

PRODUCTS

What's New: Crystal Reports for Visual Studio 2005

Crystal Reports®

Crystal Reports for Visual Studio 2005 continues to answer the needs of Visual Studio developers, offering an enhanced integrated reporting experience that also uses Visual Studio advancements in data processing, usability, and ease-of-use.

Crystal Reports for Visual Studio 2005 offers many enhancements:

- Designer Features
- New Windows and Web Application Features
- New Features in ASP.NET
- Data Access Features
- Platform Features

Designer features

Design-time preview

Design Time Preview lets you view a read-only version of the Crystal report with its default data. Data will preview regardless of a database logon failure or whether the report uses application data (for example, DataSets, or object collections).

Export and print within the preview

Save time by exporting and printing directly from the preview pane. No more waiting to generate a preview for reports that will ultimately be delivered over Excel or printed by end-users.

New Windows and Web application features

Crystal Reports project templates

Visual Studio 2005 has Crystal Report project templates for Visual Basic, C#, and J# Windows applications and Web Sites. The project templates create a default Crystal Reports project and start the New Report Creation Wizard to help new users create reports.

Smart Tags

In Visual Studio 2005, when you add a .NET control to a Web or Windows Form, a Smart Tag panel appears. The CrystalReportViewer Smart Tag panel lets you create, open, or edit a Crystal report from a Web or Windows form. You can also customize the CrystalReportViewer control to do error reporting for database logons and parameter values.

In a Web Site, selections made in the Smart Tag panel produce auto-generated XML in the ASPX page.

In a Windows project, selections made in the Smart Tag panel produce auto-generated code in a hidden class file, called a "partial" class. Partial classes are a new feature of the .NET 2.0 Framework.

Code snippets

Code snippets are now available for adding commonly used code. Code Snippets save on coding time for these common uses:

- A Report requires database logon.
- A Report requires parameters.
- A Report needs to point to a new database location before it is viewed.

ToolTip disable option

When you don't want a ToolTip to provide contextual information to end-users of a report, you can disable the ToolTip feature from the new EnableToolTips property of the CrystalReportViewer class.

In Crystal Reports for Visual Studio 2005, the default ToolTips are switched off.

New Features in ASP.NET

ReportSource and DataSource controls

The ReportSource control contains a report that encapsulates the data, whereas a DataSource control (such as SqlDataSource) contains the data itself.

The ReportSource control is part of the simplified tag-based application development model provided with ASP.NET version 2.0.

In the DataSource control framework, .NET visual controls connect to DataSource controls, which do not manage display information. This new DataSource framework encapsulates the data connectivity information, written as lines of code in .NET controls on the Web Form.

In the Design window, Visual Studio shows you the names of the controls that are connected to one another. The controls are also accessible as declarative XML in the ASPX code view.

Automatic data binding

With automatic data binding, you no longer need to call the DataBind() method in the code-behind class when binding to a file directory path through the Properties window.

The automatic data binding feature can be removed by setting AutoDataBind = false.

This feature will also be integrated into the ReportDataSource control to enable integration with ASP.NET's automatic data bind model.

Exception event handling

The CrystalReportViewer control now lets you decide which error messages to display and which to suppress, rather than save them to the ASP.NET page.

CrystalReportParts viewer

The new CrystalReportPartsViewer lets you deliver strategic pieces of information such as a summary, grid, or chart without having to display an entire report. The CrystalReportPartsViewer control displays report summary information in a small, portal-like window, with the ability to drill down on the report through a series of linked parts.

High quality thin-client printing control

To provide a non-obtrusive printing experience from the web based Crystal Report viewer, a light-weight Active X print control has been added to Crystal Reports for Visual Studio 2005. The print control will fetch EPFs from the web server and print them to the client's local printer.

Themes support

Themes are a new tool in ASP.NET 2.0 to provide a common look and feel to all visual controls on a page, or across your Web Site.

When you set the Theme property of a visual control to the name of a theme, that theme is applied to all visual controls on the page.

The CrystalReportViewer control is compatible with ASP.NET 2.0 Themes. Any changes you make to a Theme are extended to the CrystalReportViewer control and all other visual controls on the page.

Cascading Style Sheets for customizing the CrystalReportViewer control

In Crystal Reports for Visual Studio 2005, you can use a Cascading Style Sheet (CSS) named "default.css" to customize the appearance of the CrystalReportViewer control. The style sheet is stored in a subdirectory of the viewer's virtual directory that is named "css."

You can access the style sheet from the CssFileName property of the CrystalReportViewer control.

ASP.NET Crystal report viewer group tree customization

You can change the font style and colors of the ASP.NET group tree levels on a viewer-by-viewer basis in the embedded designer. It is also possible to change this on a page-by-page basis using CSS style classes defined in a custom .css file.

ASP.NET CrystalReportViewer custom toolbars

You can easily create a custom toolbar that offers all the functionality of the default CrystalReportViewer toolbar.

Multilingual client support

Crystal Reports for Visual Studio 2005 provides multilingual support for both Windows Applications and Web Applications.

To get localized strings, date, time, and number formats in VS .NET 2002 and VS .NET 2003, developers needed to run the aspnet_wp.exe worker process under an account with the user default locale set to the desired language. With the new multilingual client support for Crystal Report web form viewer and web service applications, you can create a single reporting web application on a single server that returns localized viewer strings, error messages, and the appropriate formats for multiple languages simultaneously.

For web requests (web form or web service), the viewer takes the locale from the "Accept-Languages" HTTP header and translates it into a Win32 LCID, for example 0x0804 for "zh-cn" (Chinese [China]).

Data Access

SQL Server 2005

Crystal Reports now supports hierarchical fields, such as User Defined Types (UDT) and XML fields, in SQL Server 2005. A hierarchical field can be consumed and grouped on to create a dynamic hierarchical grouping structure within the report.

Object collections

Reporting off object collections allows for support of data from web services, ObjectSpaces, and Microsoft Business Framework. You can now easily create an array of classes and pass them to the report as a data structure. Combined with Crystal Reports' ability to consume multiple data sources, you can join the customized data array and the runtime data source to dynamically manipulate the report output without having to interpret the runtime data source.

Integrated authentication (Single Sign On)

End-users once had to enter database credentials to view a report where data is fetched from a SQL Server database. With integrated authentication and Crystal Report support, applications can now pass end-user credentials from the client's browser machine through to the ASP.NET application and Crystal Reports to the SQL Server 2005 database. Specific row or column level security can show or hide data that the end-user is allowed to access. This feature is also provided for WinForm applications.

Platform new features

Crystal Reports Update Service

Crystal Reports for Visual Studio 2005 now provides an optional Crystal Reports Update Service that checks for updates, HotFixes, and patches for Crystal Reports. The Crystal Reports Update Service is installed with Visual Studio 2005. Instead, you must download and install the Update Service separately.

Updated Crystal Reports engine

The Crystal Reports engine has been updated to include the latest bug fixes, general enhancements to exporting, the ability to create Funnel Charts, and data base access performance improvements.

64 Bit support

Intel and AMD have introduced a new family of processors, the Intel Itanium Processor Family (IPF) Architecture and the AMD x86-64 Architecture, referred to as IA-64 and AMD64 (or x64) . Crystal Reports for Visual Studio 2005 provides support for new 64 bit architectures, by providing native IA-64 and AMD64 .NET runtime support, and support for AMD 64 at design time.

Building a 64-bit application

A 64-bit application can be built under the following scenarios:

- o The 32-bit Crystal Reports for Visual Studio 2005 IDE on a 32-bit Windows operating system.
- o The 32-bit Crystal Reports for Visual Studio 2005 IDE against a Windows 64-bit server.
- o The 32-bit Crystal Reports for Visual Studio 2005 IDE under WOW64 (the x86 emulator that runs 32-bit applications on a 64-bit machine) on a Windows 64-bit server or workstation.

Deploying a 64-bit application

64 bit Application deployment is consistent with 32 bit application deployment.

Crystal Reports for Visual Studio 2005 ships with deployment projects that enable you to deploy your application to target machines. Each setup project contains an application and its necessary components. Crystal Reports can build code in a 32-bit or and AMD 64-bit environment that can be deployed and executed correctly on a 64-bit machine.

Single merge modules

Crystal Reports for Visual Studio 2005 now uses only a single Merge Module for deployment. To simplify the installation process the entire merge module can be included to ensure all the Crystal Report dependencies are included. Alternatively, advanced users can specify options to reduce the size of the deployment on the client machine.

The Crystal Reports for Visual Studio 2005 merge module can be downloaded from http://www.businessobjects.com/products/dev_zone/net/2005.asp.

Installer (msi)

With Crystal Reports for Visual Studio 2005, you can deploy the Crystal Reports runtime components with Microsoft Installer file (MSI) instead of using merge modules. The Windows Installer allows for smaller deployment projects and reduced installation time.

ClickOnce Deployment

Crystal Reports for Visual Studio 2005 now supports ClickOnce deployment. ClickOnce deployment allows easy installation and updates for Windows applications that are published to a Web site.

The following core scenarios describe how ClickOnce deployment is supported:

- On the development machine, the Windows application is published to a Web site.
- On the client machine, the published Web site provides the option to install the Windows application.
- The client automatically receives updates to the Windows application.

Windows applications that use Crystal reports are not only publishable to Web sites, but also FTP servers, shared network servers (through File Share), and disk drives.

Feature Summary

Category	New Features
Designer -	• Design Time Preview • Export and Print within the Preview
Windows and Web Application -	• Crystal Report Project Template • Smart Tags • Code Snippets • ToolTip Disable Option
ASP.NET Web Application -	• ReportSource Control • Automatic Data Binding • Exception Event Handling • CrystalReportParts Viewer • High Quality Thin-Client Print Control • Themes Support • Group Tree Customization • Custom Toolbars • Cascading Style Sheets for Customizing the CrystalReportViewer Control • Multilingual client support
Data Access -	• SQL Server 2005 • Object Collections • DataSet Performance Improvements • Integrated Authentication (Single Sign On)
Platform -	• Updated Crystal Reports engine • 64-bit support

For additional information please visit:

Crystal Reports for Visual Studio: <http://www.businessobjects.com/vsl/017>

Crystal Reports for .NET DevZone: <http://www.businessobjects.com/vsl/018>

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