

Using The Data Warehouse Through Excel

About This Class

Course Purpose

This purpose of this course is two-fold. First, it is to explain and demonstrate how to retrieve, query and format data from the Data Warehouse SQL database using Microsoft Excel. Second, it is to show that the information obtained from the Data Warehouse presents you with additional ways to analyze the FRS financial data. The examples will use FRS information from the Data Warehouse while emphasizing various aspects of Microsoft Excel, such as PivotTables and PivotCharts.

Course Objectives

1. Link tables and views from the Data Warehouse to Microsoft Excel.
2. Format PivotTables to view and analyze the data.
3. Format PivotCharts to view and analyze the data.

Course Prerequisites

The student should be familiar with the basic concepts of Microsoft Excel, such as cells, columns and rows. It would be helpful if the student has a basic understanding of charts.

Hardware And Software Requirements

Hardware Requirements:

- Pentium 200 MHz processor or greater.
- 64 MB of RAM (128 MB highly recommended).
- 50 MB of free hard disk space.

Software Requirements:

- Microsoft Excel 97 or 2000 (Excel 2000 highly recommended).
- Microsoft Windows 98, Windows NT or Windows 2000.
- PivotTable Services 8.0.
- Supported ODBC driver (See the document entitled: "Connecting To The Data Warehouse" for installation instructions):
 - Version 3.70.08.20 – dated 10/29/1999
 - Version 3.70.08.21 – dated 07/26/2000
 - Version 2000.80.194.00 – dated 08/05/2000

Objective 1: Linking Information

How Do I Link The Tables From The Data Warehouse To Excel?

From Microsoft Excel you will link to the data in the Data Warehouse SQL database. This will be accomplished with the use of an ODBC driver that will need to be created and Pivot Table Services. The instructions for creating an ODBC connection are in the document entitled "Connecting To The Data Warehouse". After the connection has been established you can then link tables and views from the Data Warehouse SQL database into Microsoft Excel. Before Excel can connect to the Data Warehouse, the PivotTable Services need to be updated to version 8.0. After the installation is successful, you can use Excel to link to the Data Warehouse.

To Install PivotTable Services 8.0 (PTS) For Excel 97/2000:

See the section entitled "Installing PTS and MDAC" from the "Connecting To The Data Warehouse" document.

You can connect to the Data Warehouse by two different methods depending on what information you are retrieving. You can either connect directly to the tables and view in the Data Warehouse or connect to pre-built OLAP Cubes in the Data Warehouse.

To Connect To The Data Warehouse's Pre-built OLAP Cubes From Microsoft Excel:

See the section entitled "Connecting To An Excel Cube" from the "Connecting To The Data Warehouse" document.

To Connect To The Data Warehouse Database Directly From Microsoft Excel:

See the section entitled "Connecting To The Data Warehouse Tables Using Excel" from the "Connecting To The Data Warehouse" document.

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Objective 2: Format PivotTables To View And Analyze The Data

How Do I Format Pivot Tables To Display The Financial Data?

Formatting data is as simple as drag and drop. The data that you can use is located on the PivotTable toolbar. Simply drag the field names to one of four areas on the Excel spreadsheet. Data that you will want to sum, average, count or otherwise perform a calculation on should be placed in the Data Items box. The Page Fields, Column Fields and Row Fields are used to group your data. Columns list data across, rows lists data down, and page lists a selected value on the page.

When you connect to a pre-built OLAP Cube it is easy to know where your data can be dropped based on the diagram on the PivotTable toolbar.

Exercise 1: Review the fields in the Pool_Balance Cube.

Exercise 2: Create a PivotTable with the following fields: Bal Available, Pool YTD, Revised Budget, Acct_Digits_1_6, and Pool Category.

Exercise 3: Create a PivotTable with the following fields: Bal Available, Pool YTD, Revised Budget, Acct_Digits_1_6, and Pool Code.

Exercise 4: Create a PivotTable with the following fields: Bal Available, Pool YTD, Revised Budget, Acct_Digits_1_6, and ExecLevel by Responsible Person.

Objective 3: Format PivotCharts To View And Analyze The Data

How Do I Format Pivot Charts To Display The Financial Data?

Formatting a PivotChart is the same as formatting any Excel chart.

Exercise 1: Change the look of a bar chart to a 3-D bar chart.

Exercise 2: Change the look of a bar chart to a add values.

Exercise 3: Change the look of a bar chart to a not display a legend.

Exercise 4: Change the look of a bar chart to change colors of the data.