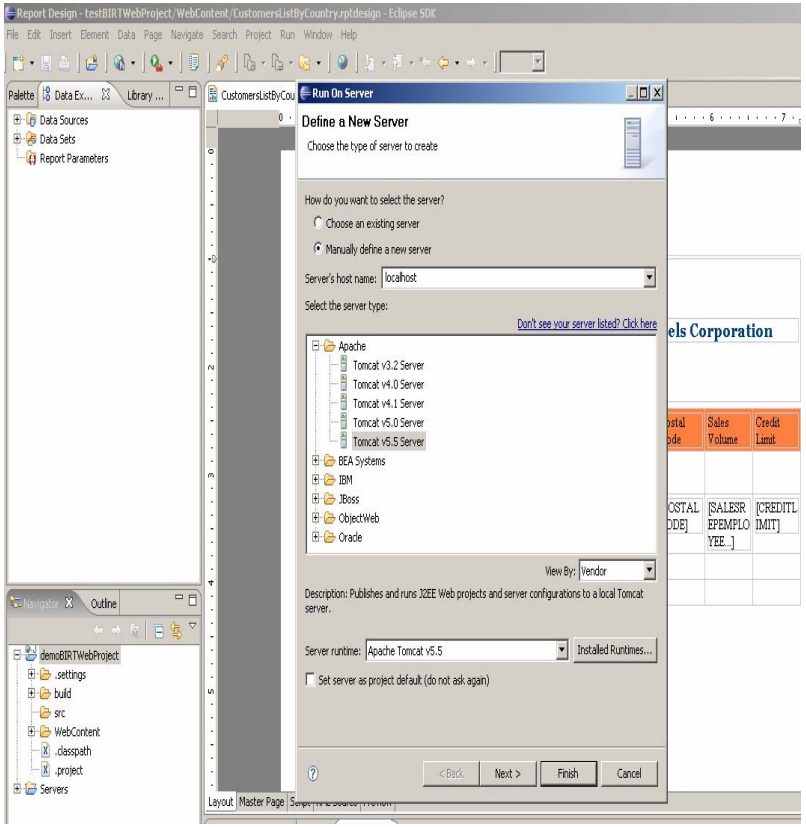
Deploying a BIRT Web Application to an Application Server

- Easy to use wizard
- Deploys web application to specified application server
- Supports application servers such as Apache Tomcat, BEA WebLogic, IBM WebSphere, JBoss and more



Demonstration 1 - Creating a BIRT Web Application

- Create a new BIRT Web Project
- Create a new report design
- Deploy BIRT Web Application to an application server
- View the BIRT Report output

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Demonstration 2 - Integrating BIRT Into Existing Web Applications

- Create a new standard Dynamic Web project
- Import BIRT Report Engine & Viewer into the web project
- Deploy BIRT Application to an application server
- View the BIRT Report output

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BIRT Tag Library

- JSP tag library
- Integrate BIRT Viewer functionality in a JSP page
- Defines the following tags
  - Viewer
  - Report
  - ParameterPage

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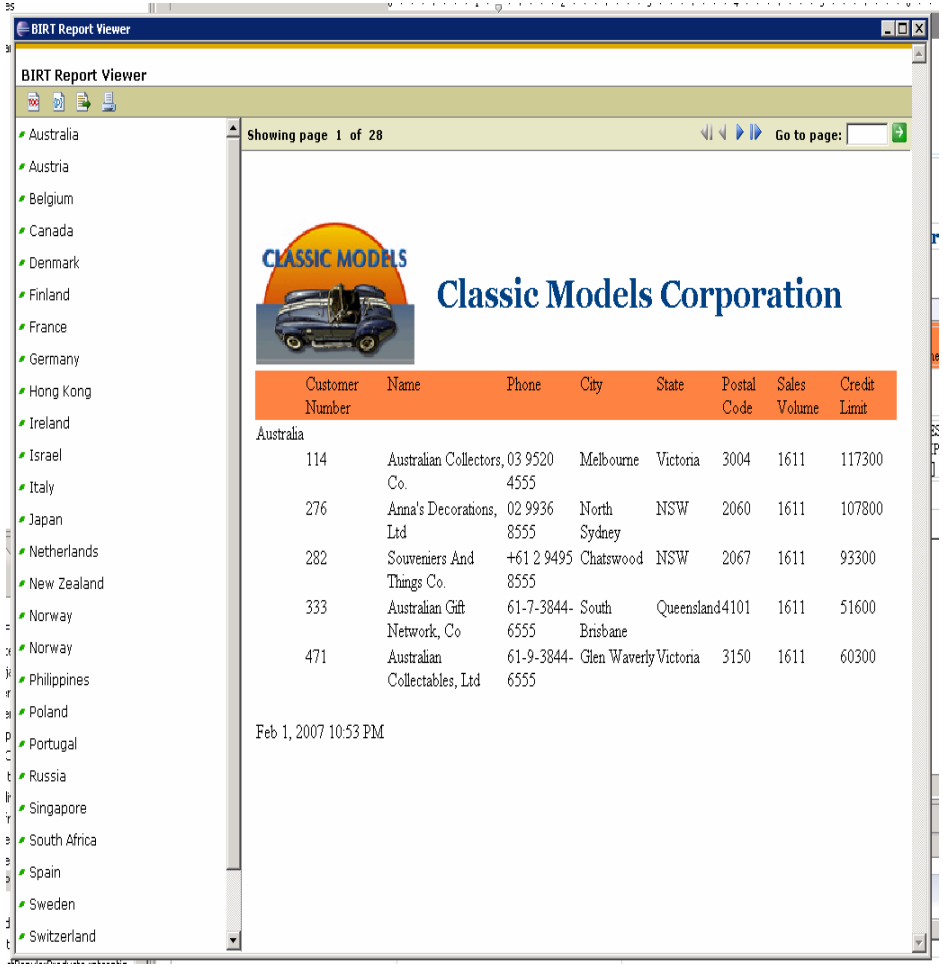
BIRT Tag Library – Viewer Tag

- AJAX based viewer
- Supports
  - Page navigation
  - Table of content view
  - Data export
- Input
  - Report design
  - Report document
- Option to prompt for report parameters



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BIRT Tag Library – Report Tag

- Non Ajax based viewer
- Input
  - Report design
  - Report document
- Supports
  - Output formats - HTML, PDF, MS Word, etc.
  - Reportlets
  - Page range and page number
- Option to prompt for report parameters

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BIRT Tag Library – ParameterPage Tag

- Prompts for report parameters based on the report design
- Allows users to write custom parameter page
- Supports
  - Cascading parameters
  - Dynamic parameters

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Demonstration 3 – BIRT Tag Library

- Create a new JSP page with BIRT tags
- Add a Viewer tag
- Access the JSP page

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Installation options

- Eclipse Update manager
- Download birt-report-designer-all-in-one package from http://download.eclipse.org/birt/downloads/build_list.php
- Download birt-wtp-integration package from http://download.eclipse.org/birt/downloads/build_list.php

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BIRT Related Resources

- 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

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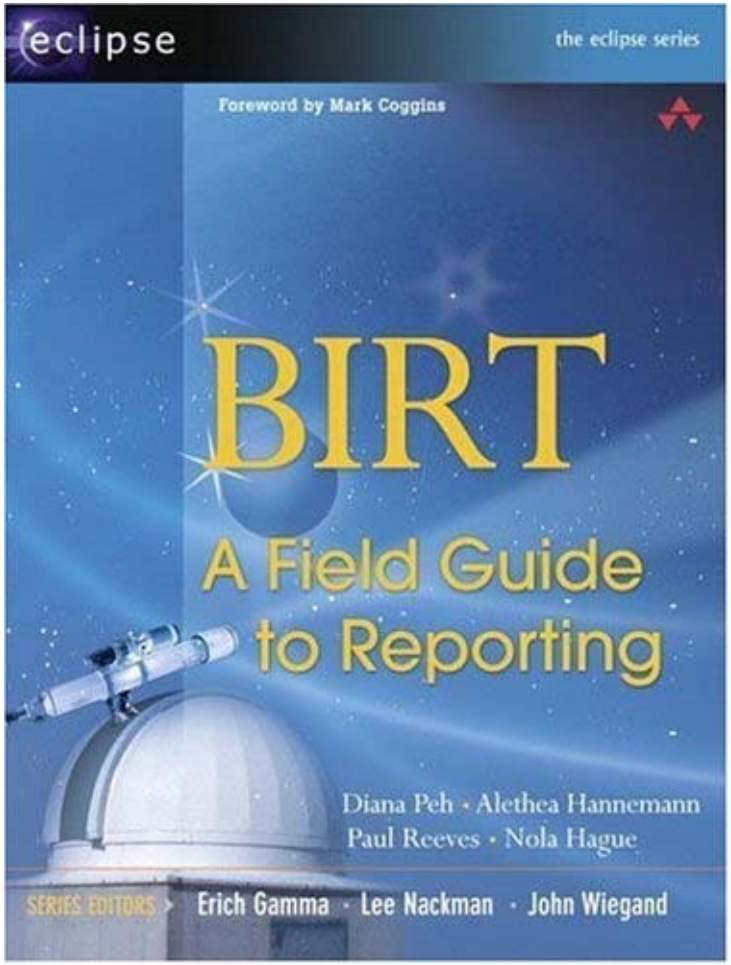
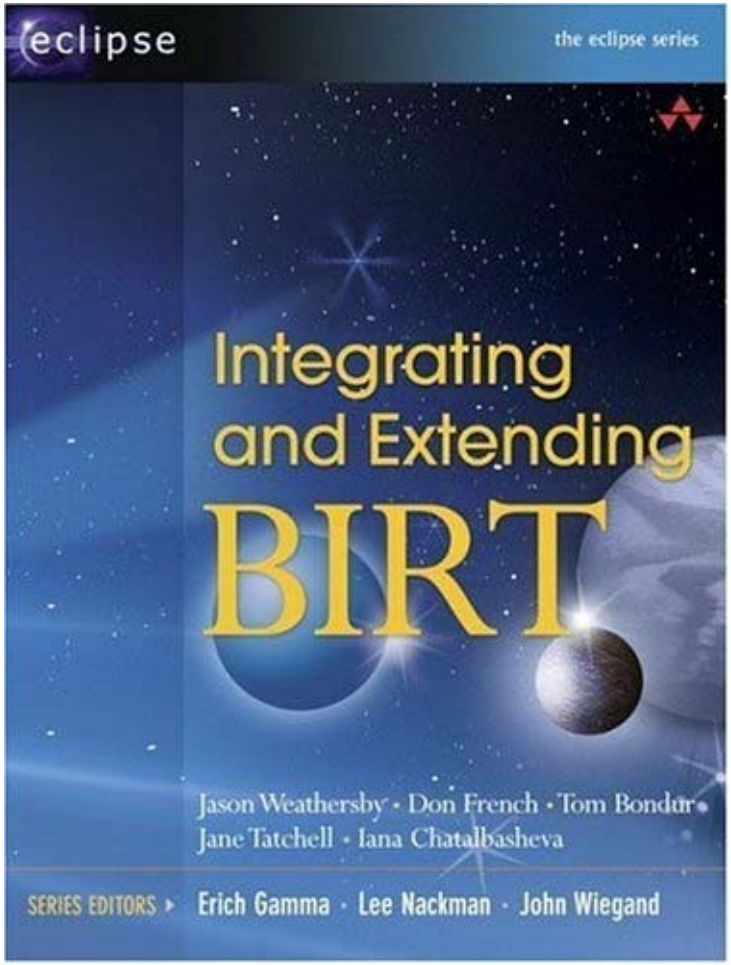
Publications Available From Amazon





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BIRT Related Sessions

1. **(3644) Building Reports with BIRT · Long Tutorial**
   Monday, 08:00, 10 hours | Room 3
2. **(3612) Extending BIRT · Short Tutorial**
   Monday, 13:30, 2 hours | Room 17
3. **(3614) Report Integration - The BIRT API's · Short Tutorial**
   Monday, 16:00, 2 hours | Room 17
4. **BIRT: Introduction to the Eclipse Business Intelligence & Reporting Tools Project · Long Talk**
   Tuesday, 13:30, 45 minutes | Room 1
5. **Deploying Eclipse BIRT Report Web Applications using Eclipse WTP · Long Talk**
   Wednesday, 10:15, 45 minutes | Room 2
6. **Charting with Eclipse BIRT · Long Talk**
   Wednesday, 11:15, 45 minutes | Room 2
7. **Integrating Java code with Eclipse BIRT · Long Talk**
   Thursday, 10:15, 45 minutes | Room 2
8. **Dynamic BIRT Reporting · Long Talk**
   Thursday, 11:15, 45 minutes | Room 2
9. **Implementing a BIRT ODA driver for an XML Database · Short Talk**
10. **What's New For BIRT 2.2 · Demo**

Please check for any updates to the schedule listed here.

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Q/A

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