

## COURSE SUMMARY

This 3-day course is designed to teach the fundamentals of report design. The student will learn the skills needed to develop and maintain simple to more complex reports.

## COURSE PREREQUISITIES

- No previous experience working with Crystal Reports needed.
- Able to navigate in a windows environment.
- Familiarity with database tables, fields and records are a plus.

## COURSE TOPICS

### Getting Started

- *Defining the Purpose of the Report*
- *Determining the Layout of the Report*
- *Finding the Data*
- *Organizing the Data for the Report*

### Report Design

- *Starting the Crystal Reports Program*
- *Starting a New Report*
- *Choosing a Data Source*
- *The Main Components of the Design Window*
- *Exploring the Toolbars*
- *Managing Resources with Explorers*
- *Placing Fields on the Report*
- *Selecting and Sizing Objects*
- *Browsing Field Data*
- *Moving and Aligning Objects*
- *Using Guides and Guidelines to Move and Align Objects*
- *Creating Text Objects*
- *Saving the Report*
- *Auto-saving the Report*
- *Previewing the Report*
- *Refreshing the Data*
- *Getting Help*

### Formatting Features

- *Quick Formatting with the Template Expert*
- *Formatting Objects*
- *Inserting Lines and Boxes*
- *Drawing a Line*
- *Drawing a Box*
- *Inserting Graphics*
- *Working with the Page Commands*
- *Changing Page Orientation*
- *Changing Margins*
- *Working with Text Objects*
- *Adding Fields into a Text Object*
- *Formatting Part or All of an Object*
- *Inserting Special Fields*

### Aligning and Sizing

- *Learn how to align columns and rows on your report*
- *Provide perfect centering*
- *Keep columns and rows adjusted to the same size, height or width*

### Filter Records (Select Expert)

- *Filtering Data with the Select Expert*
- *Selecting Records with Multiple Criteria*
- *Viewing and Editing the Select Formula*
- *Case Sensitive vs. Non-Case Insensitive*
- *Record Selection Formula Templates*

### Grouping/Sorting Data

- *When and Why to Group Records*
- *Creating a Group*
- *Group and Sort Direction*
- *Customize Group Name Field*
- *Modifying Groups*
- *Creating Multiple Groups*
- *Using the Group Tree to Navigate the Report*
- *Reordering Groups*
- *Summarizing Groups*
- *Additional Summary Options*
- *Grouping Data in Date/Time Intervals*
- *Calculating Percentages*

### Drill Down Reporting

- *See how drill down reporting allows you to separate a group as an independent report*
- *Allows end-users to navigate to a specific group using the group tree list*

### Section Expert

- *Learn how the section expert allows you to stack data in a column*
- *Duplicate section functionality on a report*

### Combining Multiple Tables

- *Understanding Tables, Records, and Fields*
- *Learning About Linking*
- *Adding Multiple Tables to a Report*

### Filter Records (Select Expert)

- *Filtering Data with the Select Expert*
- *Selecting Records with Multiple Criteria*
- *Viewing and Editing the Select Formula*
- *Case Sensitive vs. Case Insensitive*
- *Record Selection Formula*

### Grouping and Sorting Data

- *When and Why to Group Records*
- *Creating a Group*
- *Group and Sort Direction*
- *Modifying Groups*
- *Using the Group Tree to Navigate the Report*
- *Summarizing Groups*

### Creating and Using Intermediate Formulas

- *Performing Simple Number Calculations*
- *Using Functions to change formatting*
- *How to concatenate multiple data fields*
- *How to perform line-feeds in formulas to cause stacking data in columns*
- *Creating String Formulas*

### Conditional Formatting

- *Formatting Sections Conditionally*
- *Conditionally Formatting Fields*
- *Challenge Exercise - Section Formatting and Conditional Formatting*

### Parameters

- *Understanding Crystal static and dynamic parameters*
- *Learn how to automate from and through date ranges by using parameters*
- *Learn how to use parameters to show real time data*
- *Learn how to write conditional formulas using parameters.*

### Exporting Report Results

- *Understanding Export Formats and Destinations*
- *Export your report in a particular format such as PDF, Excel, Word, etc.*

### Parameters

- *Allow report user to select multiple Record Sort Orders on same report*
- *Allow report user to select multiple Grouping Orders with summary totals on the same report*
- *Allow report user to select different filtering scenarios on same report*
- *Write conditional suppress formats to control showing or not showing output on the report*
- *Cascading Parameters - provide filtering so the report user can select information that's pertinent to a specific data field*

### Grouping

- *See how to Customized Group Name labels*
- *Group in a Specified Order – learn how to pick what groups show where on the report*
- *Learn how to Group in a Specified Order defining your own Group*

### Drill-Down Reporting

- *Develop management high to detail level reports*
- *Learn how to write conditional formatting to show specific summary/formula totals when drilling down a level*
- *See how to conditionally suppress Multiple Sections*

### Running Totals

- *Understanding Running Totals*
- *Creating Cumulative Running Totals*
- *Formula Based Running Totals*

### Advanced Formulas

- *Pass Logic*
- *Evaluation Time Functions*
- *Work with Variables*
- *Declaring Variables*
- *Assign values to a Variable*
- *Using variables in Formulas*
- *Understand Variable Scopes*
- *Working with Arrays*

### Sub Reports

- *Why use Sub reports?*
- *Unlinked Sub reports*
- *Linked Sub reports*

### Cross-Tab Reports

- *Cross-Tabs Overview*
- *Create a Cross-Tab Report*
- *Create a Cross-Tab with Multiple Rows or Columns*
- *Formatting Style to the Cross-Tab*
- *Customizing the Cross-Tab Format*
- *Suppressing Empty Row/Columns*
- *Repeating Row Headings for Multiple Pages*
- *Using Alias Names for Row/Columns*
- *Conditional Formatting for Row/Columns using Alias Names*
- *Group Sort Experts*
- *Hands on Exercises*

### SQL Expressions/Commands

- *Working with SQL Expressions*
- *Learning how to use manual written SQL statements*
- *Editing/Viewing the SQL*
- *Using a Parameter with the SQL Command*