



# SharePoint Web Parts in C#

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# About the Speaker

- Darrin Bishop
  - Product evangelist for KnowledgeLake
  - Worked with SharePoint Technologies since SPS 2001 Beta 2
  - Writings
    - Rational Guide to SharePoint Web Parts
    - Advisor Guide to SharePoint column editor
    - Advisor Guide to SharePoint author
    - Advisor Guide to SharePoint Editorial Board
    - [http://support.knowledgelake.com/CS/blogs/darrin\\_bishopsh\\_workbench/default.aspx](http://support.knowledgelake.com/CS/blogs/darrin_bishopsh_workbench/default.aspx)
  - Speaking Engagements
    - Exchange Connections 2006
    - St Louis SharePoint User Group
    - St Louis Code Camp
    - Speaking at two more SharePoint conferences in 2006



# What is a Web Part

- Part of the User Interface
  - Included templates for WSS/SPS contain Web Parts
- Extensibility mechanism for WSS/SPS
  - Integration points with other systems
  - Surface data to the portal
  - Extended and modify existing WSS/SPS data
- “Dynamic Web Controls”
  - Chunks of code that participate in the page lifecycle
  - Generally renders displayable output
  - Dynamic, run time configurable and personalizable



# Support for Web Parts

- Dynamic Web Parts
  - Drag and Drop
  - Run-time property modification
  - Personalization
  - Customization
  - Server and Client side connections
- Static Web Parts
  - Reuse
  - Functions like a web control



# Using Web Parts



Demo

# Creating Web Parts

- Web Parts are a type of .Net web control
- Can be developed in any .Net language
- Can be designed by one of two methods
  - Starting with the `System.Web.UI.Control` type
    - “low level”
    - Requires more code
  - Use Web Part Templates for Visual Studio
    - VS templates for VB.Net and C#.Net
    - Provides most plumbing needed for Web Part
      - References
      - Template code
    - Available from Microsoft web site



# Web Parts Pieces

- Three pieces to a Web Part
  - Assembly
    - Where the code resides
    - One or more .NET types inherited from `Microsoft.SharePoint.WebPartPages.WebPart` type
  - Definition File
    - Xml configuration file
    - Properties about the Web Part
    - One Web Part configuration per file
    - One or more Definition files per Web Part
  - Safe Control Entry
    - `web.config` entry
    - Marks Web Parts as safe or not safe to render



# Setting up the Environment

- Windows SharePoint Services 2.0
- SharePoint Portal Server 2003
  - Team Development White Paper on MS site
  - Local Development
- Visual Studio.NET
- Web Part Templates for VS.NET
- web.config changes
  - Appropriate Trust Level
  - Custom Errors off
  - Debug set True



# Creating the Assembly

Demo



# Creating the DWP

Demo



# Creating the Safe Control Entry

Demo



# Deploying the Web Part

## Assembly Location

BIN	Limited permissions
GAC	Full Permissions, Versioning

## DWP Location

File System	Not visible, file level security
Site Gallery	Available to the site collection
Virtual Server Gallery	Available to all site collections in the virtual server
On Line Gallery	Available to all virtual servers configured for the gallery



# Importing the DWP

Demo



# Installing into the Site-Level Gallery

Demo



Questions?

