

# Advanced Web Part Development in SharePoint 2010

Jan Tielens

U2U, <http://www.u2u.be>

<http://weblogs.asp.net/jan>

The logo for U2U, consisting of the letters 'U2U' in a bold, white, sans-serif font on a black square background.

Microsoft®  
**SharePoint**®  
Connections2010

# Agenda

- A little bit of history ...
- Using Web Parts in SharePoint 2010
- Cross Site Scripting Safeguards
- Building Visual Web Parts
- Advanced Visual Web Parts
- Web Parts on Wiki Pages
- ASP.NET AJAX and Web Parts

# Web Part History

- Web Parts were already available in WSS v2 and v3
- Web Parts were added to ASP.NET in .NET 2.0
- Web Parts can inherit from 2 base classes
  - WSS base class is phased out
- Two development models
  - Code approach
  - User Control approach

# Using Web Parts in SharePoint 2010

- Pretty much everything is the same
- But ...
  - New UI for adding Web Parts
  - Web Parts can be versioned on publishing pages (!)
  - AJAX enabled by default
  - Cross Site Scripting Safeguards
  - Sandboxed Solutions & Client Side Object Model
  - Visual Web Parts

# Cross Site Scripting Safeguards

- Will impact every web part you have developed and will develop!
- Two important pieces
  - **SafeAgainstScript** attribute in the SafeControls section of the web.config
    - Defaults to “false”
  - **RequiresDesignerPermissionAttribute** in the Object Model (on the level of properties)

# Cross Site Scripting Safeguards

- RequiresDesignerPermissionAttribute = false (or not set)
  - SafeAgainstScript = “true”
    - Contributors can modify the property
  - SafeAgainstScript = “false”
    - Contributors can not modify the property
- RequiresDesignerPermissionAttribute = true
  - Contributors can't modify

Cross Site Scripting Safeguards

**DEMO!**

**u2u**

Microsoft®  
**SharePoint®**  
Connections2010

# Visual Web Parts

- Implements the Web User Control technique out-of-the-box
- Template in Visual Studio 2010
- Drawback:
  - Not possible in Sandboxed Solutions\*

# Visual Web Parts, what's generated?

- The Web User Control
  - .ascx file (UI)
  - .ascx.designer.cs
  - .ascx.cs
- The wrapper Web Part class
  - Two important statements:
    - `ctrl = LoadControl("MyControl.ascx")`
    - `RenderControl(ctrl)`

Building Visual Web Parts

**DEMO!**

**u2u**

Microsoft®  
**SharePoint®**  
Connections2010

# Advanced Visual Web Parts

- Persisted Properties
- Connectable Web Parts

→ Can be done because we can access the wrapper class!

Persisted Properties and Connections with Visual Web Parts

**DEMO!**

**u2u**

Microsoft®  
**SharePoint®**  
Connections2010

# Web Parts on Wiki Pages

- Wiki pages are everywhere in SharePoint 2010
  - Not only in Wiki sites!
- Web Parts can be anywhere added to Wiki pages
- There is no order like in a Web Part Zone
- Opportunity: blend with the rest of the content

# Web Parts on Wiki Pages

- Wiki Pages have a hidden web part zone
  - Web Parts are stored in that zone
  - Then moved to the in-line location
- In the Wiki Page there are placeholders
  - `<DIV ... />` in HTML

Web Parts on Wiki Pages

**DEMO!**

**u2u**

Microsoft®  
**SharePoint®**  
Connections2010

# ASP.NET AJAX and Web Parts

- It's part of the platform!
  - No need for manual registration
  - No need for adding a ScriptManager
- Easy to mix and match server side concepts with client-side code
  - E.g. connections

ASP.NET AJAX and Web Parts

**DEMO!**

**u2u**

Microsoft®  
**SharePoint®**  
Connections2010

# Resources

- SharePoint 2010 Developer content on Channel9
  - <http://channel9.msdn.com/learn/courses/SharePoint2010Developer/>

# Your Feedback is Important

Please fill out a session evaluation form  
drop it off at the conference registration  
desk.

Thank you!