

# CRYSTAL REPORTS®

## CRYSTAL REPORTS® DEVELOPER SOLUTIONS BROCHURE

**SAP Solutions Brief**  
SAP BusinessObjects  
Business Intelligence Solutions

# CRYSTAL REPORTS DEVELOPER SOLUTIONS

In the past 15 years, the Crystal Reports® family of offerings has provided integrated reporting solutions to organizations worldwide. Over a million developers have enhanced their applications using Crystal Reports software – the de facto standard in enterprise reporting. Geared for small businesses and midsize companies, Crystal Reports solutions provide developers with everything they need to embed professional reporting in their applications, and deploy reports to any number of users, anywhere.

## Flexible Options for Developers

Our flexible product, deployment, and licensing offerings help you meet nearly any development need. An embeddable run-time engine and viewer is available for both Java and .NET applications. The Crystal Reports run-time size is under 55 MB, so you can enhance your application with the reporting engine, viewer, data drivers, and application programming interfaces (APIs) with only a minor increase in your application's footprint. Additionally, deployment of applications that embed Crystal Reports is designed to be easy and intuitive. Java developers work with familiar JAR files while .NET developers have a choice of MSI, MSM, or ClickOnce installations. Both thick-client and Web applications are supported for both Java and .NET.

**TABLE 1: COMPARISON OF CRYSTAL REPORTS FEATURES ACROSS PRODUCTS**

Feature/Benefit	Crystal Reports, Version for Eclipse	Crystal Reports, Version for Visual Studio .NET	Crystal Reports	Crystal Reports Developer Advantage <sup>1</sup>	Crystal Reports Server, OEM Edition
Support for .NET WinForm and WebForm applications		X	X	n/a	X
Support for JSP and thick-client Java applications	X		X	n/a	X
Editable preview	X		X	n/a	X
Embed Adobe Flash and Adobe Flex			X	n/a	X
High scalability features				n/a	X
Internal <sup>2</sup> redistribution of runtime engine in thick-client applications	X	X	X		
Internal <sup>2</sup> redistribution of runtime engine in Web applications	X	X	X		

External <sup>3</sup> redistribution of runtime engine in thick-client applications	X	X	X	
External <sup>3</sup> redistribution of runtime engine in Web applications				X X

<sup>1</sup>Crystal Reports Developer Advantage is not a software product. It extends the licensing of Crystal Reports to include unlimited external redistribution of the run-time engine in Web applications.

<sup>2</sup>Internal deployment refers to reports that are consumed by employees or contractors

<sup>3</sup>External deployment includes exposing an application to non-employees (customers, partners) and embedding in a commercial Web application.

For sample code, advice on best practices, troubleshooting tips, and more, visit the Crystal Reports active developer community on the SAP Community Network (<https://www.sdn.sap.com/irj/boc>).

## Extending Your Access to Information

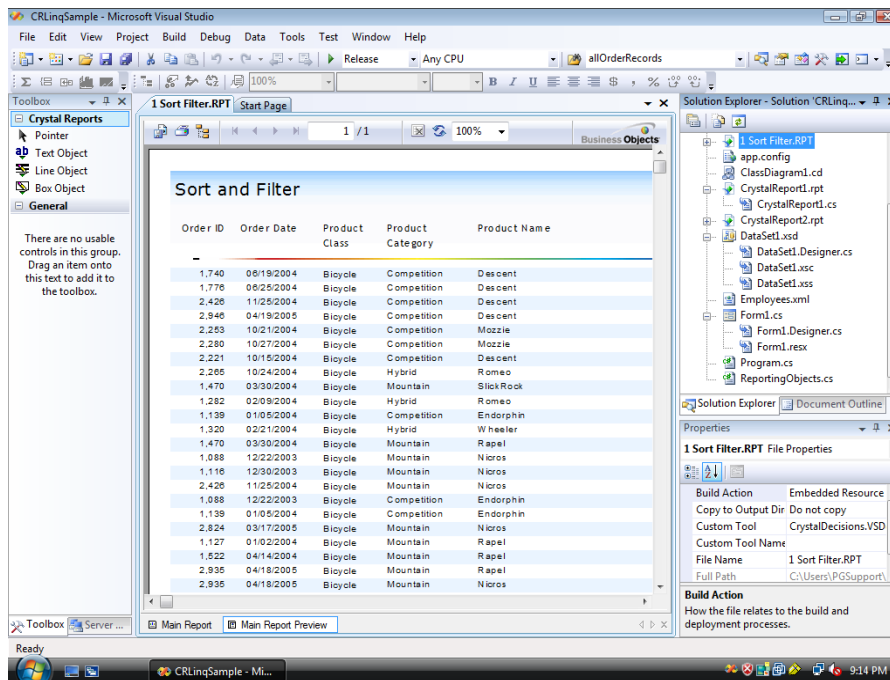
Extend information access outside your application by leveraging one of the many export options, or download the free interactive [Crystal Reports Viewer](#). Whether your application is for internal, external, or commercial use, there is a Crystal Reports offering designed to meet your needs (see Table 1). In addition, Crystal Reports helps you spend less time on report maintenance. Since Crystal Reports is a widely adopted technology, chances are your end users are already familiar with it. When they need to modify an existing report, they can do so with a full copy of Crystal Reports.

## Crystal Reports Software, Version for Visual Studio .NET

Crystal Reports software, version for Visual Studio .NET lets developers create presentation-quality reports and embed them into applications, without leaving the familiar Microsoft Visual Studio development environment. It is included in Microsoft Visual Studio 2008, 2005, 2003, and 2002 (Professional Edition and higher).

With Crystal Reports software, version for Visual Studio .NET, you can:

- Work in your preferred design environment, using the Visual Studio integrated development environment (IDE) or Crystal Reports
- Redistribute a Web-based report viewer that can refresh data and prompt for parameters without any database dependencies with a 16 MB MSI
- Distribute highly formatted reports via the Web and in rich-client Windows environments
- Use major Web browsers (Internet Explorer, Safari, and Firefox), knowing that all features are fully supported.
- Get immediate access to advanced developer features by upgrading to [Crystal Reports 2008](#)
- Access .NET project data, including ADO.NET record sets and Language-Integrated Query (LINQ) data sources
- Access SQL Server data types like hierarchical fields, user-defined fields, and XML fields
- Add the .NET WebForm or WinForm viewers into your application by quickly dragging and dropping the viewer controls onto the design surface



**Figure 1: Crystal Reports® Software, Version for Visual Studio .NET Enables Design-Time Report Preview with Data**

### Licensing and Run-Time Distribution

A named-user license is included with each copy of Microsoft Visual Studio 2008, 2005, and 2003 (Professional Edition and higher). It provides redistribution rights of the Crystal Reports run-time engine in both thick and Web applications. Registration is required for external redistribution of Web applications.

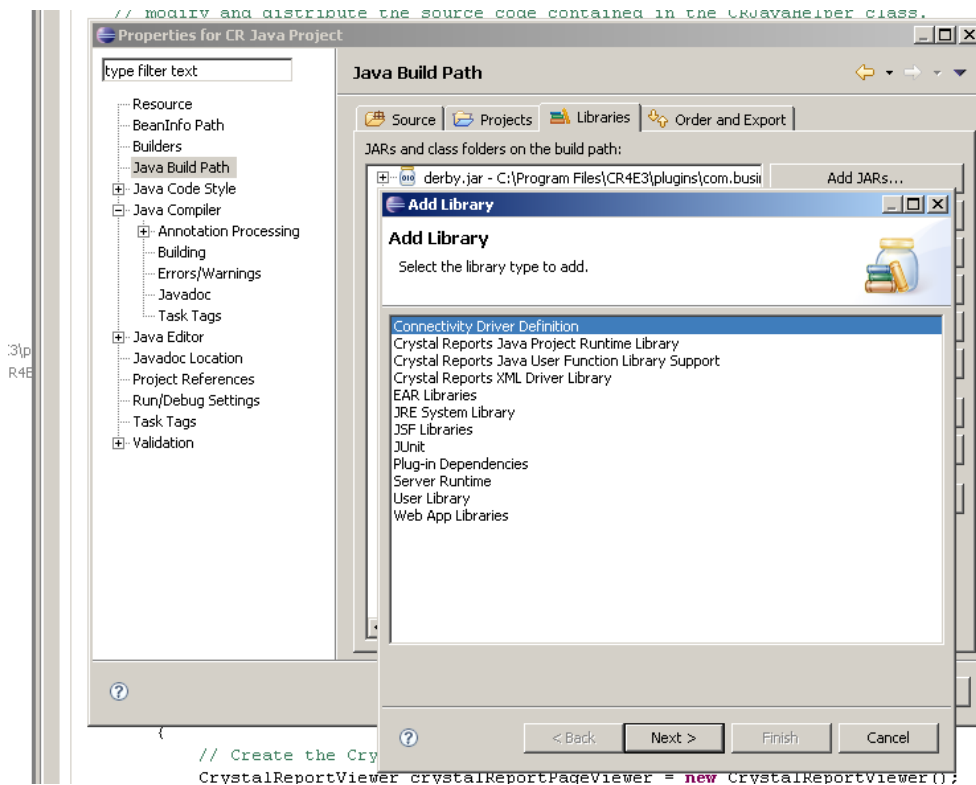
## Crystal Reports Software, Version for Eclipse

Crystal Reports software, version for Eclipse is a free Java-based reporting solution that includes an Eclipse-based report designer and run-time engine. Developers can create and modify Crystal Reports and integrate the run-time engine into thick-client and Web-based Java applications. With Crystal Reports software, version for Eclipse, you can:

- Develop applications quickly with the Eclipse-based report design and integration tool
- Work in your preferred design environment – report design tooling is provided for the Eclipse IDE, but other Java IDEs are supported by using the run-time JAR files
- Embed the Java run-time engine into thick-client or Web-based Java applications
- Use Java classes (POJOs) as a data source for your report
- Deploy your applications to Microsoft Windows, Linux, Solaris, AIX, HP-UX, Netweaver, and Mac OSX
- Support new Crystal Reports 2008 features at run-time in Web-based Java applications
- Upgrade to [Crystal Reports 2008](#) to add additional report design benefits

### Licensing and Run-Time Distribution

This product is available as a [free download](#) (registration required). It uses the same [license](#) as Crystal Reports 2008. The run-time engine can be redistributed internally in both thick-client and Web applications. External redistribution is included for thick-client applications only. External redistribution for Web applications can be added by purchasing [Crystal Reports Developer Advantage](#). With an original equipment manufacturer (OEM) contract, the report-design tool can be embedded and redistributed in Eclipse Rich Client Platform (RCP) applications.



**Figure 2: Adding Libraries in Crystal Reports® Software, Version for Eclipse**

## Crystal Reports

Crystal Reports is our complete report design and .NET application development solution. Customers using the version for Visual Studio .NET or the version for Eclipse can upgrade to Crystal Reports to gain enhanced report design and development capabilities.

Reports authored in Crystal Reports can be embedded in Java applications using Crystal Reports software, version for Eclipse (a free download that is available separately) or Crystal Reports software, version for Visual Studio .NET applications using the included .NET tooling.

Both .NET and Java developers should upgrade to Crystal Reports 2008 to:

- Add end-user interactivity features to reports, like parameter panels, on-report sorting, data filtering, and Adobe Flash integration for interactive charts, videos, and what-if scenarios
- Add powerful financial reporting functionality with advanced calculated crosstabs

.NET developers benefit from:

- Saving time by editing reports while viewing live data with editable preview
- API to enable report creation and modification at run-time
- Support for Crystal Reports features in major browsers (Internet Explorer, Safari, and Firefox)
- Compact 45 MB Microsoft Installer (.msi) footprint and merge module (.msm) files deployment support
- Additional data drivers, such as native drivers for Oracle, DB2, and online analytical processing (OLAP) data sources
- Support for hierarchical data sources with ADO.NET, SQL Server custom data types, and enhanced .NET Web services support

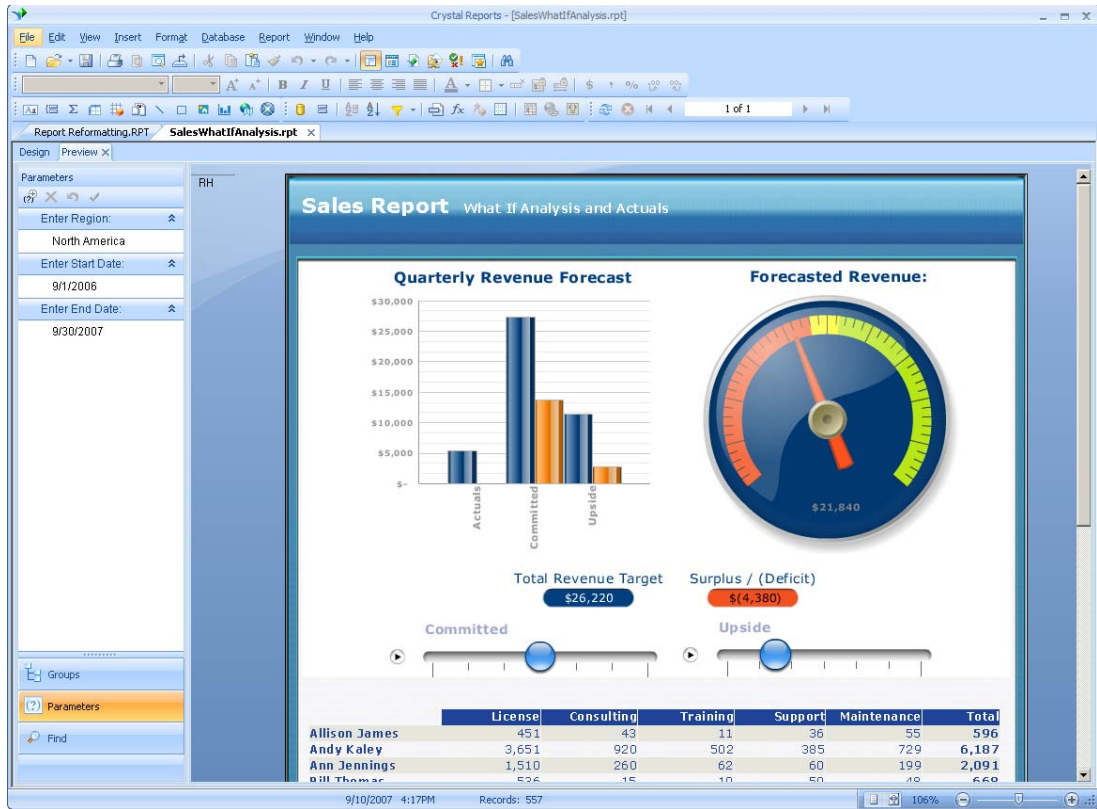


Figure 3: Embedding Interactive Xcelsius® What-If Scenarios (SWF) in Crystal Reports®

### Licensing and Run-Time Distribution

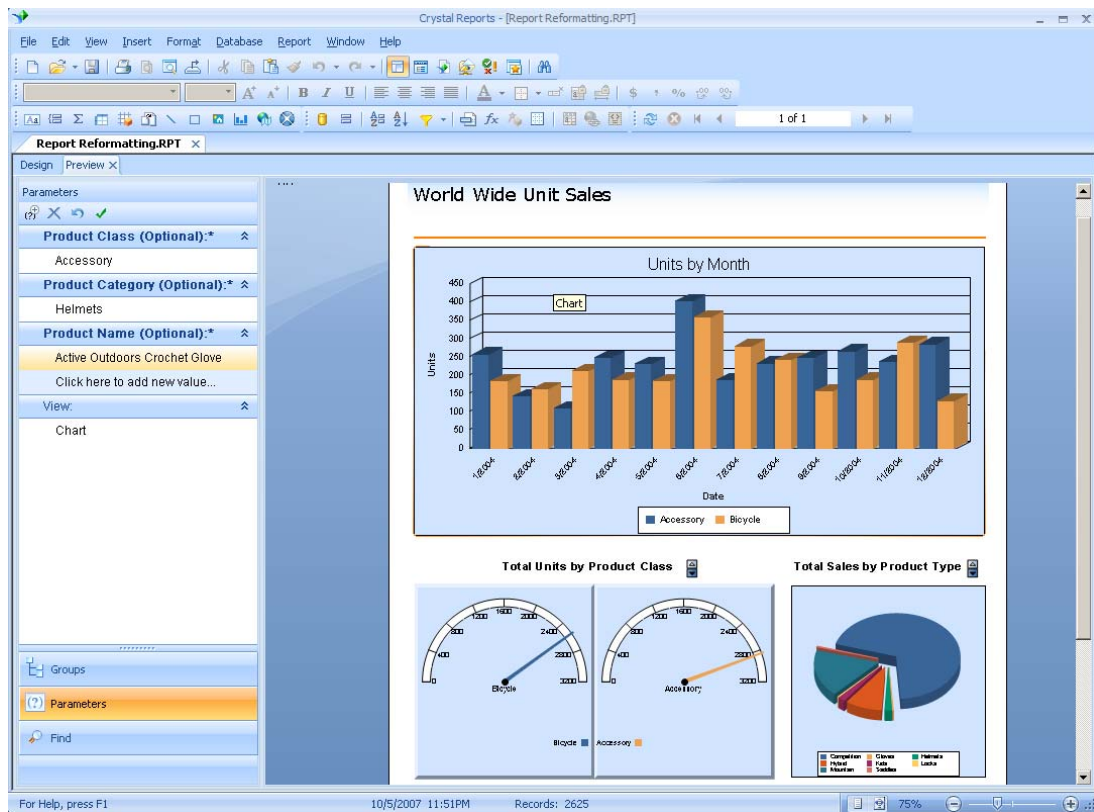
Crystal Reports is sold as a named-user license for the report designer. The run-time engine can be redistributed internally in both thick-client and Web applications. External redistribution is included for thick-client applications only. External redistribution for Web applications can be added by purchasing [Crystal Reports Developer Advantage](#).

## Crystal Reports Developer Advantage

Crystal Reports Developer Advantage offering is an enhanced licensing option that allows external redistribution of the run-time engine in Web applications shared outside your organization, or in commercial applications. A one-time fee, this royalty-free licensing option applies to both the Java and .NET run-time engines. Independent software vendors, value-added reseller partners, and anyone who wants to share reports in an application with external users will benefit from this flexible, economical licensing option.

Crystal Reports Developer Advantage lets you:

- Enjoy the benefits of embedding Crystal Reports in your application – with a simple one-time, royalty-free payment
- Share your Web application with embedded reporting to any number of external users
- Embed professional reporting in commercial applications with licensing for any deployment scenario
- Minimize your application deployment and development costs with affordable pricing



**Figure 4: Embedding Interactive Panels in Crystal Reports for Quick Data Filtering and Reformatting**

### Licensing and Run-Time Distribution

Crystal Reports 2008 Developer Advantage is a paper license that allows external redistribution of Web applications that embed the Crystal Reports run-time engine. This license is version-specific and applies to both the Crystal Reports software, version for Eclipse version 2.0 run-time engine, and the Crystal Reports 2008 .NET run-time engine. It is not available for older versions. You can purchase this license for a one-time fee; no royalty payments are required.

The .NET and Java run-time engines are not intended to meet demanding scalability requirements. For applications requiring scalability, a dedicated reporting server with caching and load balancing is the appropriate solution. Read more about how to use our products as intended on our Web site at [www.sdn.sap.com/irj/boc/businessobjects-articles](http://www.sdn.sap.com/irj/boc/businessobjects-articles).

## Crystal Reports Server Software, OEM Edition

Crystal Reports Server software, OEM Edition is a server-based, embeddable reporting solution composed of the Report Application Server (RAS) Windows service and the RAS SDK in both .NET and Java.

Key benefits include:

- Support for serializing the report document state on both the Web application tier and the processing tier to enable clustering
- Ability to route requests among multiple servers running on different machines to share load
- Enterprise-class scalability, with only a 300 MB footprint and no database dependency

### Licensing

Available to OEM partners only. An OEM contract is required.

# Quick Facts

## Summary

Crystal Reports® family of offerings for developers provides flexible data access, support for .NET and Java, support for key browsers, and economical licensing. Crystal Reports helps Java and .NET developers enhance the value of their applications by delivering powerful professional reporting to end users or embedding report functionality in OEM applications.

## Business Challenges

- Support business users in making important business decisions with intuitive, interactive information
- Embed professional reporting in corporate and commercial applications with minimal development effort
- Save development time and cost with intuitive report design and application integration tool sets
- Minimize the cost of delivering end-user access to reporting applications anywhere

## Key Features

- **Embed interactive reports in your business application** with on-report parameters, sort buttons, and Xcelsius® what-if scenario models embedded as SWF files
- **Support for .NET and Java application development** with Crystal Reports solutions specially designed to let you work in your preferred integrated development environment
- **Flexible licensing** lets you choose the coverage you need and deliver professional reporting with your business application anywhere
- **Leverage comprehensive support options** to access technical resources, portals, and developer forums via the SAP Web site and meet your development needs

## Business Benefits

- **Compelling reports**, with stunning visualizations, and embedded Flash objects and what-if scenarios
- **Empowered end users**, exploring reports interactively and making informed, effective decisions
- **Savings in design and application development time**, thanks to intuitive, integrated development tools
- **Fast time to value**, thanks to expertise from the SAP community

## For More Information

To learn more about Crystal Reports solutions for developers, visit our Web site at <http://www.sap.com/solutions/sapbusinessobjects/sme/reporting/index.epx>.

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