



## Crystal Reports XI Intermediate

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Now that you have completed the first course, or are familiar with the basics of building and modifying reports, you're ready to move ahead to create complex reports and data sources using Crystal Reports' tools. In this course, you'll not only learn how to create more sophisticated reports including running totals, parameters, subreports, cross-tabs, report alerts, etc.

**Course Objective:** You will create complex reports using Crystal Reports' tools.

**Target Student:** This course is designed for people who know how to create basic list and group reports and need to create reports that include subreports, cross-tabs, advanced formulas, and charts based on more than one data series. They may also need to build tools to make it easier for other people to create reports.

**Prerequisites:** Crystal Reports XI: Introduction, or equivalent experience.

**Delivery Method:** Instructor led, group-paced, classroom-delivery learning model with structured hands-on activities.

### Performance-Based Objectives

Upon successful completion of this course, students will be able to:

- create running totals in a report.
- build cross-tabs in your report.
- build flexible reports with parameters
- add subreports to a report.
- implement report prompts.
- enhance report functionality.

# Crystal Reports XI Designer 2 Workshop

## Summary

This two-day workshop is designed to enhance your basic report writing skills and move you into creating more complex reports. Time will be spent walking you through the tips and tricks of advanced report writing along with a good amount of hands on practice. In addition, you will cover professional design, techniques, subreporting and advanced formulas. This course incorporates a number of hands on exercises that reinforce the learning process.

## Prerequisite

Successful completion of either the Designer 1 Workshop or the Pre-qualification exercise is strongly recommended.

## Power Formatting and Formulas

### Refresher Exercise

- Review of Planning a Report
- Creating the Report
- Placing Fields on the Report
- Creating the Formulas
- Advanced Grouping
- Selecting Certain Records
- Helpful Hints for Formatting the Report
- Adding and Working with Text Objects
- Hiding and Suppressing Sections
- Guidelines

### Power Formatting with Multiple Sections

- Using Multiple Sections in Reports
- Using the Section Expert to Work with Sections
- Conditionally Formatting Multiple Sections
- Advanced Drill Down Group Level
- Challenge Exercise - Formatting with Multiple Sections
- Challenge Exercise - Conditionally Formatting Multiple Sections

### Using the Running Totals Feature

- Understanding Running Totals
- Creating Running Totals for a List of Numbers
- Conditional Running Totals
- Challenge Exercise - Creating Running Totals
- Challenge Exercise - Creating a Conditional Running Total

### Prompting with Parameters

- Parameter Field Considerations
- Creating a Parameter Field
- Using a Parameter to Select Records
- Using a Parameter Field
- Creating a Dynamic Value List for Parameter Values
- Importing a Pick List
- Adding Parameter Values to Text Objects
- Allowing Multiple Values in Parameters
- Using Multiple Parameter Fields in Reports
- Specifying and Limiting a Range for a Parameter

- Using Parameters in Conditional Formatting
- Using an Edit Mask to Limit String Parameters
- Sorting with a Parameter
- Using a parameter to set N in a Top N Report
- Cascading Parameters
- Challenge Exercise - Using Parameters

### Using Advanced Formula Features

- Understanding How Crystal Reports Processes the Data
- What Is a Pass?
- Using Evaluation Time Functions
- Working with Variables
- Declaring a Variable
- Assigning a Value to a Variable
- Using a Variable in a Formula
- Variable Scope
- Separating Statements in Complex Formulas
- Working with Arrays
- Challenge Exercise - Understand and Set Up the YTD Comparison Report
- Challenge Exercise - Declare Variables and Conditionally Assign Values to Them



# Using Power Tools to Create Advanced Reports

## Using Sub reporting as a Workaround Solution

- Understanding Sub reports
- Unlinked versus Linked Subreports
- Creating an Unlinked Sub report
- Linking a Subreport
- Database Links versus Subreports in One-to-Many Situations
- Creating On-Demand Subreports
- Creating Hyperlinks
- Using Subreports to Link "Unlinkable" Data
- Challenge Exercise - Creating Reports with Linked Subreports

## Creating Powerful Groups

- Using the Group Expert
- Using a Field Name to Customize the Group Name
- Using a Formula to Customize the Group Name Field
- Creating Custom Groups
- Grouping on a Formula Field
- Using Group Selection to Filter the Records in the Report
- Grouping Hierarchically
- Create Customized Grouping
- Brain Teaser - Using Group Selection
- Challenge Exercise - Creating a Group Using a Formula

## Working with Cross-Tab Reports

- Understanding How Cross-Tabs Affect Your Data
- Creating a Cross-Tab Report
- Creating a Cross-Tab with Multiple Rows or Columns
- Applying a Formatting Style to the Cross-Tab
- Customizing the Cross-Tab Format
- Changing Background Colors
- Formatting Individual Cells
- Changing the Summary Operation
- Suppressing Rows, Columns or Totals
- Repeating Row Heading for Multi-Page Cross-Tabs
- Using Alias Names for Column and Row Headings
- Charting Cross-Tabs
- Challenge Exercise - Cross-Tab Reports

## Report Alerts

- What are Report Alerts
- Creating Report Alerts
- Challenge Exercise - Using Report Alerts with Parameter

## Report Templates

- What is a Report template
- Standard Report Creation Wizard and Templates
- The Template Expert
- Applying a Template and the consequences
- Template Considerations
- Creating Your Own Templates
- Inserting Template Fields
- Formatting Template Fields
- Giving Template Fields a Value

## For After the Class

### **APPENDIX A - The Xtreme Sample Database**

- A relational diagram of tables existing the Xtreme Sample Database 11 provided on the Crystal Reports Installation CD

### **APPENDIX B – Installation and System Requirements**

- A complete listing of operating system and hardware requirements

### **APPENDIX C - Function and Operator Locations**

- A complete listing of all the available Formula Functions and an explanation of the new Custom Functions

### **APPENDIX D - Glossary**

- A complete glossary of terms used throughout the book

