Present Rich Data Interfaces with the DataGridView Control

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About Brian

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- Writing
  - Data Binding in Windows Forms 2.0, Addison Wesley, January 2006
  - Smart Client Deployment with ClickOnce, Addison Wesley, Summer 2006
- Speaking
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Agenda

• Overview
• Data Binding Basics
• Unbound and Virtual Modes
• Layout
• Cell-Oriented Grids
• Customizing Columns and Cells

Overview

• Replacement for the DataGrid
• Tabular only (non-hierarchical)
• Simpler to use / customize
• Lots of new capabilities
Features

• Multiple data binding modes
• Spreadsheet-like capabilities (cell-centric)
• Built-in and customizable column control types
• Advanced Layout modes
• Layered style model
• Rich event model

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Data Binding Basics

• Just like DataGrid
  – DataSource
  – DataMember
• IList collections only
  – DataTable (DataView), generic collections, etc.
  – No hierarchical capabilities
• Column types can be separately bound
  – DataGridViewComboBoxColumn

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Unbound and Virtual Modes

• Unbound
  – Add computed / custom columns

• Virtual Mode
  – Handle large data sets
  – Only creates visible rows + scroll buffer
  – Can handle millions of rows

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Layout

• Autosize Columns
  – Column header text
  – Largest cell content
  – Both – whichever is larger
  – All rows or only displayed rows

• Row and Column Locking
  – Freeze displayed rows or columns when scrolling
  – Like Microsoft® Excel

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Cell-Level Features

- Cells are first class citizens
- Create functionality like Excel
- Cell-level events and validation
- Cell formatting and styles

DataGridView

Cell, Column, and Row Styles

- Design Time
- Programmatic
  - CellFormatting / CellPainting Events

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Customizing Columns and Cells

• Built-in column control types
• Heterogeneous cells and columns
• Creating custom controls for cells
• Custom row and cell painting
Resources

• Data Binding with Windows Forms 2.0, Brian Noyes, Addison Wesley, 2006.
• DataGridView sample chapter from Data Binding with Windows Forms 2.0:
  http://www.awprofessional.com/content/images/032126892X/samplechapter/Noyes_ch06.pdf

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