

CRYSTAL REPORTS®

QUESTIONS AND ANSWERS FOR DEVELOPERS

FREQUENTLY ASKED QUESTIONS ABOUT CRYSTAL REPORTS®
SOLUTIONS

SAP Solution Brief
SAP BusinessObjects
Business Intelligence Solutions

The Crystal Reports® family of offerings from SAP includes versions that are embedded in integrated development environments (IDE), such as Microsoft Visual Studio and Eclipse, as well as the more functionally robust Crystal Reports 2008 software. To find out more about which version is right for you, read these frequently asked questions (FAQs) from developers to get answers regarding report creation, .NET applications, Java applications, licensing, and managed reporting.

Report Creation

Q. What are my options for creating and modifying Crystal Reports?

Create Reports with Embedded Software

If you already are working with Microsoft Visual Studio or Eclipse, you can use a free version of Crystal Reports software that is embedded into the IDE. These free versions allow you to design reports and embed them in business applications.

Crystal Reports software, version for Visual Studio, is included with the Professional Edition and higher of Microsoft Visual Studio 2008, Visual Studio 2005, and Visual Studio 2003. Crystal Reports software, version for Eclipse, is available as a free download from the SAP Web site (registration required).

Enjoy Greater Functionality with Upgrade

To take advantage of all the capabilities of Crystal Reports, we recommend upgrading to Crystal Reports 2008. Key Crystal Reports 2008 software features allow you to:

- Embed Flash into reports
- Configure parameters as optional for more end user flexibility
- Assign parameters to the parameter panel
- Configure saved data selection filters to empower end users to filter data without forcing a database refresh
- Create custom crosstab rows and columns to build financial reports faster
- Generate prompts with a dynamic, cascading list of values

Registered users of Crystal Reports software, version for Visual Studio, and Crystal Reports software, version for Eclipse, qualify for discounted upgrade pricing. The upgrade is available via resellers, our online store, or directly from our sales team.

Q. How can I best take advantage of Crystal Reports and Flash? I've seen Xcelsius® Engage software and Crystal Reports described as complementary. How do these products work together?

You can use Crystal Reports 2008 and Xcelsius Engage 2008 software together to create reports with interactive what-if models and visualizations.

While not intended as a full-blown analytics and dashboard solution, Xcelsius Engage models represent a quick way to create interactive, visually appealing dashboards. The models can be embedded inside Crystal Reports files, and report data can be used as the data source for the Xcelsius model. When the Crystal Reports file is refreshed, the embedded Xcelsius model sees the updated data.

Embedding Xcelsius Engage what-if models in a report enables you to experiment with alternative scenarios to model the future outcome of your business decisions (within the Xcelsius model). The data in the .rpt file itself remains intact. There is a 64 KB limit on the amount of data that can be passed from Crystal Reports to the embedded Flash content. For general-purpose dashboard projects, we recommend using Xcelsius Engage software standalone.

When a Crystal Reports file is exported to PDF and viewed in Adobe Reader, the embedded Flash is interactive within the PDF. This functionality requires Adobe Reader 9, and Crystal Reports 2008 service pack 1.

.NET Applications

Q. What's the difference between the free Crystal Reports, version for Visual Studio, and Crystal Reports 2008?

The free version in Microsoft Visual Studio is version 10.5 of Crystal Reports; Crystal Reports 2008 is version 12.

Crystal Reports 2008 provides the following key new features:

- **Editable preview** allows report designers to edit reports with data to save time switching between a design view and read-only preview.
- **Embedding Flash objects** in the report
- **Dynamic, cascading parameters**
- **XML export with embeddable XSL transforms**
- **Calculated members in crosstabs**
- **Interactive parameters** to enable parameters to change without forcing a database refresh
- **Optional parameters**
- **Additional data drivers and OLAP data access**
- **Report creation and modification API**

View the detailed comparison on our Web site at

<http://www.sap.com/solutions/sapbusinessobjects/sme/reporting/visualstudio/comparisonmatrix/index.epx>.

Learn more about upgrading to Crystal Reports 2008 by visiting our Web site at

http://www.businessobjects.com/product/catalog/crystalreports_visualstudio/upgrade.asp.

Q. Some of my .NET projects use the free Crystal Reports tool, and some use the upgraded version, Crystal Reports 2008. How can I manage the differences within Microsoft Visual Studio?

We offer a new, free utility called [Visual Studio Integration Manager](#), which enables Microsoft Visual Studio developers to switch the reporting tool within Visual Studio between the free version and the paid upgrade version of Crystal Reports.

Q. How can I distribute the Crystal Reports .NET runtime engine in my application?

Typically, the preferred method for runtime file distribution is using the Microsoft Windows MSI installer. The MSI installer ensures that all of the runtime files are properly deployed, and it is easier to apply patches to the runtime engine.

Crystal Reports 2008 also supports ClickOnce deployments, which leverage the strengths of the MSI installer. For a more customized installation experience, developers can use merge modules for direct embedding into your installation package.

Q. Where is the one place to go for information on samples, articles, and documentation for using Crystal Reports with .NET applications?

Visit the Crystal Reports for .NET product portal on our Web site at <https://www.sdn.sap.com/irj/boc/crystalreports-dotnet>.

Q. How many megabytes will the Crystal Reports .NET runtime engine add to my application?

The Crystal Reports .NET runtime MSI is 55 MB. A highly compressed self-extracting executable (.exe) is also available and that is 33 MB.

Java Applications

Q. How do I add Crystal Reports to my Java applications?

Crystal Reports software, version for Eclipse, is an Eclipse plug-in that includes:

- Report design tool embedded in the Eclipse development environment
- Java runtime engine for Crystal Reports
- Wizards that make it easy to add reporting to any type Java application – thick-client or Web applications

A new version for Eclipse was released in Q1 2009. It is optimized to provide a Java runtime engine for Crystal Reports 2008 .rpt files.

Learn more about what's new in Crystal Reports software, version for Eclipse 2.0, by visiting our Web site at <http://www.sap.com/solutions/sapbusinessobjects/sme/reporting/eclipse/index.epx>.

Q. Must I use Eclipse to use Crystal Reports software, version for Eclipse?

No. Crystal Reports software, version for Eclipse, includes a Java runtime engine (available as a separate [download](#)). For embedding reporting into any application, regardless of the IDE in use, please download [Crystal Reports for Eclipse](#). You will need to have existing .rpt files (version 9 or greater) or an existing license of Crystal Reports software, version 9 or later, to author reports. The Java runtime engine works best when used with Crystal Reports 2008 to author reports.

Q. How compatible are Crystal Reports software, version for Eclipse 2.0, and Crystal Reports 2008?

The Java runtime engine and DHTML viewer in Crystal Reports software, version for Eclipse 2.0, are enhanced to run virtually any report that is authored with Crystal Reports 2008. These enhancements include support for:

- Dynamic, cascading prompts
- Flash integration
- Crosstab calculated members
- Optional prompts
- Long list of values support
- Multi-value parameters for command objects
- Interactive parameters (parameters that can be changed without forcing a database refresh)
- Custom page sizes
- Conditional margin sizes
- Different page orientation by section
- N groups/records per page
- Clamp page footer

We've also improved exporting with the following enhancements:

- New Microsoft Excel data-only export
- Improved PDF exporting with embedded fonts

The following features are NOT supported in the runtime engine:

- Geographic maps
- Semantic layer, like SAP® BusinessObjects™ universes or business views
- OLAP grids
- Microsoft Visual Basic formula syntax
- OLE objects (other than images)
- Alerts
- Original order grouping
- Repository objects

Q. How do I get Crystal Reports software, version for Eclipse?

Crystal Reports software, version for Eclipse, is available as a free download on our Web site at http://www.businessobjects.com/product/catalog/crystalreports_eclipse/ (registration required).

Q. I've worked with the Java Reporting Component (JRC) in previous releases of Crystal Reports. Should I use Crystal Reports software, version for Eclipse?

Yes. Crystal Reports software, version for Eclipse 2.0, includes the stand-alone Java runtime engine that supports reports created with Crystal Reports 2008.

Q. Where is the one place to go for information on samples, articles, and documentation for using Crystal Reports with Java applications?

Visit the Crystal Reports for Eclipse and Java product portal on our Web site at <https://www.sdn.sap.com/irj/boc/crystalreports-java>.

Q. How many megabytes does the Crystal Reports Java runtime engine add to my application?

Java developers who are embedding the JRC engine for Crystal Report need to embed about 42 MB of Java Archive (JAR) files.

Licensing

Q. How is Crystal Reports software, version for Eclipse, licensed?

Crystal Reports software, version for Eclipse 2.0, uses the same license as Crystal Reports 2008. The license model and restrictions match those of Crystal Reports 2008, making it easy to use Crystal Reports software, version for Eclipse 2.0, in conjunction with Crystal Reports 2008.

Q. What are the licensing terms for embedding Crystal Reports into my application?

Crystal Reports 2008 includes a runtime engine for .NET developers called Crystal Reports 2008 software, version for Visual Studio .NET. Java developers have free access (registration required) to similar technology for Java applications with Crystal Reports software, version for Eclipse 2.0.

Both the .NET and Java runtime engines are designed to run in process with a hosting application. Both are covered by the same end-user license agreement.

Thick-Client Applications for Internal and External Use

When the runtime engines are embedded into thick-client applications, they may be freely distributed both internally and externally to third parties.

Web Applications for Internal Use

When the runtime engines are embedded into Web applications, they may be freely used internally only.

Web Applications for External Use

External distribution of Web applications embedding the runtime engines is now available for a single, fixed price with Crystal Reports 2008 Developer Advantage, the new Crystal Reports runtime license.

Per the Crystal Reports 2008 end-user license agreement, external distribution is defined as “selling, leasing, licensing, granting access to, or redistributing Client Applications and/or Server Applications to third party end users external to Licensee’s company or organization.” This means that hosting an application on internal servers and exposing it to individuals outside your company or organization is considered distribution, and requires Crystal Reports 2008 Developer Advantage, the new Crystal Reports runtime license.

For more information on Crystal Reports 2008 licensing, visit our Web site at

<http://www.sap.com/solutions/sapbusinessobjects/sme/reporting/crystalreports/licensing/index.epx>.

Q. What is Crystal Reports 2008 Developer Advantage?

Crystal Reports 2008 Developer Advantage is a new Crystal Reports runtime license – an additional license that can be purchased to license external distribution of Java or .NET Web applications that embed the Crystal Reports runtime engine.

With the purchase of this license, developers are licensed to add the runtime files to any number of externally facing server applications, regardless of where they are hosted.

For example, in a deployment scenario where the runtime engine is embedded in a Web application that is used by individuals external to the developers’ organization, the application developers’ organization must also purchase Crystal Reports 2008 Developer Advantage.

This license covers an unlimited number of Web applications released by the organization.

ISVs developing server-based applications for commercial resell can use this license as a one-time payment instead of paying ongoing royalty fees for each product sold.

It does not cover the Crystal Reports 2008 report design tool, or the designer included in Crystal Reports software, version for Eclipse, or Crystal Reports software, version for Visual Studio.

Crystal Reports 2008 Developer Advantage is a runtime license that allows resellers and consultants to deploy custom server-based applications (using the Crystal Reports runtime engine) at client sites. It also enables those applications to be externally facing, such as an Internet application.

This license does not include software. It is applicable to the Crystal Reports .NET runtime engine, and Crystal Reports Java runtime engine included in the following products:

- Crystal Reports 2008 software
- Crystal Reports 2008 Visual Advantage software
- Crystal Reports software, version for Eclipse 2.0

It does not apply to the free Crystal Reports software, version for Visual Studio.

Runtime distribution situations where the report engine is distributed and accessed internally or as part of a thick or client-side application (such as where the runtime engine is deployed to a desktop or laptop) do not require the additional license, as this scenario is already covered under the Crystal Reports 2008 license. To purchase Crystal Reports 2008 Developer Advantage contact a reseller in your area, call our telesales team, or visit our online store.

Managed Reporting

Q. My application requirements call for user/report object security or the ability to manage sharing and report scheduling. Should I be using Crystal Reports or Crystal Reports Server?

Many developers must weigh this common build-versus-buy scenario. Working with the Crystal Reports runtime engines provides control over the report processing and output, but management of the reports, whether related to sharing, security, or scheduling, needs to reside within your application.

Many developers prefer not to engage in the coding and maintenance of this additional report server layer. Supporting this approach, [Crystal Reports Server](#) software has a fully integrated object security layer and comprehensive report scheduling features that you can leverage via a software development kit (SDK) without the need to invest in application development. (Visit our developer library at <https://www.sdn.sap.com/irj/boc/businessobjects-sdklibrary>.)

The Crystal Reports family gives you the flexibility to choose between using the Crystal Reports runtime engine files and coding the server aspect yourself, and utilizing Crystal Reports runtime files with Crystal Reports Server and calling the Crystal Reports Server report services for report sharing and management. For server-based applications that use the Crystal Reports runtime engine for externally accessed or deployed scenarios, you require Crystal Reports Developer Advantage, in addition to the Crystal Reports 2008 software.

Support and Resources

Q. What technical resources and support options are available for Crystal Reports? What additional support can I purchase and for how much?

Support information for Crystal Reports and Xcelsius software is available on the SAP Community Network, which can be accessed at <https://www.sdn.sap.com/irj/scn>. There, users of Crystal Reports, Crystal Reports Server, Crystal Reports software, version for Visual Studio, Crystal Reports software, version for Eclipse, and Xcelsius software can get invaluable support for their solutions through a comprehensive set of SAP BusinessObjects support notes, forums, articles, and product downloads like service packs, hot fixes, samples, and runtime packages.

Customers who acquired their Crystal Reports solution as part of an enterprise agreement are automatically enrolled in the SAP BusinessObjects Enterprise Technical Support Program, which can be accessed via the SAP Support Portal at <https://www.sdn.sap.com/irj/boc/businessobjects-support>.

Single-case telephone support is available in English for any Crystal Reports and Xcelsius software desktop product. This service is available for purchase via our [online store](#) on our Web site.

Quick Facts

Summary

The Crystal Reports® family of offerings from SAP includes versions embedded in integrated development environments (IDE), such as Microsoft Visual Studio and Eclipse, Crystal Reports 2008 software, a stand-alone, fully featured reporting solution, and Crystal Reports 2008 Developer Advantage, a new runtime license for Crystal Reports. It also includes Crystal Reports Server, a complete report management solution for small to midsize organizations.

Business Challenges

- Create and modify reports from multiple data sources
- Enhance ease of use for end users with intuitive reports
- Reduce cost by minimizing design time for application developers and report writers
- Make reporting accessible to all levels of employees with dependable report security, management and delivery solutions

Key Features

- **Explore reports interactively** – Use interactive parameters, sort buttons, and Xcelsius what-if scenario models embedded in reports as SWF files
- **Integration with Visual Studio 2008 and Eclipse 3.4** – Display your Crystal Reports document with graphical user interfaces and Web applications that you develop using familiar integrated development environments
- **Flexible licensing** – Choose the coverage you need, and deliver professional reporting with your business application, anywhere
- **Leverage comprehensive technical support** – Access technical resources, portals, and developer forums via the SAP Web site

Business Benefits

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

For More Information

To learn more about Crystal Reports family of offerings and business intelligence solutions from SAP, visit our Web site at www.sap.com/sapbusinessobjects.

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