

## ASP.NET 2.0 Data Controls

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### Paul Litwin

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    - *Access Cookbook, 2<sup>nd</sup> edition*
    - *Access 2002 Desktop/Enterprise Dev Handbook*

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## Agenda

- Data Binding with No Code
- Grid View Control
- Form and Details View Controls
- Putting it All Together to Create a Master-Detail Page

## Binding Data to Controls

- ASP.NET 1.x supported rich 1-way binding syntax but you still had to write quite a bit of code to get data in and out of controls
- ASP.NET 2.0 supports two-way (read/write) binding with no code in many situations

## Data Source Control

- A family of controls that assist in data binding
  - ? Middleman between data bound controls and data sources
- Types of Data Source Controls
  - ? Tabular
    - SqlDataSource
    - AccessDataSource
    - ObjectDataSource
  - ? Hierarchical
    - XmlDataSource
    - SiteMapDataSource

## **SqlDataSource**

- Supports reading and writing to ADO.NET data provider
  - ? Supports SqlClient, OracleClient, OleDb, and Odbc providers

## **AccessDataSource**

- Supports reading and writing of Jet 4.0 OLE DB provider
- Simpler to use than SqlDataSource for Access data

## ObjectDataSource

- Allows you to take advantage of data binding even if you are using an n-tier architecture
- In order to use with a class, the class must...
  - ? have a default, parameterless constructor
  - ? be stateless
  - ? have select, update, insert, and delete methods with certain signature

## Hierarchical Data Sources

- SiteMapDataSource
  - ? Pumps site map info from web.sitemap file to TreeView
- XmlDataSource
  - ? Used to map XML data to controls, such as TreeView, GridView
  - ? Support both tabular and hierarchical views of XML data
  - ? Can be linked to XSLT file

## **New 2.0 Data-Bound Controls**

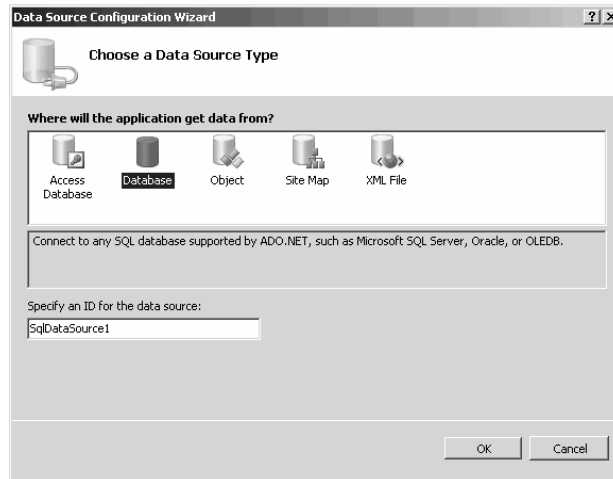
- List Controls
  - ? BulletedList
- Composite Controls
  - ? GridView
  - ? DetailsView
  - ? FormView
- Hierarchical Controls
  - ? TreeView
  - ? Menu

## **GridView Control**

### **Example: GridView.aspx**

- A “code-less” DataGrid
- Walk-through of grid with automatic sorting (ascending & descending), pagination
  1. Add GridView to page
  2. Using GridView Tasks pane, choose DataSource
  3. Check EnablePaging & EnableSorting

## Choosing a Data Source



## GridView with Updating

### Example: GridViewUpdate1.aspx

- Can also be done without code
  1. Add GridView to page
  2. Choose Data Source
    - On "Configure the select statement" page
      - Click Advanced Options
      - Check "Generate Insert, Update, and Delete statements"
  3. Configure GridView
    - Check "Enable Editing" and/or Enable Deleting

## **GridView with SP Updating**

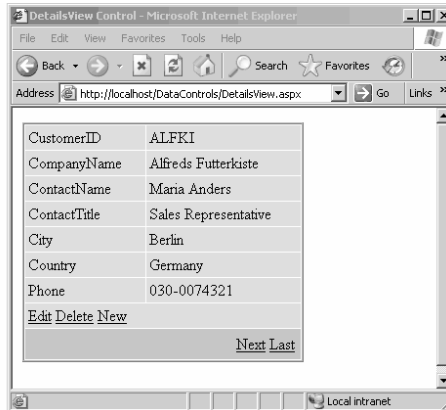
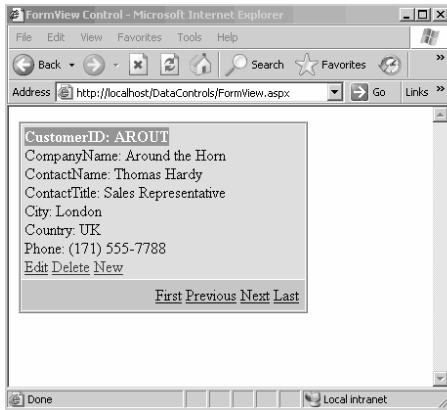
### **Example: GridViewUpdate2.aspx**

1. Add GridView to page
2. Configure Data Source
  - ? “Specify a custom SQL statement or stored proc”
  - ? Select stored procs for each data source operation
    - stored procs should have each parameter match to field name by name (prefixed with @) or you can manually fixup in HTML
3. Configure GridView
  - ? Check “Enable Editing”

## **The Single-Record Form Problem**

- ASP.NET 1.x provided no help to the developer having to create a single-record “form” view of data
- ASP.NET 2.0 gives us two solutions
  - ? DetailsView – fixed look (supports styles but no field templates)
  - ? FormView – fully templated (VS will generate basic template for you; supports validation controls, etc.)
- Both support editing, pagination

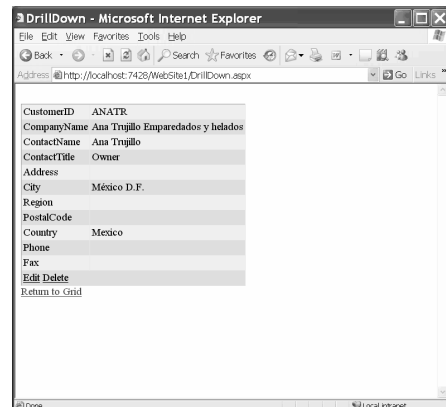
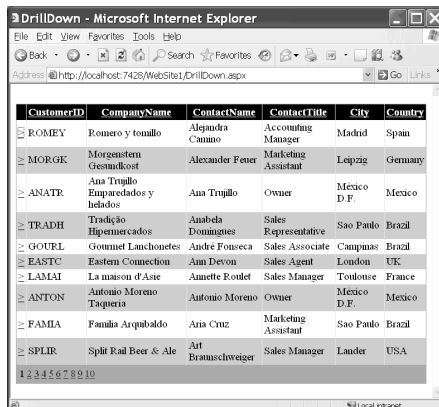
## FormView and DetailsView Controls



## Master-Detail Page

### Example: DrillDown.aspx

- Uses GridView, DetailsView, MultiView controls



## Putting it All Together

- Using GridView, DetailsView and MultiView controls to create a one-page drill down application
- Selected row in DetailsView synched up with selected row in GridView declaratively
- Code used only to switch views, reset current record, and refresh the grid with updated data

## Summary

- ASP.NET 2.0 supports two-way code-less data binding
- Data Source Controls are a family of controls that assist in data binding
- GridView control is like a DataGrid on steroids
- Single-record form problem solved with DetailsView and FormView controls

## Thank You

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