

Introduction Crystal Reports

Introduction

Chapter 1

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Objectives

You will learn:

- Featureset of Crystal Reports.
- Establishing data access.
- Tools and techniques for productivity and maintenance.
- Flexible application integration.
- Report management and delivery.
- .NET and Java versions of Crystal Reports – optional topic.

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Crystal Reports Featureset

- **Report Design**
 - Report authors can use the visual report designer layout and design controls, to design formatted, interactive, and professional looking reports.
 - Design can be implemented as standalone reports or within .NET and Java development environment.

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Crystal Reports Featureset

- **Flexible Application Development**
 - Developers can leverage cross-platform support for Java, .NET, and COM development technologies.
 - HTML is generated directly by Crystal Reports, allowing developers to focus on application business logic, rather than time-intensive hand coding.
 - Separation of application development and report design tasks allow developers to focus on application development, while the report authors can focus on report design.
- **Report Management and Delivery**
 - Reports can be published to the web.
 - Reports can be exported.

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Database Terms

- A database is a collection of tables, queries, and other related objects.
- A table is collection of information organized in such a way that a computer program can quickly select desired pieces of data.
- Tables are organized by fields, records, and files. A field is a single piece of information; a record is one complete set of fields; and a table is a collection of records.
- In the list view of a table, a column represents a field and a row represents a record.

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Data Access and Report Design

- **Business Views**
 - Access to Business Views eliminates the inconvenience associated with manually moving reports from development to production.
- **BusinessObjects Universes**
 - Connect to BusinessObjects Enterprise universes, which is a semantic layer that masks the complexity of the data. New and less experienced users will still be able to understand the data.
- **Updated Drivers**
 - Crystal Reports XML, JDBC, IBM DB2 and Exchange data drivers have been updated to provide an extensive range of data access options.

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Data Access and Report Design

- **Accessible Data Sources**

Accessible data sources include:

- Databases such as IBM DB2, Microsoft Access, Alpha Five, Microsoft SQL Server, MySQL and Oracle.
- Btrieve.
- Spreadsheets.
- Text files.
- XML files.
- Groupware applications such as Lotus Notes, Microsoft Exchange and Novell GroupWise.
- Any other data source accessible through a web service, ODBC or OLAP.

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Data Access and Report Design

- **Dynamic Image Location**

- Pictures and graphics can now be placed in a report through a link in the database; it no longer is necessary to store images within the database. This supports the widely used practice of storing images on the web server and storing references to those images in the database. Images can appear on any section of a report.

- **Updated Visual Report Designer**

- Use the updated point-and-click designer to create reports and alleviate intensive coding.

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Data Access and Report Design

- **Intelligent Charting**
 - New drag and drop charting and cross-tabs allow for intelligent charting. Variables are approximated when a chart is dropped into a section.
 - Chart design is now faster and easier because charts will be updated automatically when new variables are added.

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Productivity and Maintenance

- **Dynamic and Cascading Prompts**
 - Report prompts can be based on dynamic values.
 - This means that report designers no longer have to maintain static prompt value lists within individual reports. Instead, they can reuse existing prompts stored in the repository.

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Productivity and Maintenance

- **HTML Preview**
 - The iterative report design/view process is streamlined, with a new HTML preview that allows report authors to see how reports will look when published to the web.
- **Editable RTF Format**
 - This new feature is ideal for report export editing. It delivers reports to end users in a new RTF format; which makes it easier to make their own document modifications.

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Productivity and Maintenance

- **Workbench**
 - The workbench keeps projects organized allowing report designers to group reports according to preference.
- **Dependency Checker**
 - With the new dependency checker, report authors can quickly find broken links, formula errors, and dependency issues. This greatly reduces the time spent on QA.

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Flexible Application Integration

- **Free Runtime Licensing**
 - Crystal Reports Developer Edition includes a royalty-free runtime license that allows for unlimited internal corporate deployment.
- **New and improved APIs**
 - New and improved cross-platform APIs include server-side printing, as well as the ability to configure sub reports as if they were full-blown reports.

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Flexible Application Integration

- **Data Binding**
 - Java and .NET developers can take advantage of data binding by using unbound fields in the Crystal Reports Designer and binding application data to those fields at runtime.

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Report Management and Delivery

- **Scheduling**
 - Flexible scheduling capabilities ensures that information can be processed efficiently when and where it is needed. Reports can be scheduled based on events or at specific times and in the formats that are required.
- **Scalable Central Architecture**
 - In order to support high volume reporting, Crystal Reports Server uses a scalable, central architecture. It includes a set of report processing services for speed-of-thought information access. Page-on-demand technology helps expedite processing by serving up only those pages requested by end users.

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ActiveX Viewer

- The new exporting dialog box supports the editable RTF format.
- Page drawing performance has been improved in many scenarios through caching of the rendered output.
- The visual quality of output and printing has been improved to match the Crystal Reports preview tab.
- Page navigation now supports the page-up and page-down keys.
- Printing now supports multiple page ranges from the print dialog box.
- Objects displayed in the ActiveX viewer can be highlighted individually or in groups and then copied and pasted to applications.

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New Features

- Crystal Reports new features include:
 - dynamic prompting and cascading lists of values.
 - an editable RTF export format.
 - single-sign on support.
 - dynamic image locations.
- Backward compatibility continues to be a critical feature:
 - Many APIs or major features from the older versions can be still used.