

Release Notes

Welcome to **Crystal Reports 9**, the world standard in high-performance reporting. With Crystal Reports, you can rapidly transform almost any data into powerful, interactive content for tight integration into .NET, Java, and COM applications and extend your reporting solutions to other environments including Crystal Enterprise, portals, wireless devices, and Microsoft Office documents.

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The notes contained in this document cover important information pertaining to this release of Crystal Reports. Please read the entire document before performing the Crystal Reports 9 installation, and be sure to visit the Crystal Reports web site for the latest product news.

<http://www.crystaldecisions.com/products/crystalreports/default.asp>.

Note: This document refers to many of its entries by ADAPT number. These numbers are generated by the Crystal Decisions internal tracking system.

1. Installation

1.1. Minimum System Requirements

- Operating system:
 - Windows 98 Second Edition
 - Windows ME
 - Windows NT Workstation 4.0 (SP6a)
 - Windows NT Server 4.0 (SP6a)
 - Windows 2000 Professional (SP2)
 - Windows 2000 Server (SP2)
 - Windows 2000 Advanced Server
 - Windows XP Professional

Note: Windows 95 is not supported for Crystal Reports 9.

- 32 MB RAM minimum (64 MB for Windows NT), 64 MB RAM recommended
- 60 MB hard drive space minimum; 235 MB maximum for English, and up to 470 MB for other languages
- Pentium or higher processor required
- CD-ROM

Notes

- If a machine has Crystal Enterprise Report Application Server (RAS) 8.5 installed, installing Crystal Reports 9 or RAS 9 will change the version of the independent ProgID to point to RAS 9. This changes any RAS 8.5 applications to use the RAS 9 SDK. If the RAS 8.5 application SDK should be talking to a RAS 8.5 server, the application will not work, the RAS 8.5 application needs to be changed use a versioned ProgID. In RAS 9, the ObjectFactory Object has been introduced

to help in creating RAS SDK objects with a default, versioned ProgID. Once legacy RAS applications have been converted to use this Object, a developer need only change the version number in one place (namely in the call to the ObjectFactory constructor) for the application to work with any newer version of RAS.

For example, in VBS,

```
set obj = CreateObject( "CrystalReports.DBField")  
changes to  
set obj = CreateObject( "CrystalReports.DBField.1")  
set obj = ObjectFactory.CreateObject("CrystalReports.DBField")
```

This was done to make migration easier (that is, so you can use your old applications with the new RAS without having to make changes), however, it means you have to adjust your old applications. See the RAS SDK documentation for further details. (ADAPT 83991)

- Crystal Dictionaries and the Crystal SQL Designer are no longer included as part of the installation of Crystal Reports Professional, Developer, and Advanced Developer editions. These components can be installed separately by downloading them from our web site:

<http://www.crystaldecisions.com/products/crystalreports/default.asp>

(ADAPT 50576)

- Crystal Decisions supports the upward migration of reports from version 4.5 and above. Migration of reports from versions older than 4.5 is not supported.
- Installing Crystal Reports 9 or RAS 9 with an existing installation of Crystal Enterprise 8.5 will cause a New Report icon to be added to ePortfolio. This icon will not work (it returns a "HTTP404 Not Found" error). (ADAPT 87218)
- If you uninstall Crystal Reports 9 or RAS 9 from a side-by-side installation with Crystal Enterprise 8.5, the New and Modify features for reporting are removed from CE 8.5 as well. (ADAPT 86706, 86654)
- If you want to do a silent install, you must create an .ini file and reference your keycode there. This applies to both Crystal Reports 9 and RAS 9 installations. For information about how to do this, see: <http://support.crystaldecisions.com/library/kbase/articles/c2006742.asp>
- Crystal Reports 9 uses an "install on-demand" technology for some of its subcomponents. As a result, the very first time a particular component is used after being installed, there may be an extra wait for this "install on-demand" feature to complete. Note that this behavior will only affect new installations once and will not occur when components are restarted.
- Install-on-demand does not work for the MS Word export option. (ADAPT 90028)
- For Internet Explorer users, it is recommended that you upgrade your browser to IE5.5 SP2 if viewing problems occur (as suggested by Microsoft).
- To make the Active Server Pages (ASP) backend rptserver.asp work with legacy viewers (Java Applet viewer, HTML Viewers, and so on), you need a virtual directory called crystalreportviewers configured on your web server. Map the virtual directory to the following path: (ADAPT 75941)
C:\Program Files\Common Files\Crystal Decisions\2.0\crystalreportviewers
- If your Crystal Reports 9 CD has been copied to a network share and you run the installation from that place, the Release Notes link will not work. (ADAPT 91558)
- If you choose not to install to the default installation directory, do not specify a directory whose name includes DBCS characters (such as Japanese characters), diacritical marks (è, ä, ñ, and so on), and/or other special characters (Æ, æ, and so on).

1.2. .NET Installation

- Crystal Reports 9 enhances the Visual Studio .NET (VS .NET) development experience by adding Crystal Reports 9 features to the Integrated Development Environment (IDE). Therefore, you must install all of your .NET products before you install Crystal Reports 9, or you must rerun the Crystal Reports 9 or Report Application Server 9 (RAS) installation programs after you install a .NET product. (ADAPT 87307)

Here is a sample installation order:

1. Make sure Internet Information Server (IIS) 5 or higher is installed if you want to be able to host web applications on your development machine. If you are installing on Windows NT 4, you will not be able to create web applications on your machine's IIS web server; you will need to point to a Win2000 or Windows .NET Server machine when creating web applications in Visual Studio .NET. Please see the Visual Studio .NET documentation for more details.
2. Install Visual Studio .NET 2002.
3. Install the .NET mobile controls SDK.
4. Install Crystal Reports 9.
5. Install Report Application Server 9.

We highly recommend that you install at least the Report Application Server 9 Software Development Kit (RAS 9 SDK) from the RAS 9 setup after you install Crystal Reports 9, because some VS .NET 2002 features depend on the RAS 9 SDK. Most of the code samples illustrating the use of new Crystal Reports 9 and RAS 9 features are in the RAS 9 samples.

- The Crystal Reports component of .NET may not function properly after uninstalling Crystal Reports 9 from Visual Studio .NET. To restore functionality, you should run the Repair function in the .NET setup. (ADAPT 89415)
- If you install Crystal Reports 9 and then rerun the Visual Studio .NET 2002 (VS .NET 2002) install with the "Crystal Reports for Visual Studio .NET" option selected, you will see some problems. You will have both Crystal Reports 9 and VS .NET 2002 controls in the toolbox, but VS .NET 2002 will control code generation, publishing as a web service, and so on. To get Crystal Reports 9 to regain control over the IDE, you'll need to rerun the CR9 installation in repair mode. To properly downgrade to VS .NET 2002 without Crystal Reports 9, uninstall CR9 and rerun the VS .NET 2002 installation in repair mode. (ADAPT 90314)
- When .NET Framework or Visual Studio .NET is not detected, related installation features are disabled so they can't be accidentally selected. If necessary, you can override this behavior by defining a public property SHOWALLFEATURES=1 at the command line when starting setup.exe. (ADAPT 59029)
- The Server Files node under "Crystal Services" in the Server Explorer no longer communicates with the ServerFileReportManager.asmx web service. Instead, it contacts the Local Connection Manager of the Report Application Server on the specified machine. Querysrv.exe must be running on the specified machine for the Server Files node to work.

Similarly, the "Crystal Enterprise" node in the Server Explorer no longer communicates with the EnterpriseReportManager.asmx web service. It now communicates directly to the Crystal Enterprise APS through the Enterprise Bus ebus-3-3-2.dll. (ADAPT 87302)

For more information, see the Knowledge Base article at:

<http://support.crystaldecisions.com/kbase/c2010319.asp>.

- If you have been using the ServerFileReportService.asmx web service that shipped with Visual Studio .NET 2002, you can continue to use it, but it will not work with new features like Report Part navigation. Although Crystal Reports 9 Windows Form and Web Form CrystalReportViewer controls may work with the old Visual Studio .NET 2002 ServerFileReportService.asmx, this is an unsupported configuration. However, the Crystal Reports 9 ServerFileReportService.asmx was

designed to work with client applications created with the old CrystalReportViewer controls in Visual Studio .NET 2002.

To upgrade your web server to use the new Crystal Reports 9 ServerFileReportService.asmx, use the "Internet Information Services" configuration tool to map the virtual directory "/CrystalReportWebFormViewer" to:

"C:\Program Files\Common Files\Crystal Decisions\2.0\crystalreportviewers"

(Or the corresponding directory in your installation).

In Crystal Reports 9, the ServerFileReportManager.asmx and ServerFileReportService.asmx web services still default to the "C:\Program Files\Microsoft Visual Studio .NET\Crystal Reports\Samples\Reports" directory. If you would like to change this, modify the web.config file in "C:\Program Files\Common Files\Crystal Decisions\2.0\crystalreportviewers" to add <configSections> and <crystalDecisions> XML nodes.

Here is a sample web.config file that sets the root of your Server File directory tree to c:\inetpub\wwwroot:

```
<configuration>

  <configSections>
    <sectionGroup name="crystalDecisions">
      <section name="serverFileReportManager"
type="System.Configuration.NameValueSectionHandler, System, Version=1.0.3300.0,
Culture=neutral,
PublicKeyToken=b77a5c561934e089, Custom=null" />
    </sectionGroup>
  </configSections>

  <system.web>
    <!-- DYNAMIC DEBUG COMPILATION
      Set debugmode enable="true" to enable ASPX debugging. Otherwise, setting this value
      to false will improve runtime performance of this application.
    -->
    <compilation debug="true">
      <assemblies>
        <add assembly="System.Xml, Version=1.0.3300.0, Culture=neutral,
PublicKeyToken=b77a5c561934e089"/>
        <add assembly="CrystalDecisions.CrystalReports.Engine, Version=9.2.3300.0, Culture=neutral,
PublicKeyToken=692fba5521e1304"/>
        <add assembly="CrystalDecisions.Shared, Version=9.2.3300.0, Culture=neutral,
PublicKeyToken=692fba5521e1304"/>
        <add assembly="CrystalDecisions.ReportSource, Version=9.2.3300.0, Culture=neutral,
PublicKeyToken=692fba5521e1304"/>
        <add assembly="CrystalDecisions.Web, Version=9.2.3300.0, Culture=neutral,
PublicKeyToken=692fba5521e1304"/>
      </assemblies>
    </compilation>

    <!-- APPLICATION-LEVEL TRACE LOGGING
      Application-level tracing enables trace log output for every page within an application.
      Set trace enabled="true" to enable application trace logging. If pageoutput="true", the
      trace information will be displayed at the bottom of each page. Otherwise, you can view
      the application trace log by browsing the "trace.axd" page from your web application root.
    -->
  </system.web>
```

```

<crystalDecisions>
  <serverFileReportManager>
    <add key="rootDirectory" value="c:\inetpub\wwwroot" />
  </serverFileReportManager>
</crystalDecisions>
</configuration>

```

(ADAPT 87302)

- After installing Crystal Reports 9, if you customize your toolbox and go to .NET Framework Components, you might encounter an error that reads:

"The following assemblies are installed SDK assemblies but could not be shown in the customize toolbox dialog because they are missing one or more components. Please make sure that all necessary libraries are available. CrystalDecisions.web.mobile.dll"

This error occurs only if you don't have the Mobile components installed. (ADAPT 81046)

- Some Crystal Reports .NET features depend on the Report Application Server (RAS) SDK. For example, if you have a hyperlink to another report object with the .NET WebForms viewer, and you specify a 'ras:/' path in the Report URI field, the .NET WebForms viewer will rely on the RAS SDK. If do not have the RAS SDK installed, you will see the following error message:

Enterprise Report Application Server was not found. Ensure that you have specified an EnterpriseSession.

To install the RAS SDK, run the Report Application Server 9 install, choose a Custom install, and select "Report Application SDK." If you do not install and run the RAS server on the same machine, you will need to point your default ReportAppServer to a different machine; please refer to the "Report Application Server (RAS) Installation" section for more details.

- When you start the VS .NET IDE, you may see a "Package Load Failure" in VS .NET for the "VsRptDesigner" package or the "Crystal Reports Tools Package." To resolve this error, you must run VS.NET with an account that has Administrator privileges, or with an account that is not a roaming profile. This problem is caused by the VS.NET IDE failing to get a Cryptographic Service Provider from ::CryptAcquireContext().
- On a Windows operating system, currencies, dates, and numbers in the .rpt file are not formatted in the locale you want. To solve this, you have two choices:
 - Run IIS on a localized operating system (OS). For example, on a Japanese OS, the user default locale of the SYSTEM account is 1041 = Japanese, so Japanese dates and currencies display properly.
 - Create a "UserJapanese" account in the "Users" and "Administrators" groups and set the "IIS Admin Service", "FTP Publishing Service", "Simple Mail Transport Protocol Service", and "World Wide Web Publishing Service" to run under "UserJapanese". The account needs to be in the Administrators group, and needs to have the following additional user rights added using the Local Security Policy applet:
 - Act as part of the operating system
 - Generate security audits
 - Logon as a service
 - Replace a process level token

This problem occurs because aspnet_isapi.dll is calling CreateProcessAsUser() to create aspnet_wp.exe, the worker process that runs the .NET code. However, CreateProcessAsUser() leaves the HKEY_CURRENT_USER registry hive in aspnet_wp.exe pointing to the same hive as inetinfo.exe's user, the SYSTEM account, which is 1033 (English) on an English operating system.

- Crdb_adoplus.dll is not installed on demand. The following error message results: "Failed to load database information."

This problem occurs for both a Typical and a Custom installation of Crystal Reports where ADO.NET is installed on demand. In these scenarios, crdb_adoplus.dll will only be installed on demand (that is, when Project Data of the Data Explorer is expanded). If you load and run an application that uses crdb_adoplus.dll (an ADO .NET dataset application), the application will fail to locate the Dynamic-Link Library (DLL).

You can work around this problem in one of two ways:

- Enter the Data Explorer, and expand Project Data. This will install the DLL on demand.
- Enter the Crystal Reports Setup and, in Add/Remove, expand Data Access. Select ADO.NET to be installed to the hard drive.
- The Crystal Reports 9 documentation for the .NET SDK includes a section about deploying the Crystal Reports .NET runtime. The following merge modules are listed as required files: Managed.msm, Database_Access.msm, Database_Access_enu.msm, and regwiz.msm. While you may find files with these names present on your machine, these would likely have been installed with the previous version of the Crystal Reports .NET SDK that shipped with Visual Studio .NET. To obtain the version of these files that corresponds to Crystal Reports 9, visit the Crystal Care Technical Support web site at: <http://support.crystaldecisions.com/updates/>. Once on the web site, search for the merge modules by selecting Crystal Reports from "Select a product," 9 from "Select a product version," and Product update from "Select a file type," and then click Go.

1.3. Report Application Server (RAS) Installation

1.3.1. Installation Notes

- These are the minimum System Requirements for the Report Application Server:
 - Operating system:
 - Windows NT Workstation 4.0 (SP6a)
 - Windows NT Server 4.0 (SP6a)
 - Windows 2000 Professional (SP2)
 - Windows 2000 Server (SP2)
 - Windows 2000 Advanced Server
 - Windows XP Professional
 - Microsoft Internet Information Services (IIS) 4
 - 128 MB RAM minimum
 - 100 MB free disk space minimum
 - For a client-side installation (Client Web Browser):
 - Internet Explorer 5.5 SP2 recommended or Netscape Navigator 4.78 (Netscape Navigator 6.1 recommended).
- Note: Netscape Navigator 6.0 is not recommended.**
- Installation instructions for Report Application Server 9 can be found in the Doc directory of the installation CD in the file called RAS_User.chm.
 - You must install all your .NET products before you install Report Application Server, or you must re-run the Report Application Server setup after you install a .NET product. Here is a sample installation order:
 1. Make sure Internet Information Server (IIS) is installed if you want to be able to host web applications on your development machine.
 2. Install Visual Studio .NET 2002.
 3. Install the .NET mobile controls SDK.

4. Install Crystal Reports 9.

5. Install Report Application Server.

- Existing installations of the Report Application Server will be updated when this version of RAS is installed.
- It is not possible to use the same keycode on multiple machines at the same time. If you attempt to do this, the second RAS server will not start.
- The mapping DLLs must be installed on the RAS server in order to view a report that contains a map in the Web Report Design Wizard. To install the mapping DLLs, use the Crystal Reports Installation CD and do a custom installation. Select only the Geographic Mapping option. For more information about custom installations, see the *Crystal Reports User's Guide*. (ADAPT 64858)
- If you are using WebLogic as your web server, update your WebLogic Start command file to use the maximum memory size (update from 64 to 256). If you don't make this change, the report viewers will fail when you view a report that has a large chart (zoom factor set to 300% or 400%). (ADAPT 87726)
- The RAS installation doesn't create a virtual directory for samples on Win.NET with IIS 6.0(v.525). You must create the directory manually. (ADAPT 93901)
- You cannot install RAS for a second locale on the same machine as an existing installation for the original locale (that is, for example, you cannot install RAS English and RAS French on the same machine). (ADAPT 94802)
- This version of RAS is a non-managed version. That is, RAS 9 cannot be integrated with CE APS 8.0 or 8.5. It is not a replacement for CE RAS 8. The CE RAS 9 will be released with CE 9.
- RAS 8 SDK cannot communicate with RAS 9 server. In addition, RAS 9 SDK cannot use RAS 8 server.
- RAS 9.0 SDK can coexist side-by-side with RAS 8. Users can install both versions of the SDK on the same machine.
- If a machine has RAS 8 or RAS 8.5 SDK installed, installing Crystal Reports 9 (or RAS 9) will have the version independent ProgID point to RAS 9 components. This changes causes RAS 8 applications to use the RAS 9 SDK. RAS 8 applications will not work if the application creates objects using the version independent ProgID. To fix the problem, RAS 8 applications need to be changed to create objects using the versioned ProgID. In RAS 9, the ObjectFactory Object has been introduced to help in creating RAS SDK objects with a default, versioned ProgID. Once legacy RAS applications have been converted to use this Object, a developer need only change the version number in one place (namely in the call to the ObjectFactory constructor) for the application to work with any newer version of RAS.

For example, in VBS:

```
set obj = CreateObject( "CrystalReports.DBField")
```

changes to

```
set ObjectFactory = CreateObject("CrystalReports.ObjectFactory.1")
```

```
set obj = ObjectFactory.CreateObject("CrystalReports.DBField")
```

See the RAS SDK documentation for further details.

- cdReportClientDocumentSaveAsCrystalReports7 (used to save report in Crystal Reports to version 7 format) is not longer supported.
- The enum value in RAS 8 crUnspecifiedValueTypeSeperateValues is misspelled. It is now renamed as crUnspecifiedValueTypeSeparateValues. The numeric value remains unchanged. All scripting code written with RAS 8 should still function without problem.

1.3.2. RAS Server Caching

- Reports with subreports will not be cached.

1.3.3. Server Configuration

- How to connect to RAS on a different machine (for the samples to work, you have to perform solution (b) manually):

1. Install only the RAS SDK on machine A.
2. Install the RAS server on machine B.

Next, you need to complete one of the following solutions to get the SDK on machine A to talk to the server on machine B:

- Solution (a)

In the SDK application on machine A, set the ReportAppSession.ReportAppServer property to machine B.

- Solution (b)

Leave ReportAppSession.ReportAppServer blank (unassigned) and modify the config file on machine A (Program Files\Crystal Decisions\Report Application Server 9\clientSDKOptions.xml) to refer to the RAS server on machine B.

- If a report cannot be opened from a mapped path, it could be because the RAS server is installed to run as a NT service under a system account. System accounts do not have rights to access network resources. (ADAPT 63566)

1.4. Side-by-Side Installation

- Crystal Reports 9 cannot be installed side by side with Crystal Analysis Pro (CAP) 8 Maintenance Release 1. Crystal Reports 9 can, however, be installed side by side with Crystal Analysis Pro 8.5.
- Removing Crystal Reports 9 Developer Edition will cause components of applications based on CRAXDDRT9 and CRAXDRT9 to be unregistered. (ADAPT 88535)

2. Documentation

2.1. General

- The help folder installed with the Crystal Compatibility Tools contains documents from the previous version of Crystal Reports. (ADAPT 90107)

2.2. Crystal Reports User's Guide and Online Help

- The printed version of the *Crystal Reports 9 User's Guide* may not list the up-to-date system requirements in the "Installing Crystal Reports" chapter. Please refer to the Installation section of this document for the correct system requirements.
- The *Crystal Reports 9 User's Guide* incorrectly states that some editions of Crystal Reports 9 are shipped with a stand-alone version of Crystal Enterprise. Crystal Enterprise is not shipped with any editions of Crystal Reports 9.
- The *Crystal Reports 9 User's Guide* may not have the correct names for some of the financial functions. The correct names for the functions are available in the Formula Workshop.
- The "Using thread-safe database drivers" section of the *Crystal Reports 9 User's Guide* should be updated as follows:
 - crdb_p2sdb2 now marshals to a single server thread (that is, it is not multithread enabled). (ADAPT 94748)

- ODBC now offers multi-threading for IBM DB2 and DataDirect DB2 drivers. Use of the IBM DB2 driver is recommended.
- `crdb_query` is now multi-threaded for commands that are in turn from one of the other thread safe drivers outlined in the user's guide.

2.3. Report Application Server Viewer Help

- The "Advanced viewer features" page of the Report Application Server Viewer Help (Report_Viewers.chm) is incorrect. The COM Report Page Viewer and COM Report Part Viewer do not support PDA output. As well, the section called "Implementing COM web reporting viewers" incorrectly states that you can view a chart from a mobile device and drill down on further details using the COM Report Part Viewer.
- The Report_Viewers.chm indicates that the ActiveX Viewer is able to prompt users for logon and parameter information. It also provides examples of URL commands (for example, `init=actx`) and URL-based reporting (for example, `webSource0.URL = "/scrreports/1N2Y.rpt"`). The ActiveX Viewer does not support these features. (ADAPT 94877, 94882)

2.4. Report Application Server SDK Help (COM)

- In the Report Application Server SDK Help (RAS_SDK.chm), the "How to modify groups and sort records" tutorial does not function properly and should not be used.
- In the RAS_SDK.chm, all the reference to the "Report Application Server 9" program group should be to "Crystal Enterprise 9".
- In the RAS_SDK.chm, the topic "Administering the Report Application Server | Accessing the Report Application Server Configuration Manager," the "Report Application Server 9 program group" should be changed to "Crystal Enterprise 9\Tools." The line should read:
 - From the "Crystal Enterprise 9\Tools" program group, click Configuration Manager.
- In the RAS_SDK.chm, in the topic "SDK Reference | Accessing data sources | Runtime data sources," the text should read `DatabaseController.AddDataSource` and `DatabaseController.SetDataSource`, not `RowsetController`.
- In the "Change a command-line argument" section of the RAS_SDK.chm, the command line argument should be:


```
querysrv.exe [-ipport <port number>]
```

2.5. Report Application Server SDK Help (Java)

- In the Java documentation, the following items should not be documented; they are not meant for general use:
 - `RowsetCursorRecord` (application package) (ADAPT 94521)
 - `getFilterController()` and `getFieldRangeItemAt ()` (ADAPT 94511)
 - `DataSet` class (data package)
 - `ReportOptions.getReportStyle`, `setReportStyle` (document package)
 - `ReportDefinition.getReportStyle`, `setReportStyle` (definition package)
 - `isReadyToDispose()` and `dispose()` methods of `ClientDocument`
- The Crystal Report Viewer for Java does not support Crystal Web Requests or URL-based reporting. The following parameters cannot be used when embedding the viewer into a web page:


```
<param name=ReportName value="/crystal/enterprise/admin/en/viewrpt.cwr">
<param name=ServerParameters value="/crystal/enterprise/admin/en/viewrpt.cwr?id=116">
```

(ADAPT 94887)

3. Notes and Limitations

3.1. Crystal Enterprise (CE) Integration

- Crystal Reports 9 can be integrated only with releases after Crystal Enterprise 8.5. Crystal Reports 9 can be run side-by-side with all other versions of Crystal Enterprise.

3.2. File Format

Reports in Crystal Reports 9 cannot be saved in the file formats of previous versions. To avoid loss of reports from previous versions, it is strongly recommended that you save copies of all reports before opening them in Crystal Reports 9.

3.3. Unicode Support

Crystal Reports 9 supports Unicode. Following are some differences in behavior you might notice in Crystal Reports because of the changes made for Unicode support: (ADAPT 35109)

- Escape now cancels your changes in the middle of editing text objects (previously Escape stopped the editing process, but committed the changes you'd made in the edit session).
- Going from the Design tab to the Preview tab stops editing of text objects and commits the changes you have made.
- Choosing some dialog boxes stops the editing of text objects (for example, Remove Database but not the Format Editor).
- If you require true multilingual user interface in the Report Designer or the RDC, you should run on Windows NT, 2000, or XP (Crystal has a Win 9x wrapper layer, but it isn't as reliable as NT).

3.4. Editions

- The Standard edition of Crystal Reports 9 does not support Online Analytical Processing (OLAP). OLAP options that appear in the user interface will not be functional. As well, when you apply a template report containing an OLAP grid, you get the error message, "Cannot apply template to document."
- The Standard edition of Crystal Reports 9 does not include the Crystal Repository. (ADAPT 82663, 82654)

3.5. Data Access

The DLLs used for data access have been reengineered and renamed in Crystal Reports 9. Those that begin crdb_p* are the non-Unicode-enabled DLLs while any other DLL name signifies a Unicode-enabled DLL for version 9.

3.5.1. General

- If you receive the following error message when accessing a data source in Crystal Reports: "Query Engine Error - No Database DLL has been specified" it could indicate that the option to install that database driver was not selected during a custom installation. (ADAPT 58875)
- Brackets are not supported in table alias names. (ADAPT 94495)
- Using the "Perform Query Asynchronously" option is not supported if more than one SQL query is required to fetch the report data. (ADAPT 94561)
- You can mask for only a single file type in the File System Data Connection dialog box. Alternatively, you can also accept all file types and then use a selection formula to further filter the selection by extension or File Type. (ADAPT 81677)

3.5.2. ACT!

- The vendor of ACT! no longer supports ACT! versions older than v.5 (ACT! 2000). This version of Crystal Reports is tested only against the supported versions of ACT!. (ADAPT 67480)
- Some issues have been found with the old recommended linking configuration for ACT!. In some cases, the report may not execute properly. For a more appropriate linking configuration, contact ACT!. ACT! advises that it is generally best to remove unnecessary tables from the report unless they are specifically used to join some required tables. (ADAPT 96327)

3.5.3. Crystal Dictionaries

- The crdb_dictionary.dll does not handle sample data and pictures. This means when you create a version 9 report based on a DC5 file, you won't be able to see any pictures or sample data stored in the DC5 file.
- Using the Finish button on the Choose Dictionary dialog box without first specifying a dictionary file (DC5) or selecting the Use Cached Dictionary option will yield incorrect and unpredictable results. (ADAPT 51904)
- If you create a dictionary file using a database DLL that has not been installed with Crystal Reports, you will receive an error message when opening the dictionary in the report designer. To avoid this problem, ensure you've used the desired driver in a report before you try to use it in a dictionary. (ADAPT 88238)

3.5.4. Crystal Queries

- When previewing or refreshing a report that uses a cached QRY file, Boolean fields become Numbers. This happens only when the QRY file was created in Crystal Queries 7; to solve the problem, update your query in Crystal Queries 8. (ADAPT 88150)
- The query designer represents null values as 0. A report based on a query with saved data shows 0 instead of null values. When refreshed, such a report will show the null values correctly. (ADAPT 88742)

3.5.5. DAO

- The DAO Access driver does not support auto linking by keys. If you want to use auto linking based on the foreign and primary key relationships, use the Access ODBC driver. (ADAPT 90479)

3.5.6. DataDirect (Merant) ODBC Drivers

- Some new DataDirect (Merant) ODBC drivers may have different default settings from the versions released with Crystal Reports 8.5. You have to change the settings manually (in the ODBC Manager) in order to allow some specific features to work—stored procedures, for example. (ADAPT 51613)
 - ODBC SQL Server Wire Protocol Driver | Advanced | Enable Quoted Identifiers = checked
 - Both Oracle ODBC Driver 4.0 and Oracle Wire Protocol ODBC Driver 4.0 | Advanced | Procedure Returns Results = checked
- The DataDirect DB2 ODBC driver that is shipped with this release of Crystal Reports is enabled for multi-threaded database access, however it has been found to fail or hang under heavy loads. It is recommended that you use the IBM driver to access a DB2 database via ODBC.

3.5.7. DB2

- The Add Command feature is not available when connecting natively to DB2, Sybase, or Informix. It is currently supported only for ODBC, ADO, DAO, and Oracle native. (ADAPT 83500)
- Adding a native DB2 table in Crystal Reports 9 using the RAS is not supported. You can use crdb_odbc.dll to work around this limitation. (ADAPT 86246)

3.5.8. FoxPro

- Accessing FoxPro through DAO is not recommended. Instead, use the FoxPro OLE DB provider or ODBC. (ADAPT 21799)
- With Visual FoxPro 5.0, to select either 'starting with' or 'like' for an entire Date/Time string, make sure that the Report Option called "Use Indexes Or Server For Speed" is not selected. (ADAPT 14483)

3.5.9. Informix

- The Informix native driver is single threaded. This is an issue only when using the driver with RAS or the PageServer. (ADAPT 70105)
- The Add Command feature is not available when connecting natively to DB2 and Informix using old versions of the drivers. You must use the new ODBC driver to access this feature. (ADAPT 83500)
- Setting location from an Oracle connection to an Informix native connection fails. This is specific to Informix table names where the schema is like <database>@<server>:<schema>.<table>. (ADAPT 92486)

3.5.10. JavaBean Connectivity

- Before you can use the JavaBean Connectivity feature, you need to setup or modify the following registry keys: (ADAPT 81346)
 - Under "HKEY_LOCAL_MACHINE → SOFTWARE → Crystal Decisions → 9.0 → Crystal Reports", add a new key called "Database" and a new string value called "JavaBeansClassPath". Edit the value data of JavaBeansClassPath to point to the directory or directories that contains the compiled Java Bean class files. If you're using more than one directory, separate them with a semi-colon. For example:
C:\JavaBean\Datatype\;C:\JavaBean\Linking\
 - Under "HKEY_LOCAL_MACHINE → SOFTWARE → Crystal Decisions → 9.0 → Crystal Reports", add a new string value called "JREPath". Edit the value data of JREPath to point to the exact file location where jvm.dll is located. For example:
C:\j2sdk1.4.0\jre\bin\client\jvm.dll
- There are some limitations with the crdb_javabeans.dll driver:
 - Float data type limitation—only from -1.79e+38 to 1.79e+38.
 - TinyInt (unsigned: 0-255) in SQL and Byte (signed: -128-127) in Java cannot map to each other unless you create a conversion function to map these data types.
- If you experience an error such as "unknown query engine error" when previewing a report based on a JavaBean data source, use an earlier or later version of the JDK. There is a bug version 1.4.0_01 of the JDK. (ADAPT 92654, 92599)
- Binary and VarBinary data types both return Empty sets; however, the LongVarBinary data type works as expected. (ADAPT 81550)
- Crystal Reports 9 cannot support JDBC reports that contain either Char8000 or VarChar8000 fields. However, JDBC LongVarChar (text) fields containing 8000 characters works as expected. (ADAPT 81571)
- You cannot set the input parameter to Null for stored procedures. The "set to Null value" checkbox is missing from the user interface even if the table itself (where the data is retrieved) contains null value(s). (ADAPT 82029)

3.5.11. Lotus ODBC Driver

- The NotesSQL driver does not support Nested Outer Joins. (ADAPT 69701)

3.5.12. ODBC Drivers

- Converting a report with a working SQL Expression field to a data source where the field won't work makes Crystal Reports fail. This is an issue only if you have a database connection open to another ODBC database server type that the SQL Expression tries to verify itself against. To solve this issue, remove the problematic SQL Expression before the report is refreshed. (ADAPT 83465)
- For stored procedures that have different schemes (depending on the values of the stored procedure parameters), the report may not contain the correct schemes after the stored procedures are added from an ODBC data source. You can work around this problem by adding the following registry value:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Crystal Decisions\9.0\Crystal Reports\Database\ODBC]  
"FetchStoredProcedureSchemaOnlyAfterExecution"="Yes"
```

(ADAPT 83690)

- You should make sure that the quoted identifier specified for your data source is not blank. (ADAPT 63965)

3.5.13. OLE DB Driver

- The Logon dialog box appears when you click the Database Expert option for version 8.5 reports based on an ADO connection. This won't happen once the report has been refreshed and saved as a version 9 report. (ADAPT 43796)
- When specifying a SQL Server database via OLE DB, no error message appears when you enter an incorrect version SQL Server on the Connection Information screen. (ADAPT 57497)
- In the RDC, you are unable to add a DataEnvironment that uses an OLEDB Provider to a SQL or Oracle server. To work around this problem, use a different provider such as an OLEDB Provider for ODBC. (ADAPT 93777)

3.5.14. Open OLAP (HAPI)

- Crystal Reports ships with several versions of the DLLs for Essbase and DB2 but installs the most recent version as the active one. If you want to use a previous version, delete the active version, and then copy and rename the correct version.

3.5.15. Oracle

- There is a conflict between Oracle's native driver and DataDirect's non-wired protocol ODBC driver if your report contains BLOB/CLOB fields. These two drivers should not be used simultaneously if the report based on the Oracle native connection contains pictures. The problem can be worked around by changing the ODBC driver to the DataDirect wired protocol ODBC driver or Oracle's ODBC driver. (ADAPT 74133)
- The DataDirect Oracle ODBC Driver does not support CLOB fields. (ADAPT 63132)
- Stored Procedures may fail if you are using an old Oracle ODBC driver. Upgrade to Oracle driver 8.01.74.00 or greater. (ADAPT 62686)
- Wrong Unicode data is returned if your SQL statement contains nvarchar and nchar data types in the Where clause when using the DataDirect ODBC driver 4.0 (non-wire) for Oracle. Oracle didn't support these data types until its version 9 API. (ADAPT 73122)

3.5.16. SQL Server

- The SQL Server native driver has been deprecated; any reports using this driver will be automatically converted to ODBC. Because the report will be saved in the new format, you should

save a backup copy of the report if you wish to continue working with it using the native driver in an older version of Crystal Reports.

- In the RDC, LogOffServer doesn't work with a previous native SQL server connection. (ADAPT 92077)

3.5.17. Sybase

- Crystal Reports allows you to set a Boolean parameter value to null even though Sybase does not accept null Boolean values. Do not select this option. (ADAPT 60103)
- The native Sybase driver is not enabled for multi-threaded database access in this version or previous versions of Crystal Reports.
- Do not use a parameter of type "timestamp" in a Sybase stored procedure. (ADAPT 16830)

3.6. Developer

3.6.1. .NET Designer

- Importing Microsoft Data Reports or .DSR reports is not supported in the Crystal Reports 9 .NET Designer. (ADAPT 61768, 90996)
- If the wrong date order is displayed on Custom Styles dialog box of the Format Editor, ensure the check box called "Link separators to date order" is selected before you change the date order. (ADAPT 54438)

3.6.2. .NET Mobile Viewer

- The .NET Mobile Viewer cannot set different drilldown hyperlinks of fields in a multiple field report part. This is a limitation of mobile device(s). (ADAPT 68588)
- You can retrieve only a limited number of records with the .NET Mobile Viewer. If you try to scroll through a report with too many records, you will receive the following message: "Session state is no longer available. Try to increase history size or session expiry limit." (ADAPT 93009)
- Using a context formula in the Initial Data Context and Object Name settings is not supported. (ADAPT 93938)

3.6.3. .NET Project Migration Tool

- To migrate a web project properly, you should point ProjectMigrator.exe to the project directory. If you point to a parent directory, you may need to delete the "%userprofile%\vswebcache" yourself. For example, 'rmdir /s "C:\Documents and Settings\username\VSWebCache"'. (ADAPT 90173)
- When using the ProjectMigrator.exe tool, you should back up your project first. (ADAPT 82479)

3.6.4. .NET WebForm PartViewer

- You cannot use a Cross-Tab column for Report Part drilldown even though the user interface appears to allow this action. (ADAPT 68376)
- In this viewer, the report title is displayed on each page of a multiple page report. This behavior can be turned off in the code. (ADAPT 60517)

3.6.5. .NET WinForm Viewer

- Database login information cannot be passed in to a RAS server connection. If you need to modify a specific database's logon information, set ReportSource, get LogOnInfo, and then modify the user and passwords in the collection. Otherwise, the user and password are set into the first logon the viewer receives. (ADAPT 72725)

3.6.6. ActiveX Viewer

- The ActiveX Viewer has been enhanced. These report objects can now be viewed and printed:
 - Rotated text
 - Fully justified text
 - Tabbed text (right, left, centered, and decimal-aligned tabs)
 - Right-aligned paragraphs and text
 - Bi-directional text

All Unicode scripts, including Arabic, can be rendered on all platforms, including Windows 98 and Me, which don't natively support this capability. This also implies fully mixed language text (that is, Japanese, Chinese, Arabic, and so on, all in the same report page). Digit substitution in Arabic and Farsi locales is also now supported.

3.6.7. CRPE

- The function `setNthCubeLogonInfo` ignores the `serverName` parameter. If you want to change OLAP servers, set the cube location within Crystal Reports. (ADAPT 60491)
- When logging on to a PC database using the DAO, `PECreateReport` can return the wrong error code (708 or 709). (ADAPT 82626)
- Due to a limitation of the JVM, ensure that CRPE is initialized when the client program starts up and un-initialized only when the program shuts down. This limitation applies only if you are using `crdb_javabeans`.

3.6.8. Interactive Viewer (COM)

- Currently, the HTML content of a report can overflow the viewer control's size. If the highlighted object is in the overflow area, the auto-scrolling will not work. (ADAPT 58808)

3.6.9. Interactive Viewer (Java)

- If you click a date field in the Java Boolean Search, the search result will not navigate to the right record on the page. For example, if you enter "Thu Mar 7," but the report shows "2002/03/07," a match won't be found even though the two values represent the same date. (ADAPT 67217)
- If you navigate to another report, the Alert table and the search wizard disappear.

3.6.10. Interactive Viewer (All)

- In the Free Form Condition Editor, "Add field to filter" adds the field to the end of the expression, not to the cursor position. (ADAPT 59643)
- Clicking a field hyperlink from an exported table returns you to the main page with the correct field highlighted, but the Alert table and Boolean search section do not reappear. This occurs only on ASP pages, not on JSP pages. (ADAPT 62369)
- On pages where the group tree is longer than the data displayed on that page, the lower toolbar cuts across the middle of the group tree. The default property `HasPageBottomToolbar` must be set to `False` to avoid this problem. (ADAPT 92616, 93038)
- The Interactive Viewer (both .jsp and .asp pages) shows decimal places for Report Alerts you configured to not show decimal place values. (ADAPT 62149)
- While displaying Report Alert records in the Interactive Viewer, clicking a record's hyperlink searches for and displays the original field unless that field has a different format from the hyperlink. For example, if you set the "Last Year's Sales" field to be formatted as \$1,123 in Crystal Reports, but it is displayed as \$1123 for the hyperlink seen in the Interactive Viewer, clicking the hyperlink will not find the \$1,123 field—it will only refresh the page. Note: This problem occurs on both .jsp and .asp pages. (ADAPT 61852)

3.6.11. Query Building Tool

- It is possible to launch your own query-building tool instead of the Crystal tool if you are using an OLEDB provider (crdb_ado). Do this by associating a COM server with an OLE DB provider. The COM server becomes the query-building tool invoked. To launch a particular query-building tool for a specific OLE DB provider, the following requirements need to be met:

In either HKEY_CURRENT_USER or HKEY_LOCAL_MACHINE, create registry key such as:

Software\Crystal Decisions\9.0\Crystal Reports\DatabaseOptions\ProviderName.version

Include two string values:

- 1 QueryBuilderProgID with the value of the progID of the COM server.
- 2 QueryBuilderFunctionName with the value for the function name that can return a query and has a declaration such as:

BSTR FunctionName([IN] BSTR inStr, [IN] VARIANT inUnknown)

- QueryBuilderProgID indicates the ProgID of the COM query builder.
- QueryBuilderFunctionName is the function name that returns the built query (the QueryBuilderFunctionName's value is case sensitive).
- The function currently has two input parameters: the first one is the existing query if one exists, otherwise it's empty; the other one is the IUnknown pointer that you can use to query for ADO ConnectionPtr.

The interface should return S_FALSE if you use CANCEL or exit and do not want to continue. It should return S_OK if a query has been built.

If the above conditions are met, an instance of the COM object will be created and the method will be called to get a query.

3.6.12. Report Application Server (.NET SDK)

- In the .NET Report Application Server (RAS) SDK wrapper, some Report Application Server (RAS) SDK methods, such as ReportTemplate.ApplyToDocument(Object), take an Object parameter that is marshaled to an IDispatch by the Common Language Runtime (CLR). However, the CLR assumes that the object you pass is a Runtime-Callable Wrapper (RCW) for a COM object, and not a managed object that implements a COM interface.

In those cases, if you try to pass in an EnterpriseReportDocument, you will get an InvalidCastException in the CLR marshalling code. For example,

```
EnterpriseReportDocument entRptClientDoc = null;
...
rptTemplate.ApplyToDocument( entRptClientDoc );
```

To work with an EnterpriseReportDocument, you need to call InnerClientDocument to get the inner ReportClientDocument, which is a COM object. To make the above code work, you would now write this:

```
EnterpriseReportDocument entRptClientDoc = null;
...
rptTemplate.ApplyToDocument( entRptClientDoc.InnerClientDocument);
```

3.6.13. Report Application Server (COM SDK)

- If you encounter a case where the DatabaseController.DoSmartLinking fails to fetch new data, call RowsetController.Refresh to get new report data that reflects the new table links. (ADAPT 61362)
- Deleting tables from query files is not supported. (ADAPT 69737)

3.6.14. Report Application Server (Java SDK)

- The FromString() method, PropertyBag class, is not implemented in the Report Application Server Java SDK. (ADAPT 75353)
- Using the jvm.dll from IBM JRE for crdb_javabeans.dll can cause the Report Application Server to fail. (ADAPT 92617)
- If you are using the jvm.dll from version 1.3.X of IBM JDK, RAS may fail. It has been found that the jvm.dll aborts the program (that is, the RAS server) under certain error conditions, which results in the RAS server failing.
- Attempting to apply a report template using the Java Template API (including the Java Web Report Design Wizard) will fail on a target report that has a group name field when the group condition field is of the date, date/time, or time type. (ADAPT 96336)

3.6.15. Report Application Server (All SDKs)

- If two methods have the same name (but different signatures) within one class, you cannot specify which method to use as a data source for report creation in the Report Application Server SDK. (ADAPT 84754)
- Adding an invalid group filter does not return an error until fetching rowsets/previewing reports. (ADAPT 66864)
- If you are having trouble accessing network resources using the Report Application Server, you may want to run the "Report Application Server" Service using a network logon account. The RAS service is configured to run under a LocalSystem account. If your reports are on a UNC path, and if you need to use NT authentication, you must configure the RAS service to run under a network logon account.
- Using WebLogic 6.0 SP2 Server in conjunction with the Report Creation Wizard can cause the HTML in the Wizard pages to display incorrectly (the end of line characters are not being correctly added to the JSPWriter.println() function in the WebLogic 6.0 SP2 implementation of JSP). To work around this problem, add \n characters to the end of each line output to the user by the wizard, or upgrade to WebLogic 6.1.
- Once a filter is added and data is fetched, modifying the filter only applies additional filters on the original fetched data. You need to refresh to get a complete result set from the database server again. (ADAPT 83528)
- A report template that contains a cross-tab chart cannot be applied in either the COM or Java RAS SDKs. (ADAPT 89041)
- When using ISCRReportTemplateEngine::CreateTemplateFromDocument(), the ReportClientDocument has to be opened with cdReportClientDocumentRetrivePictureImage (1048576), otherwise any PictureObject and chart template in the template report will not be applied to the target report.
- The RAS SDK does not support the new table link types of Crystal Reports 9. The HTML Wizard and many samples found on the CD show how to use an existing report as a data source. However, if the source report is using one of the advanced link types, the add-link will fail.
- ReportClientDocument.VerifyDatabase() does not return an error if RAS fails to verify the table scheme used in subreports due to missing logon information.
- Using ConnectionDirManager to browse MS Access ODBC data sources or processing MS Access reports causes RAS server to have memory-leaks. For more information, see:
<http://support.microsoft.com/default.aspx?scid=kb;EN-US;q132493>
(ADAPT 69514)
- Specify which DSN to expose from the following registry:

HKLM\Software\Crystal Decisions\9.0\Report App\Server\ODBCConnectionMgr

DSNIncluded = <DSN name>[;<DSN NAME>]*

e.g.

DSNIncluded = "ORA_EN;NorthWind-MSSQL"

Note: This restricts only the ODBC DSNs that can be seen by the ODBC ConnectionDirManager. This is a work around for memory leaks when browsing Access data sources.

- The RAS SDK does not support creating new reports from Crystal Dictionary. However, RAS does support the opening of reports based on Crystal Dictionary files (.dc5, .dct), but only if the Crystal Dictionary files require only one logon username and password.
- When RAS opens a report using Commands, the table objects in the ReportClientDocument become Procedure objects instead of a CommandTable object. This causes the RAS SDK to be unable to add the command table to another ReportClientDocument. (ADAPT 93366)
- When opening a ReportClientDocument object with `cdReportClientDocumentRefreshRepositoryObjects`, the RAS server refreshes the picture objects, text objects, custom functions, and command tables from the repository. After the command table is updated, if the table scheme is changed, you need to call `ReportClientDocument.VerifyDatabase` to get the updated scheme and fix the report.
- When SearchController creates a SearchResultCursor, it adds two extra internal special fields to the resultant rowset: GroupPath (`crSpecialFieldTypeGroupPath`) and RecordKey (`crSpecialFieldTypeRecordKey`). These two special fields are used to help RAS to navigate the report rowset data and report pages. You can ignore the two extra columns of data returned from the Rowset object.
- When RowsetController creates a RowsetCursor, it adds one extra internal special field to the resultant rowset: RecordKey (`crSpecialFieldTypeRecordKey`). This special field is used to help RAS to navigate the report rowset data. You can ignore the extra column of data returned from the Rowset object.
- The Name property of ReportObject cannot be modified through the RAS SDK. The Name can be added when adding the ReportObject to the report. Once the ReportObject is added, the Name cannot be modified.
- Modification of SubreportObject, CrossTabObject, MapObject, and OlapGridObject is not supported in this version of RAS. ReportObjectController.Modify will fail when attempting to modify one of these objects.
- If a report has both a database table and a command table from the same database server, the logon information is not shared between the two tables. You need to set the database server username and password to both tables. (ADAPT 64375)
- When adding a `crFormulaSyntaxSQL` FormulaField to a report before the report has logged on to the database server successfully, the FormulaField.Type is `crFieldValueTypeUnknownField`. This may cause further operations on the FormulaField to fail. For example, adding a `crFieldValueTypeUnknownField` SQL syntax FormulaField to RecordFilter will produce the error "The range field is not valid. Filtering on its field type is not supported". To work around this problem, you can set the table logon information (for example, with DatabaseController.Logon) before creating any SQL syntax formula fields. (ADAPT 61699)
- Removing a table may fail if any of its fields are being used in any FormulaField. (ADAPT 73104)
- For a stored procedure whose scheme changes depending on the values of its parameters, the parameter values should be set before the stored procedure is added to the report or before the connection to a database is established. If the parameter values are changed after the stored procedure is added, RAS may not update the scheme correctly when verifying the database.

However you can reopen the report, change the parameter values before connecting to the database server, then the verify database process will update the table scheme. (ADAPT 80742)

- RowsetController.CreateCursor will fail if the given GroupPath is from a string containing forward slash character(s) in the named group path and qualified group path. An error message "Type mismatched" will be returned. (ADAPT 70955)

For example,

- If the group condition field name contains a forward slash character like "/Region", then the qualified GroupPath "//Region[USA]" will cause RowsetController.CreateCursor to fail. To work around the problem, you can use a numeric group path (for example, "0-1-2") or a named group path (for example, "/USA").
- If the group value contains a forward slash character like "US/A", then the name group path will cause RowsetController.CreateCursor to fail. To work around the problem, you can use a numeric group path (for example, "0-1-2") or a qualified group path (for example, "/Country[US/A]").

3.6.16. Report Application Server – Crystal Report Template Engine

- Gantt charts are not supported in the Crystal Report Template Engine.
- Blob fields are not supported in the Crystal Report Template Engine.
- When using ISCRReportTemplateEngine::CreateTemplateFromDocument(), the ReportClientDocument has to be opened with cdReportClientDocumentRetrievePictureImage, otherwise the PictureObject and chart template in the template report will be not applied to the target report.
- Text objects created using earlier versions of Crystal Reports are simple text objects, not FieldHeadingObject. When using such reports as templates to the Crystal Report Template Engine, the text objects are simply copied to the target report. The target report won't be updated with the field name of the bound column. (ADAPT 46276)
- Subreports, cross-tabs, and OLAP grids in a template report won't be applied to the target report.
- Only the static OLE objects of a template report can be applied to the target report.
- Section spaces for ReportObject(s) that cannot be applied to the target report are still preserved.
- Chart objects in a template report will only be applied to the target report if the corresponding condition fields and summary fields used in the chart of the template report can be found in the target report. Otherwise, no chart will be added to the target report.
- If the corresponding embedded field in TextObject is not placed anywhere in the target report, the embedded field in TextObject will be ignored.
- If a template report has more groups than the target report, the Crystal Reports Template Engine does not add those extra groups to the target report. If there are fields (except for GroupNameField) placed in those group areas, the corresponding mapped fields in the target reports will be lost after applying the template.
- When applying a template report that contains ReportObjects from a repository to a target report, the ReportObjects' links to the repository are preserved. However, the Crystal Report Template Engine does not use the latest copy stored in repository when applying the template to a target report. You need to reopen the target report to refresh the change. (ADAPT 91112).

3.6.17. Report Designer Component (RDC)

- Changing a selection formula through crdesigner.dll/craxddrt9.dll does not automatically refresh data after you save changes. (ADAPT 63074)

- You cannot lock an object through the RDC. If a report object is modified in Crystal Reports so that its lock property is set to true, you can delete, cut, and/or move the object in the RDC. (ADAPT 63000)
- Report Templates cannot be applied through API calls in the Report Designer Component. (ADAPT 71512)
- If you have a problem justifying Arabic text right to left, install the new uniscribe library called usp10.dll. This library can be obtained by installing Office XP or Internet Explorer 6.0. (ADAPT 39188)
- Saving a report in the RDC using cr80FileFormat or cr70FileFormat saves the report file in Crystal Reports 9 format. (ADAPT 49711)
- System or user-level security for Access databases is no longer supported in the RDC. (ADAPT 71645)
- If a report contains a custom function that is connected to the Crystal Repository, you will have to disconnect it from repository in order to edit it. (ADAPT 73513)
- The ability to make a report field or section read only is not supported in the RDC. (ADAPT 82008)
- The RDC AddADOCCommand will fail with "Server not yet opened" when you use the OLE DB SQL Server provider, SQLOLEDB. Using Persist Security Info = True works, but using Persist Security info = False fails. (ADAPT 79870)
- For new report created in the RDC Designer against a stored procedure with parameters, the parameter value entered when adding the stored procedure is treated as the current value and therefore any values passed at runtime will be ignored. o work around this problem, save the report to a disk file, open it in Crystal Reports, do a Database | Verify Database, and then import it back into the RDC designer. (ADAPT 95817)

3.6.18. Report Part Navigation

- When navigating to another report part using the NavigateTo method in ASP or JSP, the method should be called only once in the server page per user session if the report has parameters and/or database login. For example:

// My ASP page using VBScript.

```
.  
.
.
```

```
Dim HTMLViewer  
Set HTMLViewer = CreateObject("CrystalReports.CrystalReportViewer")  
HTMLViewer.ReportSource = "MyReport"
```

```
if (isEmpty(Session("doNotNav"))) then  
    call HTMLViewer.NavigateTo("/Country[Argentina]/ChildIndex[0]", "CustomerName2")  
end if
```

```
call HTMLViewer.ProcessHttpRequest(Request, Response, Session)
```

```
Session("doNotNav") = "true"
```

```
.  
.
.
```

(ADAPT 95248)

3.6.19. Report Part Viewer (COM)

- Once a report has been opened in the Report Designer, its Report Part objects cannot be viewed in COM Report Part Viewer. (ADAPT 57737)
- Drop shadows are not supported as borders in the Report Part Viewer. (ADAPT 46071)
- Drilldown on field objects in the report header (RH) and/or report footer (RF) sections is not supported in the Report Part Viewer. (ADAPT 61911)
- Setting a data context for non-English characters through code in the COM Report Part Viewer does not work because IIS 5 does not support Unicode ASP pages. (ADAPT 74648)
- When designing an ASP page for use in mobile devices, use a unique Name for the viewer you specify (that is, HTMLPartViewer.Name = [a unique name]). (ADAPT 80565)
- Fields in suppressed report sections cannot be viewed in the Report Part Viewer; an error message will be issued. (ADAPT 80409)

3.6.20. Report Part Viewer (Java)

- You cannot drill down on suppressed sections in this viewer. (ADAPT 73201)
- When setPreserveLayout is true, the Report Part Viewer (using Netscape 4.78) displays all the fields and records in a single column. (ADAPT 73936)
- The font size displayed in the Java report viewer and Report Part viewer is not always the same as the size shown in the Report Designer (this is especially true for fonts that include a point value, such as 10.5). This difference is due to limitations with displaying fonts in HTML. (ADAPT 75030)
- Report Part drill down fails when drilling down on report content that uses the ampersand (&) sign. (ADAPT 85450)

3.6.21. Report Part Viewer (All)

- The Report Part display is no longer correct after going back to the previous page in both the Java and COM Report Part Viewers. This happens because multiple Report Parts with conditional suppressed sections are not fully supported in this version. If you use Back (rather than Previous), the problem should not occur. (ADAPT 83824)
- Charts, Cross-tab objects, and graphics are not supported as report parts for all wireless devices. (ADAPT 84838)
- Field headings do not appear in the Report Part Viewer until you move to the next page by clicking Next. (ADAPT 66202)

3.6.22. Report Viewers

- There are a number of limitations with viewing formatted text objects in the Report Viewers. These limitations are inherent in HTML. (ADAPT 81073, 81076)

Note: None of the supported Report Viewers can display rotated text properly.

Internet Explorer 5.5:

- Cannot handle text character spacing properly.
- Dashed Line style looks like a dotted line.
- Cannot handle text indentations properly.

Netscape Navigator 4.79

- Cannot handle text character spacing properly.
- All line styles look like a single line.

- Cannot handle text indentations properly.
- Cannot see Tool Tips for text objects.
- Cannot handle line spacing properly.
- Cannot display a Drop Shadow properly.
- Because there is no support for Crystal Enterprise in this version, thin-client report viewers are not available. However, the thick-client viewers (that is, the Active X Viewer and the Java Applet viewers) are available.
- The DHTML Viewer will not display a report that contains two OLAP Grid objects from two different cubes on the same server. (ADAPT 26757)
- When using either the COM or Java page viewers, all parameters are prompted for whether or not they appear on the report itself. (ADAPT 56994)
- For the COM page viewer, when you want to refresh a report you must put the IReportSource or ClientDocument in the session (refresh is not a stateless operation). (ADAPT 72674)
- In the Java page viewer, the content type is set only if no writer is supplied (that is, the last argument to processHttpRequest is null). If a writer is supplied, or if you set ownPage to be false, you must set the content type. To do this, include the following statement at the beginning of your jsp: (ADAPT 68375)

```
<%@ page contentType="text/html; charset=utf-8" %>
```

- You can login into reports without entering a user ID and password in all the report viewers. This issue is By Design because the reports are stateless (that is, they cannot be refreshed). (ADAPT 82712)
- When using WebSphere 3.5 or 4.0.1, loading the viewer with parameter or logon prompting causes an http 500 error. To resolve this problem, download and install FixPak 4.0.3. Click this link for more details: [IBM WebSphere](#).
- For some phones, there's a limit as to how much data you can get back. Therefore, when designing ASP or JSP pages, you should set the Part Viewer's RecordNumber property to a reasonable number. By default, the number is 10. However, for the mobile case (especially for WML phones), you may want to set it to under 5.

Also, note that for mobile devices, there is a limit to the number of viewstates that can be cached in a session. The current limit is 20, so if you pass 20 pages, the 21st page will overwrite the oldest page (that is, page 1). (ADAPT 82825)

- The following registry sub-keys may be useful when debugging COM report viewers during development. Please note that Technical Support cannot provide assistance with problems arising from accessing the registry.

- **CRPE Debugging Information**

Key: HKLM\Software\Crystal Decisions\9.0\Crystal Reports\Logging

Name: GenerateEPFDebug

Value Type: DWORD

Values: 1 - on, 0 - off

Default setting if not found: off

- **COM Viewer Debugging Information**

Key: HKLM\Software\Crystal Decisions\9.0\Report App\Viewer

Name: RenderDebugInfo

Value Type: DWORD

Values: 1 - on, 0 - off

Default setting if not found: off

* Note: Requires "CRPE Debugging Information" be turned on as well.

- **COM Viewer Error Information**

Key: HKLM\Software\Crystal Decisions\9.0\Report App\Viewer

Name: ErrorInfo

Value Type: String

Values: "disable"/"short"/"long"

Default setting if not found: "short"

- **COM Viewer Error Log File**

Key: HKLM\Software\Crystal Decisions\9.0\Report App\Viewer

Name: ErrorLogFile

Value Type: String

Values: filename with full path

Default setting if not found: ""

* Note: Error information in the log file is always in long format

- The following parameters may be useful when debugging and configuring Java report viewers during development. Please note that Technical Support cannot provide assistance with problems arising from accessing the registry.

Set the parameters in Web.xml located in the "" directory. For example:

```
<context-param>
  <param-name>crystal_image_dir</param-name>
  <param-value>c:\temp</param-value>
</context-param>
```

- **Crystal image directory (CrystallImageDirectory)**

Parameter name: crystal_image_dir

Parameter value: Full path to the image directory.

Default setting if not found: The temp directory path.

- **Crystal image URI (CrystallImageURI)**

Parameter name: crystal_image_uri

Parameter value: URI

Default setting if not found: The current value of request.getRequestURI ().

- **Do not delete the Crystal image (CrystallImageNoDelete)**

Parameter name: crystal_image_no_delete

Parameter value: true/false

Default setting if not found: false

- **Enable Crystal logging (CrystalEnableLogging)**

Parameter name: crystal_enable_logging

Parameter value: true/false

Default setting if not found: false

- **Crystal locale language (CrystalLocaleLanguage)**

Parameter name: crystal_locale_language

Parameter value: client locale lowercase two-letter ISO-639 code

Default setting if not found: The current client locale setting.

- **Crystal exception information (CrystalExceptionInfo)**
Parameter name: crystal_exception_info
Parameter value: disable/short/long
Default setting if not found: short
- **Crystal exception log file (CrystalExceptionLogFile)**
Parameter name: crystal_exception_log_file
Parameter value: The log file name.
Default setting if not found: ""
- **CRPE debugging information (CrystalGenerateEPFDebug)**
Parameter name: crystal_generate_epf_debug
Parameter value: 0 (off)/1 (on)
Default setting if not found: 0
- When attaching a ReportClientDocument.ReportSource to the HTML viewer, the logon information and parameter values need to be set through the HTML viewer. This is because the viewer's view state overwrites the states in ReportClientDocument; therefore, any logon information and parameter values set in the ReportClientDocument will be lost.
- The Fixed style for a currency symbol becomes the Floating style when viewing reports in either the COM or Java viewers. (ADAPT 91889)
- The Netscape ActiveX Plug-In Viewer is not supported in Netscape version 6 or later. (ADAPT 89755)
- When attaching a ReportClientDocument.ReportSource to the HTML viewer, the logon information and parameter values need to be set through the HTML viewer. This is because the viewer's view state overwrites the states in ReportClientDocument; therefore, any logon information and parameter values set in the ReportClientDocument have been lost.

3.6.23. Sample Reports and Applications

- Applications using the Report Designer Component need to be changed to reference CRAXDRT9.* rather than CRAXDRT.*.
- Applications using the ActiveX viewer need to be changed to reference a new Class ID: 2DEF4530-8CE6-41c9-84B6-A54536C90213. (ADAPT 54807)
- ASP samples from Crystal Reports 8.5 will not run until all instances of CrystalRuntime.Application are changed to CrystalRuntime9.Application in all .asp pages. (ADAPT 54489)
- RDC ASP samples: "Java using browser JVM" viewer doesn't work with Netscape 6.2 and IE 6.0. (ADAPT 90758)
- RDC ASP samples: for the HTML viewer to display buttons, you must either create a virtual folder called "viewer" to point to the location where the samples are situated (C:\Program Files\Crystal Decisions\Crystal Reports 9\Samples\En\Code\Web\Report Designer Component). Alternatively, if this virtual directory exists and points to another location, point to the folder C:\Program Files\Crystal Decisions\Crystal Reports 9\Samples\En\Code\Web\Report Designer Component\images and copy its contents to that location. (ADAPT 91780)

3.6.24. Web Report Design Wizard

- In the COM version of the Report Creation Wizard, when you use invalid characters when saving a report (for example: V:*?"<>|), an error message occurs, but the file is saved with no name. This generates an additional error if you launch the wizard again and try to open the folder containing the incorrectly named report. (ADAPT 80017)

- If you select a report that contains Template Field Objects as your data source in the Web Report Design Wizard, the report will fail on the “Choose the information to display” page. (ADAPT 84451)
- If you use an existing report as the source for database tables and table links, AddLink will fail if the link in rptDataSource is using some advanced link type (new to Crystal Reports 9).

3.7. New Functionality and Known Issues

3.7.1. General Designer Issues

- The length limitation of 254 characters for string fields has been removed in all Unicode-enabled DLLs. The Unicode-enabled DLLs support up to 64K characters. (ADAPT 21840)
- In some cases, you cannot use the delete key to remove a group from the Report Explorer or the Design tab. You can delete such groups using the right-click menu option. (ADAPT 57705)

3.7.2. Add-ins

- Crystal Report Wizard 9 doesn't work properly for Excel when CR 8.5 and CR 9 are installed side by side. This problem occurs for reports created in the version 9 wizard before CR 8.5 is installed. In this case, the report becomes associated with the 8.5 version of CRW32.exe and the ActiveX Viewer can no longer recognize it as a version 9 report. (ADAPT 66870)

3.7.3. Charting

- The Edit Axis menu option is now available only when you are working on the Preview tab. (ADAPT 44346)
- The Auto-Arrange option doesn't work properly with 3D charts; only the chart title is considered when the option is selected. (ADAPT 21621)
- Gauge charts should be designed so that no more than 13 gauges are displayed; otherwise, the results are not reliable. (ADAPT 57402)
- A chart's conditional formatting may be wrong when refreshing reports from previous versions of Crystal Reports. The problem is that the field value type of any new summary fields will be changed to match the current database type, while the ChartHighlightingItem object will still hold the original value type. (ADAPT 88923)

3.7.4. Commands

- Some combinations of data types are not supported in the "Add command" feature. To get the best results when combining and ordering data types, follow these guidelines:
 - Put BLOB and CLOB (Character Large Object) fields at the end.
 - Do not use Decimal or Numeric fields with BLOB or CLOB field in the same rowset.
- When you choose to use a table based on the Crystal Reports “Add Command” feature or a Command from Crystal Repository, Crystal Reports will not alter the syntax of the SQL submitted to the server. Crystal Reports doesn't parse a command; it passes it to the data source and works with the rowset that is returned. Because Commands can be as complex as the author desires and need not be restricted to SQL, Crystal Reports cannot know whether quoting or escape characters are needed at any point.

This caveat also holds for parameters inserted into the Command since, once again, Crystal Reports does not have any knowledge of how that parameter is used in the command.

- For example: select * from orders {?param1}
In this case, you should not quote the parameter.
- Alternatively: select * from orders where name = {?param1}
In this case, param1 should be quoted.

(ADAPT 66156, 75783, 91174, and 91179)

- Parameters created with the "add command" and renamed through the Field Explorer aren't renamed properly in the report's SQL query. (ADAPT 66432)
- When using the Set Location option for a SQL command or a Stored Procedure that contains parameters, you are not prompted to select parameters before the new fields are fetched. (ADAPT 87445)
- The input parameters your reports prompt for may not be correct if you change the number or order of parameters in your Stored Procedure. However, these will be correct for Commands stored in the repository if you choose to refresh from the repository upon opening the report. (ADAPT 88986)
- When adding a Command with a parameter to a report, the check box for a null value is not displayed. When refreshing the report and choosing a new parameter value, the check box is created and can pass null values. As well, it is not possible to pass null values to multiple parameters. (ADAPT 90341, 90351)
- You cannot add a Command whose SQL statement contains a time parameter (date/time parameters are allowed, however). (ADAPT 90287)
- If a Command in the Crystal Repository has invalid SQL, it cannot be disconnected and edited. To fix the Command, recreate it in a new report and then add it to the repository in place of the old one. To recreate the Command, you can cut and paste it from the old Command and then edit the new one. (ADAPT 91876)
- If you report from a Command with a parameter or stored procedure and then verify your database and change the parameter at the same time, you must refresh your report before your data will be correct. (ADAPT 91732)

3.7.5. Cross-Tabs

- When you use percentage values in Cross-Tabs, the decimal values of the percentage numbers are not displayed. As a result, adding the actual cell values won't always total to the value shown in the Cross-Tab's total column. The problem is found when using Count and Distinct functions. (ADAPT 75168)

3.7.6. Custom Functions

- The custom functions included with this version of Crystal Reports are intended as samples. You can change or modify them as necessary. For example, the custom function called "cdConvertUSToCanadian" will have to be updated with a correct exchange rate if you intend to use it. (ADAPT 64714)
- If a custom function has not been added to the current report, and you look at the text of its repository copy, the custom function name keywords are not displayed in blue. (If the custom function is imported, the name does appear in blue.) (ADAPT 68566)
- A custom function cannot be called if its name conflicts with a formula variable. The name of a custom function is a reserved word, like the names of the built-in Crystal Report functions. (ADAPT 74570)

3.7.7. Dictionaries

- When you create a report based on a dictionary with linked tables, and then add a table from another data source, you cannot create links between tables within the dictionary and the new table if that table is inserted between the dictionary's tables. For example, suppose you have a dictionary that includes the linked tables A and B. If you add table C from another data source and arrange them in the following order: A, C, B. The pseudo-link between A and B is broken and no new link can be created. (ADAPT 65779)

- Sample data is no longer displayed when opening a report based on a Dictionary if the report does not have saved data. (ADAPT 52340)
- To use a *.dct file, open the file in Crystal Dictionary and save it as a .dc5 file first. (ADAPT 82764)

3.7.8. Exporting

- When exporting large reports to Excel, your export will complete, but Excel takes a long time to render the report. (ADAPT 73337)
- If you export to ODBC, it is recommended that you upgrade to MDAC 2.7. Your machine has to be rebooted after the MDAC installation. (ADAPT 73659)
- In Excel, page-based exporting allows for Page Range selection, but Excel (Data only) format does not. This behavior is by design. (ADAPT 68340)
- Exporting to MS Word or RTF may require you to resize time fields before or after you export. This is a limitation with the way Word displays output text. (ADAPT 16650)
- The Send To options found on the File menu will not work until you reboot your system after installing Crystal Reports. (ADAPT 75066)
- In Windows 98 (Second Edition), exporting old reports that contain maps to PDF and MS Word fails under certain conditions. To work around this issue, save the old report as a new version report before exporting. (ADAPT 80603)
- Because Excel does not support dates before 1900, exporting such dates in Crystal Reports will yield unpredictable results. (ADAPT 79758)

3.7.9. Formula Language

- In fixing a problem with the Crystal Syntax "select-case-default" statement, which could manifest itself when the select expression was not the last expression in a formula or was not a top level expression, some reports that seemed to work in the past might now fail (in reality, these reports worked only by chance in previous versions).

Another possible manifestation of this problem occurs with some Crystal Syntax formulas that use the Select expression (this is not a problem in Basic syntax). If you get a "The remaining text does not appear to be part of the formula" error when opening a report in Crystal Reports, delete any token following the Select expression (in many cases, this is a semicolon or an extra right parenthesis). (ADAPT 11492, 32099)

3.7.10. Formula Workshop

- The Value field in the Function Arguments area of the Formula Expert can hold a maximum of 30,000 characters. (ADAPT 48955)
- The toolbars in the Formula Editor and the Workshop Tree cannot be undocked and moved in Crystal Reports 9. (ADAPT 54866)

3.7.11. Group Tree

- For reports with a very large number of groups, the group tree displays only approximately 64K of all the group names. (ADAPT 45713)

3.7.12. Hyperlinks

- The Hyperlink option has been removed from the Insert menu. To insert a hyperlink on an entire report, choose the A File option on the Hyperlink tab of the Format Editor. (ADAPT 58155)

3.7.13. OLAP

- Great performance improvements have been made in OLAP reporting. In some cases tested by Crystal Decisions, improvements are greater than 98%.

- The OLAP worksheet enhancements in this version of Crystal Reports bring the Report Designer in line with the worksheet functionality of Crystal Analysis Pro. However, it should be noted that the two worksheets do not have identical functionality—some small differences may be seen if you are experienced with CA Pro. (ADAPT 57315, 57318, 57321, 57323)
- OLAP reports created in version 6 cannot be opened. (ADAPT 27238)
- OLAP reports created in previous versions of Crystal Reports automatically hit the cube when opened if they include charts and/or maps. (ADAPT 49964)
- If you have more than one OLAP grid in your report, only the first grid will display changes made when reentering the OLAP Wizard regardless of which grid has the focus. (ADAPT 32956)
- Reports that contain OLAP grids in subreports will now have their data saved. This enhancement resolves viewing errors for Crystal Reports 9. However, the errors will persist when trying to view reports from older versions of Crystal Reports (ADAPT 73542)
- References to OLAP parameter fields are lost when you rename the parameter in the Field Explorer. (ADAPT 81535)
- Connect to your OLAP cube before refreshing report data if your report was created in a previous version of Crystal Reports using MSOLAP7 and if you upgraded to MSOLAP8 some time after. (ADAPT 81843)
- Drill-down, reorder, add Calculated Member, and filter options are disabled until you refresh OLAP reports created in a previous version of Crystal Reports. (ADAPT 81090)
- The Crystal Reports Online Help lists the MDX functions (along with their syntax blocks) that are available to you when you write your own calculated members. The information currently provided constitutes a reference section, and not an in-depth tutorial. These are some examples of common calculations that can be performed with MDX functions:
 - To calculate the sum of all products on the products dimension, place this calculation on the products dimension:
`sum (Members ({ Products }))`
 - To calculate the average weekly sales, place this calculation on the weekly dimension:
`avg (Members ({ Weekly }))`
 - To calculate the number of members on the weekly dimension that are greater than 1000, add this calculation to the weekly dimension:
`count (filter (Members ({ Weekly }) , Current() > 1000))`
 - To give the rank of the budget based on each week, place this calculation on the measures dimension (with the weekly dimension on the other axis):
`Rank (Array (CurrentMember ({ Weekly })) , Order (AllMembers (Level (CurrentMember ({ Weekly })) , { Measure@'Budget' } , ASC))`
 This calculation can be applied to any member / dimension by changing the dimension Weekly and/or the member Measure@'Budget'
 - To calculate the average / standard deviation / variance of all the members on the row axis, use the corresponding calculation:
`avg (stripcalculatedmembers (Axis (1)) , Current())`
`stdev (stripcalculatedmembers (Axis (1)) , Current())`
`var (stripcalculatedmembers (Axis (1)) , Current())`
- Charts and Maps lose their zoom view settings when you perform any OLAP grid-altering action (pivoting / sorting / filtering / calculated member / reorder members). (ADAPT 12132)

- If members are selected or deleted through the Member Selector for a page dimension, the colors and the font sizes of the applied style are reverted to defaults, and the lines of the grid are left unchanged. (ADAPT 12175)
- An OLAP grid with a calculated member cannot be collapsed after being expanded. (ADAPT 10514)
- Making a connection to a data source using your enterprise logon will cause a permissions problem when creating a report with paged dimensions. If users other than the creator of the report want to use it, they must use their enterprise account to log on to the data source. (ADAPT 85215)
- On Windows Me, when connecting to an Essbase server for OLAP reporting, a direct connect will fail intermittently unless the same version of the Essbase client is installed on the local machine and the server. (ADAPT 82167)
- In a default installation of .NET, if an MS OLAP report is created on a different server (not your local server), when refreshing the report in the .NET Webform viewer, you will get unhandled exception errors.

To solve this problem, do the following:

- In the "machine.config" file (found at C:\Winnt\microsoft.net\framework\v1.0.3521\config), change userName="Machine" to userName="System" in the <processModel> line.
- Run iisreset at the command line.

(ADAPT 89570)

- Making a connection to a data source using an Enterprise logon causes permissions problems when creating a report with paged dimensions. If users other than the creator of the report want to use it, they will have to use their Enterprise accounts to log on to the data source. (ADAPT 85216)

3.7.14. Parameters

- The Hebrew calendar is not supported for date parameters. (ADAPT 68972, 68982)

3.7.15. Report Bursting

- Fields that are included in formulas are not added the Report Bursting Index when you select the Auto button. (ADAPT 68169)

3.7.16. Report Navigation

- It is highly recommended that all reports navigated to and from reside in the default RAS report directory. This will ensure that the linked reports can be easily migrated to a Crystal Enterprise environment.

3.7.17. Report Parts

- Cross-Tab and Grid objects may work in the Report Part Viewer and other DHTML viewers, but they are not supported in this release of Crystal Reports (that is, you may get unexpected results depending on the size of the Cross-Tab or OLAP Grid and the device you are using to view them). (ADAPT 65989)
- You cannot view large memo fields fully in the Report Part Viewer. Design Report Parts so that memo fields do not span more than one page in the viewer. (ADAPT 62183)
- Copying and pasting a data context for your Initial Report Part Settings (Options dialog box) may not provide the exact result you require. Check the result of your cut and paste and edit accordingly. (ADAPT 70708)
- Very large Cross-Tab objects (several pages long) will shut down the web server after the Report Part Viewer fills its memory. (ADAPT 73616)

- You cannot paste a string into the Initial Report Part Settings area of the Report Options dialog box (you can, however, paste a report object). This behavior is by design. (ADAPT 75215, 85351)
- The data context doesn't support the character forward slash (/) character.
- If the data context has a data type such as Date, Time, Number, or Currency, the regional setting for the RAS server must match the data type in the data context.

3.7.18. Repository

- Four database types are supported for the COM version of the Crystal Repository: Access, SQL Server, DB2, and Oracle. All databases have to support Unicode.
- Spaces are not allowed between the <repository name> and <odbc data source> segments when configuring the orMap.ini file. (ADAPT 94193)
- In the *Crystal Reports User's Guide* and in the online help, the section called "Configuring a New Repository" lists an incorrect location for the orMap.ini file. The correct directory is: \Program Files\Common Files\Crystal Decisions\2.0\bin.
- File-level security on an Access database may not provide the desired results. If you want to secure your repository database, it is suggested that you use one of the other supported database types. (ADAPT 85967)
- The following conditions have to be met when using DB2 or Oracle as your repository's database: (ADAPT 85009)
 - DB2
 - Client at least of version 7.2.
 - Server-side database must be configured to UTF-8 encoding.
 - Oracle
 - Server side Database must be version 9i.
 - Client can be DataDirect Wire Protocol ODBC driver version 4 or newer only for Oracle Server running on Solaris.
 - Client can be ORACLE version 8 or 9 ODBC drivers for Oracle Server running on both Solaris and NT.
- Custom functions can be saved to the SampleRepository.mdb even though it is otherwise read-only. This behavior is By Design. (ADAPT 60559)
- When you rename a repository folder or object to something containing an invalid character, the error message does not appear until you try to add another object to the repository by dragging and dropping. (ADAPT 75082)
- To use Unicode object titles in your Crystal Repository, the repository database must be set up to support Unicode data. (ADAPT 92446)
- Items that are from the repository will not have a Log Off option in the Data Explorer.

3.7.19. Smart Tags

- Copying a field that contains more than one line and pasting it into a Windows XP document (while using the Smart Tag feature) does not maintain line formatting. (ADAPT 65252)
- If you resize a chart or if you modify the content of the Smart Tag text, the tag used by Crystal Reports is lost. To alleviate this problem, resize the chart first before you copy and paste into Windows XP. (ADAPT 62332)

- Smart Tag refresh supports only reports with one database logon. If the report has more than one database that requires logon, the User ID and the Password must be the same for all the databases. (ADAPT 88368)
- Copying and pasting Smart Tag information converts upper case to lower-case for the web server, virtual directory, and page names. (ADAPT 94177)
- The data context doesn't support the character forward slash (/) character.
- If the data context has a data type such as Date, Time, Number, or Currency, the regional setting for the RAS server must match the data type in the data context.

3.7.20. Templates

- The templates included with Crystal Reports 9 are intended as samples to provide you with guidelines for creating your own templates. As such, not every template includes every kind of field available. This might become an issue when applying the supplied templates. For example, because the High Contrast template doesn't include a summary field, applying it to a report containing a chart will cause the chart to be lost. (If you apply a sample template that includes a summary field, the chart will be retained.)
- Currently, there is only a Number tab in the Format Editor for use with Template Field Objects. If you set any currency options on this tab, all number fields have the same format applied. (ADAPT 72872)
- You cannot apply a template to a subreport. To work around this limitation, you could create a separate report, apply a template, and then import that report as a subreport into the main report. (ADAPT 75202)
- You cannot apply a template to a report that contains an SQL Expression. (ADAPT 85923)
- Gantt charts are not supported as template objects.
- You cannot apply a template to a report if the report has a summary whose operation is Correlation With, Covariance With, Nth Largest, Nth Smallest, Nth Most Frequent, or P Percentile. (ADAPT 93750)
- If the global formula syntax is set to "Basic Syntax," the default template field object formulas won't compile (the default template field objects are written in Crystal Syntax). (ADAPT 94399)

3.7.21. Text Objects

- When you are editing a text object, you must click outside the text frame to commit your changes to the report file. If you save the report without exiting the text editor, or if you change to a different view, your changes will not be saved. (ADAPT 86120)

3.7.22. Tool Tips

- Tool tips are not displayed when toolbars are undocked. (ADAPT 39793)

3.7.23. Web Report Design Wizard

- If you save a report before visiting the Style page in this wizard, the report formatting may not be suitable to you. Use a style or template to correct this formatting problem. (ADAPT 68153)
- You cannot open reports based on SQL Command tables in the Report Creation Wizard. (ADAPT 70514)
- Adding a filter for a SQL Expression field is not supported in the Report Creation Wizard. (ADAPT 70273)
- When you preview a new report that is based on a report with parameters and saved data, the preview fails. (ADAPT 87426)

4. Language Version Issues

4.1. General

- Because of the Unicode support included in this version of Crystal Reports, language versions of reports created in Crystal Reports 8.5 should be opened on the same platform they were last saved on (that is, the system locale must be the same as it was when the report was last saved). Once the report has been opened in 9 and resaved, this limitation no longer applies. (ADAPT 52431)
- In general, when designing reports to be used in locales different from the one they are created in, it is recommended that you use fonts appropriate to the language (the script) of the string data in the report. Relying on font substitution can result in unpredictable results, especially in a Windows 9x environment. (ADAPT 80090)
- The group tree doesn't maintain the date format after changing your system locale and reopening the report. This is a one-time problem that occurs only after changing locale; refreshing your report resolves the issue. (ADAPT 84067, 84070)
- When exporting, a message "Unable to create map layer" will appear if the Export dialog box is invoked before any mapping functions are used. To work around this problem, use the mapping functions before exporting.
- Crystal Reports 9, Crystal Analysis Professional 9, and Holos use the same resources for Charting and Mapping. Because of differences in the localized versions of these products, you will see differences for Simplified Chinese, Spanish, and Italian content depending on whether or not CR9 is installed on the same machine as CAP9 or Holos:
 - If localized versions of CR9 are installed for SCH, ES, or IT and CAP9 is subsequently installed, the Charting and Mapping modules will be localized.
 - If only CAP9 or Holos are installed (or if CAP9 or Holos are installed before CR9), the Charting & Mapping will appear in English.

4.2. Add-ins

4.2.1. Crystal Report Wizard 9

- Crystal Report Wizard 9 does not work with Office 97 for Excel on Chinese operating systems. (ADAPT 67080)

4.3. Data Access

4.3.1. Sybase

- The Sybase native driver for French operating systems can't add a table name that includes spaces. (ADAPT 66445)

4.4. Developer

4.4.1. Report Designer Component (RDC)

- If you create a report on a Japanese OS and use Japanese characters in its object names, the report will make the RDC fail when opened on a machine with an incorrect locale setting. If the object names are changed to English, or if the system's default locale is Japanese, the problem won't occur. (ADAPT 89476)

4.4.2. Report Page Viewer (Java)

- To ensure all groups display in localized reports, add the following code to the web.xml servlet file for Web Logic:

```
<context-param>
  <param-name>weblogic.httpd.inputCharset./*</param-name>
  <param-value>iso-8859-1</param-value>
</context-param>
```

4.5. Documentation

4.5.1. Legacy Help

- In the Japanese developer help, look for the most recent RDC SDK information in the CrystalDevHelp.chm and not the Legacy.chm.

4.5.2. Report Application Server Java SDK

- You can find an addendum to the Japanese version of the Java developer documentation on the Report Application Server 9 installation CD in the DOC folder.

4.6. Report Designer

4.6.1. Chart Templates

- Applying a template to a chart overwrites the chart's font property setting on Japanese operating systems. When you apply a template to a chart the font setting is taken from the template file, so to alleviate the problem, ensure the proper font is used in the chart template. (ADAPT 23895)

4.6.2. Formula Editor

- The Formula Editor does not recognize a comma as a decimal place delimiter; you must use a period. (ADAPT 69237)

4.6.3. Mapping

- When creating new reports that include map objects, you should use an ODBC connection to the report's data source. (When using a direct connection to the data source, you may encounter an "Unable to create map layer" error message. Also, map objects in any subsequent new report—created in the same report designer session—may not be displayed correctly.) (ADAPT 52936)

4.6.4. OLAP

- Using a Holos cube on a French Windows 98 operating system is not supported for this version of Crystal Reports. (ADAPT 85291)

4.6.5. Parameters

- Versions of comctl32.dll earlier than 5.x cause problems with using Japanese calendar years (the year defaults to 1754 when trying to increment or decrement the year in the Emperor calendar). (ADAPT 25500)
- For all language versions, only the English word "Password" is accepted as a password in the Edit Mask. When you load a non-English report, if the mask value means "Password" in the specific language (for example, "Kennwort" in German), the value will be translated to the English word "Password" automatically. Once the report is saved in version 9, the new mask value "Password" will replace the old one. (ADAPT 62350)

4.6.6. Repository

- If your repository is not configured properly for languages, some users may see garbage characters instead of the intended text. If you intend to set up a SQL repository and have your users define more than English as an input locale, you need to manually uncheck the "Perform translation for character data" flag when configuring the data source (the DSN checks this flag by default).

4.7. Report Viewers

- When viewed in the COM viewers, charts and/or maps don't pick up the regional settings of the operating system or browser. (ADAPT 80740)
- In all report viewers, currency symbols change based on the browser's locale settings. Whereas this behavior is normally correct, it may not be correct for currency symbols. To ensure your currency symbol does not change based on locale, use the CDbl function in the Formula Editor to convert your currency value to a number value. Then, for example, if you want a field that shows \$ plus formatting from the locale setting, you can use the formula:

'\$' + CStr (CDbl ({Orders.Order Amount}))

(ADAPT 82426)

- Searching in a Crystal Report Viewer does not work with Japanese data. (ADAPT 85113) You can work around this problem by adding the following Latin-1 character set in the web.xml file:

```
<context-param>
  <param-name>weblogic.httpd.inputCharset/*</param-name>
  <param-value>iso-8859-1</param-value>
</context-param>
```

5. Retired Features

The following features are no longer supported.

5.1. Compiled Reports

- This feature is not supported in Crystal Reports 9. The download available on the Tech Support web site is supported only in the Developer Editions of Crystal Reports 8 and 8.5.

5.2. Export DLLs

- The following export DLLs are no longer supported:
 - U2fdif – Data Interchange Format.
 - U2fwks – Lotus 123 (was not supported in Crystal Reports 8.5).
- The MBCS export DLLs are no longer supported. Supported DLLs will be updated to use the new interface. Non-Unicode-enabled DLLs will not work with the new version of Crystal Reports. This change will affect users who have customized their own DLLs.

5.3. Developer APIs

- Automation Server (cpeaut32.dll), OCX (crystl32.ocx), RDC Runtime C headers are no longer supported.
- MFC (Microsoft Foundation Classes) support for CRPE API (peplus.h and peplus.cpp) is no longer supported. (ADAPT 81804)

5.4. Database DLLs

- The following database DLLs are no longer supported:
 - Bound database (p2bbnd.dll).
 - Centura SQLBase (Gupta).
 - Essbase (p2oesbse.dll).
 - Native Microsoft SQLServer (p2ssql.dll).

Note: This driver will automatically be converted to crdb_odbc.dll and will use the Microsoft SQLServer ODBC driver.

5.5. Report Creation Wizards

- The Report Creation Wizards are no longer re-entrant.

5.6. Report Designer Functionality

- “Insert Summary for all groups” has been removed from the shortcut menu; instead, choose the “Insert Summary” option.

6. Issues Resolved in Crystal Reports 9

The following table summarizes some of the issues resolved in Crystal Reports 9. This list consists of highlights and is not exhaustive.

Functional Area	Description	Identification #
Alerting	The member nTriggeredInstances in PEReportAlertInfo now returns the correct value.	ADAPT 25859
Alerting	The program no longer fails when clicking the Preview tab and then the Alerting tab after a summary field has been created in a subreport.	ADAPT 30083
Alerting	Alert conditions based on string field longer than 255 characters will now be triggered correctly.	ADAPT 30153
Charting	You can now change legend names in graphs. As well, you can edit the X-axis label.	ADAPT 13986
Charting	You can now delete user-defined templates for charts.	ADAPT 20937
Charting	Saving your chart as a user-defined template has been re-introduced.	ADAPT 21645
Charting	You can now choose a file name and a location when saving a chart as a template.	ADAPT 25307
Charting	The Gantt chart format has been added to Crystal Reports.	ADAPT 26637
Charting	The color of a chart's bars can be changed by right-clicking the chart and selecting the color mode on the Look tab of the Chart Options.	ADAPT 30131
Charting	Previous version reports with charts that contain only one legend item no longer gain color when opened in Crystal Reports.	ADAPT 30174
Charting	Charts can no longer be copied to the page header, page footer, or details sections.	ADAPT 37432
Charting	You can delete chart annotations created in previous versions of Crystal Reports.	ADAPT 44383
Charting	The default settings for a new chart will now be consistent when using the Chart Expert.	ADAPT 56631
Charting	Moving a chart that shows a percentage of a summary from group level to group level now works correctly.	TRACK 30010

Functional Area	Description	Identification #
Charting	You now have the option to show a chart with one series as a series or as a group.	TRACK 31040
Charting	You can now do top percentages in advanced charts.	TRACK 43610
Charting	Bi-directional text is now supported in charts.	TRACK 48601
Cross-tabs	Labels are now available for summarized fields.	ADAPT 16172
Cross-tabs	Crystal Reports now handles multiple cross-tab objects so that its mapping list is updated correctly when new cross-tabs are added, moved, or deleted.	ADAPT 22730
Cross-tabs	An error message now appears if your cross-tab report exceeds the limit of 65,535 rows or columns.	ADAPT 26906
Cross-tabs	Percentage summaries can now be used in a cross-tab.	ADAPT 25465
Cross-tabs	The Crystal Reports 8.5 patch has been corrected to allow the suppressing of grand totals in cross-tab reports.	ADAPT 47247 EID 1458142
Data Access	In Japanese Crystal Reports, double-byte characters can now be used in the Alias Name dialog box.	ADAPT 10815 EID 1600
Data Access	Numerous data access issues have been resolved by the inclusion of a new database manager, called the Query Engine, in this release of Crystal Reports.	ADAPT 13151
Data Access	The SQL query generated by a report should not include tables that aren't used in the report or used to link tables that are used in the report. This is now being done correctly, and numerous bugs related to the problem have been fixed.	ADAPT 13422
Data Access	For multiple Access databases requiring database passwords, the database prompted for is now displayed in the logon dialog box.	ADAPT 13676
Data Access	Canceling logon to an Access database with password protection has been made easier to use.	ADAPT 13705
Data Access	For new reports, Access Boolean fields now register in Crystal Reports as True or False (not 0 or 1). For reports created before version 9, the Boolean fields will continue to return 0 or 1 to maintain backward compatibility.	ADAPT 13797
Data Access	The new ODBC driver (crdb_odbc.dll) can obtain the index information for a table.	ADAPT 13994
Data Access	The new crdb_dao.dll corrects several errors with incorrect data being returned.	ADAPT 14297
Data Access	With multiple SQL data source reports, the linking configurations that won't work are no longer displayed as options.	ADAPT 14364
Data Access	Refreshing the data for a report that contains a subreport based on a table that has been deleted from the database now produces a meaningful error.	ADAPT 14431

Functional Area	Description	Identification #
Data Access	Stored procedures are now supported using the Oracle ODBC driver.	ADAPT 14501
Data Access	You can now create an ODBC report off an Access query where two tables have same field name.	ADAPT 14540
Data Access	Entering an incorrect logon parameter for LogOnServer now gives the correct error (28000 "Invalid Authorization Specification").	ADAPT 14726
Data Access	You are prompted only once for an Access password; this connection is used for an entire session.	ADAPT 14866
Data Access	Crystal Reports now retains tabs that are part of a value in the database.	ADAPT 14889
Data Access	Changes in the DAO for accessing external databases have been re-introduced.	ADAPT 14904
Data Access	Access parameterized queries are no longer listed in SQL tables when stored procedures are not selected.	ADAPT 15128
Data Access	When "stored procedures" is selected in the Options dialog box (SQL tab), Access parameterized queries are now shown only once.	ADAPT 15129
Data Access	The "one of" option in Select Expert no longer returns incorrect data from date/time fields.	ADAPT 15856
Data Access	Double quotes are now placed around user names in fully qualified table names.	ADAPT 16081
Data Access	Connecting to Oracle using a native driver and reporting on a stored procedure synonym now works correctly.	ADAPT 16277
Data Access	An Informix table as the second table in a cross-linked report now returns proper data.	ADAPT 16354
Data Access	Reporting off two unrelated tables (no linking between the tables) is handled better in the new database manager design introduced in this version.	ADAPT 16375
Data Access	The Database Log On prompt is no longer displayed when selecting the Database menu if the report has been refreshed and saved in version 9.	ADAPT 16910
Data Access	When reporting off on a timestamp field, data will no longer be trimmed.	ADAPT 16970
Data Access	Selection now works for timestamp fields.	ADAPT 16988
Data Access	Handling of unionized SQL queries has been enhanced in this version of Crystal Reports.	ADAPT 17407
Data Access	The ODBC driver has been redesigned to better deal with float fields.	ADAPT 17768
Data Access	The new ODBC driver fetches field information for a table more efficiently than past drivers could.	ADAPT 17892
Data Access	Cross-linking three or more tables from two data sources now returns data correctly.	ADAPT 17942

Functional Area	Description	Identification #
Data Access	Using ODBC to create a report based on a table with leading numbers now returns data correctly.	ADAPT 18404
Data Access	The Database Error dialog box now contains a correct error message when a table no longer exists in the database.	ADAPT 18496
Data Access	Using ODBC, drilling down on a money field no longer returns a blank report when the “GroupBy on Server” option is selected.	ADAPT 18520
Data Access	The equal to filter now works with a parameter prompt based on a smalldatetime data type.	ADAPT 19011
Data Access	You can now browse any Crystal data type except Memo or Blob.	ADAPT 19167
Data Access	Data is now returned when filters are applied to Sybase money data types with negative values.	ADAPT 19178
Data Access	Reporting on Access date/time fields with dates older than the year 1600 now works correctly.	ADAPT 19197
Data Access	Using ODBC, double quotes within a table name are now handled correctly when the SQL statement is created (consecutive double quotes are now created as necessary).	ADAPT 19388
Data Access	Sybase via ODBC now allows a NULL parameter in stored procedures.	ADAPT 19440
Data Access	The program now allows the closing of a data connection at any time—even if reports that use it are open. The connection will automatically be re-established when needed. Connections that are not being used will automatically be closed after 20 minutes idle time.	ADAPT 19534
Data Access	The Oracle native driver had been redesigned. You can now use BLOB, CLOB, NCLOB, and bfile fields in Oracle without getting a database error.	ADAPT 19620
Data Access	The new ODBC driver behaves consistently between Crystal Reports and the CRPE.	ADAPT 20770
Data Access	Crystal Reports no longer fails when canceling Set Location and then refreshing the report's data.	ADAPT 20964
Data Access	Converting database drivers is no longer supported in Crystal Reports. It has been replaced by the more robust Set Datasource Location feature.	ADAPT 21715
Data Access	You can now set location from a table to a stored procedure or vice versa.	ADAPT 21881
Data Access	The “verify on every print” option has been replaced by a number of more specific options. See the Options dialog box for more information.	ADAPT 22066
Data Access	A Logon dialog box no longer appears for every table in a database-level secured Access database.	ADAPT 22105

Functional Area	Description	Identification #
Data Access	The Show option on the Database tab of the Options dialog box now works for System Tables for all database types that support system tables.	ADAPT 22127
Data Access	You can now report off DB2 procedures that contain a DOUBLE parameter.	ADAPT 22131
Data Access	The Database Expert now displays all queries available when using a native DLL.	ADAPT 22385
Data Access	The SQL Server native driver is no longer supported in Crystal Reports.	ADAPT 22577
Data Access	The program no longer fails if you attempt to log on to a dead ODBC data source through the ODBC (ADO) connection.	ADAPT 23082
Data Access	Creating a report based on a saved Crystal Query with duplicate field names now shows the correct data.	ADAPT 23223
Data Access	A Lotus Notes table that contains a "." in its name, can now be added to a report.	ADAPT 23525
Data Access	Error handling for messages received from database DLLs has been improved (the actual database error message is now shown).	ADAPT 23537
Data Access	The crdb_dao.dll driver now pushes links to the Jet driver for DAO access.	ADAPT 23659
Data Access	The program no longer fails to connect to the database when location is set through OLEDB.	ADAPT 23757
Data Access	Better error handling has been added around trying to open a corrupt Microsoft Access database. In general, you should now see an error message instead of a program failure.	ADAPT 24840
Data Access	You can now change the default table alias for ADO connections to table name.	ADAPT 25525
Data Access	The new ODBC driver allows Access table names containing spaces to be accessed over a network.	ADAPT 25955
Data Access	Field length in Access 2000 is now correctly interpreted in characters.	ADAPT 27822
Data Access	Selecting an ODBC ADO connection, saving the report, reopening, and refreshing the data no longer prompts for the incorrect data connection type.	ADAPT 28188
Data Access	COM Object Character Fields over 255 characters are no longer truncated.	ADAPT 28906
Data Access	Using ODBC Sybase, the Select Expert no longer shows memo and graphic fields when you create a selection formula.	ADAPT 43573
Data Access	Active Data, as supported by p2smon.dll, had a Build SQL button that launched MS Query tool. P2smon.dll has been replaced. This functionality is now available to	ADAPT 47325 EID 1798

Functional Area	Description	Identification #
	any SQL-capable driver (except the crdb_p* DLLs), through the Add Command feature. MS Query is no longer used. It is possible to launch your own query-building tool instead of the Crystal tool if you are using an OLEDB provider (crdb_ado). See the note in section 3.6.11.	
Data Access	The Access ODBC driver now prompts for log on to password protected Access databases.	ADAPT 57773
Data Access	For Lotus Notes, support has been added for long memo fields.	ADAPT 60488
Data Access	Crystal Reports now supports linking using indexes in xBASE.	ADAPT 69913
Data Access	Rowsets for Oracle type Nclob can now be opened properly.	ADAPT 71616
Data Access	In the past, the "Perform Query Asynchronously" option may have caused record repetition in certain scenarios. This bug has been corrected in version 9.	ADAPT 94330
Data Access	Crystal Reports no longer adds a "Location" parameter in an OLEDB connect string.	ADAPT46964 EID 1795
Data Access	You will now be prompted for logon information from both databases in a report with a subreport that uses OLEDB for SQL Server to access different databases on the same server.	TRACK 47732
Data Access	Partial text linking is no longer done when linking two forms on the server using p2snote.dll.	TRACK 47810
Data Access	Record selection on a secondary index that includes a date-time field will now use the index when using p2bbde.dll.	TRACK 48173
Data Access	COM-Data support can now handle Byte parameters in COM Objects (crdb_com.dll).	TRACK 49031
Data Access	COM-Data (crdb_com.dll used to be p2smon.dll). When selecting a COM Object that includes a Visual Basic Date parameter, date-time fields will now be handled properly.	TRACK 49036
Data Access	Time fields from COM Objects will now display data when using COM-Data (crdb_com.dll).	TRACK 49041
Data Access	Currency fields from COM Objects will now display data when using COM-Data (crdb_com.dll).	TRACK 49043
Data Access	SmallInt fields from COM Objects will now display data when using COM-Data (crdb_com.dll).	TRACK 49044
Data Access	TinyInt fields from COM Objects will now display data when using COM-Data (crdb_com.dll).	TRACK 49045
Data Access	BigInt fields from COM Objects will now display values other than 0 when using COM-Data (crdb_com.dll).	TRACK 49060

Functional Area	Description	Identification #
Data Access (.NET)	The correct data will be returned when consuming a report with comments in the selection formula through a web service.	ADAPT 42796
Database Expert	An ampersand character (&) in a Data Source Name (DSN) will now be recognized correctly.	ADAPT 16497
Database Expert	When a report is based on tables from different data sources, all tables are now listed under the correct data source.	ADAPT 18270
Database Expert	The ODBC folder in the Database Expert is now displayed only if you have crdb_odbc.dll installed.	ADAPT 20219
Database Expert	All folders in the Database Expert now have the ability to detect current connections.	ADAPT 21860
Database Expert	You can now remove database files under the Selected Tables node in the Database Expert.	ADAPT 22534
Database Expert	For Lotus Notes, databases saved to the favorites lists in the Database Expert will no longer prompt for repeated logins.	ADAPT 24317
Database Expert	Problems with expanding data source folders after logging on or off connections have been corrected.	ADAPT 28551
Database Expert	A right-click option has been added to the Database Expert tree to launch the database options. This allows easy modification of the table/owner/database filters, which can significantly affect the time taken to return the list of tables.	ADAPT 92274
Developer	The correct total number of page will now be shown in the report preview when using Crpe32.dll.	ADAPT 43204 EID 1741
Developer	A new member for setting characters per inch has been added to U2ftext.dll.	ADAPT 47213 EID 1804
Developer	The name property of the CRfield (EventInfo) will no longer return "Text" for all string field values.	ADAPT 8671 EID 1883
Developer (.NET)	You can now use the Set Width property for OLE Object in the .NET RDC.	ADAPT 25284
Developer (.NET)	You can now refresh WebService reports when a record is added to the database.	ADAPT 33144
Developer (.NET)	In the Windows Forms viewer, you can now set CrystalReportViewer.ReportSource and then make use of the LogOnInfo, ParameterFieldInfo, and SelectionFormula properties retrieved from the report job to set only the missing pieces of information. The web form viewer already had this ability in Microsoft Visual Studio .NET 2002.	ADAPT 44853
Developer (.NET)	Repeated logons to a ServerFileReport in a Windows application now prompts for logon information correctly.	ADAPT 44948
Developer (.NET)	The ActiveX Viewer Event has been fixed to support drill down or "go to next page" when using CRAXDRT.	ADAPT 60152

Functional Area	Description	Identification #
Developer (.NET)	The RDC no longer fails if you add or remove a database while a text object is in edit mode.	ADAPT 67536
Developer (.NET)	Viewers now prompt for all parameter values when some are set in code.	ADAPT 69033
Developer (.NET)	Binding a CrystalReportViewer (webform) to an untyped reportDocument no longer prevents future alternate databinding.	ADAPT 75604
Developer (RAS COM)	TableLinks now supports Join type and Link type.	ADAPT 60259
Developer (RAS COM)	A script language setting has been added to the ISCRConditionFormula object.	ADAPT 68816
Developer (RAS Java)	Exporting has been exposed in the RAS Java SDK.	ADAPT 72324
Developer (RAS Java)	ReportDataProvider now treats both folder path and report path as local to the current machine.	ADAPT 73094
Developer (RAS Java)	GetTriggerAlerts has been exposed in the search controller.	ADAPT 81217
Developer (RAS Java)	Export to text and CSV is supported.	ADAPT 81546
Developer (RDC)	The "The summary field calculates" label has been added back to the Change Summary dialog box.	ADAPT 25357
Developer (RDC)	You can no longer drag a summary field into the details section.	ADAPT 25375
Developer (RDC)	A correct error message now appears if the SortDirection of a group is changed to crSpecifiedOrder without setting .SpecifiedOrder.	ADAPT 25477
Developer (RDC)	To correct the error "430 Class does not support Automation or does not support expected interface," the oleautomation attribute has been added back to crystalcommom.idl.	ADAPT 38540
Developer (RDC)	OLEDDB reports created using NT Authentication can now be reset to SQL Authentication at runtime.	ADAPT 38915 EID 1678
Developer (RDC)	The Insert Subreport button is no longer enabled while editing an existing subreport in the RDC.	ADAPT 40284
Developer (RDC)	You can now retrieve and add embedded fields in a text object using the RDC.	ADAPT 43138
Developer (RDC)	You can now access the conditional formulas for report objects.	ADAPT 43171
Developer (RDC)	A new member for setting page range in the RDC has been added to Crxf_export.dll to Word.	ADAPT 48204 EID 1805
Developer (RDC)	LogOnServer now works correctly for multiple logons and logoffs.	ADAPT 48589
Developer (RDC)	As in Crystal reports, you can no longer insert a group in	ADAPT 50074

Functional Area	Description	Identification #
	a blank report in the RDC.	
Developer (RDC)	SetMorePrintEngineErrorMessages has been added back to the application object methods.	ADAPT 51092
Developer (RDC)	The RDC no longer allows exporting to Crystal Reports 7.0 format.	ADAPT 51361
Developer (RDC)	A member to set characters per inch in the RDC and CRPE has been added to u2ftext.dll.	ADAPT 51518
Developer (RDC)	A member to set page range in the RDC to crxf_export.dll (Word (Exact)).	ADAPT 51525
Developer (RDC)	Descriptions of object methods and properties have been made consistent throughout the RDC.	ADAPT 53540
Developer (RDC)	A selected section in the RDC now uses the correct Windows colors.	ADAPT 55284
Developer (RDC)	The Style Expert has been removed from this version.	ADAPT 55978
Developer (RDC)	The Chart context menu in RDC has been made consistent with Crystal Reports.	ADAPT 56040
Developer (RDC)	OLEDDB Reports created in the RDC using NT Authentication can now be switched to SQL Authentication at runtime.	ADAPT 58953
Developer (RDC)	The TopN button has been enabled on cross-tabs if the report does not have group summaries.	ADAPT 60546
Developer (RDC)	The ActiveX Netscape Plugin viewer now works in Netscape 4.78.	ADAPT 89755
Developer (Viewers)	The Navigator Plugin viewer now refreshes group trees properly through ASP.	ADAPT 55997
Developer (Viewers)	The date picker for date parameters has been removed in Netscape 6 for COM and Java viewers.	ADAPT 61023
Exporting	Page range exporting is now supported in Excel, PDF, RTF, and HTML formats.	ADAPT 14171
Exporting	The decimal format of a number field is now correctly exported to Excel.	ADAPT 14193
Exporting	Shading can now be exported to Word format.	ADAPT 14741
Exporting	Cross-tab borders and row and column alignment now export correctly to Word format.	ADAPT 14771
Exporting	Problems with exporting boxes to Word format have been corrected.	ADAPT 14783
Exporting	"New Page After" in the group footer of a subreport now exports correctly to Word format.	ADAPT 14784
Exporting	Problems with exporting various OLE objects to Rich Text Format (RTF) have been corrected.	ADAPT 14797
Exporting	Subreport data is now correctly exported HTML format.	ADAPT 14802
Exporting	Numerous issues with exporting to Excel format have	ADAPT 14805

Functional Area	Description	Identification #
	been fixed.	
Exporting	Problems with exporting a report with background and text colors and subreports to Word format have been corrected.	ADAPT 14812
Exporting	Exporting a wide cross-tab to Word format now lines up column headings and column data.	ADAPT 15258
Exporting	Reports with two subreports that are side by side now exports properly to Word and RTF formats.	ADAPT 15381
Exporting	Exporting OLE objects and underlaid sections to Word format has been corrected.	ADAPT 15408
Exporting	When exporting to RTF, fields that are formatted as "Can Grow" can now be viewed properly.	ADAPT 15433
Exporting	You can now export section background colors to RTF format.	ADAPT 15438
Exporting	When exporting to Word or RTF formats, the page header no longer appears on all pages, including the report header page.	ADAPT 15442
Exporting	Fields now retain their font color when exported to Word format.	ADAPT 15607
Exporting	Pictures with tall objects next to them in a report are no longer stretched vertically when exported to Excel format.	ADAPT 15610
Exporting	When exporting to Excel format, fields larger than one cell now have their borders and background colors applied to each cell needed.	ADAPT 15611
Exporting	Text that is wrapped to multiple lines in Crystal Reports no longer exported to Excel on one line.	ADAPT 15620
Exporting	BLOB fields, OLE objects, and graphs are now exported to appear side by side when necessary.	ADAPT 15621
Exporting	An OLE Object is now exported properly to Word when it appears in the page header and that section is formatted to underlay.	ADAPT 15624
Exporting	The Suppress (No Drill Down) option for a report footer is no longer ignored when exporting to Word format.	ADAPT 15625
Exporting	Section background colors are now exported to Excel format.	ADAPT 15628
Exporting	Background colors are now exported to Word format.	ADAPT 15629
Exporting	Exporting to Word format now correctly sets tab stops for columns.	ADAPT 15652
Exporting	Memo fields are no longer exported to Word in their entirety when they are not marked as "Can Grow" in Crystal Reports.	ADAPT 15665
Exporting	When exporting to RTF format, your alignment	ADAPT 15812

Functional Area	Description	Identification #
	formatting is now exported for objects in the page header.	
Exporting	A page header that changes from page to page now exports consistently to RTF and Word formats.	ADAPT 16189
Exporting	Text highlighting is now exporting properly to Excel format.	ADAPT 16613
Exporting	Wide cross-tabs now export completely to RTF format.	ADAPT 16633
Exporting	Page count fields now export correctly to RTF format from all report locations.	ADAPT 16649
Exporting	Fields exported to Excel format can now be formatted properly using Excel's predefined styles.	ADAPT 16800
Exporting	When exporting an OLAP report to Word format, the grid dimension labels are now positioned correctly.	ADAPT 16837
Exporting	Forced page breaks are now preserved when exporting to Word format.	ADAPT 17022
Exporting	When exporting RTF format, the page header of the first page is no longer applied to every page.	ADAPT 17123
Exporting	When exporting to RTF format, shared variables (between reports and subreports) are retained and running totals are calculated correctly.	ADAPT 18549
Exporting	"Print at Bottom of Page" is no longer ignored when exporting.	ADAPT 19688
Exporting	OLE objects are now correctly exported to Excel format.	ADAPT 19792
Exporting	Exporting to Excel format with the column width based on a section in the report is now supported. There are also other enhancements to this format's exporting capabilities.	ADAPT 20311
Exporting	When exporting to Word format, vertical fields are no longer truncated.	ADAPT 20440
Exporting	Exporting a report that contains vertical field objects to RTF format no longer truncates text in the field object.	ADAPT 20444
Exporting	Correct formatting is retained when exporting reports that contain large field objects to Word.	ADAPT 20448
Exporting	Correct formatting is retained when exporting reports that contain large vertical field objects to Word.	ADAPT 20449
Exporting	Exporting now supports RTF and HTML interpretation of string field values.	ADAPT 20876
Exporting	Color formatting from a custom palette can now be passed to Excel when exporting.	ADAPT 20921
Exporting	Conditional page headers or footers are now exported correctly in Word, PDF, RTF, and Excel formats.	ADAPT 21133
Exporting	Paragraph formatting (indents, line spacing, and so on) now export correctly for all formats that support these	ADAPT 21633

Functional Area	Description	Identification #
	features.	
Exporting	Exporting an OLAP report with OLAP pages to Excel format now exports section headings as well.	ADAPT 21723
Exporting	Text objects in the page header section now export correctly to Word format.	ADAPT 21773
Exporting	Group headers and/or footers are no longer duplicated when exporting to RTF format.	ADAPT 21814
Exporting	Repeated group headers now export correctly to Word format.	ADAPT 21849
Exporting	Line wrapping is now correct when exporting to Word format.	ADAPT 22069
Exporting	Exporting cross-tabs (with specified group order) to Excel no longer loses row headings.	ADAPT 22158
Exporting	Cell width formatting now produces the correct alignment when exporting to Excel format.	ADAPT 22429
Exporting	When exporting to any format, the "New Page Before" option now works only for sections that are not suppressed.	ADAPT 22513
Exporting	Font color is now correctly exported to Excel.	ADAPT 22895
Exporting	Exporting to RTF format no longer allows text to overlapping other text.	ADAPT 22904
Exporting	The "Can Grow" attribute for text objects is now exported to Word format.	ADAPT 22985
Exporting	When exporting large text objects to Excel, words will no longer be separated at random lengths.	ADAPT 23126
Exporting	Exporting to Text format, a cross-tab with specified ordered groups now includes the group text labels.	ADAPT 23845
Exporting	Exporting to RTF now retains font color.	ADAPT 23923
Exporting	Spaces at the beginning of a text objects are now taken in consideration when exporting to HTML.	ADAPT 24564
Exporting	You can now correctly suppress duplicate records when exporting to Word or Excel formats.	ADAPT 25298
Exporting	Text objects containing fields are no longer truncated or overlapped when exporting to Word or Excel formats.	ADAPT 25818
Exporting	Subreport borders and widths are no longer ignored when exporting to RTF format.	ADAPT 26402
Exporting	You can now view reports exported in Excel format when using Office 2000.	ADAPT 26486
Exporting	Hyperlinks are now exported properly to RTF format.	ADAPT 27468
Exporting	Images exported to Excel format now retain their original size (that is, they will be the same size that they are in Crystal Reports).	ADAPT 27796

Functional Area	Description	Identification #
Exporting	Exporting to HTML will now create a correct HTML header in the output file.	ADAPT 29518
Exporting	In Japanese Crystal Reports, exporting to RTF no longer changes the report's font.	ADAPT 30145
Exporting	Unicode reports can now be exported to PDF format.	ADAPT 30382
Exporting	Exporting to text format no longer adds a space in front of the exported text.	ADAPT 31337
Exporting	The transparent background on a chart will now be exported to all formats.	ADAPT 32670
Exporting	When exporting a graphic object (chart, map, or OLE object) to PDF or RTF formats, the graphic will now be of a better quality.	ADAPT 34251 EID 1622
Exporting	In Japanese Crystal Reports, the report name, comments, and file name now exports correctly in Excel format to Lotus Domino.	ADAPT 34584 EID 1627 & 1737 & 1900
Exporting	In Japanese Crystal Reports, report name, comments, and file name now export correctly in Excel format to a Lotus Domino database.	ADAPT 34618
Exporting	Memo fields now export in their entirety to RTF format.	ADAPT 35165
Exporting	You can now export reports that contain subreports when neither report has data.	ADAPT 36364 EID 1649
Exporting	Cross-tabs and OLAP grids with indented row labels now export correctly to Excel format.	ADAPT 36669
Exporting	Column headings in cross-tab objects can now be exported to all Excel formats.	ADAPT 37217 EID 1656
Exporting	Exporting to Excel, RTF, and text formats now withholds suppressed columns from cross-tabs.	ADAPT 46594
Exporting	Column headings in cross-tabs now export to Excel format.	ADAPT 46598
Exporting	Wild card (0) support has been added to page-range values for all page-based export formats.	ADAPT 52796
Exporting	Cross-tab row headings now export correctly to Excel when "Suppress Subtotals" is turned on.	ADAPT 55988
Exporting	Support has been added to export a field object as a string in XML format.	ADAPT 56211
Exporting	You can now export to Text or CSV formats to a mapped UNIX drive.	ADAPT 56612
Exporting	Suppressed subreports are now saved without their data sources.	ADAPT 64589 EID 1930
Exporting	Hyperlinks will now work after exporting a report to MS Excel format.	TRACK 37507
Exporting	Double, dashed, and dotted borders and lines are now	TRACK 37889

Functional Area	Description	Identification #
	exported properly to PDF format.	
Exporting	The navigation bar in "HTML multiple pages" now recognizes .htm extensions.	TRACK 43462
Exporting	SQL Server "money" data type values will no longer round up when exported to Excel formats.	TRACK 45583
Exporting	When exporting to Excel, the £ (pound) sign will no longer be replaced by the \$ (dollar) sign.	TRACK 46430
Exporting	You can now export a report that contains a graph with no data to display.	TRACK 48395
Exporting (.NET)	You can now export a report using winforms via Internet Explorer.	ADAPT 45556
Field Explorer	Running total field names are now case sensitive	ADAPT 16537
Field Explorer	Using the Delete key while editing the name of a Parameter, Running Total, or Formula field no longer deletes the entire field.	TRACK 41718
Formatting	You can now use Undo and Redo when formatting objects.	ADAPT 13478
Formatting	The new DrillDownGroupLevel function lets you conditionally format a field or a section based on whether it is currently on a drill-down view or not.	ADAPT 13677
Formatting	When formatting multiple fields, any settings that are not common to all the fields will not appear.	ADAPT 13776
Formatting	Font color can now be set on the Formatting toolbar.	ADAPT 14040
Formatting	A full justification button has been added to the Formatting toolbar.	ADAPT 14126
Formatting	Drawing and picture options are now available on the Insert Tools toolbar.	ADAPT 14130
Formatting	The "New Page Before" is now applied to subreports.	ADAPT 15598
Formatting	Cross-tab headings are now aligned properly.	ADAPT 15603
Formatting	You can now add tool tip text in the Format Editor.	ADAPT 20663
Formatting	Undo and Redo now works for conditional formatting of sections.	ADAPT 23042
Formatting	The user interface boxes for defining font size now support the full range of valid fractional point sizes.	ADAPT 27019
Formatting	An option to make a report read-only has been added to this version.	ADAPT 28828
Formatting	Formatting of multiple objects has been enhanced. This formatting is now Undoable and Re-doable. As well, common values between the objects can now be accessed in the Format Editor.	ADAPT 32283
Formatting	Crystal Reports now correctly handles sections split across pages that don't require space on the second	ADAPT 38927 EID 1674

Functional Area	Description	Identification #
	page.	
Formatting	Text objects that include “total page count” as an embedded field and are set to “Can Grow” will now show the correct page count.	ADAPT 44354 & 44701
Formatting	Changing font size to smaller than 8 point will now be saved correctly.	ADAPT 45359 & 47905 EID 1489367
Formatting	Page Footer space is now correctly reserved in multi-column reports with multiple groups.	ADAPT 61617 EID 1902
Formatting	Ctrl+right arrow now jumps from word to word when editing text.	TRACK 1084
Formatting	You can now include numeric calibration when creating boxes with rounded corners.	TRACK 24132
Formatting	You can now change line color using the color palette.	TRACK 30134
Formatting	You can now use Shift+left arrow to move back over an embedded field in a text object.	TRACK 3537
Formatting	You can now add a box or four-sided border around text with a single option.	TRACK 4900
Formula Editor	Drag and drop has been implemented in the Formula Editor.	ADAPT 13307
Formula Editor	An “Insert Empty String” operator has been added to the operator list.	ADAPT 17210
Formula Editor	A new keyword completion feature has been added to the Formula and Custom Function editors.	ADAPT 19823
Formula Editor	Sorting of the Formula Editor’s trees is now saved when exiting and re-entering the editor.	ADAPT 23543
Formula Editor	The Formula Editor now supports the exclamation mark (!) as part of the path for a File System drive.	ADAPT 25926
Formula Editor	You can now select and comment out a block of text.	ADAPT 26144
Formula Editor	Long strings and memos can now be used in formulas.	ADAPT 26909
Formula Editor	Basic Syntax Control Structures in the Operator Tree have been made more descriptive.	ADAPT 27638
Formula Editor	Numeric values larger than 15 digits now round correctly.	ADAPT 28541
Formula Editor	A problem in which conditional formatting buttons opened the wrong version of the Formula Editor has been fixed.	ADAPT 40613 EID 1477855
Formula Editor	Shift+F2 now moves backwards through bookmarks in the Formula Editor.	TRACK 29262
Formula Editor	You can no longer edit a formula’s name in the drop-down list at the top of the Formula Editor.	TRACK 35612
Formula Editor	Comment in Basic syntax that use line continuation	TRACK 44718

Functional Area	Description	Identification #
	characters will now be highlighted correctly.	
Formula Editor	UFLs are now sorted by function in the Formula Editor.	TRACK 4996 & 4998
Formula Expert (.NET)	You can now undo the deletion of two or more formulas.	ADAPT 36055
Formula Language	A new function, called ProperCase, has been added. See the online help (crw.chm) for information.	ADAPT 13168
Formula Language	Support has been added for arrays of 0 length.	ADAPT 20766
Formula Language	An optional Boolean argument has been added to the InStr function to allow you to specify case-sensitivity in searches.	ADAPT 24046
Formula Language	The Switch function now works correctly.	ADAPT 35150
Formula Language	CASE IS syntax can be used without problem in the formula language.	ADAPT 45196 EID 1493827
Formula Language	When a constant field is used in a record selection formula (either in the main report or in a subreport), it is now simplified at compile time and pushed to the server. The constant value is substituted in the formula at compile time; this increases the number of record selection conditions that can be pushed to the database server.	ADAPT 47616
Formula Workshop	The Formula Editor has become part of the new Formula Workshop feature.	ADAPT 14139
Formulas	The new functions HasLowerBound, HasUpperBound, IncludesLowerBound, IncludesUpperBound have been added to address the minimum and maximum limits of ranges with infinite boundaries.	ADAPT 19456
Formulas	The Choose, Switch, and IIF functions now accept array arguments.	ADAPT 23919
General	Color pickers have been added throughout Crystal Reports for choosing colors.	ADAPT 17060
General	The print engine will no longer crash when opening a corrupt report; an error message will be issued.	ADAPT 36651 EID 1653
General	Long strings can now be seen in the Browse dialog box and in tooltips.	TRACK 37986
Group On Server	When "Perform Grouping on Server" is selected, no page header or footer will be shown.	ADAPT 32671
Grouping	You can now undo the deletion of a group.	ADAPT 13392
Grouping	Grouping has been enhanced by the inclusion of the new Insert Group dialog box.	ADAPT 15474
Grouping	You can now insert and delete a group from the Group Expert.	ADAPT 15742
Grouping	In the Define Named Group dialog box, the keyboard	ADAPT 19626

Functional Area	Description	Identification #
	now works properly after an item is added or removed from the “is (not) one of” list.	
Grouping	The Report Creation Experts now contain a check box to specify grouping on the Group tab.	ADAPT 23016
Grouping	An option to show the group header or footer on drill down has been added.	ADAPT 27029
Guidelines	There are two new commands to delete all guidelines that have been inserted in a section.	ADAPT 13561
Hyperlinks	Hyperlinks have been enhanced to make them more usable in the web viewers.	ADAPT 23862
Hyperlinks	You can now pass command line arguments via hyperlinks.	ADAPT 27952
Lines and Boxes	Setting a box to have rounded edges now updates immediately.	ADAPT 24952
Linking	You are no longer forced to link report tables when the unlinked tables do not have fields on the report.	ADAPT 13410
Linking	Switching from the Fields tab to the Links tab no longer brings back all the tables regardless of which should be visible.	ADAPT 13447
Linking	It is now possible to link on any ODBC data type using multiple sources.	ADAPT 13652
Linking	With an Access linked table, you no longer get an incorrect error message when refreshing data after the linked table’s database has been moved.	ADAPT 14865
Linking	Smart linking has been enhanced to work by foreign key information as well as by name.	ADAPT 16051
Linking	All fields (including date/time field) can now be browsed when linking tables.	ADAPT 16348
Linking	Unions can now be supported in Crystal Reports using the Add Command feature.	ADAPT 17434
Linking	Almost any linking configuration is now supported—even many tables to one table—so long as the linking can all be pushed down as a single query to the server.	ADAPT 17773
Linking	Data for date/time fields can now be browsed on the Links tab of the Database Expert.	ADAPT 18618
Linking	Crystal Reports now supports Cartesian Product linking.	ADAPT 18901
Linking	Link options are now disabled when not using supported link types.	ADAPT 19166
Linking	Use the Links tab of the Database Expert to change SQL Join types when using tables from different servers.	ADAPT 23041
Mapping	You can now reassign map values that are already in use on a map.	ADAPT 20319

Functional Area	Description	Identification #
Mapping Fields	The types of the fields that are listed are now more consistent with the unmapped fields when "Map type" is selected.	ADAPT 22861
Menus	A "Select All" option has been added to the Edit menu.	ADAPT 15649
Menus	The Analyzer and its menu have been dropped from this version; all functionality is still available from new Chart and Map menus.	ADAPT 19638
Menus	The contents of the menus have been changed in this version of Crystal Reports.	ADAPT 21159
OLAP Reporting	The Cartesian Product option for OLAP data has been fixed.	ADAPT 16448
OLAP Reporting	You can now connect to SAP BW data sources.	ADAPT 59001
OLE Objects	OLE objects can now be exported successfully.	ADAPT 13643
OLE Objects	JPEG files saved in an Access database and entered in reports as OLE objects with "Can Grow" set will no longer display larger than their original sizes.	ADAPT 27760
OLE Objects	Pictures from binary fields retain their quality when resized in Crystal Reports.	ADAPT 29171
OLE Objects	Metafiles accessed from a database are now rendered correctly.	ADAPT 59706
Parameters	In Japanese Crystal Reports, the edit mask now supports Japanese characters.	ADAPT 20711
Parameters	In French Crystal Reports, default values and prompting values for Currency parameters now display the correct formatting.	ADAPT 34773
Parameters	Crystal Reports will no longer fail when a parameter is renamed if you left the cursor in the name of the formula before choosing OK.	ADAPT 40556 & 47904 EID 1478104
Parameters	The edit mask now works as expected when applying it to parameters with two strings.	ADAPT 47904
Parameters	Displaying a parameter field's default value with its description no longer interferes with the Edit Mask.	TRACK 34482
Parameters	There is no longer a 254-character length limit on parameter field string values.	TRACK 9299
Printing	In Crystal Reports, you can now change page size and page orientation on machines that don't have a printer installed.	ADAPT 14605 & ADAPT 21908 & ADAPT 22752
Printing	Printing multiple copies of a report or collating copies of a report no longer sends multiple jobs to the printer. Now, when a printer supports multiple copies or collation, the work is passed on to it.	ADAPT 15907 & ADAPT 17919
Printing	Proper error message will be generated as necessary when printing reports that are over 65,535 pages long.	ADAPT 56120 EID 1876

Functional Area	Description	Identification #
Printing	Page range error messages have been made consistent when printing pages from very large reports (approximately 65,535 pages).	ADAPT 58676
Report Explorer	The new Report Explorer shows where all the fields and objects are placed on a report.	ADAPT 14151
Report Explorer	A Report Explorer has been added. This explorer can help you locate fields in the design view. By selecting a field in the explorer, the embedded field in the design view will also be selected.	ADAPT 16789
Report Processing (.NET)	You can lock the COM1, COM2, etc. ports by sending requests to ServerFileReportService.asmx.	ADAPT 58715
Running Totals	The proper value will now be displayed for a running total in a group header when the header prints on the previous page.	ADAPT 50361 EID 1498646
Saving	You can now properly save a report even when it is shared on your network.	ADAPT 23277
Selecting	Double precision number handling has been enhanced—such numbers are now compared up to 15 digits.	ADAPT 19653
Selecting	Numeric fields entered with more than two decimal places are no longer rounded when you re-enter the Select Expert.	ADAPT 15636
Sorting	Field order can now be easily adjusted in the Record Sort Expert.	ADAPT 13583
SQL	All appropriate parameters will now be enclosed in quotes in the SQL created by the Query Designer. Note: this will not occur when using the Add Command feature.	ADAPT 41056 EID 1716
SQL	DB2 date range record selection now generates a BETWEEN operator where necessary. In some cases, this gives improved performance.	ADAPT 42845 EID 1736
SQL Expressions	Using ODBC for Sybase, you can now use a decimal number value as the first argument to the POWER function.	ADAPT 20415
Stored Procedures	The new crdb_oracle.dll supports more than 254 characters.	ADAPT 17282
Stored Procedures	The full table name is now used when calling a stored procedure; this allows reporting off stored procedures in another user's schema.	ADAPT 20291
Stored Procedures	For the native Oracle driver, you can now include a single quote (') in a char or varchar2 type parameter.	ADAPT 24657
Stored Procedures (.NET)	You can now create a report off a parameterized Stored Procedures when the parameters are date/time.	ADAPT 42550
Subreports	You can Undo and Redo the insertion of subreports.	ADAPT 13845
Subreports	Setting the location of the database now propagates	ADAPT 21671

Functional Area	Description	Identification #
	through to subreports.	
Subreports	Using the “is between” record selection option during subreport design will no longer cause the program to fail.	ADAPT 30042
Subreports	You can now rename a subreport from the main report.	ADAPT 38173
Subreports	Undoing and redoing subreport changes will now update the subreport preview correctly.	ADAPT 53778
Subtotaling	It is now possible to add subtotals for two fields with the same field description.	ADAPT 40831
Summarizing	A problem with scrolling in the Insert Summary dialog box has been resolved.	ADAPT 21989
Summarizing	The Insert Summary toolbar button is now disabled if the selected field cannot be summarized.	ADAPT 29607
Summarizing	If a summary field is specified as the summarized or second summarized field, an error will be issued.	ADAPT 29671
Text Objects	The movement of the cursor has been corrected for use with the system font on Chinese operating systems.	ADAPT 23888
Text Objects	You can now insert an HTML file into a text object.	ADAPT 62860
Text Objects	When editing a text object, you can now use the Page Up and Down keys.	TRACK 4806
Top N	Crystal Reports now allows Top or Bottom percentage sorting.	ADAPT 17197
Totaling	In the Report Expert, clearing the Add Grand Totals checkbox and setting the focus elsewhere no longer results in the checkbox being disabled.	ADAPT 27187
UFLs	The program now includes information about the UFLs used in the report.	ADAPT 13548
Viewers	Objects located beneath charts can now be seen correctly in the viewers.	ADAPT 20760
Viewers	The Crystal Report viewers have been modified to provide better image resolution.	ADAPT 24231
Viewers	In Japanese Crystal Reports, the viewers can now accept parameters under the Japanese locale.	ADAPT 87131
Viewers (.NET)	Cross-tabs with conditional formatting no longer display cells with suppressed or null values as black boxes.	ADAPT 35859
Viewers (.NET)	.NET viewers now include support for map drilldown.	ADAPT 59244
Viewers (.NET)	The WinForm viewer now pushes events to the top-level control.	ADAPT 75055
Viewers (.NET)	Paper orientation is now held when printing from the Windows Form Viewer.	ADAPT 81484
Viewers (ActiveX)	Hyperlink handling now works as expected in the ActiveX viewer.	ADAPT 50025

Functional Area	Description	Identification #
Viewers (ActiveX)	The Excel (Data only) export format has been added to the ActiveX viewer.	ADAPT 65077
Viewers (ActiveX)	When a new browser window is created, a unique frame name is supplied to ensure a new window is created.	ADAPT 76002
Viewers (DHTML)	You can now drill down to subreports in the DHTML viewers.	ADAPT 12297 EID 1583 & 1953
Viewers (HTML)	The HTML viewer now reflects changes made to report.	ADAPT 86062
Viewers (Java)	For consistency with Crystal Reports, the Java Viewer now displays a message box when closing the main view of an on-demand subreport.	ADAPT 17400
Viewers (Java)	The "Find Next" search option has been improved in this version.	ADAPT 17740
Viewers (Java)	When expanding multiple group tree nodes in the Java viewer, the number of nodes that can be seen has been greatly increased.	ADAPT 20773
Viewers (Java)	Time parameters now display correctly.	ADAPT 56989
Viewing	The ActiveX viewer no longer has drill-down navigation problems due to how it draws bitmap images.	ADAPT 28513
Viewing (.NET)	When hosting a winform in Internet Explorer, the login window now appears for a report webservice when needed.	ADAPT 45558
Viewing (.NET)	Hosting a winform in Internet Explorer now shows the proper controls.	ADAPT 58724
XML	You can now rename one XML element without renaming all similarly named elements at the same time.	TRACK 51221
XML	You can no longer have two XML elements with the same name.	TRACK 51252 & ADAPT 27992