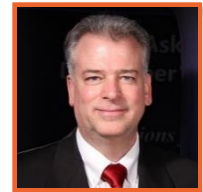# Modern Web Apps Using Web Forms and Visual Studio

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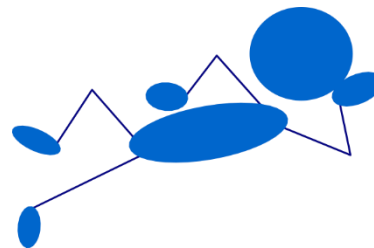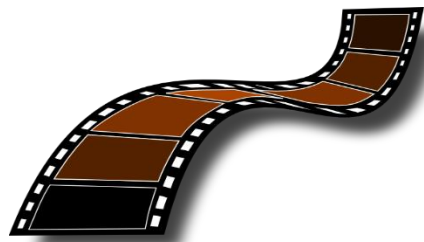www.PDSAServices.com

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Reasons to Watch This Video

- Learn HTML 5 features in Visual Studio

- HTML 5 controls and Web Forms TextBox

- HTML 5 attributes

- Using jQuery

- ClientIDMode

- Disable ViewState

- Store ViewState on server

- Friendly URLs

Visual Studio and HTML 5

- **Great support since Visual Studio 2012**

- **Can specify validation to use**
  - HTML 4.01, HTML 5, etc.
  - Displays HTML errors in editor

- **IntelliSense for HTML 5 and CSS 3**

- **Snippets for HTML 5 and CSS 3**

HTML 5 doctype

- **Simplified document type**
    - `<!DOCTYPE html>`

- **Started in Visual Studio 2012**

- **Informs browser to use HTML 5 (if possible)**

- **Create new HTML page or Web Form**
    - Uses this new doctype

Demo

- Visual Studio IntelliSense and options

HTML 5 Input Types

- **Input type="text" was catch-all**

- **New types help with formatting, display and validation**

  ☐ date   ☐ email   ☐ range
  ☐ date-time   ☐ url   ☐ tel
  ☐ time   ☐ search   ☐ color
  ☐ week   ☐ number
  ☐ month

HTML 5 Input Types

- **Examples**

```
<input type="tel" />

<input type="email" />

<input type="datetime" />
```

Use With ASP.NET TextBox

- Using ASP.NET Text Box

- Set TextMode

```
<asp:TextBox ID="tel"

      runat="server"

      TextMode="Phone" />
```

Demo

- HTML 5 input types using Web Forms TextBox

New Attributes

- **autofocus**

- **required**

- **placeholder**

- **formnovalidate**

- **min / max / step**

- **pattern / title**

- **disabled**
  - for fieldset element

Demo

- HTML 5 attributes

Use HTML <input>

- **Can use this instead of Web Forms TextBox**

- **Just add runat="server"**

- **In code-behind use ".Value" instead of ".Text"**

- **No real difference from Web Forms TextBox**

- **You get IntelliSense of HTML attributes**
  - Don't get that with TextBox

Demo

- HTML <input type="">

Using jQuery

- **Web Forms controls generates HTML**
  - "id" attribute gets "munged"
  - Form of "ParentControlName_IDName"

- **jQuery needs to reference "id" attribute**

- **Two choices**
  - Use <%= txtEmail.ClientID %>
  - Set ClientIDMode="Static"

Using jQuery

- **Use .ClientID**
  - If you have a complicated parent-child structure
  - Avoids possible duplicate "id" attributes

- **Use ClientIDMode="Static"**
  - If you have a simple parent-child structure
  - You know you have no possible duplicate "id" attributes

Using jQuery

- **ClientIDMode Values**
  - Auto = "ParentControlName_IDName"
  - Static = "id"
  - Predictable = Use with data-bound controls
    - Generates with unique number for each row
  - Inherit = Take parent control's ClientIDMode setting

- **If you need "name" attribute**
  - Use <%= txtEmail.UniqueID %>

- **Using jQuery**

Disable ViewState

- **Disable ViewState for most web form pages**

- **Most controls keep their value even if ViewState is off**
  - CheckBox, CheckBoxList, DropDownList
  - HtmlInputCheckBox, HtmlInputFile, HtmlInputHidden, HtmlInputImage
  - HtmlInputRadioButton, HtmlInputText, HtmlSelect
  - HtmlTextArea, ImageButton, ListBox, RadioButtonList
  - TextBox
  - GridView

Disable ViewState

- **Things that don't work**
  - Events like TextChanged, SelectedIndexChanged
  - Properties like ForeColor
  - Label controls you set programmatically

- **Can disable globally via Web.Config**

- **Can turn off page by page**

- **Can turn off on each control**

- **Disable ViewState**

Store ViewState on Server

- **ViewState is bad for mobile web apps**
  - Too much data gets sent across

- **Can store on the server**

- **Override in Page class:**
  - LoadPageStateFromPersistenceMedium
  - SavePageStateToPersistenceMedium

- **Use Cache object with sliding timeout**
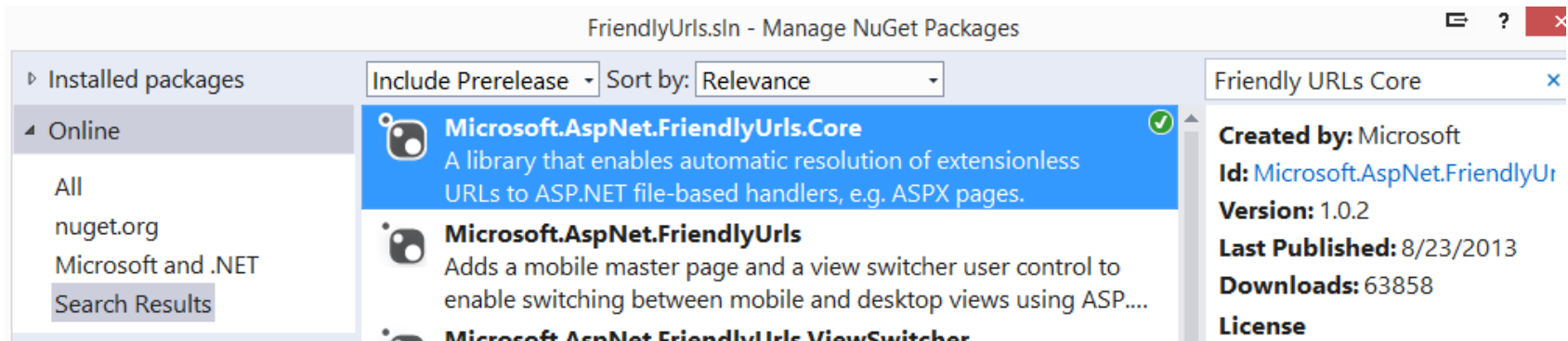 - SessionID + page name for key

Demo

- **ViewState on Server**

Friendly URLs

- **Eliminate query string parameters**
    - www.url.com/Products.aspx
    - www.url.com/Products.aspx?ProductId=3

- **Use URL routing instead**
    - www.url.com/Products
    - www.url.com/Products/3

- **Cleaner query string**

- **User does not know the actual page name**

- **Easier for users to use**

Friendly URLs

- **Add Microsoft.AspNet.FriendlyUrls.dll**
  - Go to Nuget Package Manager
  - Search online for "Friendly URLs Core"

Friendly URLs

- **Add a class called RouteConfig**
  - Create method called RegisterRoutes
  - Add as many routes as you want
  - 1st parameter is what user types
  - 2nd parameter is web page name

```
public static void RegisterRoutes(
    RouteCollection routes) {

  routes.EnableFriendlyUrls();

  routes.MapPageRoute("", "Default", "~/Default.aspx");

}
```

Friendly URLs

- **Modify Global.asax**

- **Add call in ApplicationStart()**
  - RouteConfig.RegisterRoutes(RouteTable.Routes)

- **RouteTable is a static collection**
  - Created by ASP.NET

Demo

- **Friendly URLs**

Summary

- **HTML 5 is fully supported in Visual Studio**

- **Web Forms TextBox supports all input types**
  - Can use attributes too (just no IntelliSense)

- **jQuery is easy to use with Web Forms**
  - ClientIDMode will help you

- **Disable ViewState by default**
  - Turn on only when necessary

- **Take advantage of Friendly URLs**

- **Almost everything MVC can do, so can Web Forms**