

# JReport Enterprise Server

## Overview

**JReport Enterprise Server** empowers applications with customized reporting capabilities. Built completely in Java, JReport deploys into any J2EE application server and seamlessly integrates into any application, scales to any workload, and provides complete report management, distribution, and administrative functionality. JReport Server enhances applications by providing users with a simple, intuitive, consistent interface for accessing and interacting with business critical reports.

## Seamless Integration

### 100% Java

JReport Server is a 100% Java report server that provides a low total cost of ownership by leveraging existing IT investments. JReport takes advantage of the portability, scalability, and ease of integration associated with J2EE technology to provide a powerful, flexible reporting solution that fits perfectly within any architecture. JReport is different from other solutions in that it provides a base feature set out-of-the-box, which can be used as-is or customized. Since JReport can run on any OS, any hardware, and any application server, up grades are not required when changes in hardware or OS configuration occur.

### Cost-Effective Integration

JReport's Java architecture enables direct access to legacy systems and other enterprise data through the use of user-defined data sources. This means that report development and deployment in diverse environments no longer requires the use of costly Enterprise Information Integration (EII) products or services. JReport can be easily integrated with any application, data can be easily shared throughout the enterprise, and reporting requirements are satisfied for all audiences.

### JSP Tag Library

JReport provides a collection of reusable embedded and component tags that can be incorporated into Web applications. Using these tags, developers can easily embed JReport's entire DHTML interface or components of it directly into an application interface in minimal time without resource intensive efforts. Component tags include:

- Report outputs
- Tool and Menu bars for easy access to commonly used functions and commands
- Interactive table of contents for dynamic navigation to any component or section

The JSP's provided in JReport are easily modified and do not require Java programming experience. JReport's facilitation of this process makes development simpler, enabling resources to focus on core application function and presentation.

Order ID	Product Brand Name	Order Date	Due Date	Ship Date	Total of Goods	Total
3001	Agfa	4/18/2005	5/19/2005	5/20/2005	\$2,543.50	\$2,543.50
3002	Canon	4/18/2005	5/19/2005	5/20/2005	\$1,965.00	\$1,965.00
3003	Casio	4/20/2005	5/20/2005	5/21/2005	\$1,000.00	\$1,000.00
3004	Corliss	4/20/2005	5/20/2005	5/21/2005	\$787.50	\$787.50
3005	Epson	4/21/2005	5/21/2005	5/22/2005	\$3,055.00	\$3,055.00
3006	Fujifilm	4/22/2005	5/21/2005	5/22/2005	\$1,375.00	\$1,375.00
3007	HP	4/23/2005	5/22/2005	5/23/2005	\$2,375.00	\$2,375.00
3008	JVC	4/23/2005	5/24/2005	5/25/2005	\$529.50	\$529.50
3009	Kodak	4/24/2005	5/21/2005	5/22/2005	\$1,193.50	\$1,193.50
3010	Konica Minolta	4/25/2005	5/20/2005	5/21/2005	\$1,637.50	\$1,637.50
3011	Plyocera	4/26/2005	5/20/2005	5/21/2005	\$1,738.75	\$1,738.75

*JReport's tag library facilitates Web application development while embedded web controls enable end users to interact with and customize report views.*

## Interactive Web Controls

Interactive GUI objects can be embedded directly into Web-based reports or JSPs to modify, navigate and control report views. JReport control objects include images, buttons, text fields, check boxes, radio buttons, and drop-down lists. These objects can be defined to perform actions such as sorting, filtering, printing, and exporting. Using web controls, report developers can embed the functionality that is relevant to that report or set of users.

## Rich APIs

JReport offers a rich set of Java APIs and Beans to enable seamless integration of reporting capabilities into other applications. API's are available to integrate and customize several functions, such as:

- Scheduling: Pre-define report recipients and run time, or set reports to generate in response to event triggers.
- Security: Achieve single sign-on by authorizing and authenticating users against an existing security schema
- Report publishing preferences: Determine data view and report output

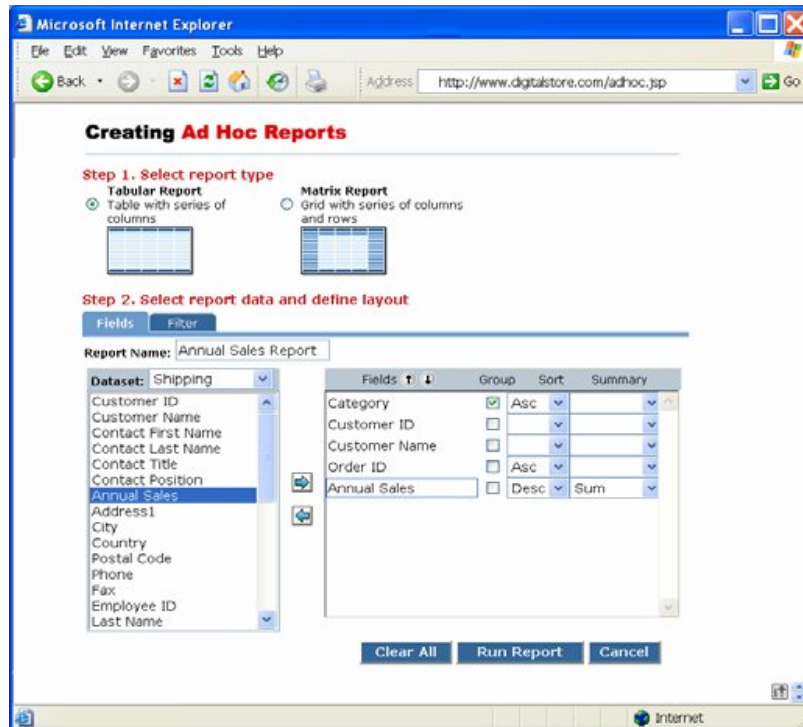
## Interactive, Actionable Reports

### Ad Hoc Reporting

JReport extends traditional reporting by empowering applications to deliver actionable ad hoc reports. From any Web browser, users can:

- Define report criteria at run-time
- Customize data views
- Run ad hoc queries to generate highly specific reports using existing report templates

JReport allows you to create an ad hoc reporting environment that is completely interactive, allowing users to dynamically modify data views to glean useful business information.



*Using JReport's ad-hoc feature, end users can create completely customized reports in real-time*

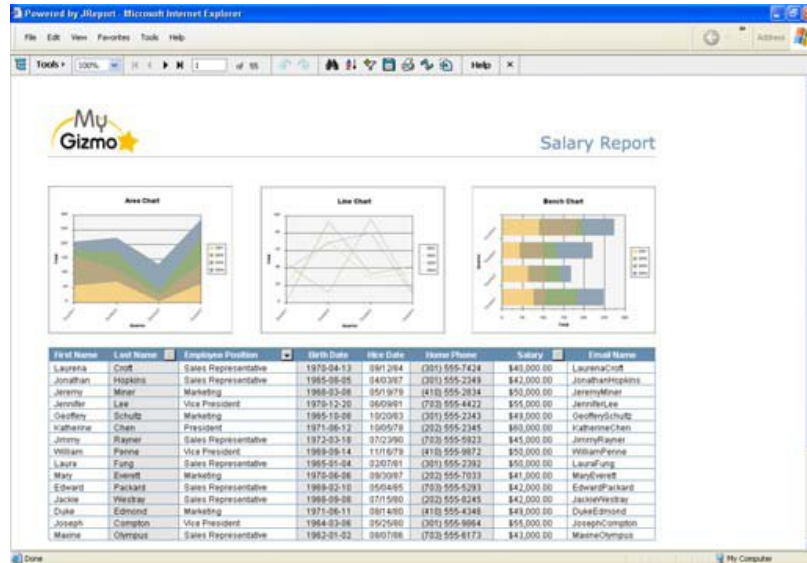
## Dynamic Paging and Searching

With JReport, any report is fully navigable and searchable. On-demand DHTML paging allows users to execute and view pages one at a time.

Standard navigation buttons like 'previous' and 'next' are used to view report pages sequentially, and users can navigate to a specific page by entering the page number in the navigation bar. JReport also provides context-sensitive search functionality that allows users to quickly locate critical data within a report. Using embedded hyperlinks, users can even drill to new reports, files or Web content.

## Limitless Data Drilling

JReport's flexibility allows users to control their data view and access additional details quickly and easily. Users can retrieve detailed or summary data on demand by drilling down for detailed information, across for context and scope, and up for the big picture.



JReport's DHTML output allows end users to interact with reports right from any web browser

## Real-time Modification

With JReport, reports can be output to an interactive DHTML format, giving users the ability to dynamically sort and filter data to create unique and personal report views. This level of interaction provides users with the ability to quickly view data in a meaningful way, which Empowers them to make accurate, timely, well-informed business decisions. Modified report views can be saved as individual report results and shared with others in any format.

## Rapid Deployment and Adoption

### Zero Client-Side Code

JReport requires zero client-side code, and because it deploys in a pure thin-client implementation, end users are not required to install any client application applets or plug-ins to be productive. JReport supports static HTML and interactive DHTML report outputs that can be embedded seamlessly in any Web application. Both HTML and DHTML reports can be viewed through any supported browser.

## **Zero Training Requirements**

Because JReport requires no client downloads, offers customizable user interfaces, and delivers intuitive reports, it can be deployed to any user audience inside or outside of your organization, with absolutely no training. Since JReport is so easy to use, customers enjoy:

- Rapid deployment time and high adoption rates
- Significantly reduced training costs
- The ability to empower authorized users with the information they need, when they need it.

## **National Language Support**

JReport provides National Language Support. When NLS is enabled, JReport automatically retrieves language-dependent text and formats numbers, currency and dates so report results match location settings.

## **A High Performance, Scalable Solution**

### **Multithreading Support**

JReport also supports multithreading to allow multiple report tasks to run concurrently. JReport's multithreading capability is fully customizable; the number of threads and amount of memory assigned to each thread can be defined in order to optimize performance among various reporting environments and workloads.

### **Scalability and Clustering**

JReport Server is built on a high performance engine that can handle any workload demand and easily scales from single-CPU to large, multi-CPU and clustered server environments. JReport is designed to support a proportional increase in system performance given an increase in system resources. Scaling up is as simple as plugging in a new server, powering it up, and executing JReport's clustering software, which automatically recognizes the new server and immediately begins utilizing it to process workloads.

### **High Availability**

To ensure system availability and ready access to JReport functions and report output, JReport Server enables fail over mechanisms that are fault tolerant to any single point of failure. Should the JReport Administration Server fail, all of its functions are automatically transferred to another server that is promoted to be the new cluster Administration server, and workload is re-distributed to the remaining servers in the cluster.

### **Performance Tuning**

JReport has several features that optimize performance by making the most efficient use of system resources. JReport provides the ability to fine tune the use of data buffers during report generation and to determine the location of temporary files. JReport also provides "push-down" technology, which distributes workloads between JReport Server and the database server to maximize data access and system performance.

### **Resource Caching**

Once a report is run, the report and all of its resources can be cached for future use. This feature is particularly useful as it greatly enhances performance in situations where the same reports need to be generated at regular intervals. JReport is also able to cache connections, allowing incoming reports to utilize existing connections, which helps to streamline the process of executing reports, and allows the system to run more efficiently.

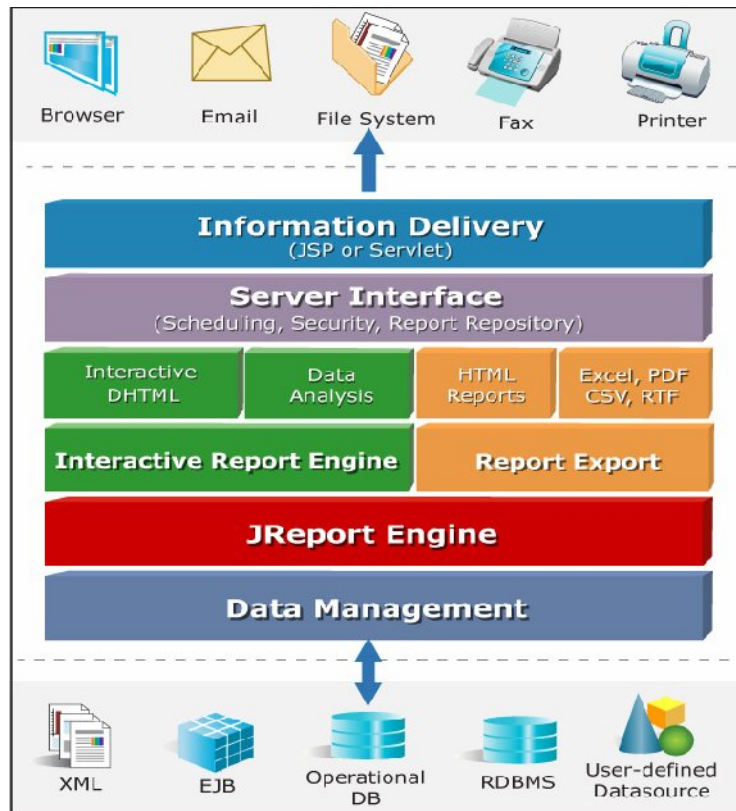
### **Load Balancing**

JReport supports several load balancing strategies and provides the ability for system administrators to define their own strategy. JReport Server allows tasks to be assigned to a new server in a pre-determined sequence, randomly, or based on current load. In addition, JReport can assign tasks to ensure that each server's load is adjusted according to its individual "weight" or capacity. JReport supports report level load balancing, which is fully compatible with the load balancing of most J2EE application servers.

This flexible approach to load balancing ensures the workload on each server is approximately proportional to its resources, resulting in optimal server performance.

## Server Management

JReport offers a Web-based system performance monitor that provides a real-time view of the status of individual servers as well as entire clusters. JReport also supports remote server administration, enabling server configuration and management from any Web browser



*JReport's 100% Java architecture is built for the web*

## Flexible Report Management

### Flexible Report Output

Today's demanding business environment requires information to be shared in a variety of formats. JReport let's you distribute reports in exactly the manner your audience needs. JReport can format and deliver reports in HTML and DHTML for Web viewing, PDF for printing, and XML for electronic processing. In addition, report results can be output to Excel with live charts and formulas, RTF, CSV, email, and fax.

### Support for Subscriptions and Caching

Reports can be deployed in a "subscription model" –once a report is run, it is saved in a specific location and a pre-defined list of users are notified via email with a link where the report can be viewed. Report caching is also supported, allowing one report output to be viewed by multiple users. Cached reports can be viewed at any time, so the report does not need to be rerun every time an individual user requests to view it.

## Easy Report Scheduling

Reports can be scheduled to run at the system level or deployed to an individual end user through a Web interface. Users can choose to schedule reports to run one time or at any recurring interval – hourly, daily, weekly, monthly, annually, etc. In addition, users can choose to run reports at a particular time on a particular day.

The screenshot shows the 'Conditions' tab of the JReport scheduler. The 'Time' section is active, showing options for 'Run After' and 'Run Until' with time and date pickers. The 'Day(s)' section is set to 'Monthly' with options for 'Day 1 of every 1 month(s)' or 'The first Saturday of every 1 month(s)'. The 'Time' section is set to 'update at' with a time picker for 9:00 AM. A checkbox for 'Run missed task when server restarting' is present. Buttons for 'Submit', 'Reset', and 'Cancel' are at the bottom.

*With JReport's easy-to-use scheduler, reports can be delivered to end users in any way, at any time.*

## Secure Reporting

### Integrated Security

JReport offers a number of security integration options to meet the needs of any enterprise. JReport Server integrates right out of the box with several security schemas, including

- Variants of LDAP
- Microsoft Active Directory
- Microsoft Site Server
- Lotus Domino
- Novell Directory Server

When security permissions are being maintained centrally in an external system, JReport enables single sign on by importing and leveraging users and groups from directory servers, and automatically synchronizing that information. Additionally, JReport has an internal security model that can use stand alone or synchronized with existing security schemes via an API layer.

### Page, Row and Cell Level Control

JReport provides controlled data access at the page, row, and cell level. This level of control enables one report to be viewed differently by multiple people, based on individual user privileges. This level of data access helps reduce the number of reports that must be created and maintained and ensures valuable developer resources are dedicated to other mission-critical tasks.

## Report Resource Management

JReport allows report resources to be managed locally or remotely via a Web interface. By providing the same intuitive interface for local and remote management, resource management is easy and training requirements are reduced. Report administration and access permissions are controlled by JReport Server login.

JReport's built-in folder structure for resource management contains two repositories – "Public Reports" for access by any authorized end user and "My Reports" for personal access only by the folder owner. JReport's resource management functions enable users to view report properties and perform administrative functions.

## Technical Requirements

### Hardware/OS Requirements:

- Intel Pentium III 1.0GHz or faster
- Windows 9x/2000/NT 4.0/XP, Linux, UNIX
- 256 MB of RAM minimum
- 100 MB of available hard disk space
- Java VM JDK 1.3 or above

### Application Server Support:

- ATG DAS
- BEA WebLogic
- Cold Fusion MX
- JBoss
- Oracle Application Server
- SunOne Application Server
- Tomcat
- WebSphere Application Server

### Web Browser Support:

- Internet Explorer
- Netscape
- Mozilla

## Corporate Contact

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