

What's New in Crystal Reports 10

Building on the proven stability of its version 9 release, Crystal Reports now offers new features and enhancements. This document introduces these features and enhancements by providing a brief summary of each.

Introduction

Crystal Reports® 10 extends its reporting platform to enable:

- A more efficient report design and maintenance process.
- Easier integration and deployment of enterprise web applications.

This release builds upon the significant feature set introduced in version 9 and includes several refinements and new features that continue to address productivity challenges in all elements of the reporting process. Tighter integration with Crystal Enterprise™ is also a key focus area for this release.

This chapter examines each of the major new features in the context of the audience they serve—application developers, report designers, and information consumers.

Note: Features vary by edition and some features are provided through the Report Application Server which is included in specific editions of Crystal Reports 10. To check your edition, click About Crystal Reports on the Help menu in the report designer.

Application developers

For developers, Crystal Reports simplifies the process of integrating dynamic, presentation-quality content into any .NET, Java, or COM application, thereby reducing the amount of coding required and minimizing application maintenance. With version 10, Crystal Decisions™ strengthens its commitment to cross-platform development through the addition of several new features and easier migration to Crystal Enterprise.

100% Java Reporting Component

Version 10 introduces a Java version of the powerful Crystal Reports reporting engine, the Java Reporting Component, that takes full advantage of Java including portability across operating systems and hardware platforms. Written in 100% Java, this new reporting component provides a fast, codeless way for developers to connect to data and to design dynamic, high-fidelity presentation layers for J2EE applications. The engine supports basic Crystal Reports functions such as grouping, sorting, filtering, expressions, basic formatting, and charting, as well as PDF and Word exporting. It also enables integration with leading Java Integrated Development Environments including Borland® JBuilder™ 10 and Crystal Reports® for BEA WebLogic Workshop™.

Applications which use the new Java reporting component can also be seamlessly upgraded in version 10 to use Crystal Enterprise and the Report Application Server. By modifying only one line of code, applications can take advantage of off-loaded report processing, programmatic report creation and modification, and many other features.

Custom Java tag library

Crystal Reports 10 introduces a custom JSP tag library to dramatically reduce the amount of code required to integrate reporting into Java applications. Using custom JSP tags, developers can now easily add a Crystal report viewer to their web applications.

Simplified .NET merge modules

Crystal Reports 10 reduces the number of merge modules required for easier deployment of .NET applications. Four core merge modules can be leveraged to address eight specific deployment scenarios:

- Windows Thick-Client Applications
 - Embedded Process Reporting
 - Remote Process Reporting
 - Web Service Reporting
- ASP .NET Web Applications
 - Embedded Process Reporting
 - Remote Process Reporting
 - Web Service Reporting
- Web Service Applications
 - Embedded Process Reporting
 - Remote Process Reporting

These modules will be available shortly after the version 10 release through the Crystal Decisions .NET Developer Zone at: http://www.crystaldecisions.com/products/dev_zone/net/default.asp.

.NET to Crystal Enterprise upgrade

Crystal Reports 10 introduces a seamless upgrade solution to enable applications which use the .NET reporting component bundled in Microsoft® Visual Studio® .NET, Borland® C#Builder™, or in Crystal Reports 9/10 to access Crystal Enterprise and the Report Application Server. By adding only one line of code, .NET developers can take advantage of the benefits of a standalone report processing server. This solution also enables an easy future upgrade to other Crystal Enterprise editions.

Scenario

Peter is a .NET developer in a large organization that has standardized on .NET. His team has built a small departmental HR application to help recruiters better manage the hiring process. Because this application required a few basic reporting elements, Peter's team chose to use the version of Crystal Reports that was bundled in Microsoft Visual Studio .NET. Within six months, the application's usage has increased considerably and Peter needs to add new, larger reports to the

application. The Report Application Server (versus the .NET reporting component) is a preferred option because it enables Peter to separate report processing from his web server. Because the application will also require additional interactivity over the next 12 months, Peter needs a solution that can be expanded over time. By adding only one line of code, Peter can reuse his existing work to leverage the Report Application Server instead of the .NET reporting component. This application can then be easily extended in the future to use additional Crystal Enterprise services.

Simplified Report Application Server APIs

In Crystal Reports 10, the amount of code required to complete the most common developer tasks has been significantly reduced for an easier integration process. This enhancement applies specifically to the Report Application Server bundled in Crystal Reports and focuses on tasks such as setting parameters, logon, printing, and so on.

Report designers

From increased flexibility in report creation to support for a fully managed reporting system, Crystal Reports 10 helps report designers to be more productive through all stages of the report development and maintenance cycle.

Simplified data access (Business Views)

Crystal Reports 10 enables report designers to create reports based on Business Views for faster development and reduced maintenance.

A new feature in Crystal Enterprise 10, Business Views provide a new data abstraction layer that simplifies the process of connecting to enterprise data sources. This new central data access model also exposes pre-defined, domain-specific data sources, eliminating the need for complex joins, filters, or formulas. It can seamlessly manage access to multiple, disparate data sources, combining these into a single data source for the report designer.

Using Business Views in the report development and maintenance process removes the need to redefine reports if the underlying data structure changes. This results in a more efficient report-development process because reports can be easily transitioned from development to production.

Scenario

Christine is a report analyst in the IT department of a large organization. She is responsible for addressing a long list of report requests from various departments. Because Christine is fairly new to the organization, she is still trying to sort out where all the data is located. Thankfully, the DBA team in IT has already created

various Business Views that Christine can connect to. These Business Views already integrate various enterprise data sources and abstract the complex data. All Christine has to do is indicate what View she needs for the report and then format the information accordingly. Getting the resulting set of reports into production is very straightforward. Once the report has been tested, the underlying data structure can be re-pointed in the Business View by the DBA team in one step.

Repository

Introduced in version 9, the Repository is a central library for storing common report objects (images, text objects, SQL commands, and Custom Functions) for use across multiple reports and single point updating. This marquee feature has been refined in version 10 to support usage across large enterprise deployments.

Managed Repository

To enable customers to create a managed system for report design and maintenance, the Repository in version 10 has been included as a robust part of the Crystal Enterprise infrastructure. Repository objects can be secured and shared through Crystal Enterprise and are made available through the Crystal Reports designer. A Migration Tool is also included for easy transition from the version 9 Repository to the new Managed Repository.

Scenario 1

Steve works in the IT department of a large organization and is responsible for maintaining over 100 corporate reports. One of his biggest concerns is in ensuring these reports are based on accurate information. Prior to version 10, if the database schema changed, Steve would have to spend hours updating the database connectivity for each report and double-checking that the data is accurate. "There's nothing worse than having a report run and it doesn't break even though it's not based on my new database schema." With version 10, Steve can now base all multiple reports on a single Business View. If the database changes, only the Business View needs to be updated, thereby ensuring that all reports are running correctly based on accurate data.

Scenario 2

Karen is one of several hundred report designers in her organization who is helping to define a center of excellence for reporting. She is especially skilled at building reports for the marketing department, but doesn't have a good grasp of the Crystal Formula Language. Luckily, one of the inventory analysts has already built a number of complex run rate and inventory turnover functions, and Karen is able to easily pull in the functions she needs from Crystal Enterprise.

Repository Explorer

To support extensive use of the Repository by multiple report designers, the Repository Explorer in version 10 includes a toolbar for easier navigation through objects based on type and/or text value. Tooltips may also be added to repository objects for easier identification of the required element to be added to a report.

Format Painter

Similar to Microsoft Office's Format Painter, this new feature in Crystal Reports 10 enables the copying of full formatting options between objects through a single click. A report designer simply selects a formatted object and clicks on any other objects that require the same formatting, thereby greatly reducing the amount of time spent in object formatting.

Scenario

Sally is a report designer for a regional hospital and is responsible for creating and maintaining over 80 reports. Each of these reports must adhere to strict formatting standards including the use of specific fonts, colors, size, and so on. For Sally, this formatting can be very time consuming and mundane. With Crystal Reports 10, Sally is able to format reports in record speed. She simply formats a single object in one report and then applies it with one click to all other applicable objects in all the reports she is working on.

Funnel charts

A key requirement for many Customer Relationship Management applications, the funnel chart type is now available in Crystal Reports 10. Similar to pie charts, a funnel chart provides an interesting way to display data that adds up to a 100% total. This chart type is particularly useful in conducting pipeline analysis for sales forecasts.

Information consumers

Crystal Reports 10 enables information consumers to easily navigate information delivered in a Crystal Report through familiar devices or software including Microsoft Office.

Managed navigation between key report elements

Crystal Reports 10 extends Report Parts and Guided Navigation to Crystal Enterprise to enable groups of reports to be used across many end-user scenarios and workflows.

Report parts—within either the same report or in another report—can be easily linked together as groups to simplify navigation for report consumers. Consumers can click from one hyperlinked piece of information in a report to another part while data context is preserved. This feature can reduce the need for subreports and can improve report processing performance. Using Crystal Enterprise, Report Parts can be easily scheduled and managed so that the underlying data between linked objects has the same refresh date. This is especially useful when updating information on a regular basis, for example, when updating quarter-end financial information.

Scenario

A sales manager needs to better understand the health of his pipeline. Rather than create one unwieldy report that contains all the possible information, he has designed five different reports, each of which study the pipeline at a different level of detail. Using Managed Hyperlinks, Frank can define click paths through each of these reports to allow sales managers to drill right down to the individual deal level to monitor their pipeline.

Excel export

Crystal Reports 10 introduces more flexible options and greater control in exporting fully formatted reports to Microsoft Excel. For example, users can select to export all or some of page headers/footers and choose to whether to display gridlines.

DHTML printing

Crystal Reports 10 includes an updated DHTML report viewer control that simplifies the printing process. With just one click, users print a report. There's no need to export to PDF to use the printing features in Adobe Acrobat. This new one-click printing feature is provided through a small ActiveX control that is downloaded to the client machine.

