Reporting Basics

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Lecture Outline

- Module Overview
- Why Reporting?
- Main Reporting Tools?
- Why Crystal Reports?
- Practical: Your first Report...

Module Overview

- Programme: PGC Software Development
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  - 15 Weeks x 4 Hours = 60 Hours
  - Lab G1.1 – Mondays 12:30-16:30
  - Website:
    - Internal: http://intraweb/~rh/
    - External: http://202.123.21.122/~rh/

Module Overview

- Assessment
  - 100 % Coursework (50% Pass Mark)
  - 3 Practical Class Tests
  - 15 Weeks x 4 Hours = 60 Hours
  - Lab G1.1 – Mondays 12:30-16:30
  - Website:
    - Internal: http://intraweb/~rh/
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Why Reporting?

- Reports convert raw data and present information in a meaningful manner.
- Reports provide top-management insightful and timely decisions at reduced cost.
- Reports allow valuable information to shared in a most effective manner.

Main Reporting Tools

- Microsoft Access (extremely basic)
- Microsoft SQL Server Reporting Services
- Oracle XML Publisher
- DataVision (Open-Source)
- Jasper Reports (Open-Source)
- IBM Cognos
- MicroStrategy
- Crystal Reports (now owned by SAP)
- And many others.

Why Crystal Reports?

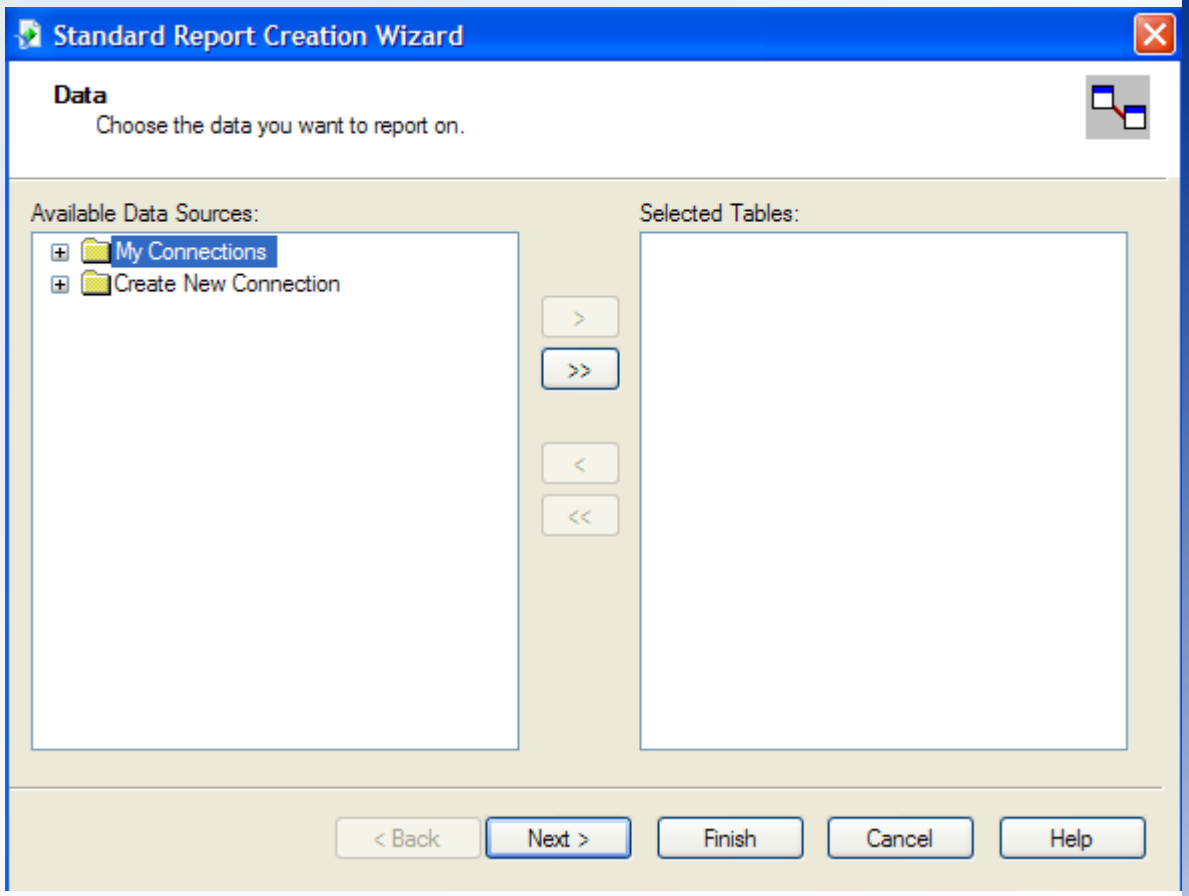
- Data Source Independence.
- Extensive Exporting Options such as .pdf, .doc, .html, .xls, .rtf, etc...
- Can integrate with Xcelsius to generate interactive, Flash dashboard output to end-users.
- Rapid Report Development using powerful wizards.

Creating a simple Report

- We will start with the Report Wizard to generate a simple Wizard.

  1. Click on Report Wizard on the Start Page

  2. You will be asked to identify at least one Data Source. This is the first step in Report Creation.

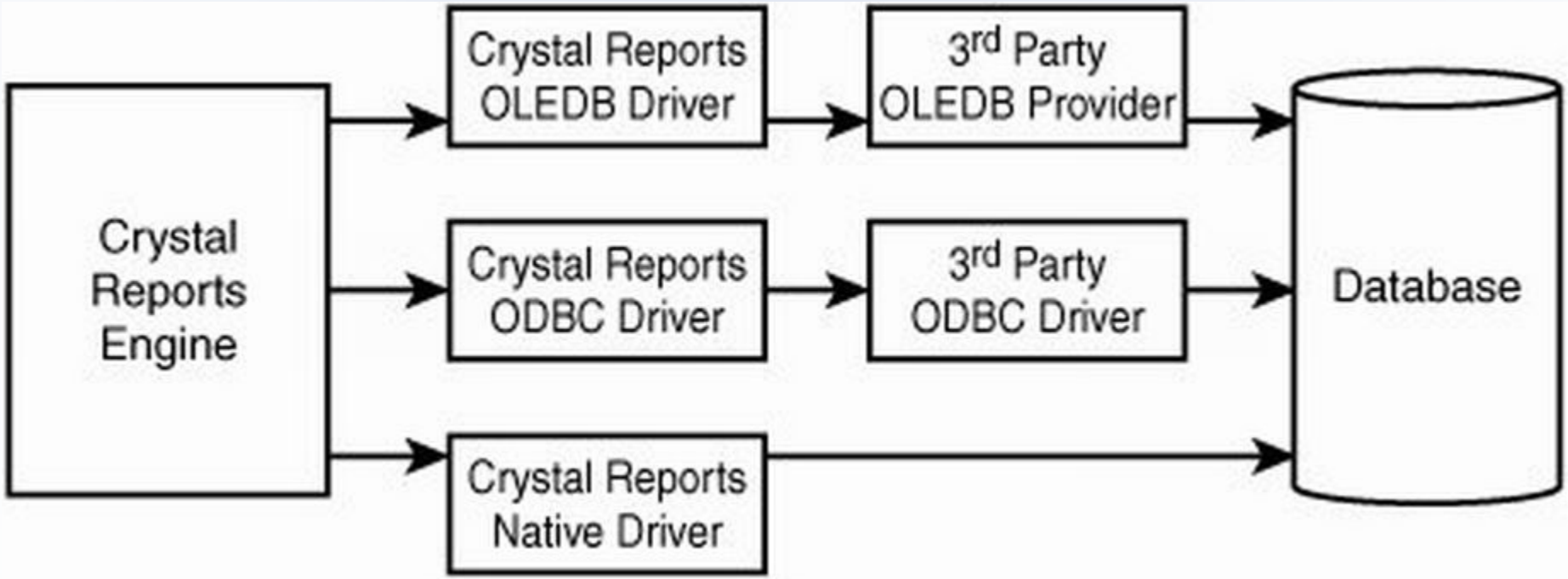


Data Sources

- Data Sources can be accessed using database drivers.
- There are two types of database drivers.
    - Direct access database drivers
    - Indirect access database drivers

The following diagram depicts the Crystal Reports Data Access Architecture.

Crystal Reports Data Access Architecture



Data Sources

- Direct Access (native) database drivers allow Crystal Reports to directly or natively access the database.
- Native drivers installation can be selected during the installation of Crystal Reports.
- Native drivers exists for popular databases such as Access, Oracle, SQL Sever, DB2, etc...

Data Sources

- Indirect Access database drivers allow Crystal Reports to connect to these databases for which native drivers are not available.

- The two main Indirect Access database drivers are:
    - ODBC drivers
    - OLEDB drivers

Xtreme sample Database

- We will be using the xtreme.mdb Microsoft Access database.

  We will make a new connection to the database using each of the following in turn:

  - The native driver in Crystal Reports
  - The ODBC Crystal Reports driver
  - The OLEDB Crystal Reports driver