

The Market Leader in Open Source Business Intelligence

Web 2.0 Business Intelligence with JasperSoft

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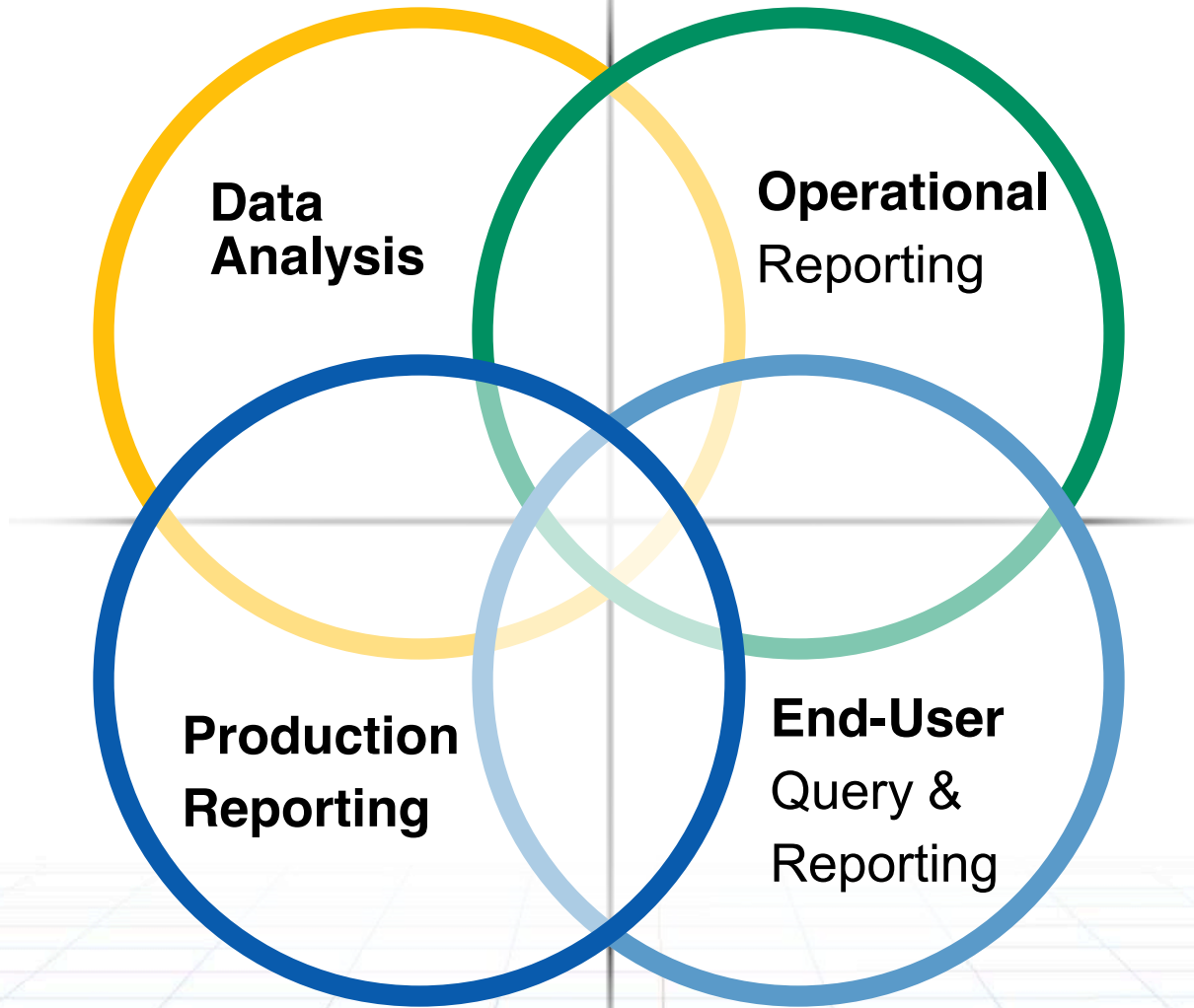
Snapshot

- ▶ Company and products founded in 2001, privately held
- ▶ Headquartered in San Francisco, CA
- ▶ OEM'd by MySQL to deliver operational and production reporting
- ▶ 8,000+ commercial customers in 96 countries
- ▶ Millions of downloads, tens of thousands of registered users, hundreds of JasperForge projects
- ▶ More than 30 global partners including:



JasperSoft Focus

Four Core BI Usage Areas



JasperSoft Business Intelligence Suite

JasperReports



Report
Development
Library



Developers

JasperStudio



Graphical Interactive
and Production Report
Designer



Developers
& Power-
Users

JasperServer



Interactive, Ad Hoc, and
Managed Query and
Reporting Server



Business
Users

JasperAnalysis

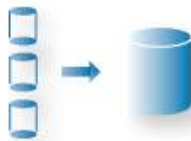


Interactive OLAP
Data Analysis



Business
Users

JasperETL



High Performance
Data Integration



Developers
& DBAs

The Power and the Usability

Report Design

Power

iReport

JasperServer
Ad Hoc

Usability

The Power and the Usability

Data Analysis

Power

JasperAnalysis

JasperServer
Integrated Analysis

Usability



What Web 2.0 Means to JasperSoft

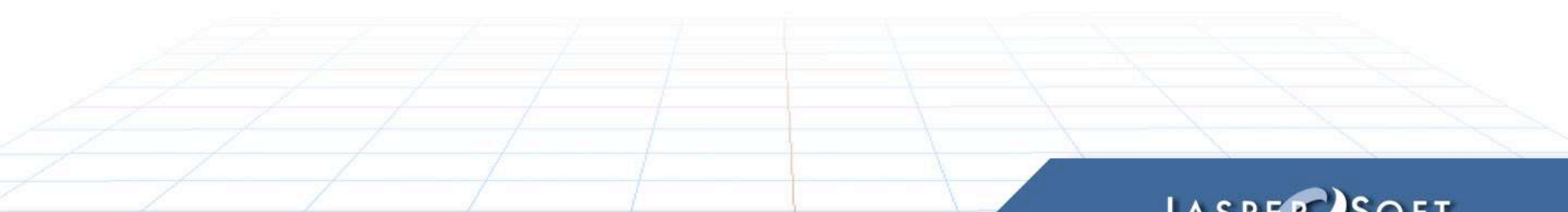
- **Web 2.0**

- Web 2.0 is Ajax plus other cool rich-client-like capabilities in a Web browser
 - Interactive web (e.g. “drag & drop”)
 - Composite applications (e.g. “Mash-ups”)
 - Embeddable into other sites (e.g. social networking), etc.

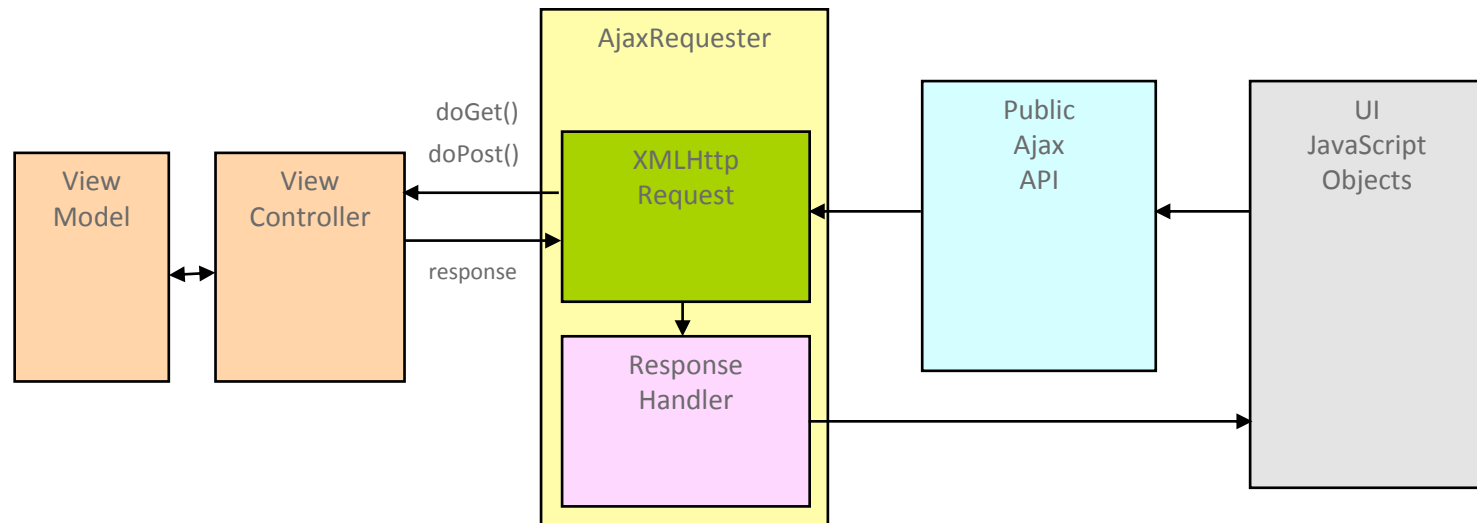
- **What is Ajax?**

- Asynchronous JavaScript and XML
 - Techniques used for creating interactive web applications
 - Exchange small amounts of data with the server “behind the scenes” (asynchronous)
 - Entire web pages do not have to be reloaded
- JavaScript is the usual scripting language
- Cross-platform across operating systems and browsers
- Free and open source implementations of suitable frameworks and libraries

Architecture



JasperSoft's Ajax Engine



- **Proprietary, pluggable JavaScript module**
 - Manage requests from and responses to a web browser in an asynchronous fashion
- **Built around the XmlHttp API**
 - Potential to be extended to encompass alternate asynchronous transfer protocols as and when required

JasperSoft Ajax Engine Components

- **JasperSoft Public API**

- Designed for simplicity and ease of use
- Encapsulates the technology and details
 - Client applications can easily embed Ajax technology with little or no knowledge required on the part of the application developer

- **AjaxRequester**

- Internal heart of the JasperSoft Ajax Engine - JavaScript object supporting the public API
 - Incoming Ajax requests are administered by the public API
 - Create an instance of an AjaxRequester to manager the life cycle of the request
 - Culminates in an update to the requesting client (when appropriate)

- **AjaxUpdate() Function**

- Instantiates and manipulates the AjaxRequester object based on incoming requests

- **Response Handler**

- Take the streamed response generated by the RequestHandler and feed it back to the requesting client in the appropriate manner

- **Error Handler**

- Includes a placeholder for an ErrorHandler function which can be optionally passed in via the public API

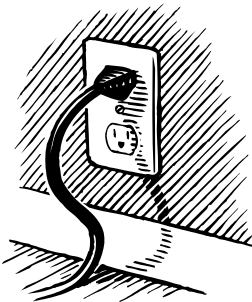


Ajax: Off-the-Shelf vs. Homegrown



• Off-the-Shelf

- Dojo library is quite heavyweight
 - Large JavaScript upload affects performance
- Google Gears is great but some loss of control
 - Emits JavaScript , but can't control exact JavaScript
 - Not pluggable - e.g. ability to plug-in a drag & drop component



• Homegrown

- Pure Ajax very lightweight and easy to implement
 - Maximum extensibility, totally pluggable
 - Maximum platform independence - test the capability, not the specific version e.g.

```
if tree node = "Sales Report"
    var label = treeNode.innerText?
    treeNode.innerText;
    TreeNode.textContent
```

JasperSoft Ad Hoc System Architecture

Rich, Intuitive Web-Based User Interfaces for Business Users



- **Leveraging web 2.0 technologies**
 - Present the user with an interactive, continually updated view
 - Based on real time data
 - Directly modifiable using drag and drop actions and point and click menus
 - Homegrown pluggable drag & drop engine
 - Using Nanotree for tree control
 - Customized by adding drag & drop and dynamic icon substitution e.g. file copy permission
- **Used across JasperServer Web UIs**
 - Report Designer
 - Tables, crosstabs and charts
 - Query Designer
 - Dashboard Designer
 - Repository Manager
 - Report parameter input controls, etc.

Enhanced Repository Manager

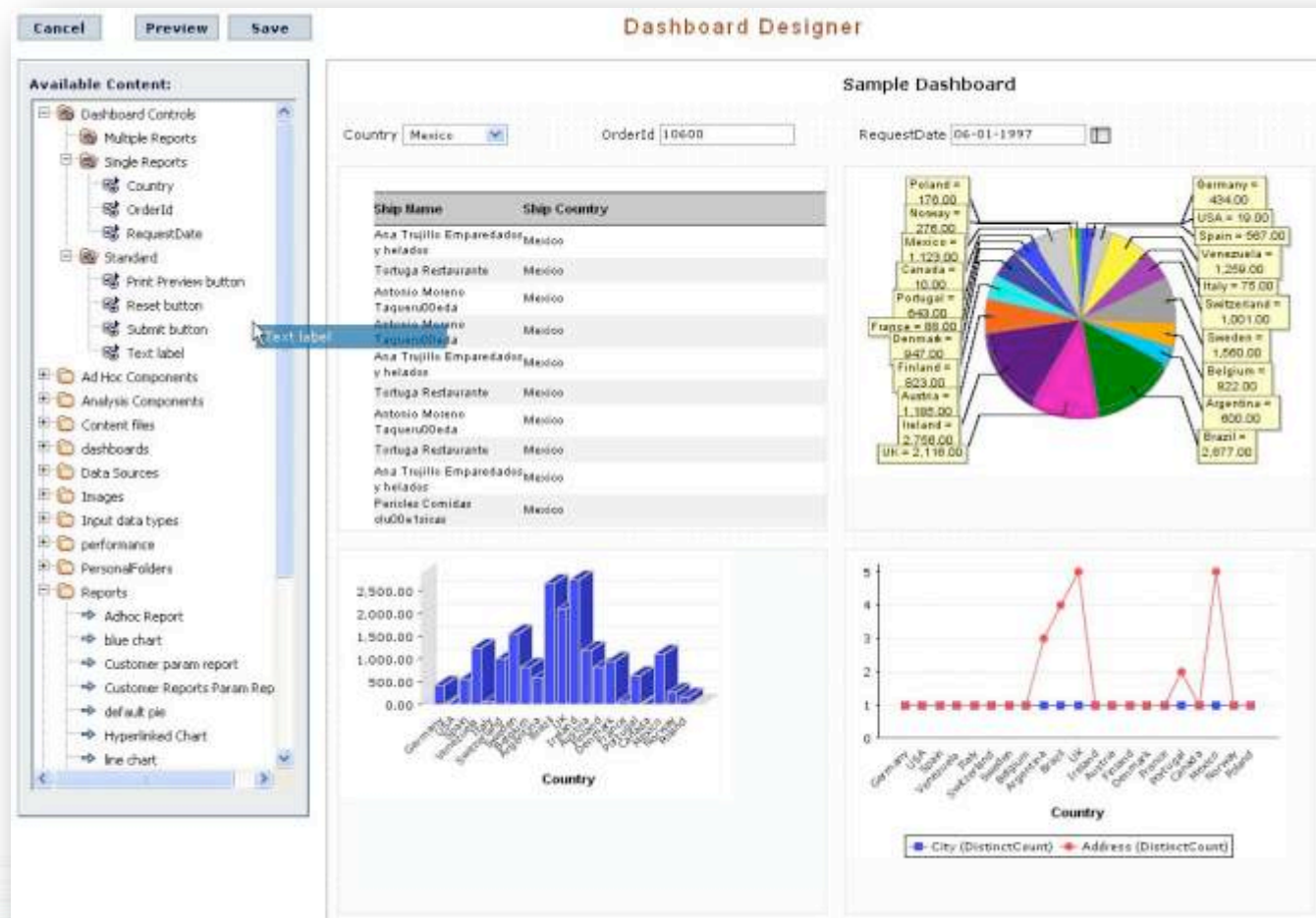
Repository Service and Standard User Interface

- Easier to use
- Intuitive tree control
- Web 2.0 drag & drop copy and move
- Improved icons / look & feel

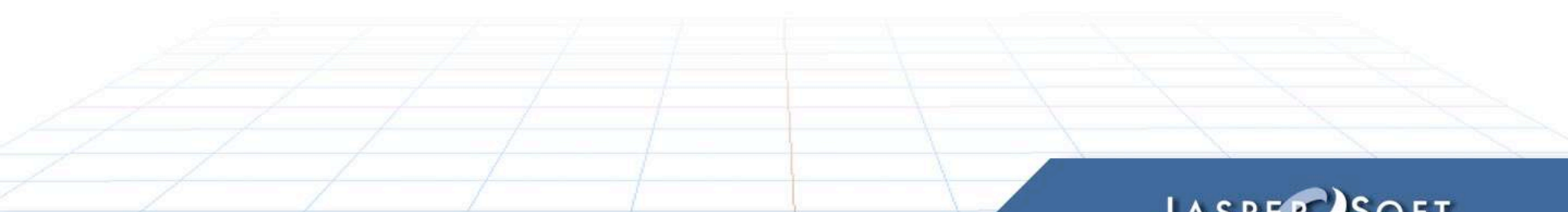


Web 2.0 Dashboard Builder

- **Drag & drop reports onto Dashboard**
- **Dynamic resize & layout**
- **Global controls**
 - Input parameters
 - Other controls
- **“Twinkling” dashboards**
 - Dynamic frame refresh in seconds



Demo



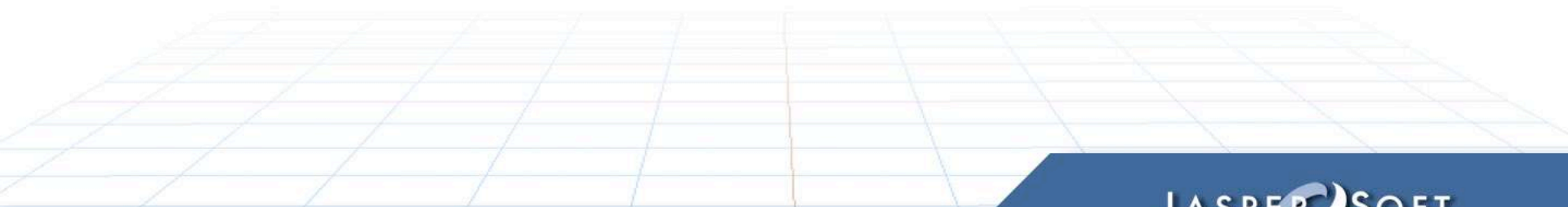
Support for Enterprise Portals



Example of two JasperServer reports and a list of reports running within a Liferay instance.

- **Optimal for showing information from multiple sources**
- **JSR-168 portlet for running reports within Liferay**
 - Includes support for single-sign on, selecting reports, pagination, and input controls
 - Portlet integrates with JasperServer via Web Services
 - Allows it to run with Liferay in any environment
- **Built-in Liferay portal server**
 - Out-of-the-box usability with over 60 portlets pre-bundled
 - Built-in Content Management System (CMS)
 - Collaboration suite
 - Personalized pages for all users
 - Benchmarked as among the most secure portal platforms using LogicLibrary's Logiscan suite

Demo

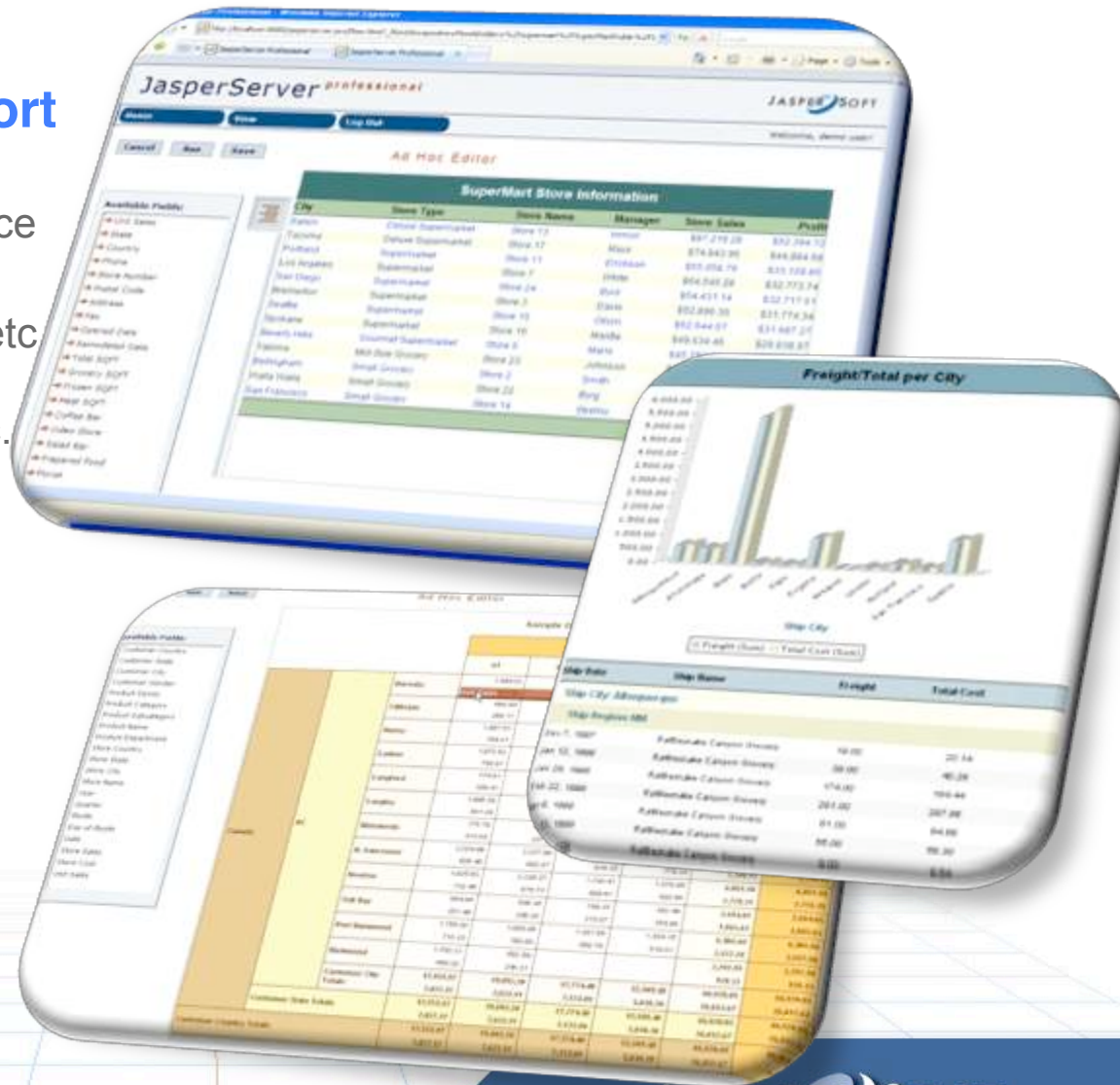




Web 2.0 Ad Hoc Reporting

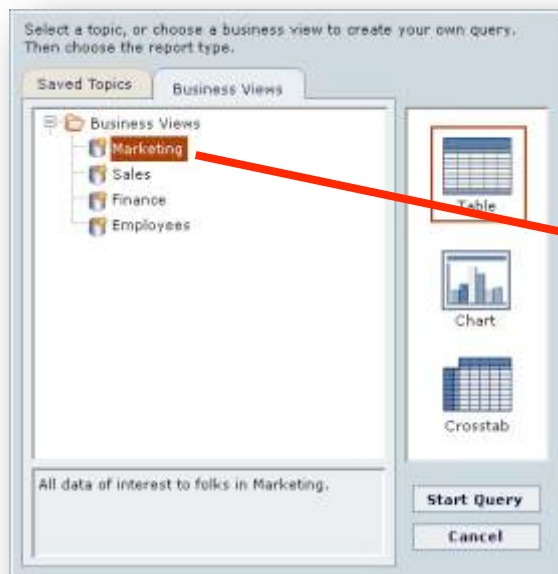
Business User Self-Service

- **Intuitive web-based report design**
 - Drag-and-drop AJAX interface
 - Tables and crosstabs
 - Charts: pie, bar, line, area, etc
 - Point & click aggregation functions: sum, average, etc.
 - Custom fields & formulas
 - WYSIWYG + live data
- **Customizable user interface**
 - Ad Hoc Editor HTTP API
- **Semantic layer**
 - Insulate the user from the technical concepts such as tables/columns/joins

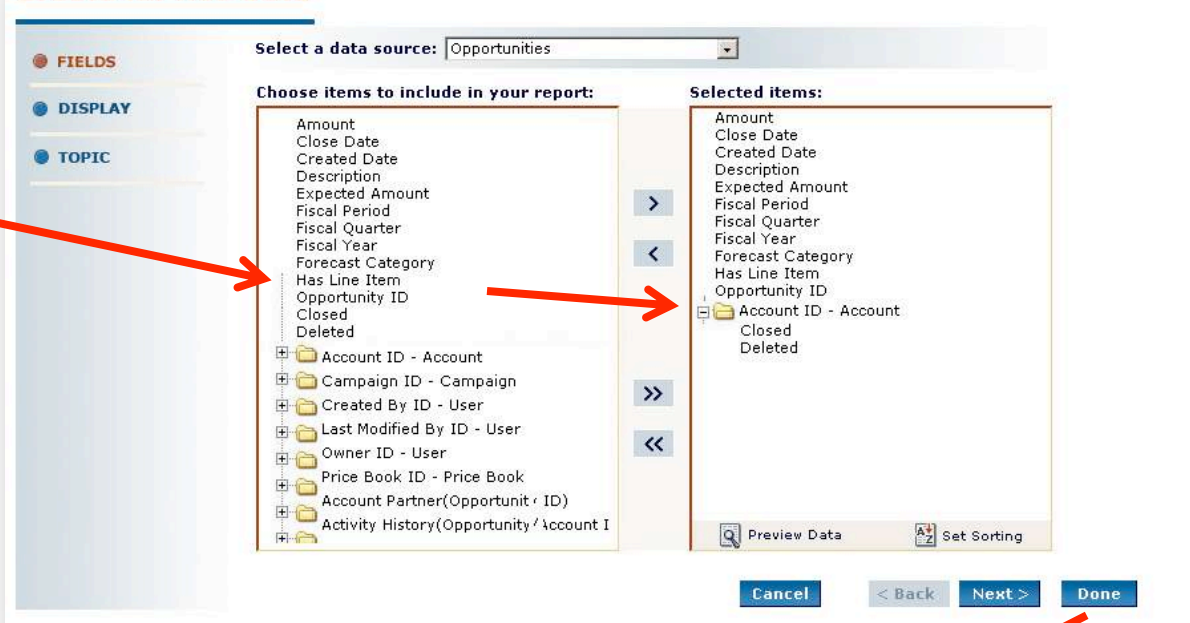


Business User Ad Hoc Query

Business View of Data Source



Create Ad Hoc Data



Ad Hoc Editor

Sample Grid:

	Opportunity	Account	Owner	Amount	Close Date	Created Date	Forecast Category
Opportunity	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Account	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Owner	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Amount	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Close Date	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Created Date	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Forecast Category	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Has Line Item	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Opportunity ID	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Closed	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Deleted	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Account ID - Account	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Campaign ID - Campaign	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Created By ID - User	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Last Modified By ID - User	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Owner ID - User	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Price Book ID - Price Book	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Account Partner(Opportunity / ID)	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Activity History(Opportunity / Account I	1000000	1000000	1000000	1000000	1000000	1000000	1000000

Business User Ad Hoc Query & Analysis

- **Business user abstraction of any data source**

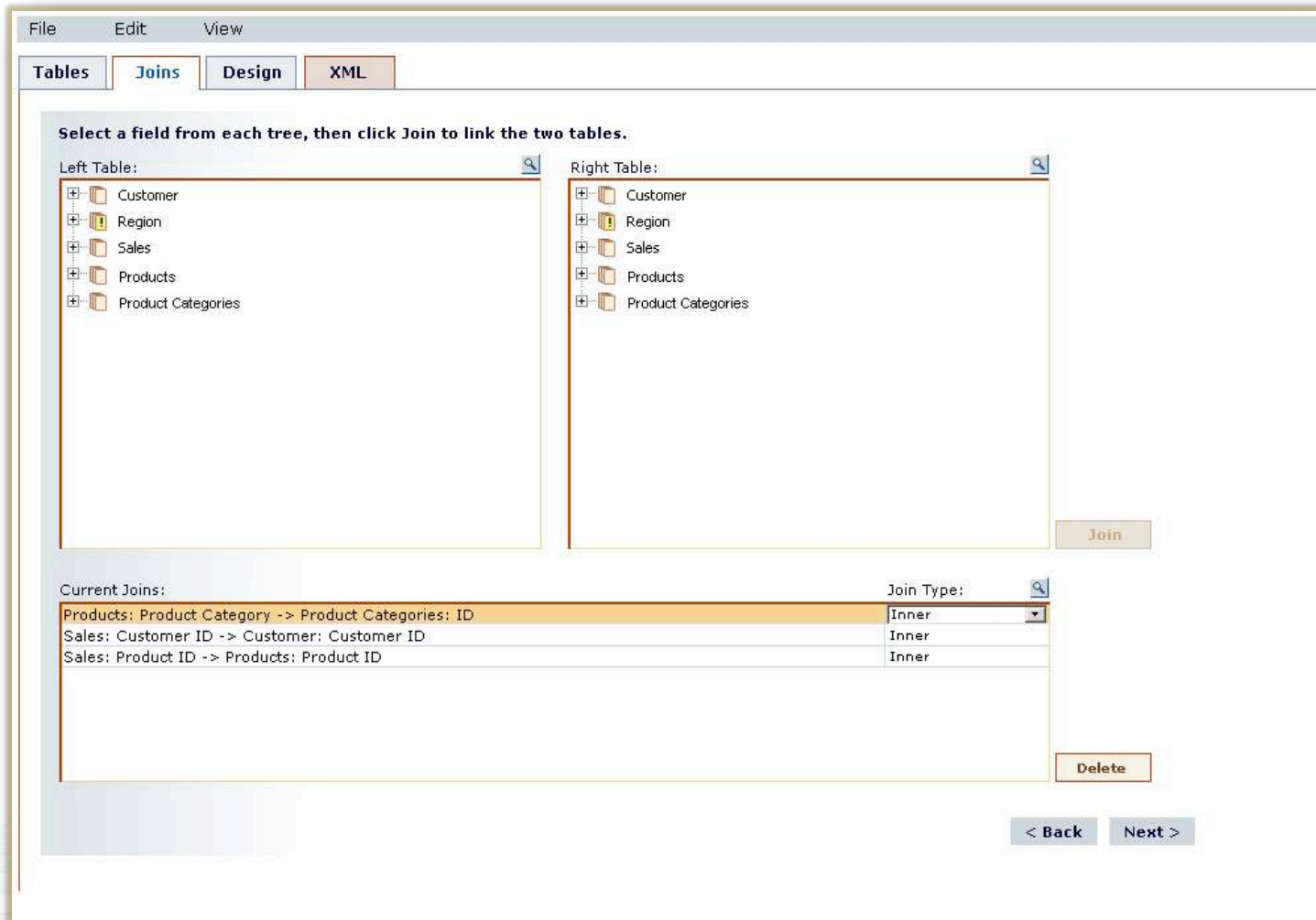
- Metadata Domains and graphical designer
 - Data sources, dimensions, measures, joins, groups, filters, hierarchies
 - Calculated and derived fields
 - Handles complex and large schemas
 - Auto-generation / graphical designer / validation
- Row/column (cell) level security by user/group
- Secure repository object + portable open XML format

- **Web 2.0 Ad Hoc Query for Business Users**

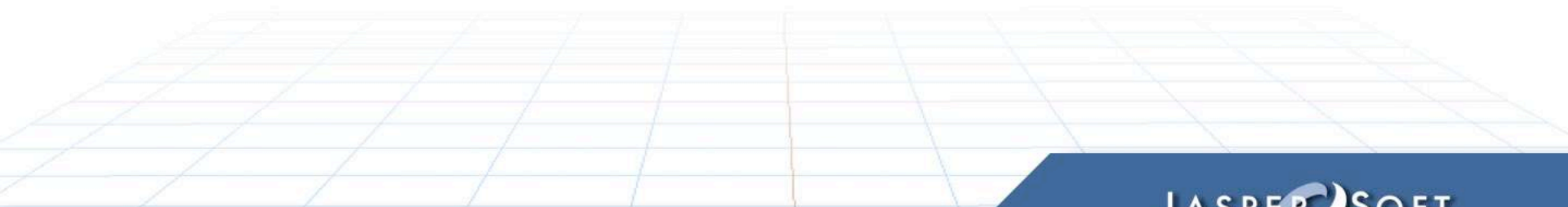
- Drag & drop dimensions, measures, filters
- Query generation engines
 - Query language independent architecture
 - Initially “SQL” and “Custom” implementations
 - Query governor
- Save-as Topic (re-use query for multiple reports)
- Seamless transition to ad hoc report designer
- JasperStudio / iReport on metadata Domain data sources



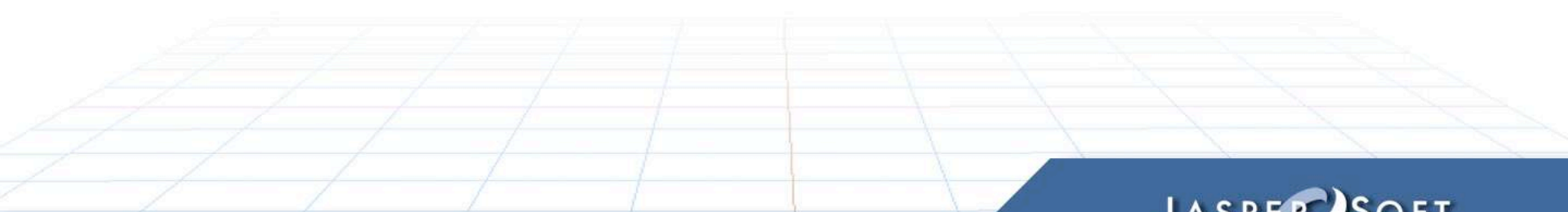
Web-Based Domain Designer For DBAs / IT Users



Demo



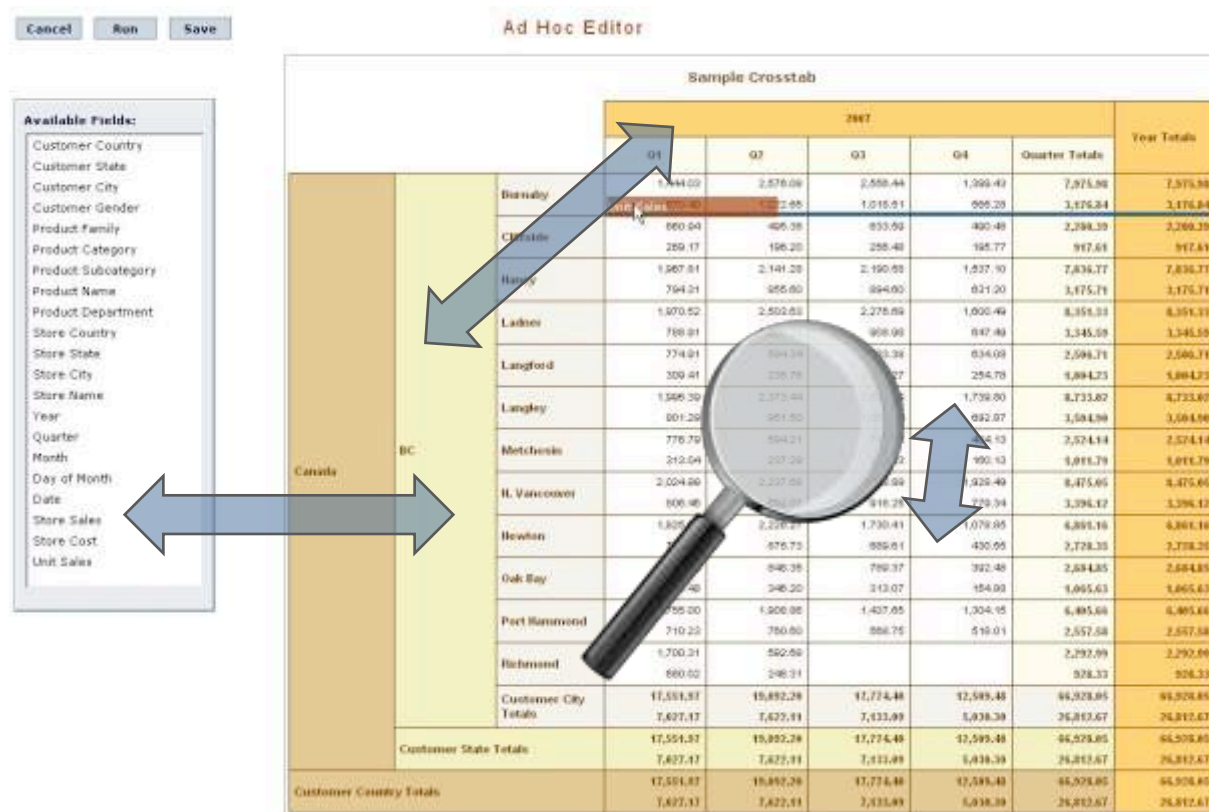
Sneak Peak - Futures



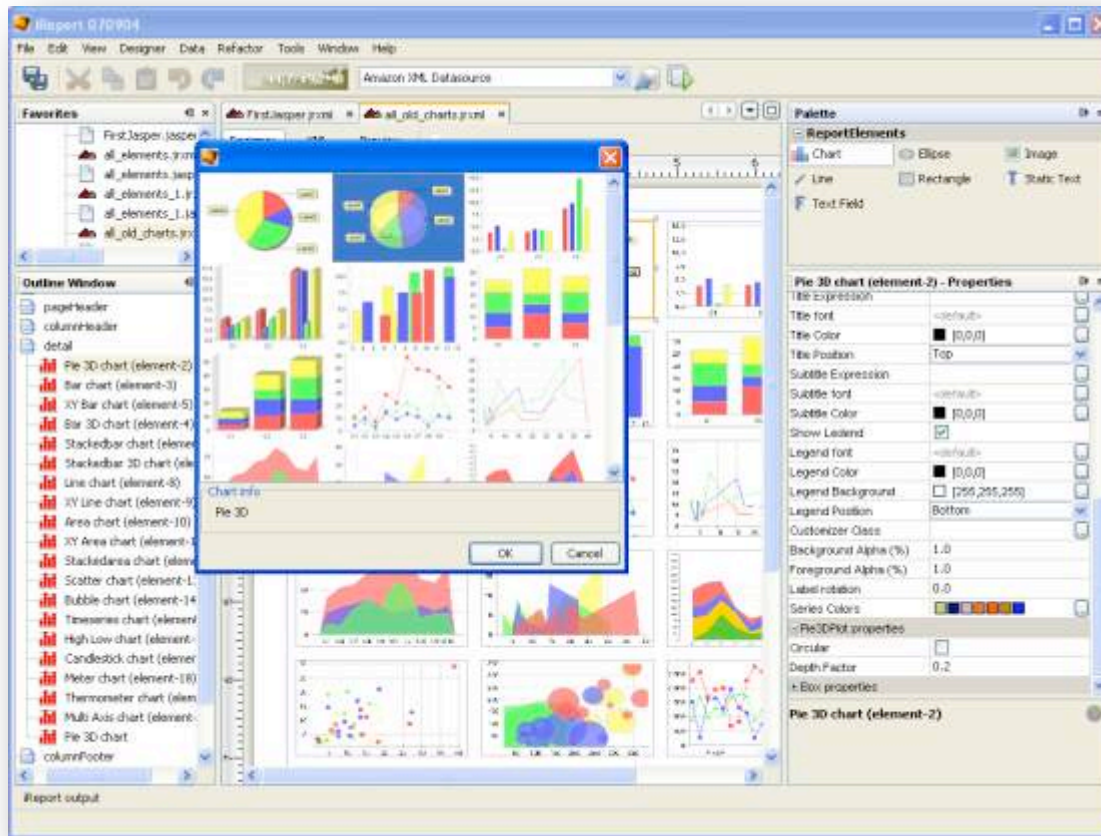
Web 2.0 Integrated Analysis on Reports

Lightweight Analysis Complement to JasperAnalysis

- **Uses metadata Domains**
 - Hierarchies
- **Extension of current Web 2.0 ad hoc**
 - Drag in/out dimensions & measures
 - Pivot
 - Drill
- **Scalability**
 - Queries processed by datasource (e.g. RBDMS)
 - In-memory caching



iReport for NetBeans

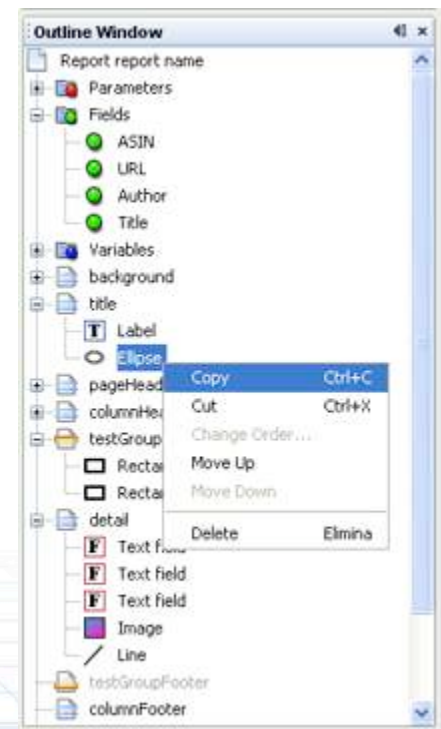
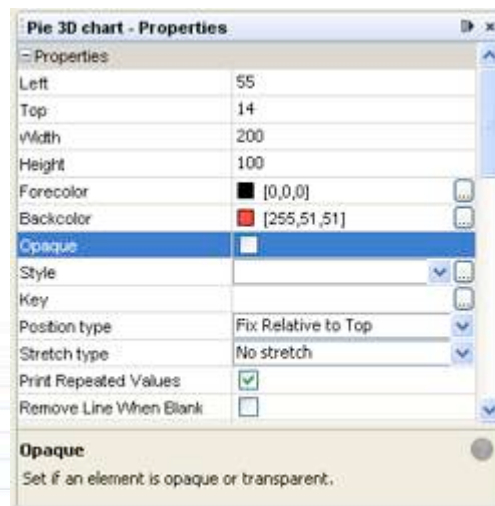
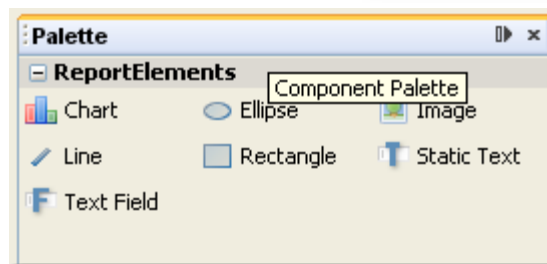
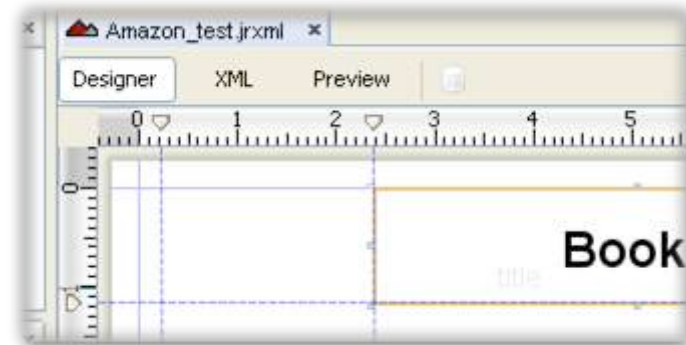


Most Popular:

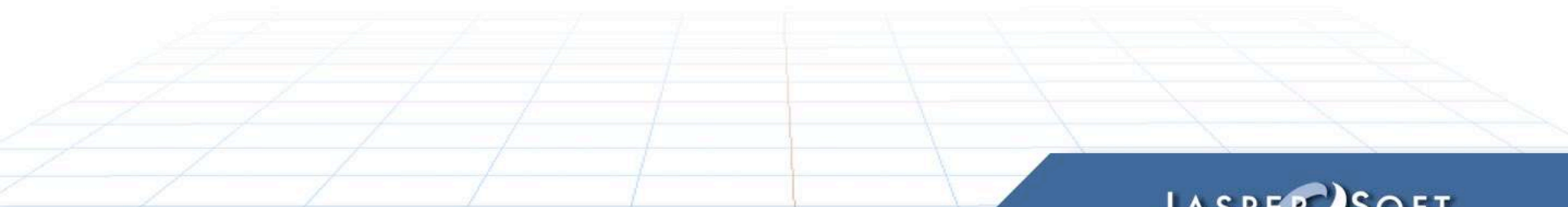
1. iReport
2. Visual Web Page La...
3. Plugin Portal Upda...
4. Teniga Javascript ...
5. JasperReportViewer
6. Spring Netbeans Mo...
7. Log Management
8. NetBeans OpenGL Pack
9. Drag-And-Drop
10. Substance NetBeans...

iReport for NetBeans

- **Based on NetBeans 6.0**
 - Standalone rich-client or IDE plug-in
- **Ease of use improvements**
 - Extended drag & drop
 - Integrated preview window
 - New integrated xml editor for "hardcore" designers
 - New rulers to align elements using guidelines.
 - Main designer has been totally rewritten using the Sun's Visual Library API providing improved zoom capabilities and a more precise grid to align elements
 - Movement precision has been increased when working with zoom ratios other than 100%
 - New outline window
 - Drag elements from a band to another
 - Reorder elements
 - Copy and paste nodes
 - New report elements palette
 - New property sheet with Undo/Redo changes



Demo



Q & A

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